Dampier Townsite & Foreshore Enhancement Plan

PART ONE

Issue 1: December 2014

City of Karratha

Document Control

EPCAD reports are prepared for a specific purpose for specific client requirements. EPCAD is not liable for any loss or damage incurred by any person relying on such reports or advice, except where they are created by EPCAD expressly for that person.

Nothing in these terms shall be taken as excluding, limiting or modifying any term, condition or warranty implied by any applicable act of parliament that cannot be so affected. To the extent that such a term, condition or warranty is implied, the liability of EPCAD for breach of that term, condition or warranty is, where permitted, limited at the option of EPCAD to:

The supplying of the relevant goods or services again; or

The payment of the cost of having the relevant goods or services supplied again.

Document Title	Dampier Townsite and Foreshore Enhancement Project
File Name	DTFEP Phase 5 Final Report
Author	EPCAD Pty Ltd
Client	City of Karratha

Issue	Issued to	Date	Reviewed
DTFEP Final Report	City of Karratha	15.12.2014	KL
DTFEP Final Report Part ONE Part TWO (A4 attachments)	City of Karratha	05.01.2015	AF

EPCAD

CONTENTS

PART ONE (A3):

PART TWO (A4):

Appendix 2: Coastal Assessment, MP Rogers and Associates

Appendix 3: Community and Council Consultation Record

Appendix 4: Preliminary Opinion of Probable Cost

1.0 Background Information

The Dampier Township is located in Western Australia's Pilbara region approximately 1,570 kilometres North-West of Perth. The town is nestled within the Burrup Peninsula, on what the local Aboriginal people call *Murujuga* (translated – 'hip bone sticking out'), a nationally recognised heritage landscape that sits alongside one of the State's largest resource processing and export strategic industrial estates of equal national economic significance. The port town is situated 20 kilometres West of Karratha.

The town was originally established in 1963 by Hamersley Iron as a 'Company Port Town', however Dampier has become one of the more sought-after residential locations in the region due to its coastal setting and strong community identity. Its permanent resident population reached a peak of 3,858 in 1971. Presently, the town's population sits around 1,370 permanent residents (2006 census).

Recent local planning studies including the 2012 Pilbara Cities Vision, the 2013 Dampier Townsite Redevelopment and Revitalisation Strategy and the current City Local Planning Strategy have had a significant influence on highlighting the future opportunities for the Karratha district and specifically the Township of Dampier.

The 2013 Strategy highlighted the importance of enhancing the towns 'sense of place' and creating a 'place of destination'. With regard to public realm outcomes this included:

- Improvements to streetscapes
- General landscape beautification
- Access amenity along footpaths and roads including the provision of shade
- Public art, and
- A range of place-making initiatives

In addition the Revitalisation Strategy identifies public places that are attractors and require appropriate enhancement to contribute to Dampier growing as a regional and district destination. Public places identified include:

- The Palms beach area, including Hampton Park and Pavilion
- Windy Ridge Oval
- Windy Ridge Boat Ramp Area
- King Bay Gantry, and
- The Red Dog Statue

The 2013 Dampier Community Plan prepared by the local Dampier Community Association (DCA) supports the above recommendations, however provides further clarity with regard to delivering a local vision, values, goals and project priorities.

1.1 Scope of services

As a guide, five (5) phases of design process/deliverables have been set out, as follows;

1. Phase 1 - Coastal Engineering Advice (early appointment)
2. Phase 2 - Background, Site Analysis - Opportunities & Directions (site visit 1)
3. Phase 3 - Draft Masterplan(s) & Staging Plan(s) (site visit 2)
4. Phase 4 - Final Masterplan(s) & Staging Plan(s)
5. Phase 5 - Reporting

1.2 Project Vision

The project vision is to plan and design landscape-led enhancements to the Dampier public realm with a view to improving the designed environment for local residents, enhancing the visitor experience and creating a local landscape that supports growth and visitation for the benefit of the small local economy.

1.3 Project Objectives

Through collaboration with the City of Karratha EPCAD has sought to achieve the following;

- Engage residents and the local community in a meaningful, thorough and productive way;
- Gain understanding of the local social environmental conditions of the town;
- Develop a masterplan that supports community use and engagement, and;
- Develop a strategy for implementation that satisfies the immediate, short-term and long-term needs of the community.

1.4 Methodology & Timeline

EPCAD has created the Masterplan and accompanying documentation through a collaborative process, including internal teamwork, consultation with the community and collecting and responding to feedback from the City of Karratha (CofK) representatives.

In preparation of the Dampier Townsite and Foreshore Enhancement Plan the following timeline was followed;

Phase 1: Coastal Engineering advice undertaken by MP Rogers

Site Visit 14th-15th October 2014

Final report prepared in response to the final Masterplan (included as an appendices)

Phase 2: Opportunities and Directions

Site visit (2x Landscape Architects) 15th October 2014

Phase 2 Plans submitted to CofK for comment 21st October 2014

Phase 3: Draft Masterplan(s)

Submitted to CofK for comment 7th November 2014

Site Visit (3x Landscape Architects) CofK briefing and workshop, community workshop

Community Workshop Report submitted to CofK for comment 19th November 2014

Phase 4: Final Masterplan (s) and Staging Plans

Submitted to CofK for comment 1st December 2014

Phase 5: Report

Submitted to CofK for comment 15th December 2014

At each submission milestone comments and input have been received from the City of Karratha and recorded, as enclosed in the Appendices.

2.0 Site Analysis

EPCAD has undertaken a desktop site analysis which has been 'site-proofed' by two Landscape Architects on several occasions since 2012, including consultation with the City of Karratha and recognises the efforts of the DCA for which have been incorporated into this report. This assessment has informed the landscape opportunities and constraints which have been outlined herein and compared against true site conditions.

2.1 General Observations

It is apparent from site analysis and survey that the location of the Dampier townsite in 1965 was influenced by a combination of cultural and natural factors. It was originally developed to house the employees of the mining and port operations and it has been constructed on the most accessible and convenient site in relation to the mining operations.

Dampier is located on the Pilbara coast, between the Dampier Port Facility to the North, Railway lines to the East, Causeway to East Intercourse Island to the South and Mermaid Bay and the Port Navigation Channels within the Dampier Archipelago to the North-West.

The townsite is located and oriented so as to maximise physical and visual access to beaches and the coastline. Facilities including boat ramps, beachside barbecues and gazebos reflect the community's connection with the coastline.

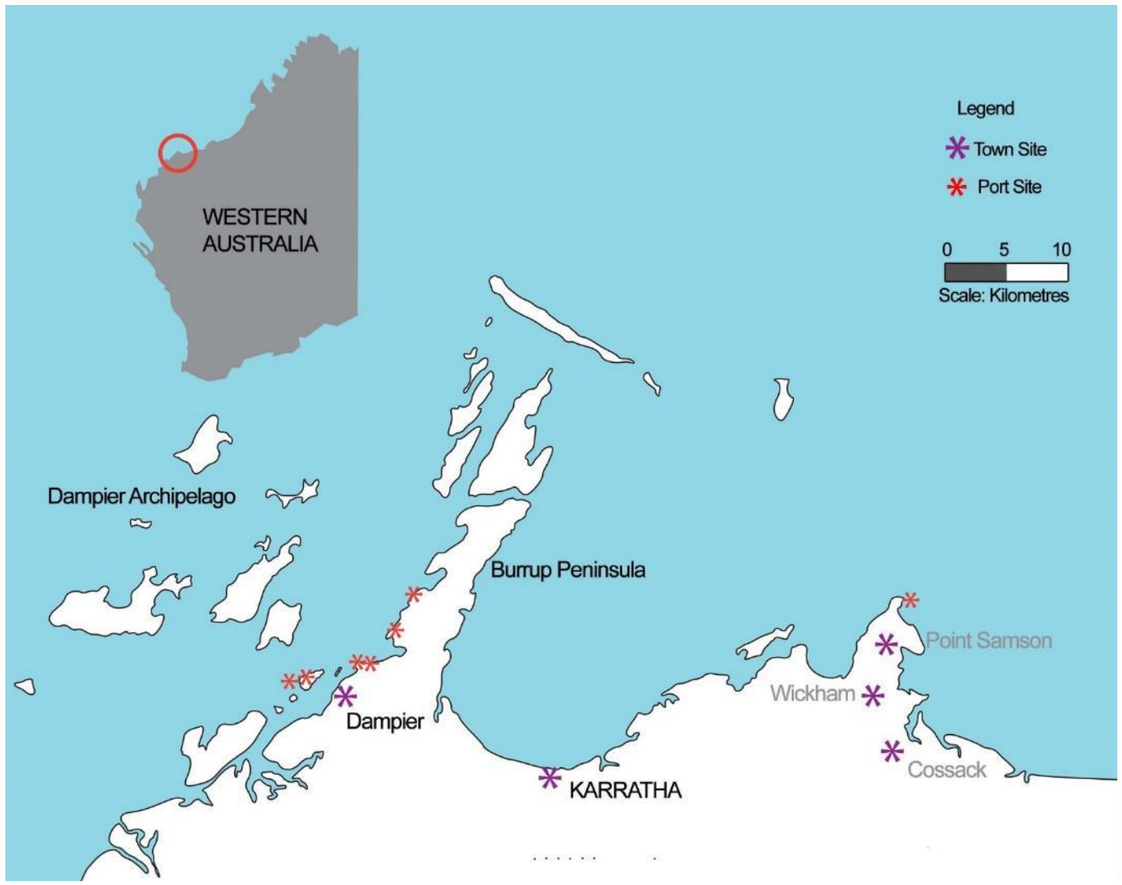


Figure 1: Dampier Location Diagram

Figure 2: Street Map of Dampier

2.2 Topography of Dampier

Generally the townsite slopes down to the beach in a north-westerly direction.

The “ring road” (Hill Road and Hampton Drive) that circles the main residential area sits between 25-30m above sea level at the back edge of the townsite, and the residential area slopes down towards the coastline (to 0m above sea level) from this height.

The residential blocks have been sited across the slope between natural and constructed lateral drainage lines. The roads have been terraced across the slope in response to drainage requirements and to maximise exposure to the coast.

The immediate local coastline is characterised by outcrops of rock interspersed with deposited sand beaches. An exposed rock edge 2-3m tall exists along the storm-surge line. High and Low Tides range up to 3.6m which leaves muddy tidal zones and rocky edges, and increases the beach width by up to 20m during lowest tides.

The coastline area also includes reclaimed land at the public boat ramps and the Yacht Club Boat ramps.

South of the Dampier townsite, a causeway has been built between the mainland and East Intercourse Island for mining/port operations.

2.3 Geology of Dampier

Figure 3: Areas of Exposed, Rocky Landscape

Dampier is located on an area of Granophyre with occasional portions of Gabbro. The combination of this geology at Dampier is called the Gidley Granophyre (Hickman 2001).

“Granophyre” A fine-grained igneous rock composed of quartz and alkali feldspar with a distinctive intergrowth texture.

“Gabbro” an intrusive rock composed of feldspar and pyroxene; the intrusive equivalent of basalt lava (Hickman 2001).

The rocky boulder-outcrops, composed of Gabbro, have been exposed by preferential weathering.

The boulders split under natural environmental conditions which gives the appearance of the boulders being dumped and split by machinery, rather than an eroded and weathered rock face.

Areas of exposed rock surrounding the townsite are characteristic of a landscape that is difficult to modify and build upon.

Aboriginal Petroglyphs (rock art) have been identified at The Burrup Peninsula and Dampier Archipelago and are considered of archaeological and cultural significance, both at the national and international levels. In 2007 the Federal Government included these areas on the National Heritage List in recognition of their importance.

The proposed 5,000 hectare National park within the Burrup Peninsula, has now been granted protection under the Conservation and Land Management Act 1984 (CALM Act). Now called the Murujuga National Park it is jointly managed by the representatives of MAC and the Department of Environment and Conservation (DEC). (Department of Environment and Conservation, 2013)

Given the proximity of the Dampier townsite to The Burrup Peninsula, it is expected that there MAY be petroglyphs present within the vicinity of the townsite. Investigations by Indigenous Heritage Experts will identify locations of significance and advise how these are to be treated respectfully.

2.4 Drainage Reserves & Patterns of Dampier

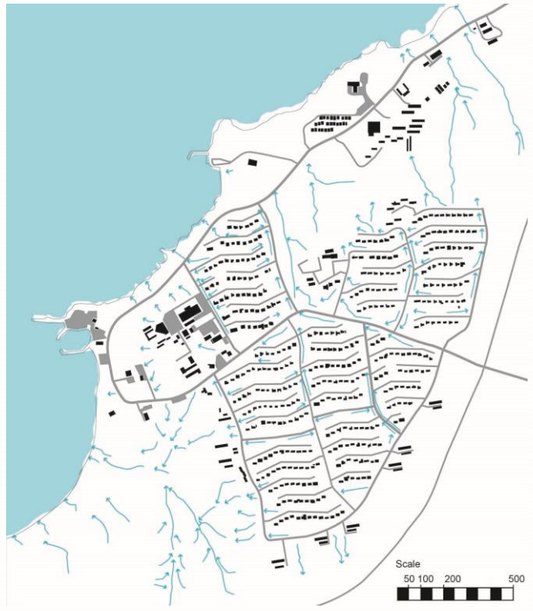


Figure 4: Drainage Patterns, flow directions

Dampier features a combination of natural drainage lines and constructed stormwater corridors.

Natural drainage lines exist across the landscape to transport high volumes of rainfall down to the coast. Before development of Dampier, it can be assumed that there were drainage lines running throughout what is now the townsite. These natural lines have been modified during construction of the town.

The drainage infrastructure within the residential streets consist of roadside swales, culverts, kerbs and, occasionally, side-entry pits.

The existing drainage reserves feature an abundance of weed grasses, groups of natural boulder formations, and pockets of remnant natural vegetation. Some residents store boats, trailers or cars within the reserve behind their property, whilst other residents have created rear access driveways across the reserves.

The town centre precinct features large-scale drainage infrastructure in the form of formal box channels beside the road up to 0.5m deep and 2m wide. These channels have been constructed with local stone walls. Refer to photographs below.

Storm water is directed to the coast and discharged into the bay through culverts, storm drains under The Esplanade, or via surface channels.

2.5 Climate of Dampier

The Australian Bureau of Meteorology classifies the City of Karratha, including Dampier and Karratha, as located within an Arid Climate. This is characterised by low rainfall average of less than 350mm per year, desert vegetation types and persistently hot, dry weather.

The local weather station is “Dampier Salt” which provides rainfall and temperature measurements. Data has been collected from this location since 1969.

All Climate Data and chart information sourced: Australian Government, Bureau of Meteorology (2011) Recorded data from Dampier Salt Weather Station, www.bom.gov.au [accessed: 2011-10-07]

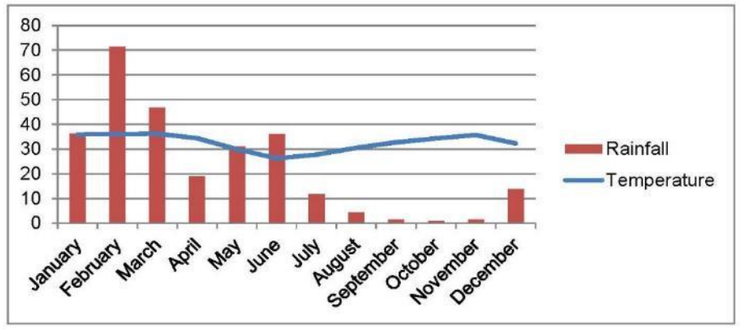


Figure 5: Rainfall and Temperature graphic

Temperature

Maximum temperatures during December through to April are consistently higher than 35 degrees with individual daily temperatures exceeding 40 degrees Celsius not uncommon. The cooler months of June through to August average maximum daily temperatures between 25 and 30 degrees. The coastal location of Dampier means that extremes in daily minimum and maximum temperature are not common, even though extreme diurnal range is typical of a desert climate.

Rainfall

Dampier receives an average annual rainfall of 230mm per year. The majority of rainfall occurs during warmer months January, February and March.

Much of the rainfall is delivered over a very short time during cyclonic conditions or from rain-bearing depressions. Drainage infrastructure throughout Dampier has been designed to accommodate large volumes of water in short periods.

Winds

Prevailing winds are west to south-westerly from October to March, except during cyclonic conditions, and easterly throughout June to August. This pattern also aids in the regulation of local temperatures with the sea-breeze delivering cooling sea air in warmer months.

South Westerly winds average 15-20 knots and the easterly winds average 20-25 knots.

Local wind is also influenced by the archipelago, with islands diverting and directing wind. This creates leeward bays, and a natural environment for refuge from heavy seas.

Cyclones

The official cyclone season occurs between 1st November and 30th April. Typically up to three cyclones per year cross within 200km of Dampier (BOM, 2011).

Refer to Figure 6 showing the path of each cyclone that affected Karratha, Dampier and Roebourne and the year in which they occurred between 1911 and 2006.

Cyclonic winds can exceed 200 km/hour and design standards are created to meet this extreme, data collected at Dampier Salt weather station is shown below.

During a cyclone the tidal surge and swell typically comes from a northerly direction and can reach levels of 6-9 metres above the current tide level. Some protection is provided to the mainland by the nearby islands of the Dampier Archipelago.

Source: Australian Government, Bureau of Meteorology (2011) Cyclone Paths affecting Karratha, Dampier, Roebourne (1911-2006), www.bom.gov.au [accessed: 2011-10-11]

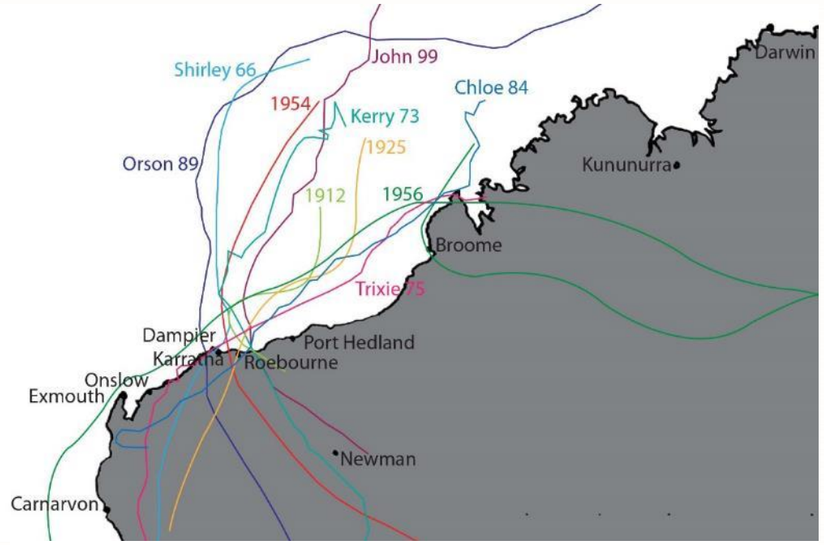


Figure 6: Cyclone paths affecting Karratha, Dampier and Roebourne between 1911 and 2006 (BOM)

2.6 Vegetation

Generally the vegetation within Dampier can be categorised into three groups:

1. Residential Greening: Trees, shrubs and lawn associated with front and back yard gardens. On some occasions residential gardens encroach into adjacent drainage reserves.

2. Civic Greening or Public Amenity: associated with sport facilities, school grounds, civic parks and the foreshore.

3. Remnant natural vegetation: existing within natural and constructed drainage corridors, includes trees, shrubs and spinifex grasses.

Figure 7: Existing Tree Cover

2.7 Public Space

Whilst not formalised as Public Open Space a large portion of public space exists within Dampier that is utilised for formal and informal public amenity and purpose;

The two sports ovals anchor the ends of the foreshore area, whilst formal sports courts and grounds occupy the south-western corner of town including basketball, tennis, squash and lawn bowls.

Jurat Park and the Civic Square are located within the Town Centre, the Lions Park and the community park are located along the main spine into town.

The foreshore is actively used for recreational purposes, including boating, fishing, swimming and kite surfing. Facilities along the foreshore include barbecues, picnic shelters, toilets, and boat ramps.

Figure 9: Public Green Space (including non POS)

2.8 Accaccessibility

Liveable Neighbourhoods policy (for the Perth Metropolitan Region) requires that local parks should be located within a safe walking distance from all dwellings. A safe distance is considered to be 400m. The Pedshed Diagram identifies a 400m radius walkability zone from the major amenity spaces. The remaining area that does not have public space amenity within an acceptable walking distance has been highlighted.

Public space is currently accessible to approximately 60% of the residential units/lots within Dampier. The main areas without amenity are the motel and Caravan Park north of town, and the residential area in the south and north of town.

It should be noted that Liveable Neighbourhoods' pedshed tool is designed for Perth suburbia and does not take into account the harsh climate or topography of Dampier. The scale of the tool may be reduced to reflect the conditions on site.

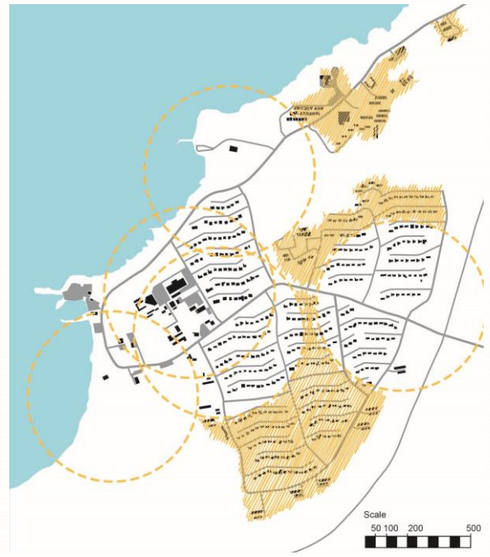


Figure 8:Pedshed Diagram

2.9 Pedestrian Connectivity

Consistent with the vehicle circulation network (as identified by others), the pedestrian network is discontinuous and intermittent.

Most road reserves include a 1.5m concrete footpath beside the kerb, which allows for the comfortable passage of a single person. However when two people pass one-another, one person is likely to step off the path.

Figure 10 shows the footpath locations throughout town (Red). Informal tracks created by pedestrians and vehicles indicate desire-lines where people have cut-across the landscape (Gold).

2.10 Legibility

The main entry road into Dampier changes names on multiple occasions; Dampier Road to Central Avenue at the first intersection in town, then Central Avenue turns sharply right as Church Road continues onward and then Church Road becomes The Esplanade.

Dense vegetation and bends create a confusing network of streets. Cul-de-sacs and no-through roads further increase confusion for visitors and residents.

Figure 10: Existing footpaths and informal tracks

2.11 Landscape Character Analysis

To better describe the Dampier townsite the area can be categorised into four precincts based on the landscape characteristics of each;

The Foreshore Precinct: The strip of land between The Esplanade and the low-tide mark, predominantly used for recreation.

The Town Centre Precinct: Bounded by Church Road, High Street, and The Esplanade containing the retail and community facilities.

The Residential Precinct: A series of terraced cul-de-sacs servicing residential properties including stand-alone and group-housing, and

The Undeveloped Landscape: a remnant natural landscape surrounding Dampier.

Figure 11: Landscape Character Areas

Foreshore Precinct

Occupying the portion of land between The Esplanade and the low-tide mark, the Foreshore Precinct is unique due to its immediate relationship with the bay.

Key features:

- Two naturally occurring bays divided by the Yacht Club and WWTP facilities,
- Slight gradient in comparison to all other areas of the townsite,
- Deposited sand beaches,
- Rocky outcrops and spits (natural and man-made),
- Constructed rock groynes and spits that protect boat launch facilities,
- A park area dominated by Coconut palms at the Dampier Pavilion and Hampton Oval,
- Occasional small trees or palms along The Esplanade,
- Views at water level of the archipelago and shipping channels,
- Views of moored boats (sail and motor powered) in the immediate bay, and of ships in the distance,
- The Esplanade creates a delineation of the boundary between developed land and the foreshore,
- Development confined to the Waste Water Treatment Plant, and Yacht club facilities,
- Strong recreational use, including water sports, exercise, Soccer Pitch and Cricket Club.
- Public shelters, public ablutions and barbecues scattered along the length of each bay
- 1.5m wide concrete footpath between boat ramps and sporting ovals at each end of the bay
- Boat ramps with large, expansive gravel car parks that are utilised to full capacity on weekends but sit relatively empty during weekdays.

Town Centre Precinct

Bounded by Church Road, High Street, and The Esplanade containing the retail and community facilities the Town Centre Precinct is characterised by an open arrangement of buildings that have been developed over a number of years in reflection of the needs of the community.

The precinct is not oriented to take advantage of any particular views/vistas but is concentrated to provide a “one-stop-shop” that is predominantly accessed by car, rather than on foot.

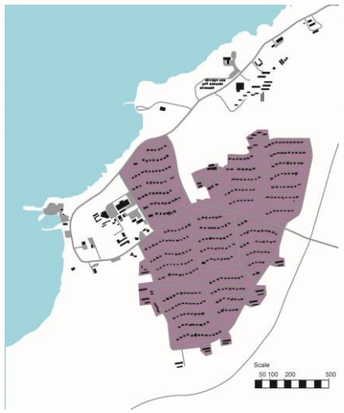
Key features:

- The precinct is enclosed by the main road, Church Road becoming The Esplanade, and High Street,
- The central car park is surrounded by the Mermaid Hotel (Hospitality) Police Station (Public service), the Dampier Shopping Mall (Retail), but is only accessed via Neilsen Place off High Street,
- Community facilities including Library, Church and Primary School concentrated closer to the residential areas providing good pedestrian accessibility,
- Multiple sports clubs and facilities concentrated closer to coastal area, disconnected from one-another by steep slopes,
- The architecture and lack of maintenance gives the townsite a dated appearance,

- The shopping centre does not have any frontage to roads and is accessed via two doors at either end. There is no clear sense of arrival and a lack of connection with the surrounding environment,
- Public property boundaries are not clearly defined with the exception of the sports clubs and primary school which are fenced,
- A formalised Civic Park has large shade trees planted in groups of 3 and 4 (Albizia and Eucalyptus). Well-maintained and irrigated lawns underneath provide a cooling effect and a sense of civic space. The local skate park is also located within the Civic Park,
- Dramatic natural topography has resulted in limited legibility and connectivity. Haig Street that services the Squash, Tennis courts and Jurat Park is substantially lower than the adjacent basketball courts and the Mermaid Hotel. There is no provision of access between the Town Centre and this adjacent landscape,
- A portion of undeveloped land divides the Town Centre precinct from the Foreshore. The topography and rocky nature of the site have deterred development,
- The community are about the embark on the construction of the Community Hub within the centre of the precinct, this will become a centre point for the community and will command appropriate public realm landscape.

Residential Precinct

The Residential Character Area consists of a series of terraced cul-de-sacs servicing residential properties including stand-alone and group-housing, and is characterised by single-sided streets and drainage corridors.



Key features:

- Uniform streetscape model provides one-sided frontage to a row of houses, and has an open drainage channel and overland flow route for greater rainfall occasions on the lower side of the road,
- Frequent No-through roads limit connectivity and circulation through area,
- Residential dwellings of various scale and architecture, typically oriented north,
- Generally most properties have boundary fences and gates of varying materials and scales, restricting physical and visual access into private spaces,
- Remnant natural drainage channels containing large boulders that have been overgrown with weeds but also containing native wildflowers,
- No apparent street tree or urban-greening strategy; some streets have plentiful vegetation maintained by the homeowners, whilst other streets have no vegetation between the home and the street,
- Vegetation within the non-private space is generally un-managed, self-sown grasses, shrubs, trees or palms, with few exceptions where it appears the residents have built and maintain pockets of landscape for public use and enjoyment,
- Open drainage channels, man-made or natural that have been amended or occupied by residents for rear access to properties, storage of boats, trailer and caravans, or for creation of extended backyard gardens,
- Views available of the archipelago from some areas, depending on height and growth of vegetation,
- Poor connectivity of streets and tall, sometimes overgrown, vegetation results in poor legibility.

Undeveloped Landscape

The Undeveloped Landscape is the remnant natural landscape that surrounds and, sometimes, reaches into the Dampier townsite. The qualities of the natural landscape possibly influenced the development of the town due to the inherent difficulty to earthwork and build upon, cultural significance or the mining developer meeting the demand for residential dwellings.

Key Features:

- Desert spinifex over rocky boulder-outcrops,
- Dramatic undulating and varying landform, including drainage gullies and protruding knolls,
- Taller vegetation (Coolibah gum trees and Brachyciton) found within lower natural drainage lines due to greater supply of water and sometimes softer earth means that they do not appear prominent in the landscape.
- The natural landscape dominates the visual qualities of the area and is present within all character precincts. The important and valuable components of the natural landscape are;
- Material- natural or amended,
- Vegetation as a strong component of identity
- Views of the archipelago and also up and down the coast.

3.0 Opportunities & Directions

The opportunities and directions plan was prepared following site analysis and an intensive site review with the City of Karratha to identify the sites and discuss elements that must be considered in preparation of the Masterplan.

The Opportunities and Directions plan was to consider;

- Precinct themes
- Entrance statement(s)
- Streetscape amenity/enhancement
- Foreshore amenity/enhancement
- View lines
- Pedestrian amenity
- Visitor amenity
- Passive/active recreation

Key outcomes within the Opportunities and Directions plan are;

The foreshore as a total space spans from Hampton Oval and the Palms to Windy Ridge Oval and the Boat ramps.

The walkability along the foreshore, and throughout town is not pleasant for locals and visitors, discouraging short-distance walking and reinforcing a dependency on cars.

The existing recreational use of the foreshore and The Esplanade footpath is concentrated at the ends of the day or weekends, for both immediate locals, and day visitors from Karratha meaning that these spaces can be over-crowded and, particularly along The Esplanade footpath, unsafe for users.

Connections between small nodes within town are unlit, undefined and lacking passive surveillance which can be unsafe throughout day and night, for example paths or “desire lines” between the school and the community hub, or the Boating Club and the Shopping Village. Improving and formalising connections between existing and proposed sites will reinforce the end outcome of the masterplan.

The single in-and-out entrance to Dampier does not announce arrival or provide a sense of place. The Red Dog information bay is over-crowded with multiple signage, advertising and vegetation and it is very difficult to take a scenic photograph with Red Dog.

Navigation, particularly for visitors, around town is not intuitive or legible. The main road changes name 3 times and it is unclear where swimming beaches, boat ramps and, importantly, the shopping village are. This can discourage visitors from calling in or stopping for a quick coffee or an icecream.

Generally there is a lot of furniture, signage, artwork and structures throughout the Dampier town site and foreshore, however it is apparent that these have been installed on an as-needed or as-funded basis and without an overall furniture palette or strategy for placement of amenity. This creates a collage effect rather than a cohesive community aesthetic.

3.2 Foreshore Promenade and Enhancement:

Development of a coastal precinct must consider increasing pedestrian connectivity within the Foreshore area by removing barriers, including the waste-water treatment facility (WWTP)*, bridging over groynes and rocky outcrops and increasing connected public amenity with paths between beaches and barbecue facilities, increasing shade through vegetation groups and/or structures, and increasing usability of the coastline through improved beach access, car park facilities for beach-users, wash-down and public toilet facilities.

Use of The Esplanade as an exercise route can be further enhanced by reinforcing a continuous circuit anchored by the two sports ovals and with discrete distance markers to gauge performance. Widening the footpath from 1.5m to between 2m and 3m along the edge of the kerb will improve user safety and perceived comfort in relation to large vehicles.

Amenity areas along the foreshore should coincide with beaches that are easily accessible and suitable for swimming and recreation. Identifying these beach areas will allow for the concentration of assets and amenity at key locations rather than scattered along the entire foreshore.

3.3 The Palms and Hampton Oval

The Palms have been identified as a priority location for design and implementation of landscape and foreshore improvement works. The existing space is heavily utilized by both locals and visitors. Recent internal renovations to the Dampier Pavilion support the increased use, while expansion of the barbecue and shade amenities within this area would further enhance the usability of The Palms.

The turf oval space is larger than the playing fields, it may be possible that some of the excess turf material and irrigation allocation be used to expand turf areas along the beach front, to create a larger lawn area on the foreshore without requiring an increase in irrigation and maintenance provision.

The car park areas (both land-side and beach-front) have informal access from The Esplanade around the bend in the road. This can be unsafe and is difficult to manage during events which are hosted at the oval frequently. The car parks are subject to surface drainage flows and are also threatened by high-tide and storm surge along the foreshore edge. Sealing and reformation of the car parks is noted as a priority for the City.

3.4 Feature Entry Area

The existing information bay and Red Dog interpretation area is a key site of public interest however it currently does not draw the attention it deserves from people as they drive into Dampier. Redevelopment of this area would also allow an opportunity for a more iconic and planned Tourist Information node that encourages visitors to enter and engage with the town and support local businesses. This node may incorporate public facilities, such as picnic tables and shelter, whilst also providing a ‘gateway’ to Dampier.

3.5 Existing Amenity

There is a large and varied number of beach shelters, picnic areas, bins and other amenity articles throughout the town site and the foreshore areas. Some units are deteriorating rapidly, others have been recently installed, and others are robust long-standing components. There is no cohesive pattern or palette of materials and manufacturers, indicating that many of the components have been installed at different times, as needed or as funding has become available. As many of the components are due for replacement in the near and further future, these may be replaced with pieces following a cohesive Dampier Palette. Furthermore, consolidation of amenity units to strategic locations will aid in management, maintenance and future replacements. A consistent suite of furniture incrementally installed throughout town can reinforce a sense of place, identity and community pride whilst spreading the capital outlay over a number of years of project stages.

3.6 Interpretation and Education through Landscape

Dampier town site and surrounds has many unique points of interest. The development of interpretive nodes, a walking trail, educational signage and plaques, artwork and play scapes provides many opportunities to convey information to residents and tourists.

There is a variety of information that may be portrayed and may include, but is not limited to;

- Petroglyphs (indigenous rock art) located across the local area and with reference to the importance of the Burrup Peninsula
- The European discovery and documentation of Australia and early experiences
- The development of Dampier by Hamersley Iron
- The story and mythology of Red Dog
- The geology of the Dampier landscape
- Map of the Dampier Archipelago
- Indigenous stories, travelling routes
- Natural food sources through a bush-tucker garden
- The journey from mine-to-home of minerals through Dampier (e.g., mining process, shipping route, destination, processing and typical product outcomes)

The sites for public art and interpretation should coincide with key development areas, or enhanced areas of the foreshore and town site.

3.7 Public Arts Programme

Through partnerships with local artists and indigenous artists there is an opportunity to enhance the environment of Dampier and develop a local identity through art.

Public art may take the form of structures, pattern-making, story-telling, interpretation or interactive pieces strategically placed within the public realm.

An arts programme may include producing a Way-finding Strategy with signage and footpath markers, a custom-developed Children’s playgrounds, Story-telling and Interpretive Signage or Interactive Education Tools. These initiatives help to create a local identity and enhance the sense of community.

* It is recognised that moving the waste water treatment plant (WWTP) is a significant undertaking and is subject to many factors that are beyond the scope of this project. With this in mind it is still important to convey that this project is relevant in both scenarios where the WWTP exists in its current position, or where the WWTP is relocated to an alternative location.

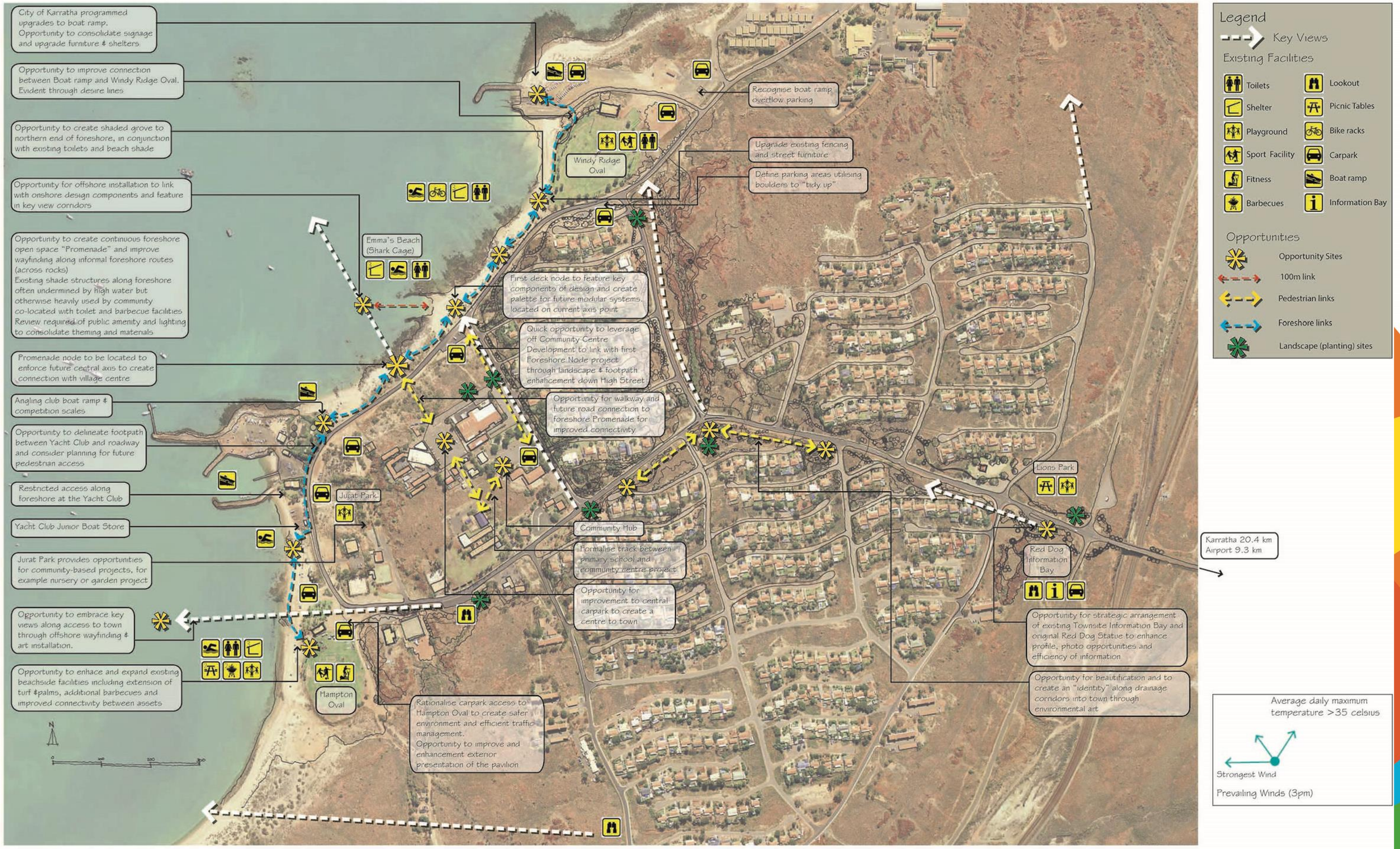


Figure 12: SITE ANALYSIS, OPPORTUNITIES AND DIRECTIONS PLAN: October 2014 [file: DTFEP-Phase 2 plan.ai]

4.0 Community Consultation Workshop

4.1 Methodology:

City of Karratha advertised within the Dampier community for interested persons to attend a Community Workshop to review the draft Masterplan proposal by EPCAD.

The presentation covered the site analysis, principles of the opportunities and directions plan, and then explanation regarding the draft Masterplan and detailed area concepts. The Slideshow and collated workshop notes are included in the Appendix B to this report.

Immediately following the presentation the participants split into 4 smaller groups accompanied by 1 EPCAD representative or City of Karratha representative to discuss the proposals, make comment and workshop further input into the Masterplan.

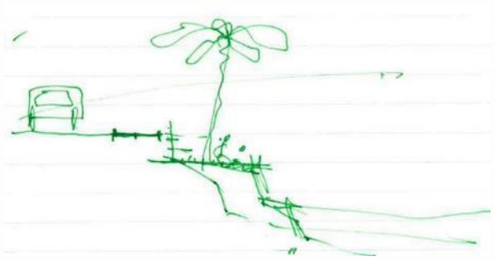


Figure 13: Sketch from Community Workshop, indicative of discussion between residents and design consultants

4.2 Participants:

- 14No. Residents
- 5No. City of Karratha Staff (4 people represented the City whilst the fifth person attended as a resident)
- 3No. EPCAD presentation team
- Comments and feedback from City of Karratha via meeting and email communications.

4.3 Sentiment of Feedback

Generally the feedback from the community was positive towards the proposals. The community provided further amenity/infrastructure needs to be included in each of the detailed areas to further enhance existing community use of each space. The community made many comments with regards to the over-consultation of the community, indicating that many plans have been proposed without delivery. Between the four workshop groups many of the same items were raised and discussed, generally with the same desire or outcome, however, in some instances feedback was conflicting.

For example all groups discussed the need for infrastructure to support the Outdoor Movie events, however feedback was divided upon the priority of formalising the footpath connection between Hampton Harbour Boat and Sailing Club (HHBSC) and The Mermaid.

Generally the feedback from the City of Karratha was that the plans were not ambitious enough. However, the City of Karratha comments (as incorporated into the collated feedback schedule) noted support of many components and features noted on the Masterplan and detail area concepts. Some of the City of Karratha feedback has been considered by colleagues, meaning that there is consensus on the feedback for some items, however where comments have been presented by a CofK individual these sometimes conflict with comments provided by other representatives of the City of Karratha.

4.4 Key Similarities:

Similarity between the community and the City of Karratha feedback was;

- In support of the identification of the Foreshore between Hampton Oval and Windy Ridge Oval as the extent of works for the purposes of the Masterplan;
- In support of splitting the car park area at Hampton oval to create a safer environment;
- In support of consolidating the turf around Hampton oval to enable expansion of the turf along the Foreshore;
- In support of streetscape enhancements throughout the townsite;
- In support of review of amenity and furniture suite for Dampier;
- In support of increased shade throughout the townsite;
- In support of public art strategy incorporated within the Masterplan; and
- Agreement that Foreshore enhancement works were a very high priority in allocation of funding.

4.5 Key Differences

The key differences between the community and the City of Karratha feedback was;

- Divided support with regards to the enhancement of the entry area;
- Divided opinion on the priority to seal car park areas in relation to allocated “beautification” funding; and
- The community was not vocal with regards to focus on the Windy Ridge node as a detail area concept, but indicated support based upon proposed node shown on the Masterplan.

4.6 Outcomes from feedback

The following key outcomes have been identified by EPCAD through review of the feedback to the Draft Masterplan:

- Planning priority to be given to enhancement of the Foreshore area (referring to the space between Hampton Oval and Windy Ridge Oval)
- The Palms & Hampton Oval detail plan to incorporate design features and infrastructure to support events at Hampton Oval (permanent footings for a movie screen, small platform or amphitheatre space for soirees and small groups)
- Staged implementation of works (as proposed by EPCAD) to take into account budget for “beautification and enhancement” works for stage 1, and improvement of infrastructure as secondary priorities.
- EPCAD to create a detail plan of the Windy Ridge Beach Node as a book end to the Foreshore development area.
- EPCAD to show suggested enhancement to the Hampton Pavilion (through repositioning in future staged works)
- Inclusions and considerations with regards to proposed enhancement of the Entry area to be included on detail area plan and artist’s impression.
- An Amenity strategy plan should accompany the Masterplan package noting proposed locations for various amenity features particularly along the foreshore (including shade structures, ablutions, water fountains, bins and general furniture).

5.0 The Masterplan

5.1 Rationale

The Masterplan and all components within Phase 4 of the project have been prepared on the foundations of;

- Site-proofing;
- Consulting with the public (refer 4.0);
- Workshopping with City of Karratha through multiple presentation and feedback occasions;
- Logically showcasing the assets of Dampier;
- Creating economic catalysts (e.g. bringing visitors into town and allowing them to access the village centre and support existing local businesses); and
- Tangible delivery of on-ground enhancement works for Dampier.

5.2 Introduction

There are tenure and land ownership factors that may impact or affect some elements proposed within the project. The design team has endeavoured to consider these as far as possible, however resolution of these issues rests between the City of Karratha and the landowner as applicable.

5.3 Masterplan

The Masterplan has been prepared as an overall strategy for enhancement to Dampier. This plan is intended to be utilised as a guiding document to identify works for upcoming projects, now and into the coming years, therefore the plan shows long term or “wish list” items as well as more practical and immediate project items.

The Masterplan makes reference to a range of projects, and also identifies detail sketch areas with more information.

The Promenade

The Foreshore Promenade extends from The Palms & Hampton Oval to Windy Ridge Oval & the Boat ramp. Three main node locations have been detailed further on accompanying sheets. The promenade would incorporate both foreshore enhancements and lookouts but will include widening of the footpath as identified as a high priority by the community. The Promenade as a seafront public walk would be bookended by two nodes, The Palms and Windy Ridge Beach.

As part of the staged development of The Promenade EPCAD believe the best the strategy for implementation is to commence construction of The Promenade from the Shark Cage node and outward in three directions,

1) Up High Street to the shopping village and community hub through streetscape enhancements;
2) North-East to Windy Ridge Beach node; and
3) West and South toward The Palms node.

Location of a fourth node is sited to align with the pedestrian bridge connection from the Village centre. The pedestrian bridge connection is proposed to identify a future division through the front lot aligning with the road reserve in the village centre, and will, in the future, create a legible pedestrian connection from the foreshore up to the village centre space. Refer to Figure 14.

Clear definition of the footpath in front of the WWTP and Hampton Harbour Boating and Sailing Club (HHBSC) is critical for public safety. Delineation of the path around the sweeping bend should be considered critical.

The Plan shows the future possibility of relocating the waste water treatment plant (WWTP) as discussed previously in this report, we wish to convey that this Masterplan would be suitable to apply in the immediate future as well as in the long term future. Relocation of the WWTP will enable for the Promenade to better connect along the entire foreshore however The Promenade can still successfully function without relocating this piece of significant infrastructure. Consecutively, creating a pedestrian connection along the foreshore is also impeded by the HHBSC in that the security required in this location restricts access away from the roadside. Formalising a footpath around this industrial/recreational venue will improve connectivity and bring people away from The Esplanade where pedestrian connectivity in front of the WWTP is poor.

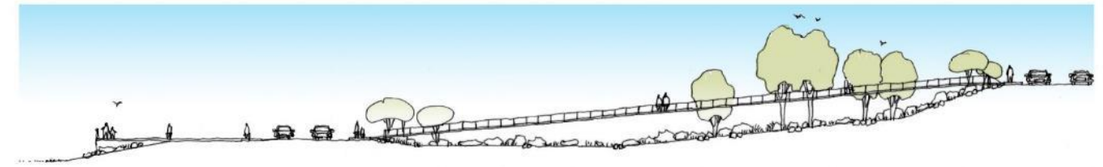


Figure 14: Sketch of pedestrian connection between The Esplanade foreshore and the village centre

Connecting the northern beaches with The Palms and Hampton Oval is shown indicatively with both a beachside connection and a road-side footpath beside The Esplanade to support the variety of users, e.g. circuit exercise, beach recreation, and family bike ride.

Wayfinding along the shoreline will enable users to safely navigate the exposed rocks and sandy beach areas as part of the greater healthy opportunities offered in Dampier.

Connectivity

Connectivity throughout the Village Centre between key locations have been shown on the plan, including between HHBSC and the Mermaid, the Primary school and the community hub, and generally along High Street as we strongly advocate safe and comfortable paths to encourage pedestrian circulation in what is ultimately a hot climate.

Connections between locations that young people access and use is an important element for the community. Ensuring that children and teenagers not only have a place to recreate but also that they can safely ride, walk or skateboard there and home can support the life of a town like Dampier. The existing footpath network is discontinuous in some locations or don’t easily connect one youth venue to another, e.g. the beach and the skate park.

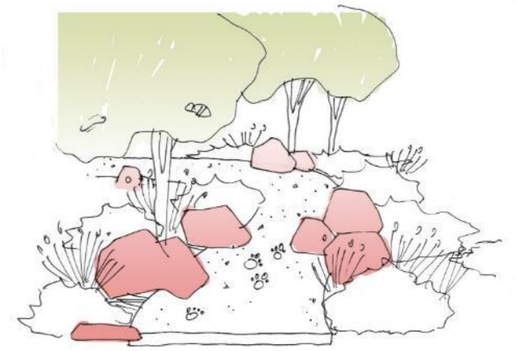


Figure 15: Sketch of informal pathway connection cutting between boulders and existing topography

BMX Park

The DCA have identified a BMX park as a possible future project for youth recreation. Siting of this facility should consider passive surveillance, access, conflicting public activities (i.e. avoid siting a noisy youth hangout next to a retirement village), available land and landform. The site identified on the masterplan may be subject to tenure arrangements however does suit many other considerations.

Connecting the BMX Park with the townsite and ensuring that users can easily ride to and from the park has been considered at a masterplan level, showing a direct access route along The Esplanade and up High Street to the existing skate park in the village centre. The BMX or skateboard connection should be surfaced with a continuous material (i.e. bitumen rather than concrete path panels) and could incorporate some “adventure” obstacles along the way using existing topography and the drainage corridors for incidental BMX tricks.

Jurat Park

Jurat Park is not recognised as POS on the town scheme, and therefore we have kept this space low-key on our Masterplan. However, following community feedback we have identified that improved connections between Jurat Park and the promenade are desired and may improve the use of this space.

Temporary or transportable uses may be considered within Jurat Park to enable the “owners” long-term vision whilst allowing interim activation of the space, for example transportable community gardens or community activation of the space that in the future may be relocated to another community area. These types of projects may be undertaken by the DCA or other residents groups.

Facilitating opportunities within Jurat Park has been considered but notes some of the following constraints;

- The park has no overlooking properties or roads, therefore the passive surveillance opportunity is low making it difficult to manage safe use of the park;
- Long term availability of irrigation water, and;
- Availability of easily accessible and easily visible public spaces;

Feature Entrance

We have continued to show the Feature entrance as a key area for consideration in the beautification and enhancement of Dampier as it is unique for a regional community in WA to have a single entry/exit point to town and therefore this should be enhanced to create a statement for the community, and a sense of arrival for visitors. Through the community consultation it appears that the DCA have identified this as a key project they may undertake, therefore it is important that this area be included on the Masterplan to ensure that the works done by various groups have a consistent theme, palette and language, rather than a disconnected variety of projects.

Environmental Improvements

The masterplan notes key sites for environmental improvements such as shade tree planting, eradication of weeds and planting of iconic local native species, these sites coincide with main traffic intersections and along pedestrian routes.

The village centre car park clearly indicates the issues regarding public and private space management. Delineation of the road reserve through line marking and street tree planting will not only clearly show the extent of CofK management responsibility but will introduce shade trees into an otherwise unpleasant and uninviting landscape.

Consolidation of signage and amenity at the boat ramp can ensure clarity and reduce clutter in the public realm.

Public Art locations have been indicated on the Masterplan as described within the DCA plan and discussed at the community workshop. Linking the public art project with the CofK beautification projects will bring elements together and create a cohesive public realm.

Improving street lighting, particularly in relation to the pedestrian network will support a walkable environment.

Formalising car park areas through the placement of medium-sized boulders around the edges will deter users from further encroaching into vegetated areas and will help define the outer edges for resurfacing works as they are required.

Figure 16: Dampier Townsite and Foreshore Enhancement Masterplan

5.4 Amenity Strategy

This plan should be read in conjunction with the Masterplan, as a diagrammatic representation showing where amenities should be strategically located around the Masterplan. Some amenity units are currently located correctly, whilst other units are sited in between key nodes. The amenity strategy plan shows the long-term location of amenity items such as bins, water fountains etc. and can be used by the City when considering replacement of existing units that have deteriorated. Instead of scattering these units across the town site they can be strategically located at key nodes, and following a design language making it easier for people to find, or to understand where to expect a doggy bag dispenser, bin, or beach shade.

Following feedback from the community there was many requests for drinking fountains throughout town, also for the three (3) public toilet assets on the foreshore to be retained in the future schemes (albeit that they are upgraded). The community also requested further shade shelters on the beach and easily located bins. These items have been grouped around node locations for ease of maintenance, but also if people know that there are always bins at the lookout nodes, or associated with the toilet blocks, then they are easier to find and better utilised.

This plan also conveys various locations for staged enhancement projects like the Art trail and identifies the key pedestrian and bike circulation networks around town. These projects could be implemented by the DCA or the City as they desire and appropriate to funding to support accessibility and circulation.

Figure 17: Amenity Strategy Plan

5.5 Shark Cage Node

In considering the comments received from the community, landscape enhancement of Shark Cage beach includes the re-configuration of beachfront amenity as well as establishing The Promenade and Promenade Nodes as lookouts and art sites. The intention is for works to further enhance the usability of the existing space, create a comparable alternative space to The Palms and encourage greater use around Dampier's foreshore.

Figure 18: Shark Cage Node Detail Area Plan

The Stage 1 (one) proposed works have been delineated on this plan to show how stage one works can be undertaken in the context of the current site. But that future works can connect with the edges of the Shark Cage node and be expanded to Windy Ridge Oval and The Palms.

Stage 1 works also include the proposed streetscape enhancements to High Street to amplify the relationship of the foreshore with the Village Centre, and to assist in way finding by showing the hierarchy of roads.

1. Expand footpath along The Esplanade from 1.5m to between 2 and 3m to create The Promenade between The Palms & Hampton Oval and Windy Ridge Oval & the boat ramps. The widened footpath will allow for two or three people to pass one another without having to step onto the busy road.
2. Tree planting for shade and turf areas will enhance usability and presentation of the foreshore.
3. Minor nodes to be added onto The Promenade in future stages to include amenity units such as bike stands, bins and/or shelters in accordance with the Amenity Strategy. The modular structure of the nodes would enable them to be readily reproduced and installed at future node locations along the foreshore as budgets become available.
4. Beach access points including stairs or ramps as appropriate considering universal access capacity.
5. Upgrade existing beach shade and picnic shelters into planned locations to facilitate maintenance and management as well as making it easier for people to meet at identifiable locations.
6. Stabilisation and reinforcement to drainage outlets onto the foreshore.
7. Primary node as part of Stage 1 at the end of High Street to incorporate artwork as part of the greater public art strategy and linked with way finding details.

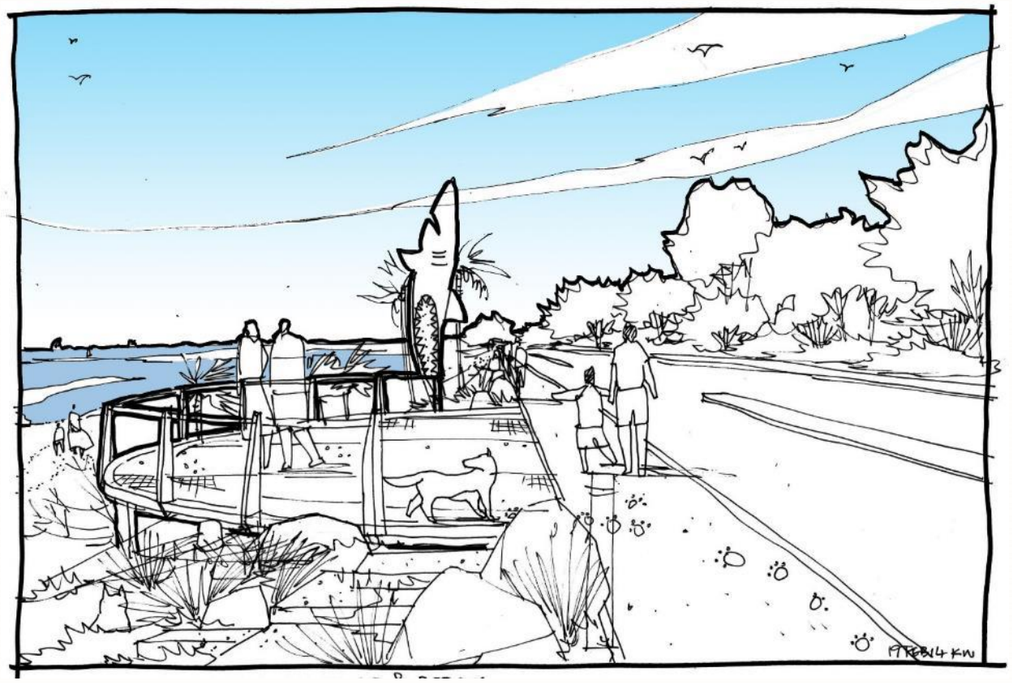


Figure 19: Artists impression showing Feature Node incorporating Art Trail wayfinding paw prints, public art sculpture and expanded Promenade path

8. Formalize beach access from the node to enable management of shoreline vegetation and structural rehabilitation of The Esplanade.
9. New barbecue and picnic area including shade structures and palm trees to enhance usability and presentation of the foreshore.
10. Visual improvements to existing beachside ablutions including street art have been proposed by the community, to be combined with upgrades to the drink fountain and beach shower units by the City as part of the overall project.

11. Swimming Jetty; an option for the offshore installation of a tidal swimming jetty formed around the existing rock spit. The “jetty” would be constructed as a set of wide terraces that reach down to a medium or low tide level, allowing users to swim off at medium tide and high tide. Creative markers on the steps indicate that there is underwater infrastructure and no-diving signs should be considered to reduce risk of injury. This jetty may be utilized for fishing after 7pm or sundown to manage non-compatible uses. Comments have been provided regarding this style of structure by the coastal engineers noting that the height of the jetty during low tide could be dangerous, requiring balustrades and access management that might impact on the use of the jetty during high tide events.

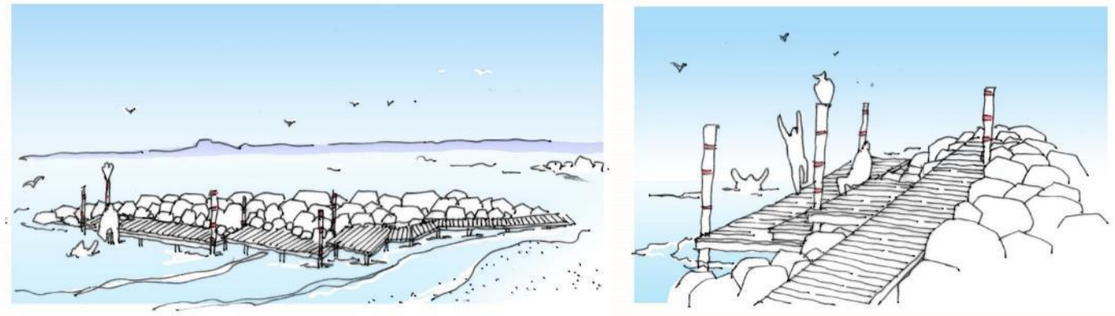


Figure 20: Artists impression of swimming jetty

12. Foreshore shade shelters co-located with shore and dune stabilization works undertaken with further advice from expert consultants.
13. Upgrade surface to the existing car park and delineate the edge of the parking area using local boulder material.
14. Widen footpath along High Street and incorporate shade tree planting and lighting to improve the pedestrian connection between the foreshore and the Village Centre.
15. Connection of paths with the existing pedestrian network.
16. Implementation of a bike-friendly link between the BMX Park and the skate park, running through the drainage reserve and making use of the unique landscape within this reserve will provide alternative opportunities for young people in Dampier. As this pocket of land will be flooded regularly (being at the bottom of the drainage corridor) and does not fully address the foreshore this space would not be suitable for a genuine park amenity and also considering the impact of funding The Promenade or Palms works would have a greater impact on the enhancement of Dampier. Cleaning out and re-vegetating this space would be beneficial in the longer term.
17. The bike-friendly link should be a continuous surface, for example red bitumen rather than segmented concrete path or unit pavers connecting the BMX park with the Community Hub and Skate Park.

5.6 The Palms and Hampton Oval Detail Area

Further consideration and enhancement works have been proposed at The Palms, following community and council feedback. The Detail Plan shows proposed layout changes that would support future redevelopment of the pavilion, however the plan will still address the needs of the community in the interim.

Figure 21: The Palms and Hampton Oval Detail Area Plan

1. Rationalize car park entrance to create clear entrances and exits into the beach-side car park.
2. Formalize edge of parking by using boulders to deter patrons from parking in vegetation.
3. Shade structures at intervals along the new foreshore path with steps down to the beach.
4. Raise the car park to create a stone batter along length of car park with substantial reinforcement works as suggested by CofK to raise the front edge of the car park up to the high tide mark.
5. Footpath, shade tree planting and lighting along the length of car park connecting with HHBSC. This car park may also service the HHBSC if connected with a safe footpath.
6. Widened swale with opportunity for a sculpture as a focal point.
7. New footpath access to the beach, to consider universal access provision.
8. Shorefront turf to be “informal” allowing for minimized maintenance and may be considered sacrificial to high tide and storm surge events.
9. Expansion of the existing Palms turf area to coincide with formalized access. This turf would be reinforced or stabilized to withstand regular ocean action whilst facilitating increased patronage of the area.
10. Extension of the footpath connection between The Esplanade and Hampton Oval.
11. Construction of a drainage channel to capture majority of overland water flow into the open, rocky swale transferring down to the shoreline.
12. Location for new barbecue area sited at the top of The Palms grove so as not to impede on views for picnicking families, whilst allowing efficient access from the car parks.
13. Formalize location for mobile food vendors by marking a reserved bay for weekend or high-use dates. This may include an elevated portion of path and co-located with a bin.
14. Vehicle barrier to be extended around the intersection to formalize entrance into Hampton Oval car park areas creating a safe and event-friendly access system.
15. Retain informal car parking area with review of drainage infrastructure, with possible control systems into the main swale.
16. Existing path and drain to be retained through The Palms and considered a successful model for future path considerations around the town site.
17. Path and boardwalk along frontage to The Palms to connect with existing barbecue and play facilities.
18. Creation of an entrance from the car park to the pavilion and The Palms.
19. Future redevelopment opportunity for the Pavilion into a café/kiosk facility with decking for alfresco dining with extensive ocean views.

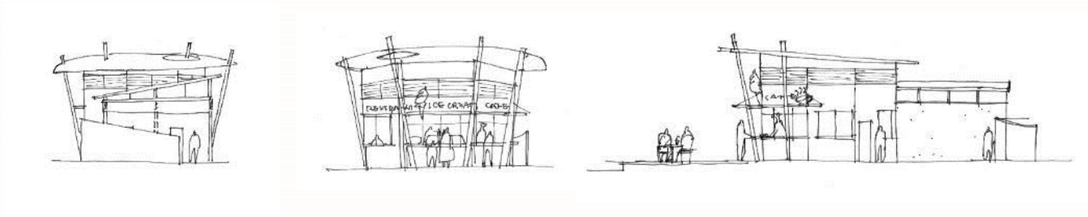


Figure 22: Sketch suggestion for future redevelopment of the Pavilion

20. Barbecues and shade shelters to be located to the rear of the new turf area with views over the ocean allowing further users to sit on the turf area.
21. New palms and irrigated turf area located to facilitate families gathering around the playground.
22. Small walled amphitheater and stage with ocean views and power facility to enable small events, for example sundown soirees, weddings or parties.
23. Existing playground with shade structure, new bench seats to be provided with clear site lines across the playground.
24. Permanent provision for the outdoor movie theatre, to include footings and posts for the screen, power supply and lighting. Supporting the existing events held by the community at The Palms will enable the community to expand these, and increase opportunities for economic development within the community.
25. Hampton Oval soccer pitch to be consolidated to utilize turf area efficiently, allowing for excess turf material and irrigation allocation to be relocated to the foreshore for greater community use.
26. Swing set (existing relocation or new installation) to be co-located with existing playground and to include shade in accordance with the City of Karratha POS policy.
27. Existing fitness equipment to be linked to The Promenade exercise circuit.
28. Proposed boat house for the community to store personal canoes, paddle boats and water-based recreation equipment so that residents don’t have to drive to the beach, but can instead ride their bike or walk down, use their kayak on the harbor, and then walk home afterwards. This boatshed may also combine storage of the soccer club equipment and beach volleyball equipment.

    The extent of reinforcement along the shoreline and car park works will be dependent on detailed design and documentation, but have been shown to enable their consideration in the overall works.

5.7 Windy Ridge Beach Node

Enhancement works proposed for the self-titled Windy Ridge Beach area have been designed to tie in with existing levels along The Esplanade and connect this space with The Promenade. Enhancing the existing infrastructure and creating a low-key, user-friendly environment will lift the quality of this space without necessarily detracting from The Palms and Shark Cage as the two primary nodes of the foreshore.

Figure 23: Windy Ridge Beach Node Detail Area Plan

1. The inclusion of footpaths to the edge of the boat ramp facilities will create a safe environment for pedestrians.
2. Elevated boardwalk across the drainage swale connecting the Promenade all the way to the public boat ramps will enhance the connectivity of the entire foreshore space and enable boat ramp users to access the swimming beach area.

Figure 24: Artists impression of Bridge crossing at the Boat Ramp looking back toward Dampier town site

3. Stair access to formalize existing access line from the oval to the foreshore.
4. Path along embankment to facilitate universal access to the beach and along The Promenade.
5. Existing Windy Ridge sports oval utilized for football and cricket.
6. New canopy tree planting to provide additional shade to turf areas particularly where turf meets the shoreline.
7. Existing ablutions to be retained and upgraded with new wall art as part of the ongoing art implementations.
8. Upgrade existing beach shade structures to be arranged to facilitate easy access, and group use.
9. Additional palm tree planting to supplement existing tree canopies.
10. Raised deck area with shade structures and facilitating views across the bay.
11. Feature node as an entry to the Windy Ridge Beach to be located further east coinciding with at-grade path access.
12. Widened Promenade to allow two or three people to pass one another without stepping off the path onto the road or onto the beachside bank.
13. Minor nodes to be added onto the Promenade in stages to include seats, bike stands and or bins in accordance with the amenity strategy.

5.8 Entrance Bay Detail Area

Community feedback towards the proposal including artwork and siting of elements around the entrance bay were very supportive, with feedback requesting to make this space safer and more user-friendly. On this basis the inclusion of line marking as an item to be undertaken to delineate the edge of the roadway for cars pulling out of the information area.

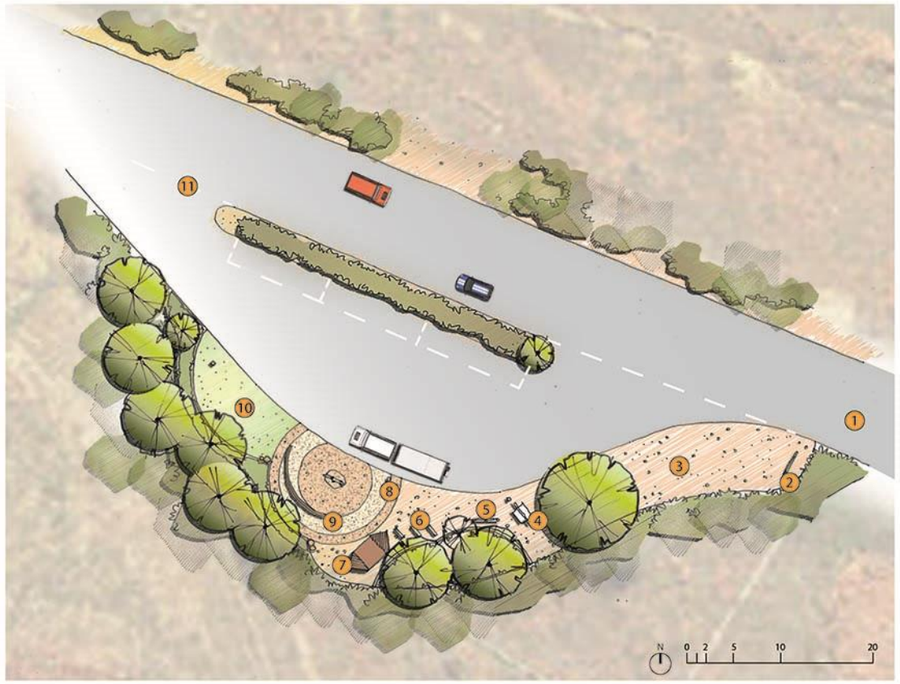


Figure 25: Entrance Bay Detail Area Plan

1. Dampier Road is the single entrance and exit to Dampier from Karratha. Therefore the opportunity to make a statement regarding the community is broad.
2. Main Roads WA signage announcing arrival at Dampier can be located in accordance with their standards, but also form part of the entrance statement.
3. Keep entrance clear of features allowing visual connection with the internal elements of the information bay.
4. Relocate the existing anchor with appropriate interpretive signage to allow visitors to interact with the anchor as the current position is exposed and difficult to access around trees and garden beds.
5. Upgrade existing chalk announcement board with a standard signage graphic style which would also be incorporated into a single signage language throughout Dampier.
6. Reposition blue historic interpretation boards to allow all attractions to have room for interaction with the public. Depending on the age of the signage, this could be updated with the Dampier Signage Style to ensure that it relates with the overall language of the town site. It is important to ensure that the information bay continues to display a variety of information about Dampier and not only the story of Red Dog without the site becoming cluttered.
7. Reposition and upgrade shade shelter for visitors (or consider excluding this feature from the entrance bay to encourage visitors into town).
8. Camera stand to allow visitors to take a timed photograph of themselves with Red Dog as this is considered a desirable thing to do!
9. Perforated steel backdrop to Red Dog incorporating the story of his travels as the Pilbara Wanderer and allowing a picturesque background for photos.
10. Small grass area to allow visitors to step out of the car and interact with the information bay.
11. Line markings to improve road and car park legibility for public safety.

This project may be successfully implemented by the DCA with some items undertaken by the City of Karratha (e.g. line marking) if appropriate.

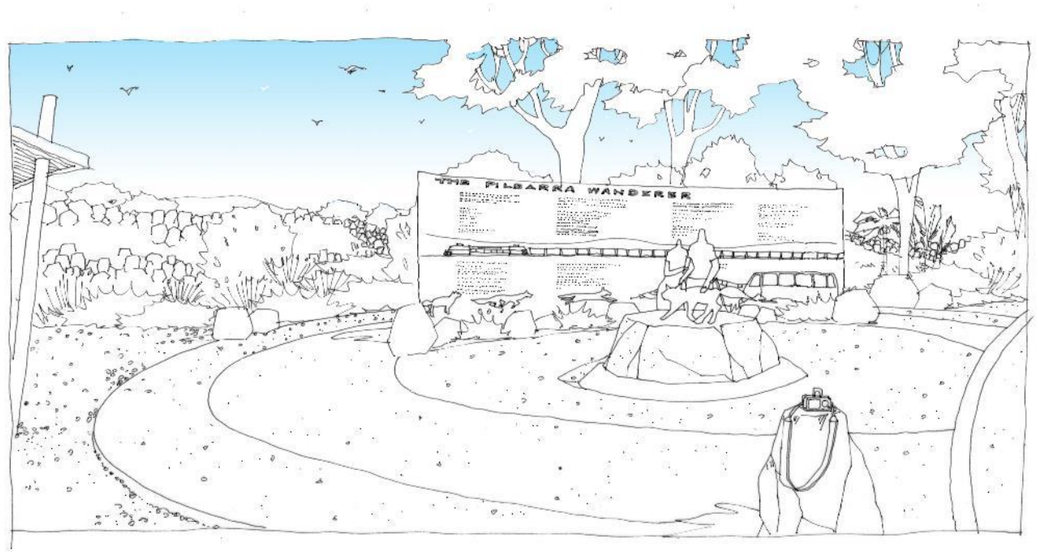


Figure 26: Artists impression of the steel backdrop, camera stand and entrance bay enhancement works

5.9 Red Dog Art Trail

Further to the information bay development EPCAD have also provided a montage of sketches for consideration as part of the public art strategy to utilise the paw-prints of red dog to delineate a walking Art Trail around town. The trail may also include more red dogs positioned with creative alternatives like “Dog Ate My Homework” positioned outside the primary school, or “Hair of the Dog” outside the pub and “In the Dog House” in front of the police station.

The Red Dog Festival also provides a great opportunity for the community to engage with visitors. The community could have a number of fibreglass Red Dogs cast by a local fabricator and then painted by various community groups, families or businesses similar to the Cow Parade in Margaret River, or the Rhino Walk held in Sydney for Taronga Zoo. Some can be annual contributions, whereas some businesses might wish to sponsor their Dog for permanent installation at their workplace, raising funds for the community.

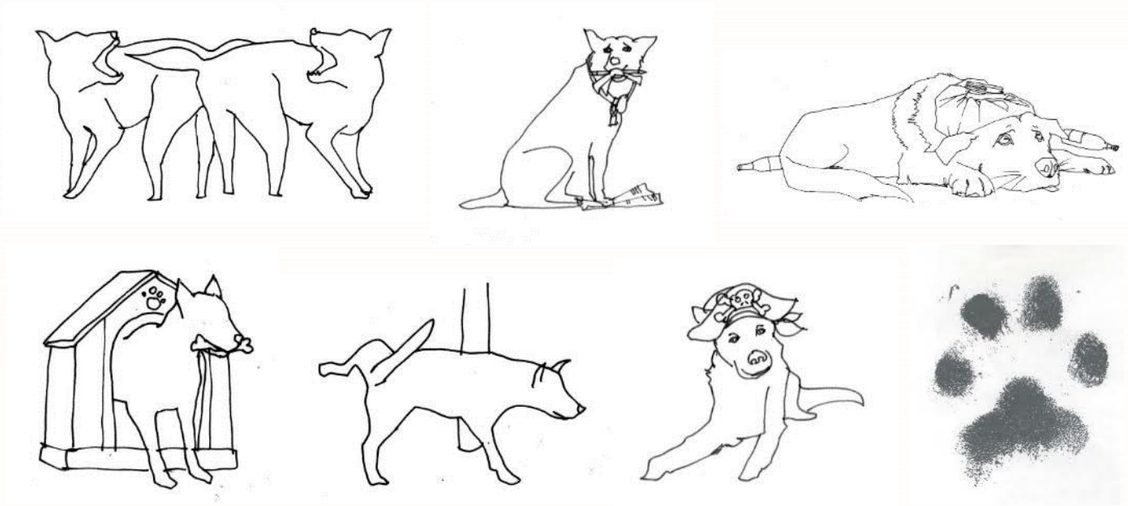


Figure 27: Selection of sketches of Red Dog Art opportunities; Dog-Eat-Dog, Dog Ate My Homework, Sick As A Dog, In the Dog House, The Dog, Salty Sea Dog and the wayfinding pawprints

5.10 Coastal Assessment and Design Review

Specialist coastal engineers M P Rogers and Associates Pty Ltd (MRA) was commissioned to investigate the potential impact of coastal processes on the proposed foreshore enhancements in conjunction with the Masterplan.

The potential coastal erosion extent and inundation levels were calculated for the Dampier foreshore for a range of planning horizons. This has been completed using SBEACH computer modelling, review of historical aerial photographs and analysis of beach slopes and potential future sea level rise. Results from the Dampier Coastal Vulnerability Study completed by JDA (2012) was also used to undertake this assessment. Results of the MRA coastal vulnerability assessment are summarized in Table 1 for a range of planning horizons.

Table 1 Extent of Erosion Vulnerability

Allowance	**2025**	**2040**	**2065**
Severe Storm Erosion (m)	10	10	10
Long Term Shoreline Movement (m)	0	0	0
Climate Change (m)	1	3	7
Factor of Safety (m)	2	5	10
Total (m)	**13**	**18**	**27**

The extent of vulnerability is measured from the Horizontal Shoreline Datum (HSD). In this location the HSD is represented by the +4.7 mAHD contour based on the results of JDA (2012).

A summary of the potential coastal inundation levels is contained in Table 2.

Table 2 Coastal Inundation Levels (JDA 2012)

Planning Horizon	**Coastal Inundation Level**		
	2 year ARI	**10 year ARI**	**100 year ARI**
2010	+2.5 mAHD	+2.8 mAHD	+4.7 mAHD
2060	+2.8 mAHD	+3.7 mAHD	+5.0 mAHD

The values presented in Table 2 are the peak steady water levels modelled by JDA (2012) at the shoreline. These levels do not include the potential wave runup. SBEACH modelling of the 100 year ARI event suggests that the wave runup level could be up to 1.5 m higher than these levels but would depend on a number of factors such as the slope of the area and the roughness of that slope. The runup level would be lower for less extreme events such as the 2 year ARI and the 10 year ARI. Consideration should be given to this potential wave runup in the placement and design of structures.

In general, infrastructure placed seaward of the vulnerability extent contained in Table 1 is at risk from coastal erosion and inundation for the relevant planning horizons. Consequently, the financial and amenity value of this infrastructure needs to be weighed against the risk of storm damage when siting these enhancements. The presence of suitable rock or the construction of a seawall would reduce the erosion risk to valuable infrastructure if it needed to be sited seaward of the vulnerability lines.

5.11 Staging Plan

Through the community engagement process two key areas for enhancement works have been defined, Area A being The Palms and Hampton Oval to the WWTP, and Area B being the Foreshore Promenade between the WWTP and the boat ramps. This plan has been created to coincide with the project cost estimates.

In preparing and finalising the Staging Plan EPCAD has considered the following key items:

- Visibility of change (making it obvious that beautification works have occurred as promised)
- Ability for the first stage to be a catalyst for further stages (building momentum)
- Capacity within the community to take leadership for future stages, and building this capacity within the preliminary works
- Connectivity of the new works with the existing landscape
- Linking the beautification works with other works in town i.e. The Community Hub building
- And showing that The Dampier Townsite and Foreshore Enhancement Plan is going to deliver real changes that the community and visitors can see and enjoy.

Staging

The Staging Plan shows the following order:

Stage 1. Implementation of the Shark Cage Node (as identified as “Stage 1 extent of works”)

Stage 2. Implementation of The Palms and Hampton Oval Detail Area

Stage 3. Implementation of the Promenade widening between The Palms and Windy Ridge Oval

Stage 4. Implementation of the Windy Ridge Node

Stage 5. Implementation of the Pedestrian Bridge Connection between the Village Centre and the Foreshore.

Stage 6. Implementation of improvements and enhanced amenity between The Palms and HHBSC.

Stage 7. Incremental modular implementation of multiple mini-nodes along The Promenade

Implementation refers to the design development, documentation and construction of each element.

The roll-out of works over any number of years is primarily dependent on budgets and funding. It may be possible for stages of works to be undertaken in smaller sub-stages to suit grants packages or annual budgets. Therefore further guidance and consideration is required by the City of Karratha to advise on the available budget that can be applied to a stage of works in association with the estimated cost of works.

Quick Wins

EPCAD strongly recommend completing each stage of works with a consolidated budget rather than spreading the budget too thinly around minor elements in many areas. That said, there are a number of minor items or quick wins that can be undertaken to show immediate action on the ground and that won’t complicate or conflict with works in the future. Those are

- Installation of permanent footings and power connections at The Palms/Hampton Oval for the outdoor movie screen; and
- Street tree planting generally throughout town.

Consecutive Works

Furthermore there are a number of activities that may be undertaken between Stages through alternative budget opportunities. These would be:

- Shrub and tree planting works throughout town and along the Foreshore
- Car park sealing
- Drainage corridor infrastructure works
- Implementation of incremental minor foreshore nodes
- Upgrading of degraded or deteriorated furniture and amenity units

The community feedback shows that the Dampier community are frustrated by the processes to date and the lack of tangible works on the ground. With this in mind, EPCAD recommend that Stages 1-2 should be undertaken before car park re-surfacing works or that infrastructure works (e.g. Drainage, walls and re-surfacing) should not be undertaken utilising any “beautification” grants.

Figure 28: Staging Plan

Balance of Works

The Masterplan shows a large range of items and projects that may be undertaken by the City of Karratha or by other groups as they desire. EPCAD have identified the key projects to be undertaken by CofK. Any other works on the masterplan may be undertaken by any other party at any time. In awareness of the DCA strategic plan we recommend that the DCA could focus on the following activities in relation to enhancements and improvements;

- Improvements to the Feature Entry Area
- Implementation of an Art’s Trail commencing with locations that are immediately available, and planning for future locations. For instance the Foreshore nodes or The Palms play sculptures.

5.12 Preliminary Opinion of Probable Cost (POPC)

The preliminary estimates are based on the masterplan and sketch design and are subject to detailed design and documentation including assessment by specialist consultants. The consultant brief also identified that *estimated implementation costing is to be based on current local construction costs. Costs considered outside of standard Landscape Architecture responsibility and that require additional QS costing can only be sought if approved by the City of Karratha, whereupon a further agreed Consultant fee may be required.* Therefore these elements have been excluded from the preliminary estimates

Costs are based on recently received prices for works of a similar nature in Karratha, and based on assumptions regarding availability of plants and materials. The cost estimate has allowed for as many items as possible, some of which may be omitted or implemented in other stages of works. Also if any works are undertaken by local fabricators, council crews or community volunteers this may also impact on the overall estimate of costs. In considering the cost estimates some rates and costs may change depending on how a contractor assigns their overheads amongst a competitive tender environment.

Depending on funding terms and conditions, and or options for funding portions of works through different methods, cost estimates may be reconsidered or the extent of works reconsidered to suit available funding. For example if lighting can be funded through an alternative grants scheme, this item may be packaged separately and undertaken as a separable portion.

The cost estimates are based on installing new furniture as part of the works, this is to provide a day-one impact and establish a new Dampier palette. It may be possible to relocate some of the existing furniture (seats, shelters etc.) to other beach areas and once they are due for replacement then install the new palette in their place.

Stage 1: Shark Cage Foreshore node and High Street Pedestrian Enhancements $1,089,525.00 Excl GST

This cost estimate allows for the works delineated on the concept plan to include High Street streetscape works and Shark Cage beach enhancement works. Only the length of “The Promenade” within the stage 1 boundary has been allowed for within this estimate, however the BMX path link shown running through the drainage corridor has been excluded on the basis that this may be implemented in the future in relation to construction of the BMX park. The following assumptions and exclusions have been applied to this estimate:

- Excluding bulk earthworks cut and/or filling subject to detailed design
- Drainage works subject to advice from Civil Engineers
- Excluding upgrade to power supply or allocation
- Assuming irrigation water is available from existing WWTP supply and can be “tapped into”
- This POPC does not allow for the swimming jetty or offshore installation
- Excluding consultants fees & expertise fields (e.g. irrigation, civil, drainage and electrical design)
- POPC is valid for 90 days. For budget purposes figures should be increase by approximately 4% per annum (based on CPI typical inflation figures).

Stage 2: The Palms & Hampton Oval Detail Area: $2,095,157.00 excl GST

This cost estimate has been drawn up based on undertaking the works shown on the concept plan, extending north to the end of the car park and east/south/east to the edges of the soccer field area. No allowance has been made for upgrades to, renovation or reconstruction of the Pavilion, for re-surfacing of the car park areas, drainage infrastructure or for bulk earthworks and imported materials to lift the entire shore-front edge of the car park up to HHBSC.

- Excluding bulk earthworks cut and/or filling subject to detailed design
- Excluding all re-surfacing, regrading and earthworks to car parks
- Including allowance for movie screen works (if not already undertaken as a quick win)
- Drainage works subject to advice from Civil Engineers
- Excluding upgrade to power supply or allocation
- Assuming irrigation water is available from existing WWTP supply and can be “tapped into”
- Excluding upgrades to or construction of a new pavilion
- Excluding consultants fees & expertise fields (e.g. irrigation, civil, drainage and electrical design)
- POPC is valid for 90 days. For budget purposes figures should be increase by approximately 4% per annum (based on CPI typical inflation figures).

Stage 3: The Promenade widening from The Palms to Windy Ridge Oval: $790,660.00 excl GST

Stage 3 works to widen the entire pathway from The Palms to Windy Ridge from 1.5m to 3m and including areas expanded out to 5m to coincide with future minor node locations has been estimated based on minimal earthworks requirements and excluding foreshore reinforcement works. These elements must be further assessed through detail design and documentation.

- Excluding bulk earthworks cut and/or filling subject to detailed design
- Drainage works subject to advice from Civil Engineers
- Excluding consultants fees & expertise fields (e.g. irrigation, civil, drainage and electrical design)
- POPC is valid for 90 days. For budget purposes figures should be increase by approximately 4% per annum (based on CPI typical inflation figures).

Stage 4: Windy Ridge Node Detail Area and Bridge to the Boat Ramps: $1,001,345.00 excl GST

The implementation of Windy Ridge detail node is recommended to be programmed further in the future to enable more critical works and enhancement works that will provide greater impact. The cost estimate assumes that works to widen the Promenade have already occurred through this area.

- Excluding bulk earthworks cut and/or filling subject to detailed design
- Drainage works subject to advice from Civil Engineers
- Excluding upgrade to power supply or allocation
- Assuming irrigation water is available from existing WWTP supply and can be “tapped into”
- Excluding upgrades to ablutions
- Including allowance to construct bridge connection to the Boat Ramps area
- Excluding consultants fees & expertise fields (e.g. irrigation, civil, drainage and electrical design)
- POPC is valid for 90 days. For budget purposes figures should be increase by approximately 4% per annum (based on CPI typical inflation figures).

For minor items EPCAD has estimated the following POPC based on the works being undertaken as a single portion of works, excluding consultant fees, expert consultation and upgrades to power supply or allocation;

Outdoor Movie Screen

If implemented as a quick win prior to The Palms works in Stage 2, the supply and installation of permanent poles and footings for the movie screen, including power, may be implemented for approximately $50,000.00- $55,000.00 excluding GST, consultants fees and subject to detailed design and engineering.

BMX Path Link

Implementation of a bitumen path linking the proposed BMX Park at Windy Ridge Oval with the skate park at the community hub is estimated to cost approximately $223,660.00 excluding GST, consultant’s fees and subject to detailed design.

It is assumed that future works may occur beyond 12 months from the preparation of this report. Cost estimates will be subject to materials and labour cost fluctuations and therefore this must be considered in future planning of any works. Refer to Part B: Appendix 4 for breakdown of cost estimates.

6.0 Conclusions & Recommendations

The Dampier Townsite and Foreshore Enhancement Masterplan has been prepared by EPCAD on the grounds of site analysis, community workshopping and council consultation in order to showcase the assets of Dampier, create economic catalysts to provide an overall, cohesive vision to guide design development and to show the consult-weary community that this plan has the capacity to be successfully implemented as real change for Dampier.

The Masterplan identifies The Promenade as the key project, book-ended by two beach-front nodes at The Palms & Hampton Oval and Windy Ridge Beach, and centrally anchored at Shark Cage Beach. The implementation of The Promenade is proposed to be staged, commencing at Shark Cage Beach Node before implementing enhancements at The Palms and then the broader expansion of The Promenade public walkway.

While the more significant projects are being undertaken there are opportunities to implement quick wins and some consecutive works that are dependent on funding and grants allocations. Furthermore the Masterplan also shows projects that may be undertaken by DCA and other community groups for environmental enhancements to the town site, using the Masterplan as a guide.

Following the preparation of the Dampier Townsite and Foreshore Enhancement Plan and its adoption by the City of Karratha, the recommended next step will be to commence detail design and documentation of each stage of works. This process may require for data sets to be collated and presented to the Landscape Architect, for instance feature surveys and servicing details.

On completion of full documentation packages, the roll-out of the initial stages should be swift and efficient to deliver tangible results on the ground and encourage future works to realise the full potential of the masterplan.

7.0 Bibliography

Hickman, A.H. 2001. Geology of the Dampier 1:100 000 sheet. 1:100 000 Geological Series Explanatory Notes. Geological Survey of Western Australia, Department of Mineral and Energy, Perth.

Department of Environment and Conservation 2013, Murujuga National Park management plan 78 2013, Department of Environment and Conservation, Perth.

Australian Government, Bureau of Meteorology (2011) Recorded data from Dampier Salt Weather Station, www.bom.gov.au [accessed: 2011-10-07]

Australian Government, Bureau of Meteorology (2011) Cyclone Paths affecting Karratha, Dampier, Roebourne (1911-2006), www.bom.gov.au [accessed: 2011-10-11]

Copp, I (2005) Geology and Landforms of the Pilbara, Department of Conservation and Land Management, Kensington.

Craig, G.F. (1983) Pilbara Coastal Flora, Soil Conservation Service, Western Australian Department of Agriculture, Perth.

Dampier Port Authority (DPA)(2010) Port of Dampier Development Plan 2010-2020, [ref no. SHEQ-SYS-N-017 Rev No 0]

Donaldson, M (2009) Burrup Rock Art: Ancient Aboriginal rock art of Burrup Peninsula and Dampier Archipelago, Wildrocks Publications, Mt Lawley.

Duckett, B (1993) Red Dog; The Pilbara Wanderer, un-referenced publishers, Dampier.

FORM and UAP, (2011) Big Rain Coming and Enhance Public Art Development Model, 2011.

Gillespie, N (1983) Red Dog, Great Britain, Reprinted in Australia (2011) Better Print, Landsdale.

Hickman, A.H. 2001. Geology of the Dampier 1:100 000 sheet. 1:100 000 Geological Series Explanatory Notes. Geological Survey of Western Australia, Department of Mineral and Energy, Perth.

Karratha and Districts Chamber of Commerce & Industry (2011) Business and Community Directory, 2011-2012, Market Creations Pty Ltd, WA

Kirkland, D (3rd Edition, 2005) The Pocket Guide to The Pilbara, Hema Maps, Brisbane.

Wajon, E (2008) Colour Guide to Spring Wildflowers of Western Australia: Part 4 Exmouth and the Pilbara, Wajon Publishing Company, Perth.

Western Australian Government (2007) West Pilbara Boating Guide Pamphlet, Department for Planning and Infrastructure, Perth

Appendix 1:
Phase 4 Masterplan Presentation Boards

1. Public art feature on Sam's Island to interact with users on mainland eg binoculars to view
2. Consolidate signage and upgrade furniture & shelters to "Dampier Suite"
3. BMX Park incorporating recreation and exercise
4. Street lighting (for pedestrians) between Windy Ridge Oval and tourist accommodation at the Peninsula Palms and caravan park
5. Footbridge connection between boat ramp and Windy Ridge Oval
6. Formalise edges to overflow parking
7. Tree planting to create shaded grove in association with toilets and beach shade facilities with improved access from The Esplanade
8. Upgrade existing fencing and street furniture
9. Create a continuous foreshore open space "Promenade" through installation of modular node structures and expanded pathways along The Esplanade. Strategic enhancments for greater usability for residents and visitors
10. First deck node at Shark Cage to enhance connection with High St. Structure will allow for future expansion
11. Landscape enhancement to drainage corridor open space
12. High Street enhancement through planting of shade trees and formalising footpath down edge of road
13. Promenade node to be located to enforce future central axis to create connection with Village Centre via footbridge
14. Improve wayfinding along Promenade & informal foreshore routes (across rocks) through discrete way-marking incorporating public art
15. Footbridge connection between Village Centre & Foreshore to encourage walkability between the two
16. Tree and Shrub planting to bank infront of Town Centre to improve visual impact on foreshore, and introduce shade to edge of town centre
17. Manage and restrict vehicle access to the beach via Angling Club boat ramp
18. Open and improve connection of Jurat Park to foreshore, continuing themes from within park
19. Landscape enhancement to Central Ave & Church Rd intersection through removal of weeds and planting of native plants. Including wayfinding art piece
20. Relocate Waste-Water Treatment Plant (WWTP) as part of long-term vision to create foreshore park area incorporating weighing station and community amenities
21. Re-surface central carpark and undertake tree planting with formalised pathways to create a town centre/square with direct links to the foreshore, shops and up to the school.
22. Delineate footpath between Yacht Club and The Esplanade and formalise edges to parking with boulders
23. Improve pedestrian access along foreshore around the Yacht Club by formalising pathway through carpark
24. Formalise pathway between Yacht Club and The Mermaid
25. Community garden/nursery associated with new community hub
26. Boulder sculpture within drainage corridor along Central Ave and Church Road
27. Formalise track between primary school and community hub
28. Expand beach shade and facilities along foreshore
29. Community nursery or garden project within Jurat Park
30. Maintain landscape features around High St intersection within POS, Church grounds and private garden
31. Landscape and art enhancement to entrance to town through removal of weeds and planting of native plants including art on the bridge or lookout over railway
32. Enhance profile and visibility of Red Dog through artwork backdrop, and strategic arrangement of information bay
33. Expand beachside facilities including extension of turf & palms, additional barbecues and improved connectivity
34. Rationalise carpark access to Hampton Oval to create safer everyday environment including overflow parking around edge of playing field. Upgrade access through gates onto the playing field at 2 locations to allow connection with soccer storage sheds. And resurfacing of carpark
35. Improve exterior presentation of the pavilion
36. Beach Club storage unit
37. Formalise carparking and user facilities at existing lookout with new Dampier Suite

N 0 20 50 100 200

Dampier : Townsite and Foreshore Enhancement Project

MASTERPLAN

Original: November 2014
Drawn: RM/AF
File Name: DTFEP_Phase 3 Masterplan. ai

EPCAD

Dampier : Townsite and Foreshore Enhancement Project

AMENITY STRATEGY PLAN

Original: November 2014
Drawn: AF/SC
File Name: DTFEP_Phase 3 Amenity Strategy. ai

EPCAD

Staging

2. Implementation of The Palms and Hampton Oval Detail Area.

1. Implementation of the Shark Cage Node (as identified as "Stage 1 extents of works)

6. Improvements and enhanced amenity between Palms - HHBSC Car Park

3. Implementation of the Promenade widening between The Palms and Windy Ridge Oval

4. Implementation of the Windy Ridge Node

5. Implementation of the Pedestrian Bridge Connection bewtween the Village Centre and the Foreshore

7. Incremental modular implementation of multiple mini-nodes along The Promenade

Dampier : Townsite and Foreshore Enhancement Project STAGING PLAN

Orig Nov 14/Rev A Dec 14
Drawn: AF/SC
File Name: DTFEP_Phase 3 Staging Plan_Rev A. ai

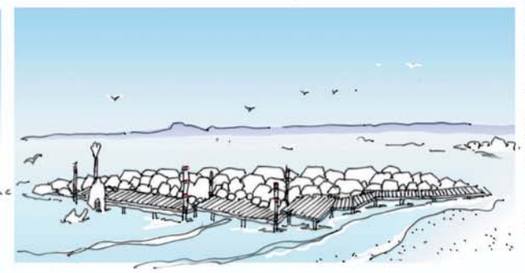
EPCAD

Key:

1. Expand footpath from Windy Ridge Oval to Hampton Oval to 3-5m as Foreshore Promenade Walk. Widened path to allow two or three people to pass one another without stepping onto the busy road
2. Foreshore tree planting and turf areas to enhance usability and presentation of the foreshore
3. Minor nodes to be added onto Promenade in stages to include seats, bike stands, bins and/or shelters as per the Amenity Strategy Plan
4. Beach access points including stairs, or ramps as appropriate considering universal access capacity
5. Upgrade existing beach shade and picnic shelters into planned locations to facilitate meeting points, maintenance and management
6. Stabilisation and reinforcement to drainage outlets onto forehore
7. Primary node at end of High Street, incorporating artwork as part of greater Art Strategy, linked with paw-print wayfinders. Modular structure of nodes can be readily reproduced and installed at future node locations along foreshore as budgets become available.
8. Formalise access to beach from nodes
9. New barbecue and picnic area including shade structures and palm trees to enhance usability and presentation of the foreshore
10. Visual improvements to existing beachside ablutions combined with upgrades to drink fountain and beach shower
11. Swimming Jetty along existing rock spit, featuring stepped platforms to facilitate access to water at low, medium and high tide with Depth Feature-Markers and robust construction suitable for Dampier conditions
12. Foreshore shade shelters co-located with shore and dune stabilisation works undertaken with advice from specialist consultants
13. Upgrade surface to existing carpark, delineate edge of carpark using local stone
14. Widen footpath along High Street and incorporate shade tree planting and lighting as appropriate
15. Connection of pathways with existing path network
16. Drainage corridor enhancement works to include path features suitable for BMX activity, for example portions of gravel path through low-lying areas
17. Red bitumen path linking Windy Ridge BMX Park to Community Centre Skate Park

View of Primary node out to Shark Cage

View of promenade widening and art opportunities within node



View of swimming jetty

N 0 5 10 20 40

Dampier : Townsite and Foreshore Enhancement Project

Shark Cage Node

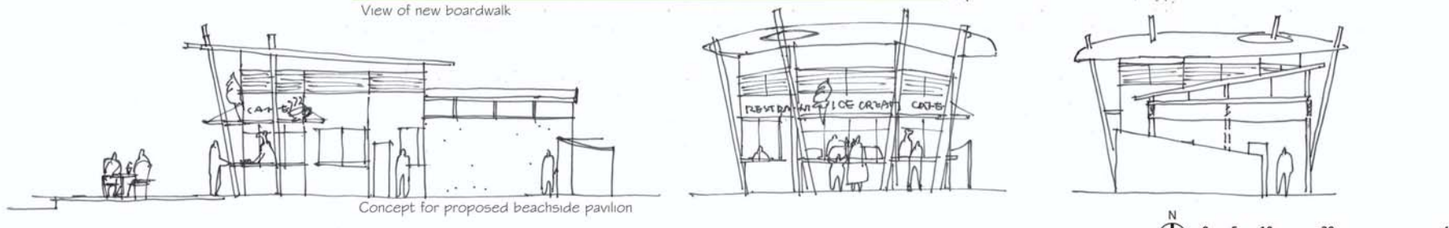
Original: November 2014
Drawn: AF, KW
File Name: DTFEP_Ph3_Shark Cage Node. ai

EPCAD

Key:

1. Rationalise carpark entrance to create clear entrance and exit into beach-side carpark
2. Formalise edge of the parking area by using boulders to deter patrons from parking in vegetation
3. Shade structures at intervals along the new foreshore path with steps down to the beach
4. Raise whole car park to create a stone batter along length of car park with feature bollards to prevent vehicular beach access
5. Footpath, shade tree, planting and lighting along length of car park to connect to the yacht club
6. Widened swale with sculpture as a focal point
7. New footpath access down to the beach, considering universal access capacity
8. Informal turf to extend to existing picnic and shade facilities
9. Expand frontage of the Palms into existing carpark area with irrigated turf
10. Connect footpath from The Esplanade to Hampton Oval
11. Channel overland water flow into open, rocky swale down to the beach
12. New barbecue area underneath the palms, located to allow Palm's users views of the ocean
13. Formalise location for mobile food vendors eg Icecream and Burger vans
14. Vehicle barriers to be extended around intersection to formalise entrance to Hampton Oval carpark area, creating a safe and event-friendly access system
15. Retain informal carparking area with review of drainage infrastructure. Possible control of drainage to main swale
16. Existing pathway with drainage allowance to be retained
17. Path and boardwalk along frontage of The Palms to connect with existing barbecue and play facilities
18. Celebrate entrance to The Palms from carpark
19. Possible future re-development of the pavilion for a Kiosk / Cafe with decking for alfresco dining with extensive ocean views
20. Barbecues and additional shade / shelters to be relocated to the rear of the new turf area with views over the ocean
21. New Palms and irrigated turf area located to facilitate families with the playground
22. Small walled amphitheatre and stage with ocean views and 3 phase power facility
23. Existing playground with shade structure, new benches to be provided with clear site lines across playground
24. Hampton Oval soccer pitch to be consolidated to utilise turf area efficiently, allowing arising turf material and irrigation to be used for expansion of beachside turf area
25. Swings to be positioned closer to playground, with shade to be provided in accordance with City of Karratha POS Policy
26. Existing fitness equipment to be linked via the Promenade pathways to Windy Ridge Oval
27. Proposed 'boat house', to store canoes, paddle boats, beach volleyball and soccer equipment

View of new boardwalk



Concept for proposed beachside pavilion

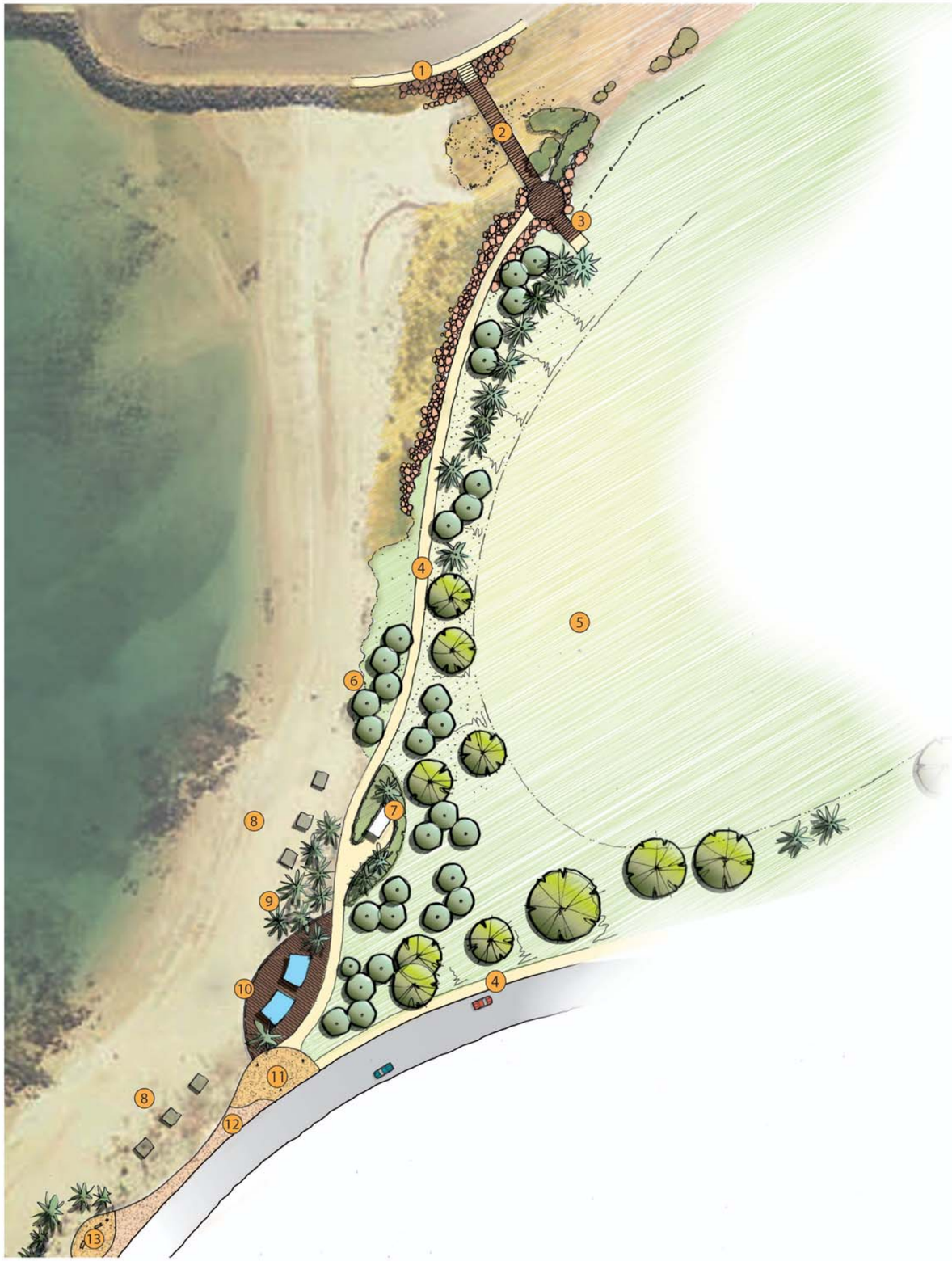
N 0 5 10 20 40

Dampier : Townsite and Foreshore Enhancement Project

The Palms & Hampton Oval Detail Area

Original: November 2014
Drawn: AF, KW
File Name: DTFEP_Ph3_The Palms & Hampton Oval Detail Area. ai

EPCAD



Key:

1. Footpath to edge of roadway for safe pedestrian access
2. Elevated boardwalk across drainage swale to connect the foreshore path to the boat ramp area
3. Stair access to formalise the existing access line from the oval to the foreshore
4. Path along embankment to facilitate disabled and pram access to the beach
5. Existing Windy Ridge Oval
6. New canopy tree planting to provide additional shade to the turf areas, particularly where the grass meets the sand
7. Existing toilet block to be upgraded, including the installation of wall art
8. Upgrade of existing beach shade and picnic shelters. Additional shade and picnic shelters to be arranged to facilitate meeting places.
9. Additional palms planted to supplement existing tree canopies
10. Raised deck area with shade structures and expansive views across the bay
11. Feature node as entry to Windy Ridge beach
12. Widened pathway to allow two or three people to pass one another without stepping onto roadway
13. Minor nodes to be added onto Promenade in stages to include seats, bike stands and or bins

View of low bridge across the drainage swale

N 0 5 10 20 40

Dampier : Townsite and Foreshore Enhancement Project

Windy Ridge Beach Node

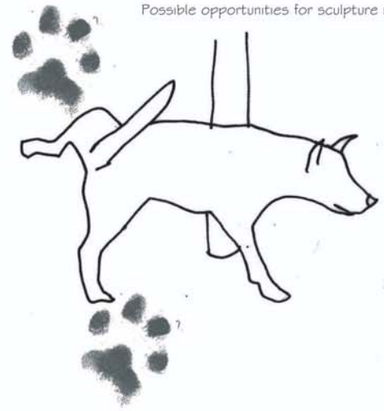
Original: November 2014
Drawn: AF, KW
File Name: DTFEP_Phase 3 Sheet 5 Windy Ridge Beach Node. ai

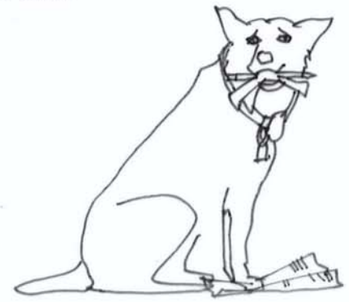
EPCAD

Key:

1. Single entrance and exit route to Dampier
2. Mainroads signage announcing arrival at Dampier
3. Keep entrance clear of features and surfaced with gravel
4. Relocate existing anchor with appropriate interpretive signage to allow visitors to interact with anchor, current location is exposed and difficult to access
5. Upgrade existing chalk announcement board with Dampier interpretive signage graphics to incorporate a single language within town
6. Reposition blue historic interpretation boards to allow both attractions to have room for interaction.
7. Reposition and upgrade shade shelter for visitors
8. Camera stand to allow visitors to take "timed" photographs of themselves with Red Dog!
9. Perforated steel backdrop to Red Dog incorporating story of his travels (the Pilbara Wanderer) and allowing a picturesque background for Red Dog on paved surface
10. Small grass area to allow visitors to step out of the car and interact with information bay overall
11. Line markings to improve road legibility

Possible opportunities for sculpture in key locations

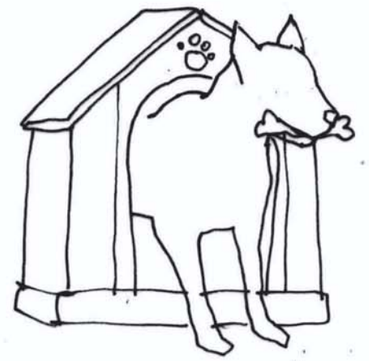




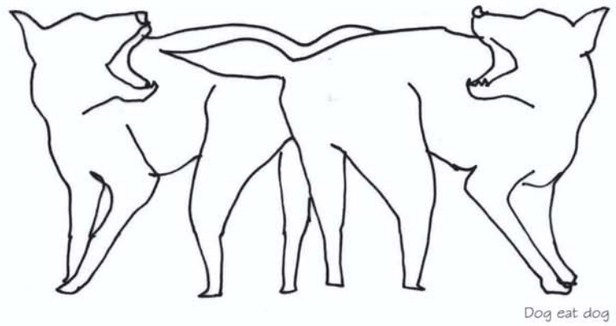
Dog ate my homework

Salty sea dog

Hair of the dog



In the dog house



Dog eat dog

View of Red Dog & feature wall

N 0 2 5 10 20

Dampier : Townsite and Foreshore Enhancement Project

Entrance Bay Detail Area

Original: November 2014
Drawn: AF, KW
File Name: DTFEP_Ph3_Entrance Bay Detail Area. ai

EPCAD

City of Karratha

Lot 1083 Welcome Road
PO Box 219
Karratha WA 6714
(08) 9186 8555
enquiries@karratha.wa.gov.au City of Karratha

EPCAD

28-30 Mayfair Street
PO Box 1233
West Perth WA 6872
(08) 9481 4410
epcad@epcad.com.au