

Ugar Island Master Plan

Prepared for

Department of Seniors, Disability Services and
Aboriginal and Torres Strait Islander Partnerships
and Torres Strait Island Regional Council



Ugar Island Master Plan

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Urban & Rural Strategies

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1 Introduction

1.1 Purpose

Torres Strait Island Regional Council (TSIRC), with the support of the Department of Aboriginal and Torres Strait Islander Partnerships (DATSIP), has developed the Ugar Island Master Plan. The Ugar Island Master Plan is intended to be used by TSIRC, Prescribed Body Corporates (PBCs), State agencies, service providers and the broader community to inform planning decisions in relation to future development.

The Ugar Island Master Plan seeks to guide the future use of land on Ugar Island in a manner that is cognisant of community needs, demands and aspirations. The Ugar Island Master Plan identifies a range of future residential; industrial; commercial / tourism; community facilities; and recreation and open space development projects. The Master Plan has been prepared to ensure the orderly, efficient and effective use of land in a way that is reflective of relevant opportunities and constraints. The Master Plan seeks to coordinate the actions of a range of different stakeholders to maximise the benefits of new development projects to the community.

The Ugar Island Master Plan is a living document endorsed by TSIRC, intended to be progressively updated as new development occurs to reflect the changing needs and aspirations of the community.

1.2 Structure

The Ugar Island Master Plan includes the following elements:

- > A **Master Plan Map**, provided as **Appendix A**;
- > A **Vision**, provided in Chapter 2;
- > **Community Aspirations**, provided in Chapter 3;
- > **Master Plan Projects**, the details of which are articulated in Chapter 4; and
- > An **Action Plan**, provided in Chapter 6.

The Master Plan is also supported by a separate Technical Report.

The relationship between these elements is shown in **Figure 1-1**.

1.3 Relationship to the Zenadth Kes Planning Scheme

The Ugar Island Master Plan is intended to identify a high level strategic direction for the future development of Ugar Island having regard to all relevant planning considerations, including the *Zenadth Kes Planning Scheme* ('the Planning Scheme').

The Master Plan does not replace or alter the Planning Scheme as it relates to Ugar Island and does not change current development approval requirements. Projects or works identified by the Master Plan may require development approvals and/or changes to the Planning Scheme and these are identified in the Master Plan itself as appropriate.

The Planning Scheme forms part of the statutory town planning framework established under the *Planning Act 2016*, which provides for the regulation of development activity. The Master Plan is a non-statutory strategic planning document intended to guide decision making with regard to the long term development of Ugar Island. It may be appropriate in certain circumstances for TSIRC to amend the Planning Scheme to reflect findings of the Master Plan. Recommendations in this regard are made in the Master Plan.

1.4 Acknowledgement

Gogobithiay (land, sea and sky) is fundamental to the Torres Strait Islander way of life. Gogobithiay cannot be separated into land, sea and sky and it cannot exist without the Torres Strait people.

The Ugar Island Master Plan acknowledges the native title holders, the Ugar people as the traditional custodians of Ugar Island. The Master Plan also acknowledges all community members.

Any person proposing to undertake development on Ugar Island should pay respect to the Ugar people's custodianship of the island by seeking permission to use its resources and ensuring that development acknowledges the special and ongoing cultural relationship of the Ugar Island community with Gogobithiay.

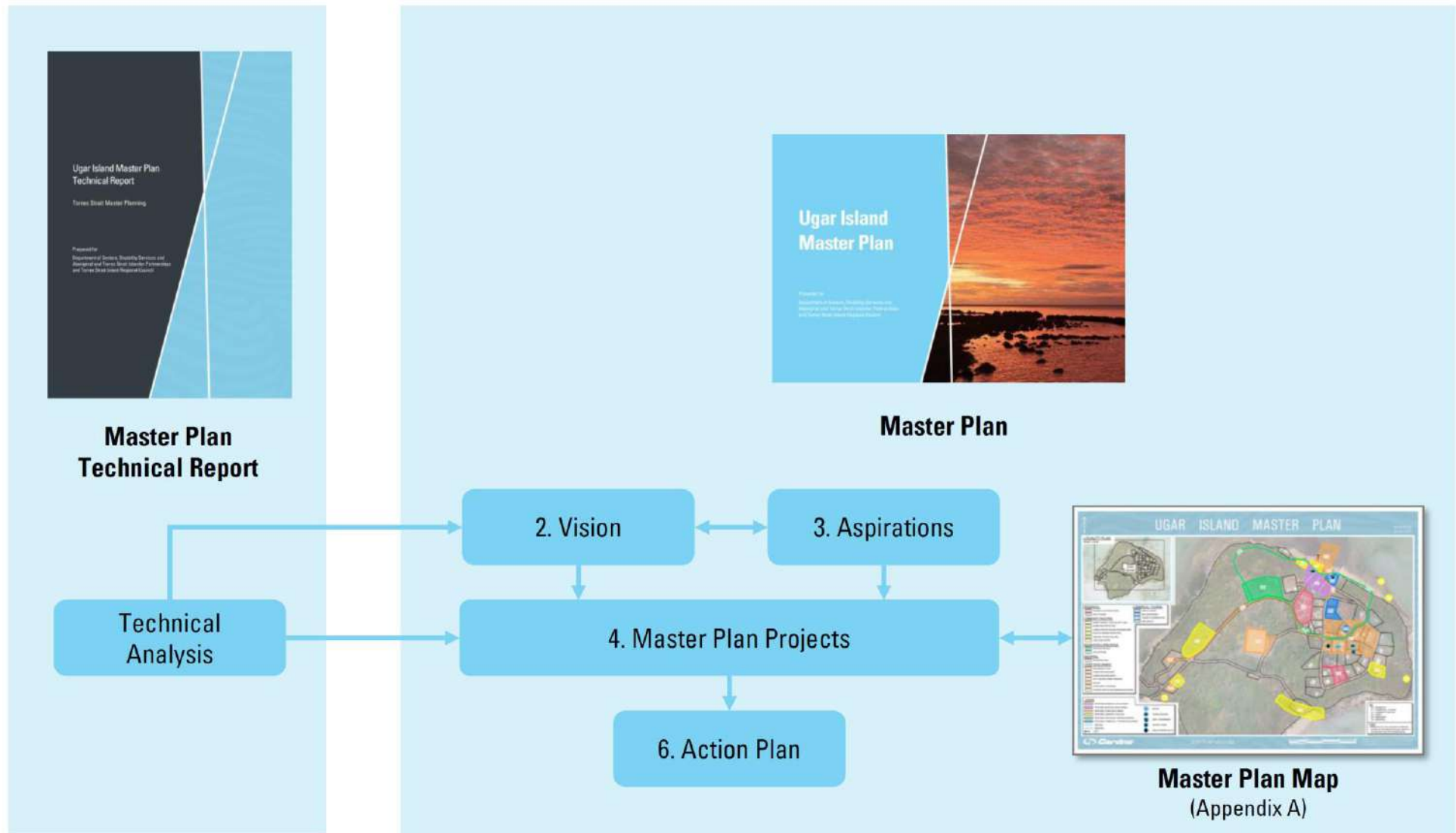


Figure 1-1 Master Plan Elements

2 Vision

Ugar Island will develop as a small and welcoming community that continues to embrace its unique connection with the land upon which it is located.

The community will benefit from future development that consolidates the role and function of various areas of the island, including definition of a clear central business district, protection of key community facilities, provision of new facilities (where required) such as a sporting precinct, fuel facility and child care centre and identification of key entry locations to the island such as the helipad and the jetty / barge ramp.

The compact nature of the existing community is retained and promoted, with new development to be sensitively integrated within the existing urban fabric. New residential housing forms a natural extension of the existing urban area, either through infill or expansion areas. The character of the island is to be retained and enhanced as a result of any new development projects.


Movement around the community is enhanced for vehicles, pedestrians and cyclists through the provision and upgrading of key road connections and the development of a path network that links all key areas of the community.

Future development across the island is supportive of increased economic activity, with enterprise opportunities to be promoted proximate to the jetty while various facilities across the island will support tourism, where in keeping with the character of the community. New facilities such as accommodation, movement networks and commercial facilities will support economic development.

New development should seek to improve the quality of urban services provided to the community, including water and sewerage infrastructure, roads, lighting and telecommunications access. Particular focus is to be placed on the delivery of a reticulated sewerage system for the community.



3 Community Aspirations

- 
- > The Ugar Island community will be provided with housing that meets its needs.
 - > The Ugar Island community will be provided with access to key community services that support the day to day needs of its residents, including shopping/business, child care and health care.
 - > The Ugar Island community will expand local business and enterprise opportunities, to support economic activity and local employment, particularly in the sectors of marine industry and tourism.
 - > The Ugar Island community will celebrate its culture, history and character and this will be reflected through the protection of existing facilities and features and new development such as arts and cultural centres.
 - > The Ugar Island community will be easily accessed from the surrounding region by air and sea.
 - > The Ugar Island community will increase physical activity, for both movement and recreation, through the use of dedicated facilities and networks.
 - > The Ugar Island community will have access to quality urban infrastructure services, including a reticulated sewerage system.
 - > The Ugar Island community will be responsive to the changing environment including sea level rise, tidal inundation and climate change.

4 Projects

4.1 Land Use Categories

The consideration of land uses as part of the Ugar Island Master Plan has been undertaken using a number of land use categories. An explanation of each land use category is provided below.

Residential	Commercial / Tourism	Recreation and Open Space
Residential land uses primarily relate to the provision of housing. Residential land may support a range of dwelling types of varying scale (for example, single low-rise homes, duplexes, and unit complexes). Open space is often integrated within residential areas to soften the built environment and provide land for passive and active recreation.	Commercial land uses typically involve business activities which may include the sale of goods (such as shops and cafes) or services (such as offices and medical centres). Tourism land uses also involve business activities, however these are focussed on providing goods, services, facilities and entertainment for tourists. Examples of tourism land uses include tourist parks, accommodation and businesses operating tours.	Recreation land uses support the provision of land for recreational activities, which may be organised or informal. This includes sporting facilities such as fields, courts, stadiums and arenas, rodeo grounds, walking / cycling paths and outdoor exercise equipment. Open space areas provide dedicated natural spaces throughout an urban area enhance the beauty and environmental quality of neighbourhoods. They may include formalised landscaping also comprise recreational opportunities. Recreation and open space areas are commonly collocated.
Industrial	Community Facilities	Other
Industrial land uses generally involve the manufacturing, processing, treatment or repair of goods. Industrial land uses involve varying degrees of intensity and severity, generally linked to their potential level of impact on nearby land uses associated with their emissions (such as air, noise and odour). Examples of industrial land uses include manufacturing plants, processing plants, mechanical workshops, transport depots, storage sheds and warehouses.	Community facilities land uses support the delivery of community services or provide community benefit. Community facilities include uses for health services, education (schools and colleges), arts and culture, religion, community support, civic infrastructure (water, sewer, waste, transport and other similar facilities), employment and training.	The “Other” land use category has been used to describe other uses and projects which commonly support the primary land uses. This may include infrastructure projects such as new roads or urban services and civic improvements such as beautification and landscaping.

4.2 Project Listing

Table 4-1 provides a listing of projects identified by the Master Plan. Further detail is provided in relation to each project as follows:

- > The land to which each project relates is identified by the Ugar Island Master Plan Map, a copy of which is provided as **Appendix A**.
- > Key details relating to each project are outlined in Section 4.3 of this report.
- > A summary of the Master Plan projects is provided in the project index included as **Appendix B**.
- > Detailed breakdowns of the infrastructure costings for each project are provided in **Appendix D**.

Table 4-1 Project Listing

RS1	Residential Expansion Area 1	CF1	Market Garden / Food Security Area	OT4	Jetty and Boat Ramp Upgrades
RS2	Residential Expansion Area 2	CF2	Sacred Site Protection	OT5	Helipad
RS3	Infill Housing	CF3	Landfill Protection and Expansion Area	OT6	Water Supply Upgrades
ID1	Enterprise Area	CF4	Place of Worship Protection	OT7	Potential Reticulated Sewerage Network
CT1	Arrival Centre	CF5	Cemetery Protection Area	OT8	Future Investigation Area #1
CT2	New Supermarket 1	CF6	Child Care Centre	OT9	Future Investigation Area #2
CT3	New Supermarket 2	OS1	Sporting Precinct	OT10	Barge to Helipad Road
CT4	Fuel Facility	OS2	Path Network	OT11	Link Road
CT5	Environmental Tourism	OT1	CBD Precinct Plan	OT12	Desalination Plant
		OT2	Connecting Road West	OT13	Telecommunications Upgrades
		OT3	Connecting Road North	OT14	"Back of Island" Access
				OT15	Carbon and Renewable Energy Opportunities

Note: Projects CT5, OT14 and OT15 are not shown on the Master Plan Map provided as **Appendix A**.

4.3 Project Detail

Residential Projects

The Master Plan has identified two residential projects that are to accommodate new dwellings beyond the anticipated demand for two (2) additional dwellings. Both projects seek to diversify the housing products provided on Ugar Island. These key directions were identified as part of the technical analysis, which is documented in the Ugar Island Master Plan Technical Report. Further detail is also provided in **Appendix F**.

RS1 Residential Expansion Area 1		
<p>Summary</p> <p>An area of land at the north-western end of the township, to the east of Ugar Road 1, has been identified as being potentially suitable for the long term residential needs of the community. Part of the land has been identified by the Planning Scheme for this purpose. Development of the land is likely to be formed by a residential subdivision, which should be encouraged to include a range of dwelling types and sizes to suit demand. Further investigation of this land would be required to identify the extent to which it could be developed, particularly considering the compatibility of residential development on the southern portion of the area, which is included in the island's water catchment area.</p> <p>Recommendations</p> <p>Investigate whether the development of the southern portion of the land (within the water catchment area) for residential uses would compromise the island's water supply.</p>	New Lots	7 Lots
	Lot Size	382m ² – 714m ²
	Priority	Medium Term
	Infrastructure Cost	\$1,867,271
	Associated Projects	OT2
	Key Actions	1

RS2 Residential Expansion Area 2

Summary

An area of land to the west of RS1 has been identified as being potentially suitable for the long term residential needs of the community. Development of the land is likely to be formed by a residential subdivision, which should be encouraged to include a range of dwelling types and sizes to suit demand. The development of this land should occur after the development of **RS1**.

The land is mapped as being within the Environmental Management and Conservation Zone and the island's water catchment area. Further investigation of this land would therefore be required to identify the extent to which it could be developed for residential purposes.

Recommendations

Investigate whether the development of the land for residential uses would compromise the island's water supply.

It may be necessary for the Planning Scheme to be amended to reflect the intention of this project.

New Lots	9
Lot Size	900m ² – 1000m ²
Priority	Medium Term
Infrastructure Cost	\$2,691,497
Associated Projects	RS1
Key Actions	1 7

RS3 Infill Housing

Summary

Four existing lots at the southern end of the township have been identified as being potentially suitable for infill housing. The lots in their existing form and configuration are smaller in land area than most lots containing dwellings on the island. The area is bound to the north, east and west by residential development. Development of the land should seek to diversify the available housing products in the township, through provision of smaller sized dwellings.

New Lots	4 Lots (existing)
Lot Size	431m ² – 508m ²
Priority	Short Term
Infrastructure Cost	\$1,211,512
Associated Projects	-
Key Actions	-

Industrial Projects

The Master Plan provides opportunities for industry, enterprise and other business development. This key direction was identified as part of the technical analysis which is documented in the Ugar Island Master Plan Technical Report. Further detail is also provided in **Appendix F**.

ID1	Enterprise Area				
<p>Summary</p> <p>An area of land at the northern end of the township on the southern side of Ned Street, near the barge ramp and jetty, has been identified as a location that could support future enterprise activities. The land is well located proximate to the jetty and boat ramp and should support the development of new industries, particularly those associated with the water (such as commercial fishing, boating and support industries).</p> <p>Recommendations</p> <p>It is recommended that the current ecological value of the land and the landslide hazard mapped as affecting the site be investigated to determine its appropriateness for industrial development.</p> <p>This land is currently located in the Environmental Management and Conservation Zone under the Planning Scheme. A Planning Scheme amendment will likely be required to reflect the land use intent of this project.</p>	New Lots	4 Lots			
	Lot Size	809m ² – 968m ²			
	Priority	Medium Term			
	Infrastructure Cost	\$1,432,829			
	Associated Projects	CT1	CF2	OT3	OT4
	Key Actions	1	4	6	7

Commercial / Tourism Projects

The Master Plan seeks to ensure that the community is provided with sufficient access to commercial land uses. The Master Plan also seeks to promote the development of uses and infrastructure associated with tourism, in appropriate locations. These key directions were identified as part of the technical analysis which is documented in the Ugar Island Master Plan Technical Report. Further detail is also provided in **Appendix F**.

CT1

Arrival Centre

Summary

The location of the existing supermarket on the northern side of Ned Street proximate to the jetty and barge ramp has been identified as occupying a strategically important piece of land at the gateway to the island. The land could support an arrival centre, following the relocation of the IBIS supermarket to a more central location within the township (project **CT2**). The arrival centre is intended to provide a location for visitors to enter the community and should be improved in a manner that showcases the culture, values and history of the place and its people.

Recommendations

The land is mapped as being affected by coastal hazards. Future investigation and design of the arrival centre will need to respond to these hazards.

New Lots

1 Lot

Lot Size

918m²

Priority

Medium Term

Infrastructure Cost

\$442,727

Associated Projects

CT2

OS2

OT3

OT4

Key Actions

4

6

8

CT2

New Supermarket 1

Summary

The Master Plan has identified a location for a new supermarket centrally within the township, indicatively shown on the Master Plan map. The new supermarket should provide for the day to day needs of the local community whilst also providing for tourists and visitors.

Recommendations

The final location of the new supermarket should be confirmed with the community.

New Lots

N/A

Lot Size

N/A

Priority

Short Term

Infrastructure Cost

\$833,864

Associated Projects

OT1

Key Actions

4

6

CT3 New Supermarket 2

Summary

The Master Plan has identified a location for a second new supermarket within the Future Investigation Area 2 (**OT9**), located to the north west of the township.

The new supermarket should provide for the day to day needs of the local community, considering any increased demand that may be generated by nearby potential residential development (**RS1** and **RS2**) and development within the investigation area.

New Lots	N/A		
Lot Size	N/A		
Priority	Long Term		
Infrastructure Cost	\$450,862		
Associated Projects	RS1	RS2	OT9
Key Actions	4	6	

CT4 Fuel Facility

Summary

The community has identified a need for a fuel facility to provide fuel to local vehicles. The fuel facility is to be located within the industrial enterprise area (**ID1**), which was determined by relevant stakeholders in 2015.

New Lots	N/A		
Lot Size	N/A		
Priority	Short Term		
Infrastructure Cost	\$297,688		
Associated Projects	ID1		
Key Actions	4	6	

CT5 Environmental Tourism				
Summary Opportunity exists in various locations throughout the island for the environmental values of the area to be protected and enhanced for the benefit of tourist activities aimed at the appreciation of any unique environmental features or areas. Any tourism operations should occur in a manner that is sensitive to the fragility of the natural environment, to ensure it can be sustained over the long term.	New Lots	N/A		
	Lot Size	N/A		
	Priority	Medium Term		
	Infrastructure Cost	N/A		
	Associated Projects	CT1	OT4	OT5
	Key Actions	4	6	

Community Facilities Projects

The Master Plan seeks to promote the protection and expansion of key community facilities. The Master Plan also provides opportunities for the establishment of new community facilities where demand exists. These key directions were identified as part of the technical analysis which is documented in the Ugar Island Master Plan Technical Report. Further detail is also provided in **Appendix F**.

CF1 Market Garden / Food Security Area			
<p>Summary</p> <p>An area of land immediately west of the township and adjacent to RS2, has been identified as being suitable for the development of market gardens or other cropping activities that can supply the community with fresh produce. The establishment of local agricultural uses will improve the food security of the community, improve community health and provide a potential source of economic activity through the trading of surplus food with neighbouring communities.</p> <p>The land is mapped as being within the island's water catchment area. Further investigation of this land would therefore be required to identify the extent to which it could be developed for agricultural purposes.</p> <p>Recommendations</p> <p>The viability of the market garden will be largely dependent on a reliable supply of freshwater. Future investigations of this project, particularly given its location within the water catchment area, would be required to determine whether such supply exists or is capable of being reasonably provided.</p>	New Lots		N/A
	Lot Size		N/A
	Priority		Medium Term
	Infrastructure Cost		N/A
	Associated Projects	ID1	OT2
	Key Actions	1	6

CF2 Sacred Site Protection

Summary

The Master Plan has identified the location of sacred sites that should be protected for the benefit of all members of the community. Additional sacred sites are noted to exist on the island, however these are still being identified. As part of the protection of the area, the community value of the site should be documented. Where access to the site is in keeping with the community and cultural value, this should be sensitively facilitated. Opportunity may exist to provide tourism access, again where in keeping with the value of the site.

New Lots	N/A			
Lot Size	N/A			
Priority	Ongoing			
Infrastructure Cost	N/A			
Associated Projects	CF3	OS2		
Key Actions	3	4	6	9

CF3 Landfill Protection and Expansion Area

Summary

The landfill located near the helipad is an important piece of infrastructure that should be protected from encroachment by incompatible development. The future needs of the community should also be identified, so that land for the expansion of this infrastructure (if required) can also be protected. Ongoing future use of the site should also seek to improve the efficiency of operations so that use of the facility is minimised where possible.

New Lots	N/A			
Lot Size	N/A			
Priority	Short Term			
Infrastructure Cost	N/A			
Associated Projects	CF2	OT2		
Key Actions	3			

CF4 Place of Worship Protection

Summary

The Master Plan has identified that the existing place of worship should be protected and maintained as an important asset to the local community. Further embellishment of the existing building and grounds may be appropriate where it is in keeping with the character and nature of the site.

New Lots	N/A		
Lot Size	N/A		
Priority	Ongoing		
Infrastructure Cost	N/A		
Associated Projects	ID1	CF2	OT3
Key Actions	3	9	

CF5 Cemetery Protection Area

Summary

The cemetery, located in the east of the township, should be subject to ongoing protection to ensure that the cultural and spiritual connection of the community with this land is maintained. Where appropriate, improvements such as access works and fencing may be provided, however any such works should be undertaken sensitively. As part of the protection of the area, the community value of the site should be documented.

New Lots	N/A		
Lot Size	N/A		
Priority	Ongoing		
Infrastructure Cost	N/A		
Associated Projects	-		
Key Actions	3	6	9

CF6 Child Care Centre

Summary

The community has identified a need for the provision of a child care centre on the island. The preferred location of the child care centre is within Future Investigation Area 1 (**OT8**), north west of the CBD (**OT1**). Child care services should be expanded as demand necessitates.

Child care has been acknowledged as a regional issue which comprises significant complexity with regard to legal compliance. On this basis it is anticipated that future child care services will be delivered as a coordinated service covering multiple islands or the entire region.

New Lots	1 Lot		
Lot Size	N/A		
Priority	Short Term		
Infrastructure Cost	\$283,698		
Associated Projects	OT8		
Key Actions	3	6	

Recreation and Open Space Projects

The Master Plan seeks to provide improved opportunities for recreation, through the provision of an integrated network of active transport infrastructure and the identification of land for dedicated sporting facilities. These key direction were identified as part of the technical analysis which is documented in the Ugar Island Master Plan Technical Report. Further detail is also provided in **Appendix F**.

OS1 Sporting Precinct			
Summary A sporting precinct has been identified over the existing sports field, at the eastern end of the township. Further investigation is required to identify the specific facilities to be delivered, however the land is intended to support the provision of formalised facilities such as playing fields and courts, along with supporting infrastructure. Any development of the sporting precinct should be completed in a coordinated manner, with a focus on the shared use of supporting infrastructure. The sporting precinct should be easily accessed by the community through the development of the CBD Precinct (OT1) and path network (OS2).	New Lots		N/A
	Lot Size		N/A
	Priority		Medium Term
	Infrastructure Cost		\$307,739
	Associated Projects	OS2	OT1
	Key Actions	2	6
Recommendations It is recommended that all future active transport and recreational facilities be coordinated in their delivery.			

OS2 Path Network

Summary

A pathway network has been identified across Ugar Island, connecting keys parts of the township as part of a continuous loop of pathway elements.

The pathway network will serve to improve connectivity whilst also supporting recreational opportunities and enhanced access to sacred sites (where appropriate). Development of the pathway should be combined with supporting infrastructure such as seats, lighting and landscaping to improve its contribution to the community.

Recommendations

It is recommended that all future active transport and recreational facilities be coordinated in their delivery.

New Lots	N/A			
Lot Size	N/A			
Priority	Medium Term			
Infrastructure Cost	\$703 per metre (concrete) \$450 per metre (gravel) \$225 per metre (earth)			
Associated Projects	CT1	OS1	OT1	OT2
Key Actions	2	6		

Other Projects

The Master Plan identifies a range of other projects intended to ensure the community is serviced with appropriately located facilities and infrastructure. These projects have been identified in response to direct community needs and include precinct plans, further investigations and new/upgraded infrastructure. These key directions were identified as part of the technical analysis which is documented in the Ugar Island Master Plan Technical Report. Further detail is also provided in **Appendix F**.

OT1 CBD Precinct Plan							
Summary The Master Plan has identified the CBD of Ugar Island, primarily formed by land fronting Randall Street, as a location suitable for precinct planning. Land within the CBD includes existing facilities and services, and should provide a range of commercial and community facilities to support the local community. This includes the provision of a new supermarket (CT2) in a central location. Future precinct planning should consider the interface of the land with surrounding residential land uses and the sporting precinct (OS1). A copy of a preliminary Precinct Plan is provided as Appendix E .	New Lots		N/A				
	Lot Size		N/A				
	Priority		Medium Term				
	Infrastructure Cost		To Be Costed				
	Associated Projects		CT2	OS1	OS2	OT2	
	Key Actions		4	6			
OT2 East-West Link Road							
Summary The road corridor between the CBD and the helipad, formed by Ugar 1 Road and Ugar 3 Road, has been identified as being of strategic importance to the community, particularly given its ability to facilitate air access to the island whilst also supporting further development in the west of the island, such as Residential Expansion Area 2 (RS2) and the northern investigation area (OT9). The road corridor should be progressively upgraded through width and surface improvements (bitumen) and inclusion of facilities for pedestrians and cyclists. Active transport infrastructure should be combined with the balance of the path network (OS2).	New Lots		N/A				
	Lot Size		N/A				
	Priority		Short Term				
	Infrastructure Cost		\$5,089,233				
	Associated Projects		RS2	OS2	OT1	OT5	OT9
	Key Actions		-				

OT3 Connecting Road North

Summary

The Master Plan has identified the provision of a new connecting road from the jetty and barge ramp area to the core of the township. The new connecting road will improve direct access between these two areas of the island and remove the need for traffic to navigate the intersection of Ned Street and Drankie Street. The new connecting road should also be provided with facilities for pedestrians and cyclists to improve direct access.

The provision of a new connecting road will support further development in the vicinity of the jetty including industrial (**ID1**) and commercial/tourism (**CT1**) projects.

New Lots	N/A			
Lot Size	N/A			
Priority	Short Term			
Infrastructure Cost	\$2,443,953			
Associated Projects	ID1	CT1	OT4	OT8
Key Actions	-			

OT4 Jetty and Boat Ramp Upgrades

Summary

The jetty and boat ramp located at the northern extent of the township is a key arrival and departure location for people and goods. Further improvements in this location will support the efficient and safe use of this facility, whilst also expanding the ability for it to be used in a manner that supports economic activity. Upgrades may include in water works such as channel works and dredging, markers and a rockwall while on land works may include a freezer, parking, storage and setdown areas.

Jetty and boat ramp upgrades are a common project across all communities within the region. It is anticipated that required upgrades may be delivered as a regional work package which is progressively rolled out across each community.

Recommendation

It is recommended that all improvement works are identified in consultation with key stakeholders using the jetty and boat ramp.

New Lots	N/A			
Lot Size	N/A			
Priority	Short Term			
Infrastructure Cost	To Be Costed			
Associated Projects	ID1	CT1	CF2	OT3
Key Actions	4	6		

OT5 Helipad

Summary

Ugar Island is currently serviced by a helipad located in the west of the island. The helipad provides the only form of air based transport access to the island. The helipad should be protected given its strategic importance for the community. Further improvements to the helipad may also be appropriate, including additional landing space, storage areas and passenger facilities.

New Lots

N/A

Lot Size

N/A

Priority

Medium Term

Infrastructure Cost

To Be Costed

Associated Projects

OT2

Key Actions

1

6

OT6 Water Supply Upgrades

Summary

The water supply network should be upgraded to meet current and future demand and treatment standards. Details of specific works and required upgrades are provided in Chapter 5 of the Master Plan.

New Lots

N/A

Lot Size

N/A

Priority

Short Term

Infrastructure Cost

To Be Costed

Associated Projects

OT12

Key Actions

3

OT7 Potential Reticulated Sewerage Network

Summary

Ugar Island is currently reliant on localised sewerage systems (commonly septic systems). The provision of a reticulated sewerage system should be investigated, to provide the community with an urban level of sewerage infrastructure. A location for a potential sewerage treatment plant has been identified by the Planning Scheme in the west of the island. This location is reflected by the Master Plan map.

Further discussion with regard to sewerage infrastructure is provided in Chapter 5 of the Master Plan.

New Lots

N/A

Lot Size

N/A

Priority

Medium Term

Infrastructure Cost

To Be Costed

Associated Projects

-

Key Actions

3

OT8 Future Investigation Area #1

Summary

Vacant land at the north-eastern end of Drankie Street has been identified as an investigation area for potential future development. The land, which is proximate to existing residential development, is located between the jetty and the CBD, and is therefore suitable for a variety purposes. Any future development in this location should be considerate of the surrounding residential land uses by maintaining the amenity and character of the local area.

New Lots

N/A

Lot Size

N/A

Priority

Medium Term

Infrastructure Cost

\$1,553,482

Associated Projects

CF6

Key Actions

1

6

OT9 Future Investigation Area #2

Summary

Land to the north of Ugar 3 Road has been identified as an investigation area for potential future development. The Planning Scheme identifies the northern part of this land as being for township expansion. Further investigation of this land would be required to identify the extent to which it could be developed, particularly considering the compatibility of any future development on the southern portion of the area, which is included in the island's water catchment area.

Recommendations

Investigate whether the development of the land within the water catchment area would compromise the island's water supply.

New Lots	N/A			
Lot Size	N/A			
Priority	Medium Term			
Infrastructure Cost	\$1,486,204			
Associated Projects	CT3	OS2	OT2	OT10
Key Actions	1	6		

OT10 Barge to Helipad Road

Summary

The Master Plan has identified the provision of a new connecting road from the barge ramp, which connects with **OT2**, to provide direct vehicle access to the helipad.

The new connecting road will improve access between these two areas of the island and remove the need for traffic to navigate through the township and residential areas. The new connecting road should also be provided with facilities for pedestrians and cyclists. Active transport infrastructure should be combined with the balance of the path network (**OS2**).

New Lots	N/A			
Lot Size	N/A			
Priority	Medium Term			
Infrastructure Cost	\$3,467,045			
Associated Projects	OS2	OT2		
Key Actions	6			

OT11 Link Road

Summary

The Master Plan identifies a link road within the central part of the island. This project comprises the existing Apro Road corridor (providing access to the helipad) and identifies a new road connection to Drankie Street in the east. The existing Water Road corridor also forms part of this project.

The existing and future road corridors should be progressively upgraded through width and surface improvements (bitumen) and inclusion of facilities for pedestrians and cyclists.

New Lots	N/A	
Lot Size	N/A	
Priority	Long Term	
Infrastructure Cost	\$5,116,024	
Associated Projects	OT2	OT5
Key Actions	6	

OT12 Desalination Plant

Summary

The supply of raw water for the Ugar Island community is insufficient to meet current and future demands without the use of a mobile desalination plant. The desalination plant, located near the barge ramp, is utilised to top-up the water storage lagoons during the dry season and periods of low rainfall.

The desalination plant should be protected and upgraded to meet current and future water supply demands. This project may entail the establishment of a formal permanent facility.

New Lots	N/A	
Lot Size	N/A	
Priority	Short Term	
Infrastructure Cost	To Be Costed	
Associated Projects	OT6	
Key Actions	3	

OT13 Telecommunications Upgrades

Summary

The communities access to telecommunications should be improved to ensure that coverage is available throughout the township, its immediate surrounds where activity occurs and within the surrounding ocean to allow ease of communication with vessels, particularly in an emergency. Various upgrades should be identified in consultation with service providers.

New Lots	N/A
Lot Size	N/A
Priority	Short Term
Infrastructure Cost	To Be Costed
Associated Projects	-
Key Actions	6

OT14 “Back of Island” Access

Summary

A range of opportunities are available for recreational and community activities to occur in areas of the island outside the established township. These opportunities should be further investigated in consultation with the community. Access is a primary constraint and any planned areas should be coordinated with road upgrades.

New Lots	N/A
Lot Size	N/A
Priority	Medium Term
Infrastructure Cost	To Be Costed
Associated Projects	OT2
Key Actions	5 6

OT15 Carbon and Renewable Energy Opportunities

Summary

As explained in the Ugar Island Master Plan Technical Report, the Queensland Government has identified a target to be carbon neutral by 2050. A variety of opportunities exist across Ugar Island to implement carbon initiatives that can assist in achieving this target. Key opportunities including renewable energy installations (wind and solar), reductions in fossil fuel use, carbon burning and blue carbon. Further investigations should be undertaken to identify suitable initiatives and potential sites. These opportunities also provide the potential to generate employment for the local community.

New Lots	N/A
Lot Size	N/A
Priority	Medium Term
Infrastructure Cost	To Be Costed
Associated Projects	-
Key Actions	6

5 Infrastructure

In order to support future residential, industrial, commercial, tourism, community facilities, recreation and open space development on Ugar Island in accordance with the Master Plan, upgrades to existing infrastructure networks and new infrastructure will be required as detailed below. High level costings of supporting infrastructure are included in **Appendix D**.

5.1 Topography/Climate Change

Ugar Island is a small volcanic island with a central plateau 20-30 metres above sea level. The community is mainly located on the central plateau. All new development near the barge ramp should be constructed at a sufficient height above HAT level to protect buildings from inundation from expected climate change rises in sea level and storm surge.

5.2 Roads

Existing roads within the community are gravel paved with limited sections of paved and concrete pavements. For durability, new roads should be constructed six (6) metres wide in 150 mm thick fibre reinforced concrete. Roads are to be provided with either a 300 mm wide concrete edge strip or mountable kerb and channel either side as appropriate.

5.3 Stormwater

The Queensland Urban Drainage Manual (QUDM) provides current criteria for the design of stormwater drainage in urban residential developments. QUDM generally requires systems for primary drainage in streets to carry 39% Annual Exceedance Probability (AEP) (1 in 2 yr. ARI) runoff, and 1% AEP (1:100 yr. ARI) runoff for major drainage paths and cross road culverts, to limit flooding of public and private property to acceptable levels.

Due to the gradients of new roads care needs to be exercised to ensure that the stormwater drainage system performs in accordance with the requirements of QUDM.

Stormwater runoff captured from newly developed areas is required to be treated to remove nutrients from the runoff prior to discharge to waterways.

5.4 Water Supply

Raw water is sourced from direct rainfall capture stored in a raw water lagoon with a capacity of 4 ML augmented by a mobile desalination plant when required. The supply of raw water for treatment is insufficient to meet current and future demand without augmentation by the desalination plant.

The pH of the raw water of 4.5 to 6.6 is less than the guideline recommended range of 6.5 to 8.5 required to reduce corrosion and encrustation in pipes and fittings. Turbidity of the raw water supply of <1.5 NTU to < 3.8 NTU exceeds the recommended maximum turbidity value of 1.0 NTU. Levels of iron of 0.06 mg/L marginally exceeds the guideline recommendation of 0.05 mg/L. Levels of manganese and aluminium are within guideline values.

The existing water treatment plant capacity is required to be increased from 40 kL per day to 60.5 kL per day to meet current and future Mean Day Maximum Month (MDMM) demand. The current storage capacity for treated water is 94 kL, which is required to be increased by an additional 135 kL to meet current and future demand.

Emergency standby power generation equipment should be installed to all critical infrastructure in the water supply system to maintain supply during loss of electricity supply.

Reticulation mains of adequate size are to be extended to all new development and be provided with fire hydrants and metered service connections.

Current per capita consumption of 448 litres per day based on total water supplied to residential and on-residential properties divided by 85 persons is ~~less~~ greater than the TSIRC's target consumption of 350 litres per person.

The following upgrades to the existing water supply network will be required to support planned future development:

- > Increase treatment plant capacity from 40 kL per day to 60.5 kL per day;
- > Provide an additional 79 kL of clear water storage;
- > Install coagulation/flocculation equipment to deduce turbidity to guideline levels;
- > Install equipment to adjust the pH of treated water to within the guideline recommendations;
- > SCADA equipment is installed to permit remote monitoring of system performance to enable prompt rectification of breakdowns that occur from time to time;
- > Install emergency power supply generators at all critical infrastructure; and
- > Provide adequate training for operators.

5.5 Sewerage

There is no reticulated sewerage system installed on the island. Each dwelling and occupied community building is provided with a septic tank with a soakage trench for disposal of effluent.

It is recommended that consideration be given to the installation of sewerage reticulation with an associated treatment plant to replace the septic tanks.

5.6 Electricity Supply and Street Lighting

Reticulated electricity to the community is provided from an unmanned isolated fully automated multi-unit diesel generators installed in a power station owned and operated by Ergon.

New development to be delivered under the Master Plan will need to be provided with underground electricity reticulation supplied from new pad mount transformers where required, installed to Ergon standards.

New street lighting shall comply with Ergon standards for urban residential developments.

5.7 Telecommunications

New development is to be provided with connections for landline and internet services supplied from underground cabling in the street, and mobile services where available, all installed by Telstra.

6 Action Plan

The Action Plan is summarised in **Table 6-1** and identifies future actions arising from the Master Plan. Actions listed in the Action Plan are identified as Key Actions for each project.

Table 6-1 Action Plan

1	Undertake further investigations in relation to specific land parcels The Master Plan has identified a number of locations that may be suitable for further development, subject to specific on-site investigations, which will likely identify developable and constrained land.	5	Investigate Cultural, Economic and Recreational Areas Further investigation of potential cultural, economic and recreational areas beyond the township should be undertaken.
2	Develop a Recreation Strategy A strategy should be developed to guide the provision of active travel and recreational infrastructure so that it may form part of a coordinated and integrated network. This is of particular importance for walking and cycling paths.	6	Consultation with Key Stakeholders The Master Plan identifies a number of conceptual opportunities which require consultation with stakeholders relevant to these projects, in order to determine more detailed design requirements to support the delivery of these projects.
3	Protection of Community Facilities and Infrastructure The Master Plan identifies a number of community facilities and infrastructure that are to be protected and maintained for the benefit of the community. The ongoing maintenance of these facilities should be prioritised, with further expansion or embellishment considered when necessary.	7	Planning Scheme Amendments In a number of instances it may be necessary for the Planning Scheme to be amended to reflect the Master Plan projects identified and ultimately support the delivery of these projects.
4	Encourage Economic Activity The Master Plan identifies a number of locations which will support economic activity, however there is a need to encourage businesses to take up the opportunities provided by this land, particularly relating to industry and tourism.	8	Coastal Inundations Investigations and Works Undertake specific investigations into coastal inundation required to identify land that may be suitable for future projects identified by the Master Plan, subject to specific mitigation and protection works.
		9	Documentation of Cultural Values The cultural and spiritual values of significant sites such as churches and cemeteries should be documented for the community.

APPENDIX

A

MASTER PLAN MAP





UGAR ISLAND MASTER PLAN

VERSION 003
4 March 2022

LOCALITY PLAN

SCALE 1:10,000



RESIDENTIAL:

- RS1** RESIDENTIAL EXPANSION AREA 1
- RS2** RESIDENTIAL EXPANSION AREA 2
- RS3** INFILL HOUSING

COMMUNITY FACILITIES:

- CF1** MARKET GARDEN / FOOD SECURITY AREA
- CF2** SACRED SITE PROTECTION
- CF3** LANDFILL PROTECTION AND EXPANSION AREA
- CF4** PLACE OF WORSHIP PROTECTION
- CF5** CEMETERY PROTECTION AREA
- CF6** CHILD CARE CENTRE

OTHER DEVELOPMENT:

- OT1** CBD PRECINCT PLAN
- OT2** EAST-WEST LINK ROAD
- OT3** CONNECTING ROAD NORTH
- OT4** JETTY AND BOAT RAMP UPGRADES
- OT5** HELIPAD
- OT6** WATER SUPPLY UPGRADES
- OT7** POTENTIAL RETICULATED SEWERAGE NETWORK
- OT8** FUTURE INVESTIGATION AREA 1
- OT9** FUTURE INVESTIGATION AREA 2
- OT10** BARGE TO HELIPAD ROAD
- OT11** LINK ROAD
- OT12** DESALINATION PLANT
- OT13** TELECOMMUNICATIONS UPGRADES

COMMERCIAL / TOURISM:

- CT1** ARRIVAL CENTRE
- CT2** NEW SUPERMARKET 1
- CT3** NEW SUPERMARKET 2
- CT4** FUEL FACILITY

RECREATION & OPEN SPACE:

- OS1** SPORTING PRECINCT
- OS2** PATH NETWORK

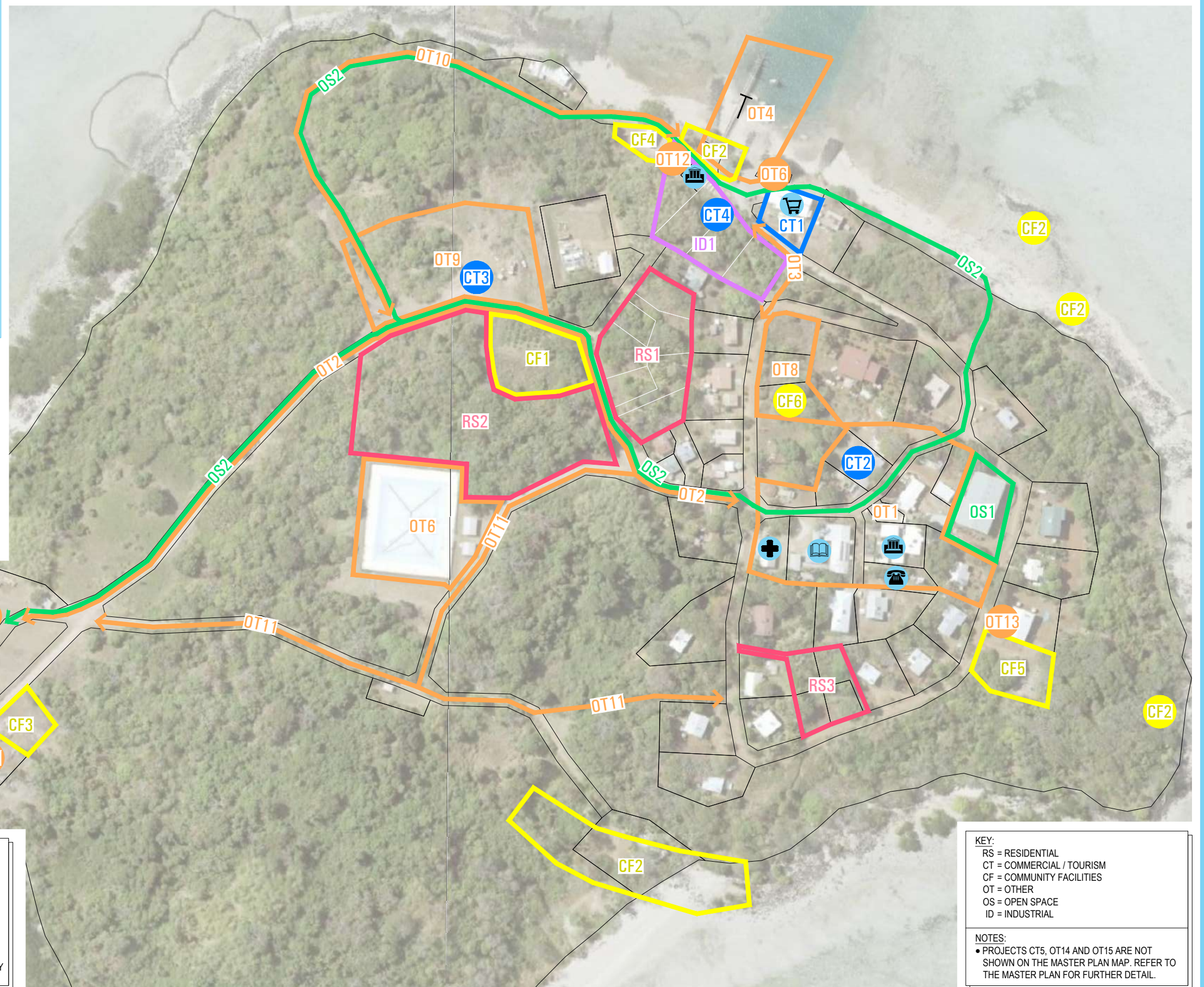
INDUSTRIAL:

- ID1** ENTERPRISE AREA

LEGEND

- PROPOSED RESIDENTIAL DEVELOPMENT
- PROPOSED INDUSTRIAL DEVELOPMENT
- PROPOSED OTHER DEVELOPMENT
- PROPOSED COMMUNITY FACILITIES
- PROPOSED OPEN SPACE / DRAINAGE RESERVE
- PROPOSED COMMERCIAL / TOURISM DEVELOPMENT
- JETTY

- SCHOOL
- COUNCIL BUILDING
- SHOP / SUPERMARKET
- TELSTRA TOWER
- HEALTH CENTRE FACILITY



KEY:

- RS = RESIDENTIAL
- CT = COMMERCIAL / TOURISM
- CF = COMMUNITY FACILITIES
- OT = OTHER
- OS = OPEN SPACE
- ID = INDUSTRIAL

NOTES:

- PROJECTS CT5, OT14 AND OT15 ARE NOT SHOWN ON THE MASTER PLAN MAP, REFER TO THE MASTER PLAN FOR FURTHER DETAIL.

APPENDIX

B

MASTER PLAN PROJECT INDEX



UGAR ISLAND MASTER PLAN

PROJECT INDEX

The below table provides a summary of the projects identified in the Master Plan.

ID	Project Name	New Lots	Lot Sizes	Priority	Infrastructure Cost	Associated Projects	Key Actions
RS1	Residential Expansion Area 1	7 Lots	382m ² – 714m ²	Medium Term	\$1,867,271	OT2	1
RS2	Residential Expansion Area 2	9 Lots	900m ² – 1000m ²	Medium Term	\$2,691,497	RS1	1, 7
RS3	Infill Housing	4 Lots (existing)	431m ² to 508m ²	Short Term	\$1,211,512	-	-
ID1	Enterprise Area	4 Lots	809m ² – 968m ²	Medium Term	\$1,432,829	CT1, CF2, OT3, OT4	1, 4, 6, 7
CT1	Arrival Centre	1 Lot	918m ²	Medium Term	\$442,727	CT2, OS2, OT3, OT4	4, 6, 8
CT2	New Supermarket 1	N/A	N/A	Short Term	\$833,864	OT1	4, 6
CT3	New Supermarket 2	N/A	N/A	Long Term	\$450,862	RS1, RS2, OT9	4, 6
CT4	Fuel Facility	N/A	N/A	Short Term	\$297,688	ID1	4, 6
CT5	Environmental Tourism	N/A	N/A	Medium Term	N/A	CT1, OT4, OT5	4, 6
CF1	Market Garden / Food Security Area	N/A	N/A	Medium Term	N/A	ID1, OT2	1, 6
CF2	Sacred Site Protection	N/A	N/A	Ongoing	N/A	CF3, OS2	3, 4, 6, 9
CF3	Landfill Protection and Expansion Area	N/A	N/A	Short Term	N/A	CF2, OT2	3
CF4	Place of Worship Protection	N/A	N/A	Ongoing	N/A	ID1, CF2, OT3	3, 9

ID	Project Name	New Lots	Lot Sizes	Priority	Infrastructure Cost	Associated Projects	Key Actions
CF5	Cemetery Protection Area	N/A	N/A	Ongoing	N/A	-	3, 6, 9
CF6	Child Care Centre	N/A	N/A	Short Term	\$283,698	OT8	3, 6
OS1	Sporting Precinct	N/A	N/A	Medium Term	\$307,739	OS2, OT1	2, 6
OS2	Path Network	N/A	N/A	Medium Term	\$703 per metre (concrete) \$450 per metre (gravel) \$225 per metre (earth)	CT1, OS1, OT1, OT2	2, 6
OT1	CBD Precinct Plan	N/A	N/A	Medium Term	To Be Costed	CT2, OS1, OS2, OT2	4, 6
OT2	East-West Link Road	N/A	N/A	Short Term	\$5,089,233	RS2, OS2, OT1, OT5, OT9	-
OT3	Connecting Road North	N/A	N/A	Short Term	\$2,443,953	ID1, CT1, OT4, OT8	-
OT4	Jetty and Boat Ramp Upgrades	N/A	N/A	Short Term	To Be Costed	ID1, CT1, CF2, OT3	4, 6
OT5	Helipad	N/A	N/A	Medium Term	To Be Costed	OT2	1, 6
OT6	Water Supply Upgrades	N/A	N/A	Short Term	To Be Costed	OT12	3
OT7	Potential Reticulated Sewerage Network	N/A	N/A	Medium Term	To Be Costed	-	3
OT8	Future Investigation Area #1	N/A	N/A	Medium Term	\$1,553,482	CF6	1, 6
OT9	Future Investigation Area #2	N/A	N/A	Medium Term	\$1,486,204	CT3, OS2, OT2, OT10	1, 6

ID	Project Name	New Lots	Lot Sizes	Priority	Infrastructure Cost	Associated Projects	Key Actions
OT10	Barge to Helipad Road	N/A	N/A	Medium Term	\$3,467,045	OS2, OT2	6
OT11	Link Road	N/A	N/A	Long Term	\$5,116,024	OT2, OT5	6
OT12	Desalination Plant	N/A	N/A	Short Term	To Be Costed	OT6	3
OT13	Telecommunications Upgrades	N/A	N/A	Short Term	To Be Costed	-	6
OT14	“Back of Island” Access	N/A	N/A	Medium Term	To Be Costed	OT2	5, 6
OT15	Carbon and Renewable Energy Opportunities	N/A	N/A	Medium Term	To Be Costed	-	6

APPENDIX

C

ACTION PLAN SUMMARY



UGAR ISLAND MASTER PLAN

ACTION PLAN SUMMARY

The below table provides a summary of the relationship between the Action Plan and the projects identified in the Master Plan.

ID	Action	RS1	RS2	RS3	ID1	CT1	CT2	CT3	CT4	CT5	CF1	CF2	CF3	CF4	CF5	CF6
1	Undertake further investigations in relation to specific land parcels	RS1	RS2		ID1						CF1					
2	Develop a Recreation Strategy															
3	Protection of Community Facilities and Infrastructure											CF2	CF3	CF4	CF5	CF6
4	Encourage Economic Activity				ID1	CT1	CT2	CT3	CT4	CT5		CF2				
5	Investigate Cultural, Economic and Recreational Areas															
6	Consultation with Key Stakeholders				ID1	CT1	CT2	CT3	CT4	CT5	CF1	CF2			CF5	CF6
7	Planning Scheme Amendments		RS2		ID1											
8	Coastal Inundations Investigations and Works					CT1										
9	Documentation of Cultural Values											CF2		CF4	CF5	

ID	Action	OS1	OS2	OT1	OT2	OT3	OT4	OT5	OT6	OT7	OT8	OT9	OT10	OT11	OT12	OT13	OT14	OT15
1	Undertake further investigations in relation to specific land parcels							OT5			OT8	OT9						
2	Develop a Recreation Strategy	OS1	OS2															
3	Protection of Community Facilities and Infrastructure								OT6	OT7					OT12			
4	Encourage Economic Activity			OT1			OT4											
5	Investigate Cultural, Economic and Recreational Areas																OT14	
6	Consultation with Key Stakeholders	OS1	OS2	OT1			OT4	OT5			OT8	OT9	OT10	OT11		OT13	OT14	OT15
7	Planning Scheme Amendments																	
8	Coastal Inundations Investigations and Works																	
9	Documentation of Cultural Values																	

APPENDIX

D

INFRASTRUCTURE COSTINGS



TORRES STRAIT MASTER PLANNING INFRASTRUCTURE COST ESTIMATES

Prepared for the Department of Aboriginal and Torres Strait Islander Partnerships



11UG UGAR ISLAND

Last Update:

1-Apr-22

Project			RS1		RS2		RS3		ID1		CT1		CT2	
Yield (Number of Lots)			7		9		4		4		1		1	
Item	Unit	Rate	Qty	Amount	Qty	Amount	Qty	Amount	Qty	Amount	Qty	Amount	Qty	Amount
HEADWORKS INFRASTRUCTURE UPGRADES														
Sewage Treatment Plant Upgrade	Item													
Water Treatment Plant Upgrade	Item													
Reservoirs Upgrade	Item													
DEVELOPMENT														
Earthworks														
Site clearing and disposal of material	Ha	\$ 15,750	0.41	\$ 6,458	1.1	\$ 17,325	0.2	\$ 3,150	0.4	\$ 6,300	0.15	\$ 2,363	0.11	\$ 1,733
Erosion and sediment control	m	\$ 45	200	\$ 9,000	250	\$ 11,250	100	\$ 4,500	110	\$ 4,950	50	\$ 2,250	50	\$ 2,250
Strip topsoil and respread	m ³	\$ 34	400	\$ 13,500	1,000	\$ 33,750	250	\$ 8,438	400	\$ 13,500	200	\$ 6,750	125	\$ 4,219
Cut to fill on lots	m ³	\$ 45	1,250	\$ 56,250	1,000	\$ 45,000	850	\$ 38,250	1250	\$ 56,250	500	\$ 22,500	400	\$ 18,000
Cut in open drains to fill on lots	m ³	\$ 45	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -
Cut in roads and table drains to fill on lots	m ³	\$ 45	0	\$ -	500	\$ 22,500	0	\$ -	0	\$ -	0	\$ -	0	\$ -
Roadworks														
Concrete Road (7.0 m)	m	\$ 3,375	60	\$ 202,500	80	\$ 270,000	60	\$ 202,500	60	\$ 202,500	0	\$ -	50	\$ 168,750
Stormwater Drainage														
Concrete edge strips/K & C to road pavement	m	\$ 450	120	\$ 54,000	160	\$ 72,000	120	\$ 54,000	120	\$ 54,000	0	\$ -	100	\$ 45,000
Concrete invert to table drain	m	\$ 1,688	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -
1200 x 450 RCBC incl conc base/invert crossing	m	\$ 3,375	11	\$ 37,125	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -
Headwalls, Wingwalls and Aprons	m ³	\$ 4,050	5	\$ 20,250	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -
Bio-Basins	m ²	\$ 1,013	100	\$ 101,250	270	\$ 273,375	50	\$ 50,625	100	\$ 101,250	40	\$ 40,500	30	\$ 30,375
Bio basin concrete spillway	m ²	\$ 788	75	\$ 59,063	50	\$ 39,375	50	\$ 39,375	50	\$ 39,375	50	\$ 39,375	20	\$ 15,750
Water Reticulation														
100 dia. PVC pipe	m	\$ 450	130	\$ 58,500	200	\$ 90,000	60	\$ 27,000	100	\$ 45,000	50	\$ 22,500	30	\$ 13,500
150 dia. PVC pipe	m	\$ 563	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -
200 dia PVC pipe	m	\$ 731	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -
SV's	No	\$ 3,375	2	\$ 6,750	4	\$ 13,500	0	\$ -	2	\$ 6,750	1	\$ 3,375	0	\$ -
Hydrants	No	\$ 5,119	3	\$ 15,356	4	\$ 20,475	1	\$ 5,119	3	\$ 15,356	1	\$ 5,119	1	\$ 5,119
Single house connections	No	\$ 2,250	0	\$ -	9	\$ 20,250	4	\$ 9,000	4	\$ 9,000	1	\$ 2,250	1	\$ 2,250
Connect to existing main	No	\$ 6,750	0	\$ -	2	\$ 13,500	2	\$ 13,500	0	\$ -	0	\$ -	0	\$ -
VSD Pump Building	Item	\$ 337,500	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -
Variable speed drive pump set	Item	\$ 225,000	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -
Standby generator	Item	\$ 112,500	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -
Sewerage Reticulation														
150 dia. PVC	m	\$ 450	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -

TORRES STRAIT MASTER PLANNING INFRASTRUCTURE COST ESTIMATES

Prepared for the Department of Aboriginal and Torres Strait Islander Partnerships



11UG UGAR ISLAND

Last Update:

1-Apr-22

Project			RS1		RS2		RS3		ID1		CT1		CT2	
Yield (Number of Lots)			7		9		4		4		1		1	
Item	Unit	Rate	Qty	Amount	Qty	Amount	Qty	Amount	Qty	Amount	Qty	Amount	Qty	Amount
Manholes	No	\$ 11,250	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -
Lot connections	No	\$ 1,688	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -
FRP Pump Station	Item	\$ 1,068,750	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -
Standby Generator	Item	\$ 112,500	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -
90 OD polyethylene pressure main	m	\$ 450	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -
110 OD polyethylene pressure main	m	\$ 675	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -
140 OD polyethylene pressure main	m	\$ 788	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -
On site lot treatment and irrigation	No	\$ 31,500	7	\$ 220,500	9	\$ 283,500	4	\$ 126,000	4	\$ 126,000	1	\$ 31,500	3	\$ 94,500
Electricity Supply														
Conduits, pits and pole bases	Lots	\$ 13,500	7	\$ 94,500	9	\$ 121,500	4	\$ 54,000	4	\$ 54,000	1	\$ 13,500	1	\$ 13,500
Cabling and street lights	Lots	\$ 16,875	7	\$ 118,125	9	\$ 151,875	4	\$ 67,500	4	\$ 67,500	1	\$ 16,875	1	\$ 16,875
Transformer	No	\$ 225,000	0.2	\$ 45,000	0.5	\$ 112,500	0.1	\$ 22,500	0.25	\$ 56,250	0.25	\$ 56,250	0.3	\$ 67,500
Sub Totals				\$ 1,118,126		\$ 1,611,675		\$ 725,456		\$ 857,981		\$ 265,106		\$ 499,320
Contingencies	Item	30%		\$ 335,438		\$ 483,503		\$ 217,637		\$ 257,394		\$ 79,532		\$ 149,796
Preliminaries														
Establishment, insurance, As-constructed	Item	22%		\$ 245,988		\$ 354,569		\$ 159,600		\$ 188,756		\$ 58,323		\$ 109,850
Project Management														
Survey, design, and construction administrator	Item	15%		\$ 167,719		\$ 241,751		\$ 108,818		\$ 128,697		\$ 39,766		\$ 74,898
TOTALS				\$ 1,867,271		\$ 2,691,497		\$ 1,211,512		\$ 1,432,829		\$ 442,727		\$ 833,864

Prepared for the Department of Aboriginal and Torres Strait Islander Partnerships

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TORRES STRAIT MASTER PLANNING

INFRASTRUCTURE COST ESTIMATES

Prepared for the Department of Aboriginal and Torres Strait Islander Partnerships

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Project			CT3		CT4		CF6		OS1		OT2		OT3		
Yield (Number of Lots)			N/A		N/A		1		N/A		N/A		N/A		
Item	Unit	Rate	Qty	Amount	Qty	Amount	Qty	Amount	Qty	Amount	Qty	Amount	Qty	Amount	Qty
Manholes	No	\$ 11,250	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0
Lot connections	No	\$ 1,688	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0
FRP Pump Station	Item	\$ 1,068,750	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0
Standby Generator	Item	\$ 112,500	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0
90 OD polyethylene pressure main	m	\$ 450	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0
110 OD polyethylene pressure main	m	\$ 675	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0
140 OD polyethylene pressure main	m	\$ 788	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0
On site lot treatment and irrigation	No	\$ 31,500	1.5	\$ 47,250	2	\$ 47,250	1	\$ 31,500	1	\$ 31,500	0	\$ -	0	\$ -	2
Electricity Supply															
Conduits, pits and pole bases	Lots	\$ 13,500	1	\$ 13,500	1	\$ 13,500	1	\$ 13,500	1	\$ 13,500	0	\$ -	0	\$ -	2
Cabling and street lights	Lots	\$ 16,875	1	\$ 16,875	1	\$ 16,875	1	\$ 16,875	1	\$ 16,875	0	\$ -	0	\$ -	2
Transformer	No	\$ 225,000	0.25	\$ 56,250	0	\$ 56,250	0.1	\$ 22,500	0.1	\$ 22,500	0	\$ -	0	\$ -	3
Sub Totals				\$ 269,978	\$ 178,256	\$ 147,836	\$ 184,275	\$ 3,047,445	\$ 1,463,445						
Contingencies	Item	30%		\$ 80,993		\$ 53,477		\$ 44,351		\$ 55,283		\$ 914,234		\$ 439,034	
Preliminaries															
Establishment, insurance, As-constructed	Item	22%		\$ 59,395		\$ 39,216		\$ 47,160		\$ 40,541		\$ 670,438		\$ 321,958	
Project Management															
Survey, design, and construction administrator	Item	15%		\$ 40,497		\$ 26,738		\$ 44,351		\$ 27,641		\$ 457,117		\$ 219,517	
TOTALS				\$ 450,862	\$ 297,688	\$ 283,698	\$ 307,739	\$ 5,089,233	\$ 2,443,953						

TORRES STRAIT MASTER PLANNING

INFRASTRUCTURE COST ESTIMATES

Prepared for the Department of Aboriginal and Torres Strait Islander Partnerships

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Project			OT8	OT9		OT10		OT11	
Yield (Number of Lots)			N/A	N/A		N/A		N/A	
Item	Unit	Rate	Amount	Qty	Amount	Qty	Amount	Qty	Amount

HEADWORKS INFRASTRUCTURE UPGRADES

Sewage Treatment Plant Upgrade	Item								
Water Treatment Plant Upgrade	Item								
Reservoirs Upgrade	Item								

DEVELOPMENT

Earthworks

Site clearing and disposal of material	Ha	\$ 15,750	\$ 2,048	0.64	\$ 10,080	0.80	\$ 12,600	1.2	\$ 18,900
Erosion and sediment control	m	\$ 45	\$ 3,375	125	\$ 5,625	400	\$ 18,000	600	\$ 27,000
Strip topsoil and respread	m ³	\$ 34	\$ 4,556	650	\$ 21,938	800	\$ 27,000	####	\$ 40,500
Cut to fill on lots	m ³	\$ 45	\$ 6,075	650	\$ 29,250	0	\$ -	0	\$ -
Cut in open drains to fill on lots	m ³	\$ 45	\$ -	0	\$ -	0	\$ -	0	\$ -
Cut in roads and table drains to fill on lots	m ³	\$ 45	\$ -	0	\$ -	2,400	\$ 108,000	####	\$ 162,000

Roadworks

Concrete Road (7.0 m)	m	\$ 3,375	\$ -	0	\$ -	400	\$ 1,350,000	600	\$ 2,025,000
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Stormwater Drainage

Concrete edge strips/K & C to road pavement	m	\$ 450	\$ -	0	\$ -	800	\$ 360,000	####	\$ 540,000
Concrete invert to table drain	m	\$ 1,688	\$ -	0	\$ -	0	\$ -	0	\$ -
1200 x 450 RCBC incl conc base/invert crossing	m	\$ 3,375	\$ -	0	\$ -	38.4	\$ 129,600	48	\$ 162,000
Headwalls, Wingwalls and Aprons	m ³	\$ 4,050	\$ -	0	\$ -	17.5	\$ 70,875	####	\$ 88,088
Bio-Basins	m ²	\$ 1,013	\$ 35,438	165	\$ 167,063	0	\$ -	0	\$ -
Bio basin concrete spillway	m ²	\$ 788	\$ 39,375	100	\$ 78,750	0	\$ -	0	\$ -

Water Reticulation

100 dia. PVC pipe	m	\$ 450	\$ 22,500	175	\$ 78,750	0	\$ -	0	\$ -
150 dia. PVC pipe	m	\$ 563	\$ -	0	\$ -	0	\$ -	0	\$ -
200 dia PVC pipe	m	\$ 731	\$ -	0	\$ -	0	\$ -	0	\$ -
SV's	No	\$ 3,375	\$ 3,375	2	\$ 6,750	0	\$ -	0	\$ -
Hydrants	No	\$ 5,119	\$ 10,238	2	\$ 10,238	0	\$ -	0	\$ -
Single house connections	No	\$ 2,250	\$ 4,500	4	\$ 9,000	0	\$ -	0	\$ -
Connect to existing main	No	\$ 6,750	\$ -	0	\$ -	0	\$ -	0	\$ -
VSD Pump Building	Item	\$ 337,500	\$ -	0	\$ -	0	\$ -	0	\$ -
Variable speed drive pump set	Item	\$ 225,000	\$ -	0	\$ -	0	\$ -	0	\$ -
Standby generator	Item	\$ 112,500	\$ -	0	\$ -	0	\$ -	0	\$ -

Sewerage Reticulation

150 dia. PVC	m	\$ 450	\$ -	0	\$ -	0	\$ -	0	\$ -
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TORRES STRAIT MASTER PLANNING

INFRASTRUCTURE COST ESTIMATES

Prepared for the Department of Aboriginal and Torres Strait Islander Partnerships

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Project			OT8	OT9		OT10		OT11	
Yield (Number of Lots)			N/A	N/A		N/A		N/A	
Item	Unit	Rate	Amount	Qty	Amount	Qty	Amount	Qty	Amount
Manholes	No	\$ 11,250	\$ -	0	\$ -	0	\$ -	0	\$ -
Lot connections	No	\$ 1,688	\$ -	0	\$ -	0	\$ -	0	\$ -
FRP Pump Station	Item	\$ 1,068,750	\$ -	0	\$ -	0	\$ -	0	\$ -
Standby Generator	Item	\$ 112,500	\$ -	0	\$ -	0	\$ -	0	\$ -
90 OD polyethylene pressure main	m	\$ 450	\$ -	0	\$ -	0	\$ -	0	\$ -
110 OD polyethylene pressure main	m	\$ 675	\$ -	0	\$ -	0	\$ -	0	\$ -
140 OD polyethylene pressure main	m	\$ 788	\$ -	0	\$ -	0	\$ -	0	\$ -
On site lot treatment and irrigation	No	\$ 31,500	\$ 63,000	4	\$ 126,000	0	\$ -	0	\$ -
Electricity Supply									
Conduits, pits and pole bases	Lots	\$ 13,500	\$ 27,000	4	\$ 54,000	0	\$ -	0	\$ -
Cabling and street lights	Lots	\$ 16,875	\$ 33,750	4	\$ 67,500	0	\$ -	0	\$ -
Transformer	No	\$ 225,000	\$ 675,000	1	\$ 225,000	0	\$ -	0	\$ -
Sub Totals			\$ 930,229		\$ 889,943		\$ 2,076,075		\$ 3,063,488
Contingencies	Item	30%	\$ 279,069		\$ 266,983		\$ 622,823		\$ 919,046
Preliminaries									
Establishment, insurance, As-constructed	Item	22%	\$ 204,650		\$ 195,787		\$ 456,737		\$ 673,967
Project Management									
Survey, design, and construction administrator	Item	15%	\$ 139,534		\$ 133,491		\$ 311,411		\$ 459,523
TOTALS			\$ 1,553,482		\$ 1,486,204		\$ 3,467,045		\$ 5,116,024

APPENDIX

E

PRECINCT PLANS





UGAR ISLAND MASTER PLAN

CBD PRECINCT PLAN

VERSION 001
29 June 2020



1 COMMUNITY PARK



2 PEDESTRIAN PATH



3 SHARED ZONE



APPENDIX

F

ANALYTICAL TRANSLATION



UGAR ISLAND MASTER PLAN

ANALYTICAL TRANSLATION

#	Direction	Technical Report	Master Plan Projects	Notes
1.	The Master Plan will need to cater for increased demand for housing (two new dwellings), as a result of a need to reduce overcrowding and cater for population growth. This can be accommodated within the existing township on vacant lots.	4 Demographic Analysis 8.1 Aboriginal and Torres Strait Islander Housing Action Plan 2019-2023 8.10 Torres Strait and Northern Peninsula Regional Plan 2009-2029 8.12 TSIRC Corporate Plan 2020-2025	RS1, RS2, RS3	
2.	The Master Plan should seek to diversify the available housing products, particularly the provision of smaller housing types such as units and townhouses. These dwelling types can be supported as infill housing, which will allow them to be well located proximate to key services and facilities.	4 Demographic Analysis 8.1 Aboriginal and Torres Strait Islander Housing Action Plan 2019-2023 8.10 Torres Strait and Northern Peninsula Regional Plan 2009-2029 8.12 TSIRC Corporate Plan 2020-2025	RS1, RS2, RS3	
3.	The Master Plan should support the provision of facilities for ageing in place and accessible living including accommodation for independent living (for persons of any age who may need care).	4 Demographic Analysis 8.10 Torres Strait and Northern Peninsula Regional Plan 2009-2029 8.12 TSIRC Corporate Plan 2020-2025	RS1, RS2, RS3, OT1	

#	Direction	Technical Report	Master Plan Projects	Notes
4.	The Master Plan should explore options for the development of the town expansion area identified by the planning scheme to the north-west of the existing township and outside of the water catchment area for enterprise opportunities for tourism and fishing related industry.	2.5 Services and Facilities 5 Planning Analysis 8.10 Torres Strait and Northern Peninsula Regional Plan 2009-2029 8.12 TSIRC Corporate Plan 2020-2025	RS1	
5.	The Master Plan should seek to facilitate the provision of active transport infrastructure (walking / cycling paths) to connect important parts of the community and promote healthy living through physical activity.	2.5 Services and Facilities 8.5 Healthy by Design / Walkability 8.10 Torres Strait and Northern Peninsula Regional Plan 2009-2029 8.12 TSIRC Corporate Plan 2020-2025	OS1, OS2	
6.	The Master Plan should seek to support the protection and embellishment (where appropriate) of key sacred and cultural sites identified by the community. This may include improving community access.	5 Planning Analysis 8.10 Torres Strait and Northern Peninsula Regional Plan 2009-2029 8.12 TSIRC Corporate Plan 2020-2025	CF2	
7.	The Master Plan should support expansion and/or renewal in the town centre with a focus on improving accessibility for the community. Opportunity for a new supermarket in the town centre should be explored.	2.5 Services and Facilities 8.5 Healthy by Design / Walkability 8.10 Torres Strait and Northern Peninsula Regional Plan 2009-2029 8.12 TSIRC Corporate Plan 2020-2025	OT1, CT2	
8.	The Master Plan should seek to protect places of worship and cemeteries and facilitate the identification of additional land to support future community needs.	2.5 Services and Facilities 8.12 TSIRC Corporate Plan 2020-2025	CF4, CF5	

#	Direction	Technical Report	Master Plan Projects	Notes
9.	The Master Plan should locate development in a manner that is reflective of the potential effects of coastal processes.	5 Planning Analysis 8.10 Torres Strait and Northern Peninsula Regional Plan 2009-2029 8.11 Torres Strait Regional Adaptation and Resilience Plan 2016-2021 8.12 TSIRC Corporate Plan 2020-2025	All projects	
10.	The Master Plan should investigate the provision of land for potential food production, which may include community or market gardens or agricultural activities.	5 Planning Analysis 8.9 Food Security 8.10 Torres Strait and Northern Peninsula Regional Plan 2009-2029 8.12 TSIRC Corporate Plan 2020-2025	CF1	
11.	The Master Plan should support the efficient use and embellishment of the jetty and boat ramp precinct. This will likely include supporting improvements to vessel access through new or improved marine infrastructure and the provision of new land-based infrastructure. This precinct may also provide opportunity for seafood business enterprises.	2.5 Services and Facilities 5 Planning Analysis 8.10 Torres Strait and Northern Peninsula Regional Plan 2009-2029 8.12 TSIRC Corporate Plan 2020-2025 8.13 Warpil – Fishing for Our Future	OT4	
12.	The Master Plan should support the development of new recreational facilities, which may include upgrading existing multi sports complex.	8.9 Food Security 8.10 Torres Strait and Northern Peninsula Regional Plan 2009-2029	OS1	
13.	The Master Plan should support the development of tourism opportunities that are compatible with the aspirations of the community.	2.5 Services and Facilities 5 Planning Analysis 8.10 Torres Strait and Northern Peninsula Regional Plan 2009-2029 8.12 TSIRC Corporate Plan 2020-2025	CT1, CT5, OT4, OT5	

#	Direction	Technical Report	Master Plan Projects	Notes
14.	The Master Plan should support the identification of land that may be suitable for seafood/fishing business development.	5 Planning Analysis 8.10 Torres Strait and Northern Peninsula Regional Plan 2009-2029 8.12 TSIRC Corporate Plan 2020-2025 8.13 Warpil – Fishing for Our Future	ID1, OT4	
15.	The Master Plan should support the provision of a child care facility in the town centre and nearby the school.	2.5 Services and Facilities 5 Planning Analysis 8.10 Torres Strait and Northern Peninsula Regional Plan 2009-2029 8.12 TSIRC Corporate Plan 2020-2025	CF6	
16.	The Master Plan should seek to consolidate the existing CBD area of the township.	2.5 Services and Facilities 5 Planning Analysis 7.1 Initial Consultation 7.2 Community Consultation 8.12 TSIRC Corporate Plan 2020-2025	OT1	
17.	The Master Plan should support the development of cultural centres and arts centres.	2.5 Services and Facilities 5 Planning Analysis 8.10 Torres Strait and Northern Peninsula Regional Plan 2009-2029 8.12 TSIRC Corporate Plan 2020-2025	OT1, CT1	
18.	The Master Plan should investigate opportunities to improve community access to other areas of the island (beyond the township), particularly for recreation, economic and cultural purposes.	8.10 Torres Strait and Northern Peninsula Regional Plan 2009-2029 8.12 TSIRC Corporate Plan 2020-2025	OT2, OT11, OT13, OT14	

#	Direction	Technical Report	Master Plan Projects	Notes
19.	The Master Plan should investigate opportunities for carbon offsetting, both in land and sea areas.	8.2 Queensland Climate Transition Strategy 8.4 Carbon 8.10 Torres Strait and Northern Peninsula Regional Plan 2009-2029 8.12 TSIRC Corporate Plan 2020-2025	OT15	
20.	The Master Plan should identify potential opportunities for alternative energy projects.	8.2 Queensland Climate Transition Strategy 8.4 Carbon 8.8 Renewable Energy 8.10 Torres Strait and Northern Peninsula Regional Plan 2009-2029 8.12 TSIRC Corporate Plan 2020-2025	OT15	
21.	The Master Plan should investigate opportunities to improve communications infrastructure (telephone and internet).	8.10 Torres Strait and Northern Peninsula Regional Plan 2009-2029 8.12 TSIRC Corporate Plan 2020-2025	OT13	
22.	The Master Plan should support the protection and expansion (if required) of the existing landfill site.	2.5 Services and Facilities 6 Infrastructure Analysis 8.10 Torres Strait and Northern Peninsula Regional Plan 2009-2029 8.12 TSIRC Corporate Plan 2020-2025	CF3	
23.	The Master Plan should support the provision of appropriate lighting in key locations in the town.	8.12 TSIRC Corporate Plan 2020-2025	OS1, OS2, CT1, OT1	
24.	The Master Plan should facilitate upgrades to the water supply network in order to secure ongoing water supply, increase storage capacity to meet demand and ensure that appropriate treatment occurs.	6 Infrastructure Analysis 8.10 Torres Strait and Northern Peninsula Regional Plan 2009-2029 8.12 TSIRC Corporate Plan 2020-2025	OT6, OT12	

#	Direction	Technical Report	Master Plan Projects	Notes
25.	The Master Plan should investigate the potential to provide a reticulated sewerage network for the community, which currently uses localised septic systems.	6 Infrastructure Analysis 8.10 Torres Strait and Northern Peninsula Regional Plan 2009-2029 8.12 TSIRC Corporate Plan 2020-2025	OT7	
26.	The Master Plan should be updated to reflect the outcomes of community consultation activities undertaken.	7 Consultation	RS2, CT3, CT4, CF1, CF6, OS1, OT8, OT9, OT10, OT11, OT12	