

CENTRAL DARWIN AREA PLAN

NEEDS ASSESSMENT



NORTHERN TERRITORY
**PLANNING
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GLOSSARY OF TERMS

CDAP	Central Darwin Area Plan
DRLUP	Darwin Regional Land Use Plan
the Master Plan	Darwin City Centre Master Plan
the Planning Scheme	Northern Territory Planning Scheme

INTRODUCTION

Purpose

This document identifies future land use requirements in Central Darwin needed to support a thriving and vibrant locality with a strong sense of place and enduring connections to history and the natural environment.

This document also presents the results of:

- two stages of community engagement;
- previous planning work; and
- studies into social infrastructure, reticulated services, demographics, economics, and transport.

The outcomes of the analyses, community engagement, and studies have informed preparation of the draft Central Darwin Area Plan.

The Study Area

The Central Darwin study area includes:

- the Darwin City Centre;
- the residential areas of Larrakeyah and Cullen Bay separated by the old Darwin hospital site;
- mixed use areas at the Darwin Waterfront and Frances Bay; and
- the largely undeveloped Tank Farm area located between the old rail corridor and Stuart Park.

Commonwealth Defence facilities at Larrakeyah and the oil storage facilities at Frances Bay, while not subject to Northern Territory planning provisions, are significant influences on the study area.

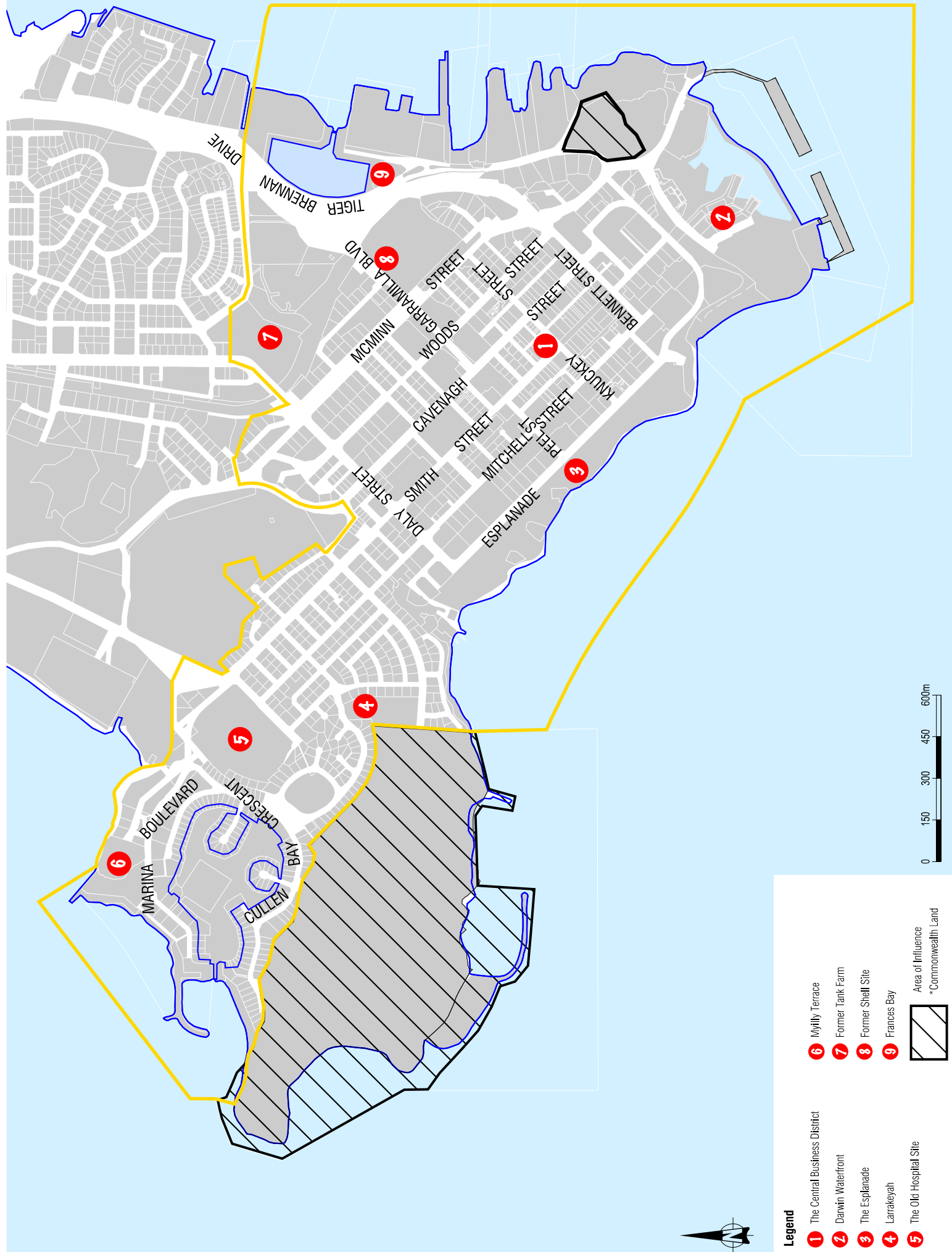
The NT Planning Scheme currently includes planning principles and area plans for Frances Bay and the Darwin Waterfront. These plans have been reviewed and will be consolidated into the Central Darwin Area Plan.

Study Context

The Darwin Regional Land Use Plan (DRLUP) is a policy document in the NT Planning Scheme that provides a strategic framework to guide growth and development across the entire Darwin region. The DRLUP recognises the role of Darwin as the capital city of the Northern Territory and, because of its position as the closest Australian capital city to Asia, its legitimacy as the natural capital of Northern Australia. The Darwin City Centre performs a critical role and higher order function as the dominant commercial, cultural, administrative, tourist, and civic centre of the Northern Territory and Darwin region.

The DRLUP forecasts a regional population of 150 000 people in the short term and 250 000 in the longer term. More recent studies have introduced an intermediate term population of 175 000 for the region. Central Darwin, and the city centre in particular, will play a key role in accommodating some of this growth through housing, employment, cultural, and social facilities.

Central Darwin Area Plan Study Area



Legend

- 1** The Central Business District
- 2** Darwin Waterfront
- 3** The Esplanade
- 4** Larrakeyah
- 5** The Old Hospital Site

- 6** Myilly Terrace
- 7** Former Tank Farm
- 8** Former Shell Site
- 9** Frances Bay



*Commonwealth Land

REGULATORY AND POLICY CONTEXT

The use and development of land in Central Darwin is regulated by the policies and documents discussed below.

Northern Territory Planning Act

The objects of the *Planning Act* (the Act) are to plan for, and provide a framework of controls for, the orderly use and development of land. These objects are to be achieved by the strategic and sustainable use of land and resources, protection of the natural environment, and maximising the amenity of development for all stakeholders.

The Act also establishes the Planning Commission as an independent body with various functions, including to prepare, and consult with the community regarding integrated strategic plans, guidelines, and assessment criteria for inclusion in the Northern Territory Planning Scheme (NT Planning Scheme). The Planning Commission does not have any decision making powers under the Act. The inclusion in the NT Planning Scheme of provisions, plans, or criteria prepared by the Planning Commission remains the responsibility of the Minister.

The Northern Territory Planning Scheme

The NT Planning Scheme contains:

- statements about land use policy;
- development controls that allow, prohibit, or put conditions on a use or development of land;
- instructions, guidelines, and assessment criteria to help the consent authority to assess and decide on development applications;
- zoning maps; and
- plans, designs, and diagrams.

Policy statements within the NT Planning Scheme, including documents in Schedule 2, establish the expected nature of future development and guide the interpretation of the zones and associated development provisions.

Area Plans are included in Part 8 of the NT Planning Scheme and are also intended to assist the interpretation of the Scheme and the determinations of the Development Consent Authority. Once included in the NT Planning Scheme, the Area Plan will provide an additional layer of fine-grain policy to guide development in Central Darwin. This Needs Assessment will also be incorporated into the NT Planning Scheme as a background document.

A zoning map for the study area is overleaf.

Darwin Regional Land Use Plan 2015

The DRLUP, a policy document in the NT Planning Scheme, establishes the role and high level strategic directions for the city centre.

The DRLUP integrates land use, transport, and infrastructure planning to deliver sustainable and cost-effective outcomes for the community while safeguarding natural resources. The regional plan guides more detailed subregional and local planning, including the preparation of Area Plans, in consultation with the Darwin community.

Compact Urban Growth Policy

The Compact Urban Growth Policy guides urban infill development within the Northern Territory. Compact urban growth facilitates the efficient use of land, services, and infrastructure to create compact and mixed activity places that play a role in improving people's lifestyle. As a policy document within the Planning Scheme, compact urban growth guides development of area plans and informs decisions on applications to rezone land or to obtain exceptional development permits.

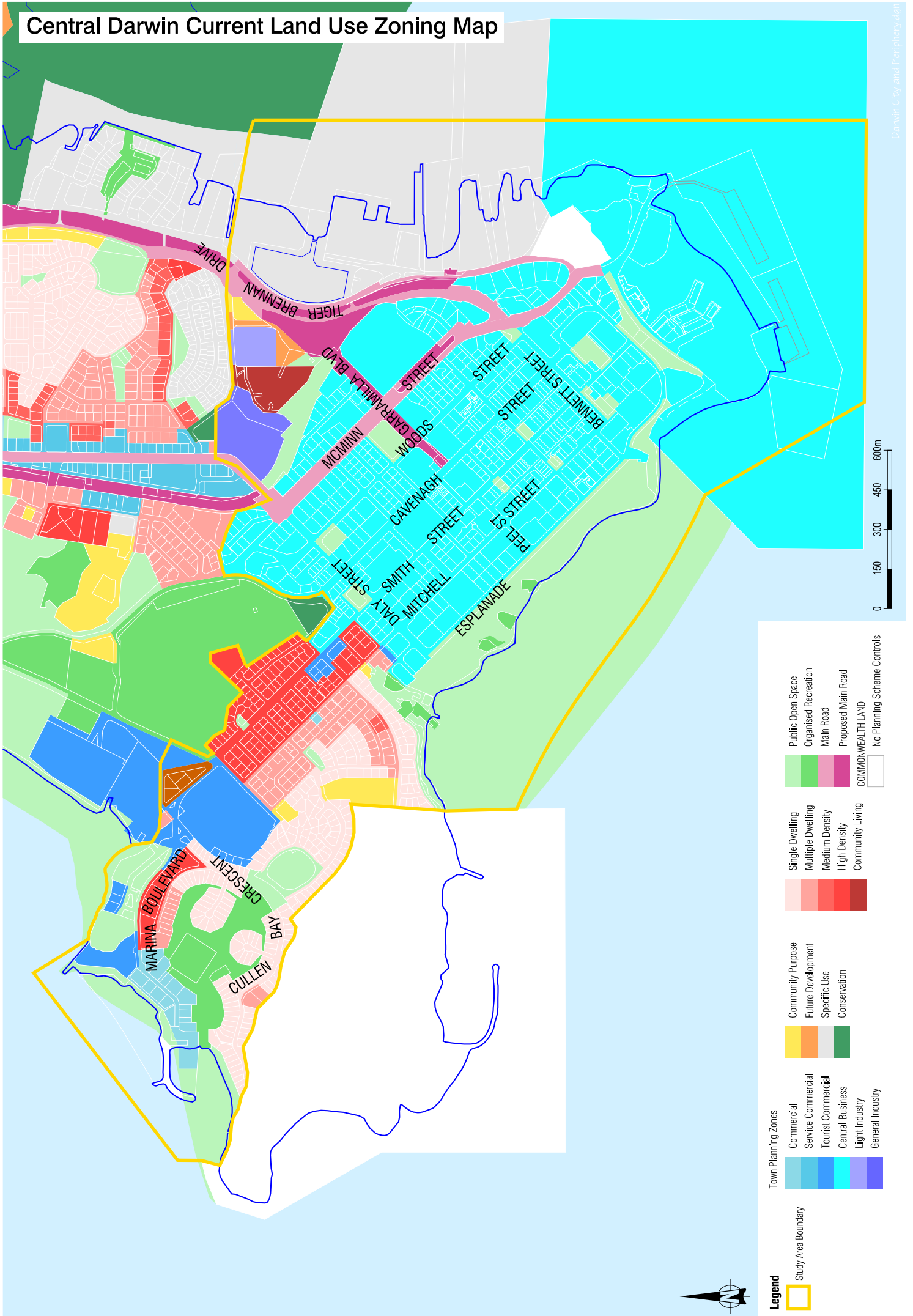
The CDAP accords with the Compact Urban Growth Policy in that it focuses population growth within a range of compact mixed use localities across Central Darwin but within the city centre in particular. Enhancing these localities will provide a range of opportunities for people to work, rest, and play supported by the required physical and social infrastructure.

Darwin City Centre Master Plan

The Darwin City Centre Master Plan (the Master Plan) was prepared as a joint project between City of Darwin, the Northern Territory Government, and the Australian Government. The Master Plan provides a vision, design guidelines and land use concepts for potential development in the city centre, former Tank Farm, and Frances Bay. Preparation of the Master Plan was underpinned by a comprehensive and inclusive engagement process.

Preparation of the Area Plan has taken into consideration those elements of the Master Plan relevant to, and able to be incorporated into, the Northern Territory planning framework.

Central Darwin Current Land Use Zoning Map



THE PLANNING JOURNEY

Expected Outcomes of the Central Darwin Area Plan

The draft Central Darwin Area Plan (CDAP) presents a detailed land use and development framework for the study area within the context of the strategic directions provided by the DRLUP. The draft CDAP incorporates characteristics and opportunities that will shape the future of the area and establishes objectives and acceptable development criteria to guide growth and development.

The CDAP will guide land use and development that strengthens Central Darwin as the heart of a vibrant, functional, and attractive capital by:

- reinforcing the CBD as the vibrant commercial, cultural, administrative, tourist, and civic heart of the Territory;
- encouraging improved links between the CBD and surrounding areas;

- supporting improved amenity for residents and visitors;
- including revisions of the current Frances Bay and Waterfront Area Plans; and
- maintaining the character of established localities while enhancing connectivity, and respecting environmental, heritage, and recreation values.

The framework for future growth established by the CDAP will also inform physical and social infrastructure planning so as to ensure provision is commensurate with expected population growth. Once finalised, the direction and guidance provided by the CDAP will foster community understanding and confidence, and consistent decision making.

Formulation of the Area Plan

The Central Darwin Area Plan is being prepared in accordance with the process outlined in Figure 1.

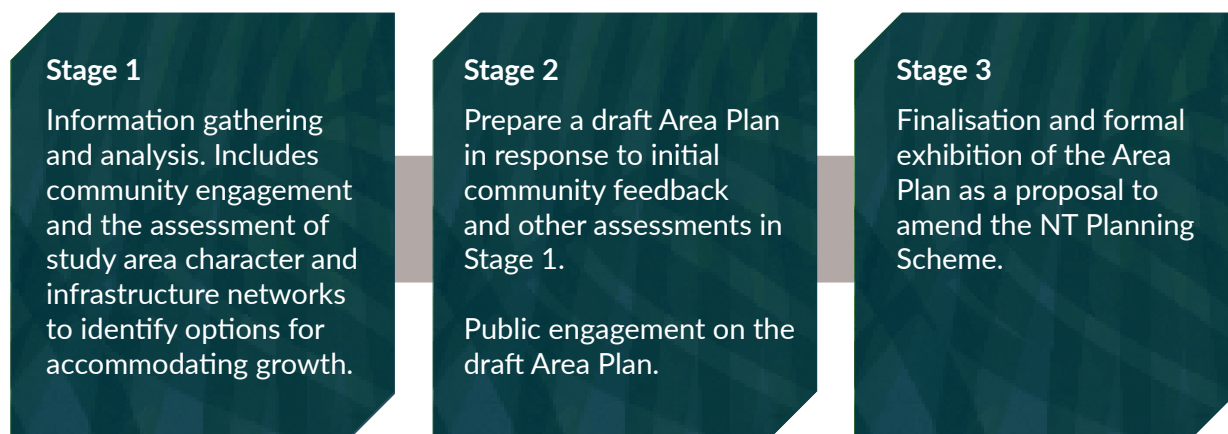


Figure 1: NT Planning Commission Consultation Process

How this Document Works

This Needs Assessment presents information on feedback and investigations that relate to land use and development in Central Darwin and outlines the key issues for consideration. The information presented has informed the vision, specific land use principles, objectives, and acceptable responses of the Area Plan within the context of the issues raised by the community and the infrastructure investigations.

The investigations that have informed this Needs Assessment, while dealing with the whole study area, have also identified considerations specific to individual localities. Within that context the Needs Assessment presents overarching considerations in a number of Key Themes and considerations relevant to individual localities in a number of Focus Areas.

Discussion on each theme and focus area will include contextual information, a summary of the feedback received during consultation, and an explanation of how the Area Plan has addressed the preceding information. While community feedback during both Stages One and Two has been incorporated into the Area Plan, it is worth noting that the number of responses was limited.

The Key Themes include:

- Demographic and Economic Growth Considerations
 - Population Characteristics
 - Housing Demands
 - Activity Centres
 - Retail and Commercial
 - Tourism
- Movement and Transport
- Physical infrastructure
- Environment
- Culture and Heritage
- Social Infrastructure.

The Focus Areas include:

- A1 City Centre – Core
- A2 City Centre – Former Shell Site
- A3 City Centre – Education and Civic Precinct
- A4 City Centre - Esplanade Character Area
- B Darwin Waterfront
- C Site of Kahlin Compound / Old Darwin Hospital Site / Myilly Point
- D Frances Bay
- E Former Tank Farm

KEY THEMES

Demographic and Economic Growth Considerations

Context

The distribution of future growth across the Central Darwin Area Plan study area needs careful consideration. A range of activities need to be encouraged in locations that will contribute to the long term viability of the city centre and its role as the dominant centre in the region. The focus will be on recognising opportunities that localities outside the city centre present for development which can integrate with and support the primary role of the CBD.

Population Characteristics

Current Population Characteristics

As at the 2016 census, Central Darwin was home to 10 190 people, reflecting growth by 2 400 people from 2011 figures. Table 1 compares characteristics of Central Darwin populations with that of the broader Darwin region.

Table 1: Selected population characteristics, ABS Census (2011 and 2016)

	Darwin City (incl. Waterfront)		Larrakeyah		Greater Darwin	
Year	2011	2016	2011	2016	2011	2016
Age Groups	%	%	%	%	%	%
Under 19	11	10	16.6	17	27.8	25.7
20 - 34	44.9	46	36.4	36	25.3	26.6
35 - 49	21.7	22	21.2	21	23.5	23.3
50 - 64	16.2	16	19	18	17.1	16.7
65 - 79	5.0	5	5.4	7	5.3	6.6
80+	1.4	0	1.4	2	1	1
Family	%	%	%	%	%	%
Families with children	32.9	34	42.3	45.2	61.4	60.6
Couples without children	64.8	64	55.6	53.1	37	37.8
Cultural Background	%	%	%	%	%	%
Aboriginal	4.6	3.4	2.8	2.4	8.4	8.7
Born overseas	48.4	58.3	41.7	45.1	32.5	37.3
2 or more languages spoken	25.6	27.9	20.7	22.7	20.3	32.1
Same address as 5 years ago	13	13.1	26.7	21.4	37.1	35

Notable differences between the characteristics of the Central Darwin population and those of Greater Darwin as a whole include:

- a lower proportion of young people under 19 years but a higher proportion of those aged between 20 and 34 years;
- a higher proportion of seniors over 80 years of age;
- a lower proportion of family households comprising of couples with children and single parent families and a correspondingly high proportion of couples without children;
- a lower proportion of Aboriginal residents, particularly in Larrakeyah, and higher proportions of people born overseas, particularly in Darwin City; and
- higher levels of population turnover, particularly in Darwin City.

Anticipated Future Population Characteristics

Demographic studies conducted to inform the CDAP confirm that population growth is on track to reach the near and far term forecasts identified in the DRLUP.

These studies project a far term resident population of 20 000 in Central Darwin. This is approximately double the current population figure. Potential resident, visitor, and worker populations identified by the demographic studies are illustrated in Table 2.

Table 2: Resident, visitor, and worker populations

		2015 (ABS 2017)	Near Term	Intermediate Term	Far Term
	Regional population	143 629	150 000	175 000	250 000
Study Area	Estimated Resident Population	10 190	11 000	13 000	20 000
	Estimated Day-time Population*	13 500 (2015)	14 300	16 800	25 600
	Estimated Night-time Population**	13 800 (2015)	15 100	18 800	31 100

* includes people who work in the city centre but live elsewhere

** includes tourists and visitors not part of the regional population

The following distinctive characteristics of a future Central Darwin population have been prepared based on existing trends and emerging policy:

- a continued high rate of people renting with almost two thirds of the dwellings in Larrakeyah and almost three quarters of housing in Darwin City being leased as rental accommodation indicating that dwelling rental is likely to increase as the amount of higher density dwellings grows;
- a low proportion of families with children and a correspondingly low percentage of pre-school and school-aged children, particularly in Darwin City;
- a high proportion of young adults including students and young professionals drawn to Darwin for education and work;
- new arrivals utilising short term rentals pending familiarisation with Darwin and selection of long term accommodation;
- short term contract and fly in/fly out workers attracted to higher density rental housing and empty nesters and older people looking to downsize or move into town as their needs change;
- recent immigrants, especially those accustomed to living in inner city medium and higher density housing and who prefer access to city centre amenities;
- defence personnel at Larrakeyah Barracks including single households, couples, and couples with children;
- a higher proportion of lone person and group households than across Greater Darwin; and
- families with children attracted to higher density housing because of its affordability and proximity to key amenities and employment.

Housing Demand

The previous section provides detailed information about the existing and projected population within Central Darwin. Current dwelling provision is meeting population growth and is on track to reach the near and far term forecasts identified in the DRLUP. However, it is clear from the demographic data that residential population growth is expected to continue and additional housing will be required.

Current household characteristics of Central Darwin are compared with those of Greater Darwin in Table 3. As with population characteristics, there are clear distinctions in household structure, type, and ownership between Central Darwin and Greater Darwin. Notable differences include:

- a significantly lower proportion of separate, semi-detached, and terrace housing, particularly in Darwin City;

- a higher proportion of lone and group households contributing to a lower average household size;
- higher levels of rental housing and correspondingly lower rates of home ownership; and
- a higher proportion of unoccupied dwellings.

Table 3: Selected household characteristics, ABS Census (2011 and 2016)

	Darwin City (incl. Waterfront)		Larrakeyah		Greater Darwin	
Year	2011	2016	2011	2016	2011	2016
Household Structure	%	%	%	%	%	%
Family households	51.0	52.3	59.0	64.3	72.1	73.2
Lone person	33.7	37.1	28.7	26.4	21.3	20.8
Group households	15.3	10.6	12.3	9.3	6.6	6
Average household size (persons)	2.1	2.0	2.3	2.3	2.7	2.7
Housing	%	%	%	%	%	%
Separate House	1.3	1.3	26.5	22.2	64.2	63.3
Semi-detached, townhouses	1.2	0.0	10.9	12.4	12.9	10.8
Flat or apartment	93.4	97.4	60.7	63.3	19.8	23.4
Other Dwelling	3.9	0.4	0.9	0.2	2.9	2.0
Housing	%	%	%	%	%	%
Rented (% of dwelling)	67.4	73.2	59.1	64.6	41.9	44.4
Home ownership (%)	26.6	22.8	37.1	32.4	54.6	51.8
Unoccupied private dwelling (%)	18.8	20.7	11.4	16.6	9.0	11.4

As identified at Figure 2, housing in Central Darwin is predominantly high density apartments. The high percentage of rental properties and one and two bedroom apartments (Figure 3) indicates a largely investor driven housing market.

It is noted that if future housing in the city centre continues to focus on one and two bedroom apartments, Central Darwin will continue to attract

a similar demographic to today: younger people, couple families without children, and temporary residents. Central Darwin's strong population growth and solid employment record indicate that a shift to a more diverse and stable residential population mix is possible in place of the anticipated low proportions of families.

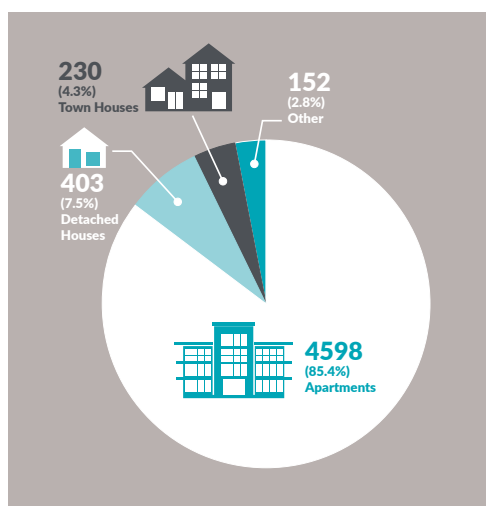


Figure 2: Proportion of housing types

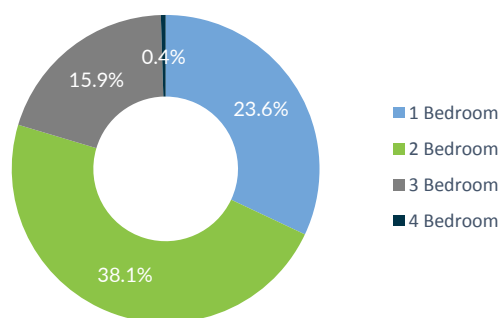


Figure 3: Number of bedrooms in dwellings built between 2011 and 2017

As indicated in Table 4, a total of 5 600 additional dwellings will be required to meet the far term demand for new dwellings. These new dwellings will house in the order of 10 000 additional residents in the far term.

	2016	Near Term	Intermediate Term	Far Term
Estimated resident population	10 190	11 000	13 000	20 000
Required dwellings (additional to current)	-	5 982 (+600)	7 028 (+1 700)	10 982 (+5 600)

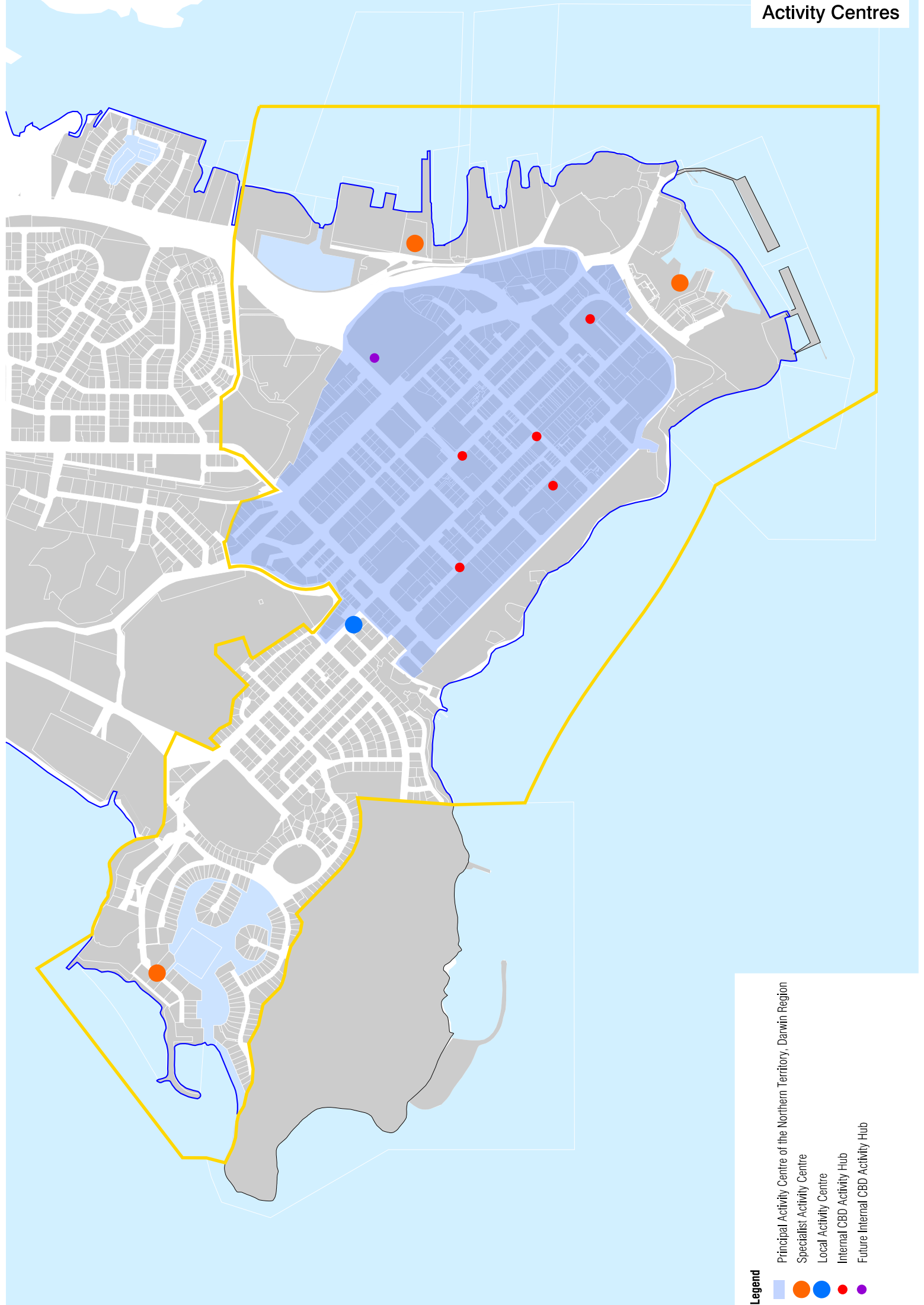
Source: Macropian Dimasi 2017

The DRLUP identifies a number of locations within the region, including Central Darwin, as being appropriate for higher density infill residential development. This approach maximises the social, economic, and environmental benefits that can flow from increasing liveability and residential densities in activity centres. These benefits include physical movement and social connectivity, as well as supporting local business and employment, and optimal land and infrastructure use.

The Central Darwin study area is comprised of several unique residential localities that reflect the current land use zoning. Cullen Bay and Larrakeyah are well established residential areas and there are residential focused localities emerging within the

city centre. Both Darwin City and parts of Larrakeyah have considerable capacity for further residential development or redevelopment within the current zoning (refer to the Zoning Map on page 6).

Frances Bay and the former Tank Farm in particular present longer term opportunities for some residential development that transitions between the higher densities of the city centre and suburban residential at Stuart Park.



Legend

- Principal Activity Centre of the Northern Territory, Darwin Region
- Specialist Activity Centre
- Local Activity Centre
- Internal CBD Activity Hub
- Future Internal CBD Activity Hub

Activity Centres

Activity centres are the hub of a region or neighbourhood. They are generally mixed use areas comprising shops, offices, community, and residential developments corresponding to the size of the population they serve.

Activity centres within the study area include the Darwin City Centre (the Northern Territory's principal centre), the local centre at Harriett Place and Smith Street, and the specialist centres of the Darwin Waterfront and Cullen Bay (Refer to Activity Centres Map). These activity centres are well-located along the Smith Street corridor linking the Darwin peninsula end to end.

In accordance with the Darwin Regional Land Use Plan, planning for the city centre as the Territory's principal activity centre should focus on:

- quality office and residential precincts;
- tourism experiences;
- higher order retail;
- education; and
- tropical character.

Retail and Commercial Demand

Table 5 outlines current retail and commercial floorspace and anticipated future need in the context of the city centre's role as a local and regional centre. Although these figures suggest growth in both commercial and retail floor space will be slow in the short term, demand is expected to increase in the longer term with regional population growth and a doubling of the local population.

Table 5: Commercial and Retail floor space – Current, projected and required (m²)

	Current	Near Term	Intermediate Term	Far Term	Total Additional Floorspace Required
Regional Population		150 000	175 000	250 000	-
Local Population		11 000	13 000	20 000	-
Retail	59 411	55 500	64 750	92 500	33 089
Commercial	213 426	250 922	292 742	418 203	204 777

While there is adequate retail floorspace to meet current and intermediate term demand, gaps in the retail offering including discount department stores, food and beverage, clothing and apparel stores, and minimarts have been identified. The oversupply of supermarkets for the local catchment suggests that the CBD is serving as a local centre for both local residents and the inner suburbs. Planning to address the gaps in supply is essential as the populations of the inner suburbs and Central Darwin grow and local level convenience retailing becomes more prevalent in the inner suburbs.

The required long term increase of more than 30 000m² of retail floorspace cannot be solely delivered by small boutique stores and eateries along inner city streets. This level of projected demand requires the preservation of large sites with sufficient space to address supply gaps and to become well-planned developments.

Growth in population and visitor activity will drive additional demand for commercial office space in the city centre. Many commercial spaces within the city centre are in need of expansion and upgrades. A sharp increase in top quality commercial space in early 2016 resulted in a move away from lower quality properties in Central Darwin and contributed to a vacancy rate of 20.7% (mostly comprising lower grade spaces). Recent provision of office space in business parks and service commercial or industrial areas such as Berrimah, Woolner, and Winnellie have also influenced the vacancy rate in Central Darwin. The quality of the current mix of commercial space is shown at Figure 4.

Non-employing and businesses with 1-4 employees are increasing regionally, but these are predominantly setting up outside of Central Darwin.

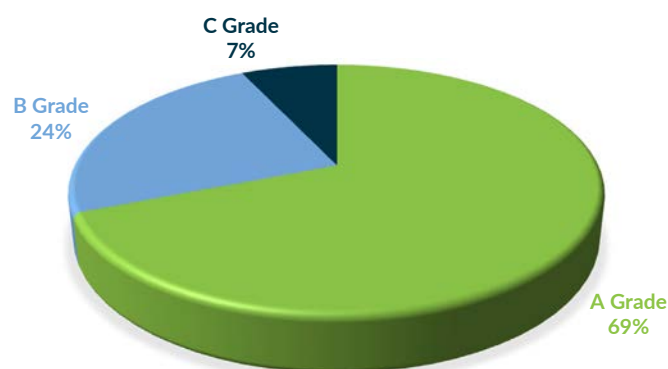


Figure 4: Commercial office quality

Short Term Accommodation/Tourism

As indicated in Table 2, tourists and visitors contribute significantly to both the day and night population. A large portion of this group is accommodated in the city centre and the nearby specialist centres of Darwin Waterfront and Cullen Bay.

Demographic and economic studies completed for the CDAP project reported a total of 918 450 visitors in 2016, 77% of whom were overnight visitors. The total number of visitor nights spent in Central Darwin in 2016 was 5.9 million. Visitor

nights are anticipated to increase to almost 14.3 million in the far term resulting in a need for close to 6 900 additional tourist rooms. Table 6 outlines anticipated visitor nights and tourist accommodation demand into the far term.

Table 6: Additional tourist accommodation requirements

	Current	Near Term		Intermediate Term		Far Term	
		Additional	Total	Additional	Total	Additional	Total
Visitor nights	5 909 971	-	-	3 110 000	9 019 971	8 370 000	14 279 971
Tourist accommodation (rooms)	3 738	172	3 910	1 789	5 527	6 866	10 604

In the last 3 years, 1 390 rooms have been proposed for development. If most of these developments proceed, Central Darwin will be in a good position for meeting tourist accommodation requirements up to the intermediate term.

Defence (Aviation Areas) Regulations 2018

Defence (Aviation Areas) Regulations (DAAR) restrict building heights in the Central Darwin study area to maintain safe airspace for traversing aircraft. The DAAR controls are the first level of height controls related to the operation of Darwin International Airport / RAAF base. Obstacle Limitation Surface and PANS OPS height limits also apply, but reference is made to the DAAR controls as these are the initial regulations that trigger the requirement to gain approval.

Excluding Mitchell Street (Western side) and The Esplanade, these controls are the only height limits that apply in the city centre. Outside Zone CB (Central Business) land use zones limit building height well under DAAR limits. Therefore, within Central Darwin, the DAAR primarily impacts on development in mixed use areas such as the city centre. Approval is required for development proposals that exceeds the heights illustrated in Figure 5.

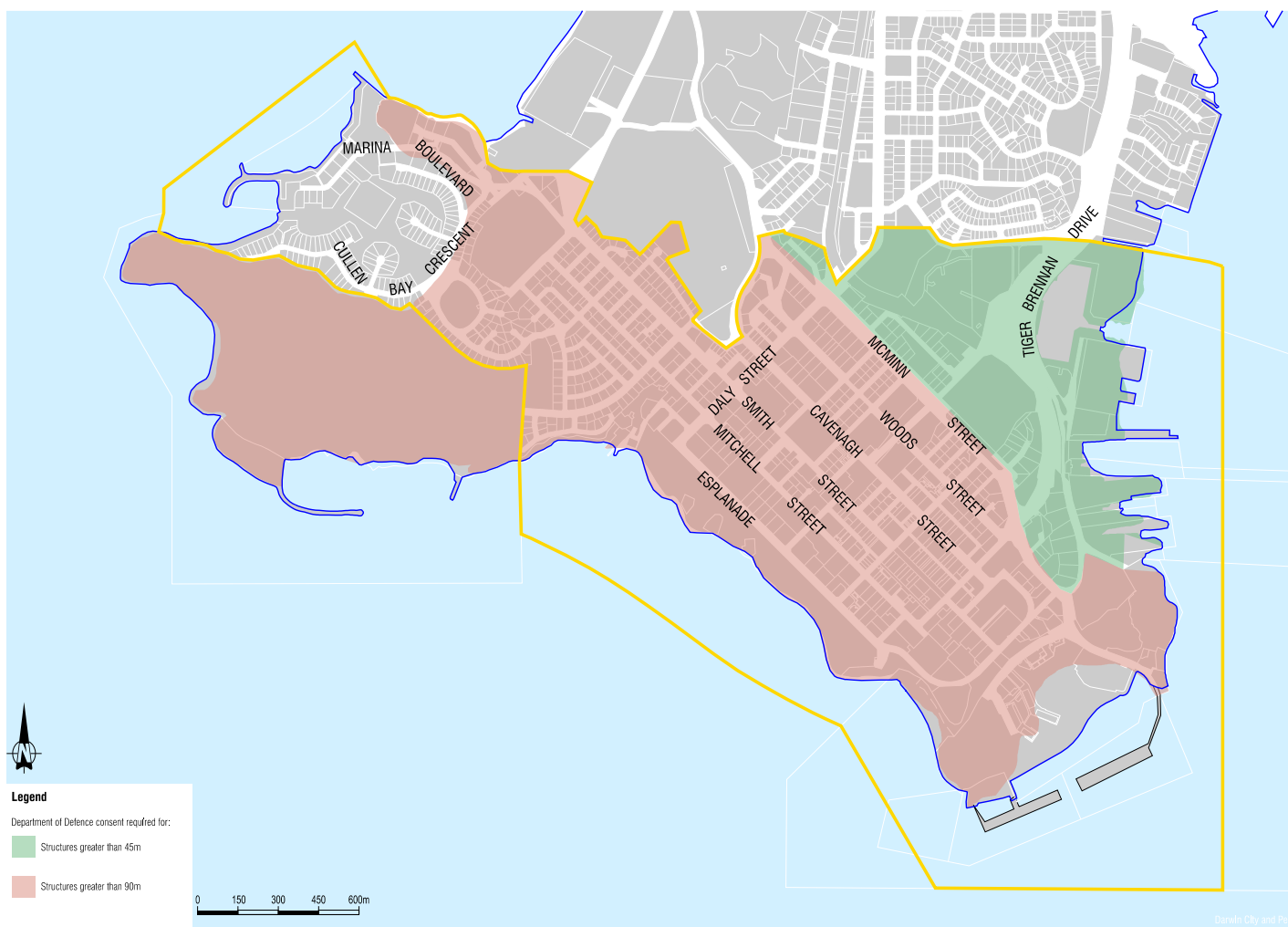


Figure 5: Department of Defence Controls Map

Community Feedback

Figure 6 below illustrates the range of factors that respondents to an online survey considered would encourage people to reside in the city centre. Comments regarding housing design related to both building design and variety in housing options.

Figure 6: Stage 1 Consultation Survey Response “What would encourage you to live in Central Darwin?”



Implications for the Area Plan

The current land use zoning in Central Darwin has capacity to accommodate population growth far exceeding the 5 600 additional dwellings required into the next 50 years. Accordingly, ongoing residential development has been prioritised within the city centre and the more established areas of Larrakeyah and Cullen Bay will, in large part, maintain their current zoning. Residential growth is therefore able to continue responding to market demand within the current zoning.

Guidance has been provided for Frances Bay and the former Tank Farm where development is envisaged to occur in the far term. This approach works to support activation of the city centre without compromising established or emerging local character, makes efficient use of existing infrastructure, and allows time for any studies or remediation required at the former Tank Farm and Frances Bay.

The Area Plan supports a shift towards a more diverse and stable population mix by encouraging a range of housing typologies, attractive neighbourhoods, and improvements to the public realm. Retail and public realm improvements are also often fuelled by the needs of tourists and visitors. The more pleasant an experience Central Darwin can provide for tourists and visitors, through shaded streets and interesting arcades for example, the more amenable the area will be for long term residents.

Several localities within Central Darwin permit a variety of high activity uses, i.e. mixed use retail, commercial, residential, and recreation. These high activity localities serve tourists and locals alike. In order to support the visitor experience, resident liveability, and retail and commercial activity, the Area Plan has introduced a mixed use theme that provides guidance for developing a safe, comfortable, and attractive public realm in these areas. As DAAR height controls primarily impact the city centre, where the zoning does not regulate building height, the Area Plan addresses the DAAR in the mixed use theme.

There is adequate land in Zones CB (Central Business) and TC (Tourist Commercial) to accommodate the number of tourist rooms expected for far term development. Improvements to the public realm and built form that are encouraged by the Area Plan will also enhance the visitor experience.

The potential for expansion of Charles Darwin University and student living facilities could also help to drive the viability of Central Darwin and has been accommodated within the Area Plan.

Social Infrastructure, Culture and Heritage Map



Refer to Old Hospital/Milly Terrace Focus Area on page number 49 for further information on land uses for site.

- Legend**
 - Potential Area for Change
 - Community Purpose
 - Open Spaces
 - Organised Recreation
 - Heritage
 - Heritage Oil Tunnels
 - Places of Cultural and Social Interest
- Declared Heritage Places**
 - 1 - 17 Shepherd Street
 - 2 - Administrator's Offices Darwin
 - 3 - Boab Tree, Cavenagh Street
 - 4 - Browns Mart
 - 5 - Christ Church Cathedral Heritage Precinct
 - 6 - Commonwealth Bank (former Darwin)
 - 7 - CWA/Red Cross Shop
 - 8 - Darwin's Cenotaph
 - 9 - Former Reserve Bank Darwin
 - 10 - 12 Schultze Street
- Declared Heritage Places**
 - 11 - Government House
 - 12 - Hughes Avenue
 - 13 - Lyons Cottage or British Australian Telegraph Company
 - 14 - Westpac Bank
 - 15 - Milkwood Trees Smith Street
 - 16 - Milly Point Heritage Precinct
 - 17 - Old Admiralty House
 - 18 - Peels Wall
 - 19 - Remnant No. 6 Oil Tank
 - 20 - State Square Banyan Tree
- Declared Heritage Places**
 - 21 - Steam Pump House
 - 22 - Stella Maris Hostel
 - 23 - Sue Wah Chin Building & footpath
 - 24 - Town Hall Ruins - Darwin
 - 25 - Tree of Knowledge
 - 26 - WWII Naval Oil Tunnels 5 & 6
 - 27 - WWII Naval Oil Tunnels 10 & 11
 - 28 - Naval Fuel Installation
 - 29 - Frog Hollows
- Sites which may be considered for Multipurpose Community Centre and/or Indoor Sports Facility

A B C

Social Infrastructure

Context

Social infrastructure provision in the study area has been evaluated in the context of Darwin's role as a capital city and the city centre's role as a regional and local centre for residents. Current social infrastructure facilities are shown on the Social Infrastructure, Culture and Heritage Map.

Of the four sites specifically zoned to accommodate community and recreation facilities, two are primary schools and two are vacant. A variety of community facilities are distributed across other zones, indicating a strong level of space and / or service provision by the private sector. One factor in the provision of community facilities on land other than Zone CP (Community Purpose) is that many of the land use zones in Central Darwin allow for such uses as either permitted or discretionary.

Public Open Space and Organised Recreation

A total area of 34.5ha of land is currently developed and used as public open space. Facilities include a regional park (Bicentennial Park), a district park (Civic Park), 16 local and 6 smaller pocket parks. An additional 13.3ha is developed for active recreation including 1 playing field, Cullen Bay Marina, and the wave pool and lagoon at the Darwin Waterfront.

The total provision of usable public open space and active recreation areas equates to 5ha per 1 000 persons and is well in excess of the commonly used Australian standard of 2.83ha per 1 000 persons. With the development of land currently zoned but not used for open space, even in the far term, there

will be a shortfall of only 2.5ha to serve the increased population.

Health / Medical

Studies indicate the provision of GP's currently exceeds the national average but that in the long term additional practitioners will be required. Provision of medical facilities is also influenced by the availability of services in the inner suburbs and the use of Central Darwin facilities by workers in the city centre.

Aboriginal health services are available within Central Darwin and also provide services to Greater Darwin. Specialist health services such as dentistry, physiotherapy, and psychology are also widely available throughout Central Darwin.

Childcare Centres

Three child care centres are located within the study area. Two of these centres, and the five in the inner suburbs, are at (or close to) capacity. While an additional childcare centre on the ground floor of Energy House is proposed, expansion of centres or construction of new centres is required now and into the future.

Education

Enrolment capacity for current education facilities within the Department of Education's inner Darwin catchment is summarised in Table 8 below.

Table 8: School Capacities in the DoE's inner Darwin catchment

Schools	Current Capacity	Capacity in 2025
Preschools	At capacity	At capacity
Primary Schools	Managing enrolments	Exceeding capacity
Darwin Middle School	Approaching capacity	Exceeding capacity
Darwin High School	Managing enrolments	Approaching capacity
Private Schools	Not under capacity pressure	

Assessment of the operating capacity of education facilities also indicates:

- schools within the inner Darwin catchment have accommodated significant enrolment growth since 2014; and
- Larrakeyah Primary, Stuart Park Primary, and Darwin Middle School are the main capacity pressure points in the inner Darwin catchment.

The number of expected school enrolments to 2025 is equivalent to a new primary school and a small middle school. The Department of Education anticipates managing primary school enrolments through provision of 2-6 additional classrooms at Stuart Park or Larrakeyah by 2025 and enforcement of the Priority Enrolment Policy. There are no other plans for extensions, upgrades, or new schools.

Central Darwin's role as a major employment centre is an important consideration in planning for schools, as the proximity of schools to places of employment is a determining factor in their popularity. An increase of families in Central Darwin is also likely to impact on Department of Education planning.

Tertiary Education and Accommodation

Tertiary education is a regional level consideration. The Darwin Waterfront campus of Charles Darwin University (CDU) delivers vocational and higher education and can host up to 600 students and 40 staff. Projections indicate that enrolments at the Darwin Waterfront campus will grow to approximately 1 000 students by 2025. The City Deals program is exploring the option of moving additional CDU faculties into the city centre. The potential for an increased presence could result in more activation of the city centre and significant opportunities for the commercial student accommodation market.

Accommodation and Services for the Elderly

As indicated in the discussion regarding population, it is anticipated that the trend for 'empty nesters' to move to Central Darwin will continue. It is anticipated that in the far term, roughly 20% of Central Darwin residents will be aged 55 years or over. The need for adaptable housing that allows people to age in place is therefore expected to increase in the future.

In the far term, the Central Darwin population will generate the need for approximately 165 independent living units and 195 care beds. There are no residential aged care facilities within Central Darwin and provision across the region is well below the national average. This shortage results in people moving to facilities outside their familiar neighbourhood and delays in moving older patients from hospital to residential care placements when they are not able to return home. This problem is becoming more pronounced as the population of older people in Darwin increases.

While demand for independent living units or aged care beds generated within Central Darwin does not need to be met in the immediate locality, the benefits of remaining close to home are noted. A number of large sites within Central Darwin may be able to accommodate an independent living unit facility delivered through private development. However, planning for aged care facilities may be best considered at the regional level.

Civic Facilities (Libraries, Community Meeting and Activity Spaces, and Social Support Services)

The City of Darwin's city library is a popular and well utilised district level facility. However, expansion and modernisation is required to adequately meet the needs of the growing population of Central Darwin and the inner suburbs.

While it is possible to hire space for community meetings or activities from a church or social club, there is a lack of general multi-purpose community meeting and activity spaces. Current population figures warrant a new local level multi-purpose community centre or meeting and activity space. The anticipated far term population of 20 000 will result in the need for a district level multi-purpose community centre.

A shortage of low cost office space for non-government services has also been identified. This shortage has been related to high rents in the city centre leading services commonly found in central business districts to relocate to areas with lower rents. The opportunity to co-locate services and share facilities may be lost where service providers are more widely distributed across a region.

The Social Infrastructure Assessment recommends the development of a civic hub that co-locates a range of community facilities and services allowing for synergies in space and resource. Such a facility may help to address the need to:

- upgrade the library;
- create space for social support services; and
- provide local level community meeting, activity, and art spaces.

Community Feedback

Respondents Respondents report recreation spaces and facilities as the most frequently used social infrastructure in the study area. There was a noted desire for additional formal and informal outdoor recreation spaces; particularly spaces that incorporate attractors such as playgrounds, water play / swimming, pop-up cafes, and entertainment. These spaces should focus on greening and heat mitigation, promoting Darwin's unique locality and identity, and supporting activation of public spaces in the city centre. There has also been a strong desire to retain the Old Hospital Site and Myilly Point as public open space.

Enhancement of the Civic Precinct to provide some additional social infrastructure including improved library facilities and community meeting spaces was generally supported.

Enhancement of the Civic Precinct to provide some additional social infrastructure including improved library facilities and community meeting spaces was generally supported. Feedback was specifically sought during Stage Two consultation on potential sites for a future multi-use community facility, with respondents identifying the following sites:

- The Old Hospital Site;
- Civic Precinct or waterfront locality;
- Frog Hollow Park;
- The Esplanade for outdoor recreation and sporting facilities; and
- Smith Street Mall.

Regarding education, feedback focused on university and adult learning facilities. Suggestions for the location of university facilities included:

- Cavenagh Street carpark (adjacent GPO);
- the Old Hospital Site; and
- the Civic Precinct (particularly for an arts facility).

Consultation confirmed the need for aged living or supported care, as well as the need for accommodation for homeless people.

Implications for the Area Plan

The Area Plan recognises the need for adequate land in accessible localities to support provision of community facilities. Many community services and facilities are a permitted or discretionary use within Central Darwin's land use zones. The broad range of land uses able to be considered under the zones allocated to land in Central Darwin presents the market, government, and non-government services with extensive opportunities to meet community need. Therefore, it is not anticipated that any rezoning of land to Zone CP (Community Purpose) will be required.

Open Space and Organised Recreation

Open space is delivered through council managed land as well as publicly accessible components of private development. The Movement and Transport theme of the Area Plan works to achieve a pedestrian network that also links open space areas. This network will enhance the opportunities for movement between foreshore areas and parks across Central Darwin and the inner suburbs.

Over time the open space network will be expanded to incorporate open space provided as part of the development of large lots (e.g. along Garramilla Boulevard). The Area Plan encourages the built form of development to address and interact with any adjacent public open space. Development is also

encouraged to face public open space to support amenity, activity, and safety.

The Area Plan establishes that there should be no net loss of either open space or floorspace used for provision of civic facilities. Opportunities are identified for additional usable open space at the Old Hospital Site, Myilly Point, and the former Tank Farm that will result in above average provision of usable open space well into the future. The flexible design of public open spaces to allow use for markets, live music, festivals, and active recreation is also encouraged.

The Area Plan supports provision of a local level indoor sports facility within Central Darwin to support recreational and youth needs. A number of large sites on the periphery of the city centre provide such opportunities into the future.

Accommodation and Services for the Elderly

Supporting accommodation is a discretionary land use within most areas of Central Darwin. While there is flexibility as to where retirement living or aged care may be located, it is noted that it may be difficult to secure land within Central Darwin that meets the needs of retirement living or aged care providers. Notwithstanding, the provision of these types of residential accommodation within Central Darwin is encouraged and is possible should the private sector be motivated.

Education

The Northern Territory Government is in discussion with Charles Darwin University regarding an increased tertiary education presence within Central Darwin. The Area Plan supports additional and/or relocated campus and accommodation facilities and recognises the potential benefits to the community and economy of the associated increases in accessibility and activity. The Area Plan identifies opportunities for a University campus at the current Post Office Car Park site at Cavenagh Street.

New or upgraded childcare, preschool, primary, secondary, and adult education facilities are likely to be required during the intermediate term. The mixed use localities identified in the Area Plan, and many of the current land use zones, allow for consideration of education facilities as demand arises. Locations identified for civic use in the Area Plan, such as the Darwin Post Office Car Park at Cavenagh Street and the old Primary School site on Woods Street, may also present opportunities for the development of education facilities in the future.

Civic Facilities

The Area Plan nominates potential civic hub sites that can serve regional and local needs including

activities such as a district library, office space for community service providers, meeting rooms, and art spaces.

As local community facilities are a significant gap in social infrastructure for Central Darwin, provision of interim space for social support services, community activities, meetings, and community-based arts activities has been recommended to improve local liveability. The high vacancy rate of office space in the city centre presents an opportunity to achieve this.

Culture and Heritage

Context

Central Darwin is rich in cultural and heritage features related to Aboriginal culture, European and Asian settlement, and World War II. A wide range of cultural and entertainment facilities contribute strongly to local identity, sense of place, and amenity in addition to being of interest to visitors. A range of features of heritage significance and cultural importance are indicated on the Social Infrastructure, Culture, and Heritage Map.

Darwin was settled and developed more recently than other Australian capitals and from the beginning there were explicit objectives to recognise the rights of the Larrakia. When GW Goyder's surveyors arrived from Adelaide in 1869, around 500 Larrakia lived on Darwin Harbour. Official recognition of the Larrakia as the original owners and later, distinctive citizens of the emerging city of Darwin has been an underlying theme in the history of Darwin. Today the Larrakia are visibly engaged in the cultural, economic and political life of the City and as the primary land owners of land on the Cox Peninsula, will have a major influence over the future growth of the City.

The Northern Territory Government supports an adaptive reuse approach to managing some heritage sites. Adaptive reuse means that instead of leaving important places such as the Old Hospital and Flagstaff Park underutilised, they are integrated into related and accessible new uses that feature and celebrate the heritage value. Adaptive reuse of a heritage feature or site should respect and interpret significant associations, meanings, and activities. An example of adaptive reuse can be seen at the Administrator's Office, opposite Civic Park, which has been adapted for reuse as an office but maintains the external structure and uses landscaping to accentuate the importance of the site.

Residents of, and visitors to, Central Darwin have relatively good access to cultural and entertainment facilities in the city centre and inner suburbs that cater for the regional catchment. These include:

- Darwin Entertainment Centre;
- Browns Mart Theatre;
- Deckchair Cinema;
- various small scale galleries and museums; and
- dining, shopping and entertainment along Smith, Mitchell, and Knuckey Streets and the Darwin Waterfront.

A number of social and recreational clubs within Central Darwin and the inner suburbs provide entertainment facilities and have potential to host social events and private functions. Regional facilities located in the inner suburbs, such as the Museum and Art Gallery of the Northern Territory, George Brown Darwin Botanic Gardens, the Amphitheater, Fannie Bay Gaol, and Skycity Casino also serve the Central Darwin community.

Community Feedback

Consultation identified that Darwin's multicultural, pioneering past and its Larrakia heritage are highly valued. Submitters would like to see the connections between Larrakia people and land in Central Darwin supported and enhanced. A keeping place for the languages, cultures, and histories of the various cultural groups that have contributed to Darwin's identity was suggested, including the development of an Indigenous cultural centre at Myilly Point.

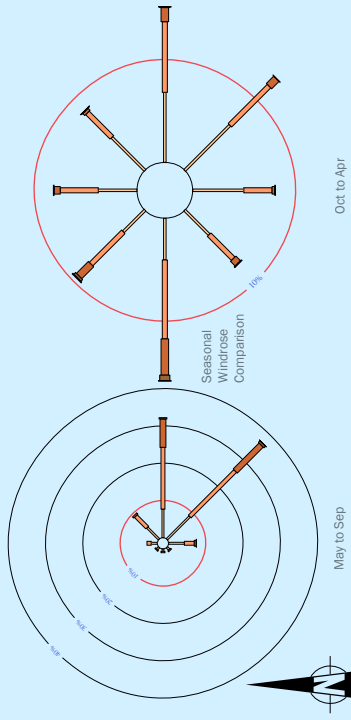
Support for Darwin's art community was also apparent with suggestions to maintain and further develop work, display, and performance spaces. The heritage listed houses designed by Beni Burnett in the Myilly Point Heritage Precinct are also appreciated for their heritage and community value. The ongoing use of these Heritage buildings is an example of adaptive reuse, which has been broadly supported by respondents.

Implications for the Area Plan

The Area Plan supports the ongoing protection of, and allows for the adaptive reuse of, particular cultural and heritage places. The Area Plan also encourages the use and development of sites that relate to (are adjacent to or interact with) cultural or heritage features to respond to the character of nearby heritage features.

Display space for students and non-professional artists may be further considered in conjunction with work on other arts or civic spaces such as the potential civic and education precinct at the Post Office car park site. The flexibility within Zone CB also enables cultural and community facilities to be located anywhere within the city centre by Government or the Private Sector.

Environment Map



- Legend**
- Storm Surge
 - Primary
 - Secondary
 - Remnant/Regrowth Vegetation
 - Organised Recreation
 - Open Spaces
 - Coastline

Environment

Context

The DRLUP envisions the region growing and developing in a manner that maintains connections to the natural environment. Environmental objectives from DRLUP that relate to Central Darwin, with its coastal and urban forest environs, emphasise:

- the role of the natural landscape in resident and visitor amenity;
- continued management of Darwin Harbour, an asset of international significance; and
- connectivity between components of the natural landscape.

Coastal Systems

Darwin Harbour is also highly valued by the community for cooling breezes and accessible recreation spaces. The community gains economic benefit from the harbour through the activities of various industries and tourism.

Central Darwin forms one boundary of the entrance to Darwin Harbour, an internationally significant conservation site largely due to the extensive presence of mangrove forest systems supporting rich diversity in local and migratory protected fauna species.

Land use and development in Central Darwin has the potential to impact Darwin Harbour through increased intensity of urban activity and land reclamation or coastline alteration. The Darwin Harbour Water Quality Protection Plan notes that, despite localised areas of concern, the condition of Darwin Harbour is “generally good to excellent, particularly in comparison to waterways surrounding other major Australian cities” (p6). Provided good management continues, Darwin is considered to have an opportunity for sustainable urban and industrial development within the harbour and its catchment.

Stormwater and wastewater discharge are recognised as surface hydrology factors that may have significant impact upon the harbour. A report by the NT Environment Protection Authority in 2014 on stormwater management made the following suggestions for maintaining the health of Darwin Harbour:

- protection of natural systems within the harbour catchment;
- stormwater system improvements, reclamation, and reuse;
- consider the cumulative impacts from dredging; and
- increase permeable surfaces.

Urban forest

Remnant vegetation patches along with landscaped spaces and corridors contribute to visual appeal, provide shade and cooling to streets and buildings, reduce stormwater runoff, and support health, biodiversity, social, and recreational activities.

Most remnant vegetation in Central Darwin is modified coastal rainforest. In order for these small patches to provide long term amenity, biodiversity, and habitat services into the future, it is important that they are connected to other components of the urban forest.

Tropical Cyclone Marcus, which impacted Darwin in March 2018 as a Category 2 storm, destroyed a significant proportion of the city centre’s canopy cover. The City of Darwin has commissioned work into the most appropriate tree species and planting methods for the Darwin environment to reestablish the vegetation, which contributed to the amenity of the CBD to the value of \$2.4m. It will take some time for replacement planting to achieve that same level of contribution; however, City of Darwin’s ongoing and improved tree planting program is likely to increase these values.

Community Feedback

Green public spaces, connections to Darwin Harbour, and established shade trees are highly valued by the community. The Esplanade with its shade trees, open space, and water views was the most frequently nominated natural feature valued by the community. Strong support was noted for retaining, enhancing, and increasing the overall amount of green space and ensuring that green spaces are connected and networked.

The most common suggestions for enhancing Darwin’s natural features were:

- increasing shade tree planting along streets and in parklands; and
- encouraging use of high natural value areas with low-impact, small scale attractors such as small cafes or pop-up food vans, picnic areas and barbecues, exercise equipment stations, and additional children’s playgrounds.

Recognition of the local climate in the design of buildings, roads, streetscapes, and open space areas was also raised.

Implications for the Area Plan

Ultimately, the Area Plan contains objectives that encourage the:

- minimisation of adverse impacts of development on natural environments;
- protection and connection of natural features by incorporating remnant vegetation and harbour front land into the open space network; and
- management of potential residual contamination on some sites and of environmental hazards such as storm surge and biting insects.

As seen in the context and community feedback above, environmental factors influencing land use and development as well as community wellbeing in Central Darwin are wide-ranging. This broad influence has meant that environmental considerations are relevant to, and reflected in, much of the Area Plan. Some examples include:

- the Residential and Mixed Use theme that encourages development to contribute to amenity through landscaping, green walls, and sustainability measures;
- the Movement and Transport theme that provides for green links to support active transport, connect green spaces, and cool the surrounding street scape; and
- the Movement and Transport theme that supports the development of a largely off-road looped active transport network that connects existing, and incorporates new, open space provided for in the Social Infrastructure theme.

City of Darwin manages most parks and street planting on public land. The Area Plan has limited ability to influence the management of these spaces. However, the NT Planning Scheme does contain landscaping and open space requirements for development on private land making it possible for the Area Plan to encourage the interaction of landscaping on private land with the public domain.

Movement and Transport

Context

Walking and Cycling Networks

The benefits of concentrating population growth in particular localities relies on having an efficient urban structure that locates groups of activities within walking distance of each other. Pedestrian movement is therefore a key element across the study area as a whole and within each focus area. Enabling the co-location of dwellings with

destinations of high amenity and high activity encourages increased pedestrian and cyclist movements. Darwin's tropical climate, relatively flat landscape, younger demographic, and picturesque coastal location provide an excellent walking and cycling environment.

Pedestrian networks with effective weather protection are key components to enhancing the liveability and economic vibrancy of Central Darwin. Pedestrian activity is highest along Knuckey Street and Smith Street including The Mall. Aside from the local street network there are many small pedestrian connections through open space areas (e.g. Damoe Ra and Nurses Walk) as well as numerous sheltered or open air arcades within the city centre offering access between major streets.

Enclosed arcades provide a sheltered and air-conditioned pedestrian environment that break up large blocks to offer a finer grained movement network. Arcades can also offer mixed use settings that enable small businesses to benefit from passing foot-traffic and may attract people through interesting and unique design features, e.g. Air Raid Arcade. The Pedestrian/Cycleway Network Map illustrates the currently accessible off-road pedestrian links.

Studies indicate that:

- there is a lack of official cycling networks in the Central Darwin study area;
- the highest volumes of cycle journeys to work occur between Larrakeyah and the city centre and Stuart Park and the city centre;
- Daly Street (including Gardens Road and Smith Street connections) and Bennett Street appear to be the primary cyclist access routes to the city centre;
- Cavenagh Street is used by cyclists as a movement corridor within the city centre;
- Daly Street is the most common location for cycling accidents; this is linked with complex intersection layouts and numerous driver/rider interactions within relatively short distances;
- there is strong community support for new/improved cycling infrastructure in the city centre.

Despite a number of streets having sufficient width to accommodate some form of treatment enabling safe cycling, the provision of dedicated on-road cycle lanes is limited. End of trip facilities are also limited.

Movement and Transport: Potential Enhancements to Pedestrian / Cycleway Network



Public Transport

Bus services currently enter the city centre through Mitchell Street and exit via Cavenagh Street (see Figure 8). Public transport professionals have indicated that this route has inadequate connectivity with many parts of the CBD and

reduces amenity along Mitchell Street. Potential sites for relocating the bus terminal from Harry Chan Avenue are also under consideration. Longer term, priority bus lanes and additional routes such as a City Loop could become viable as further development occurs – particularly on the city centre periphery.

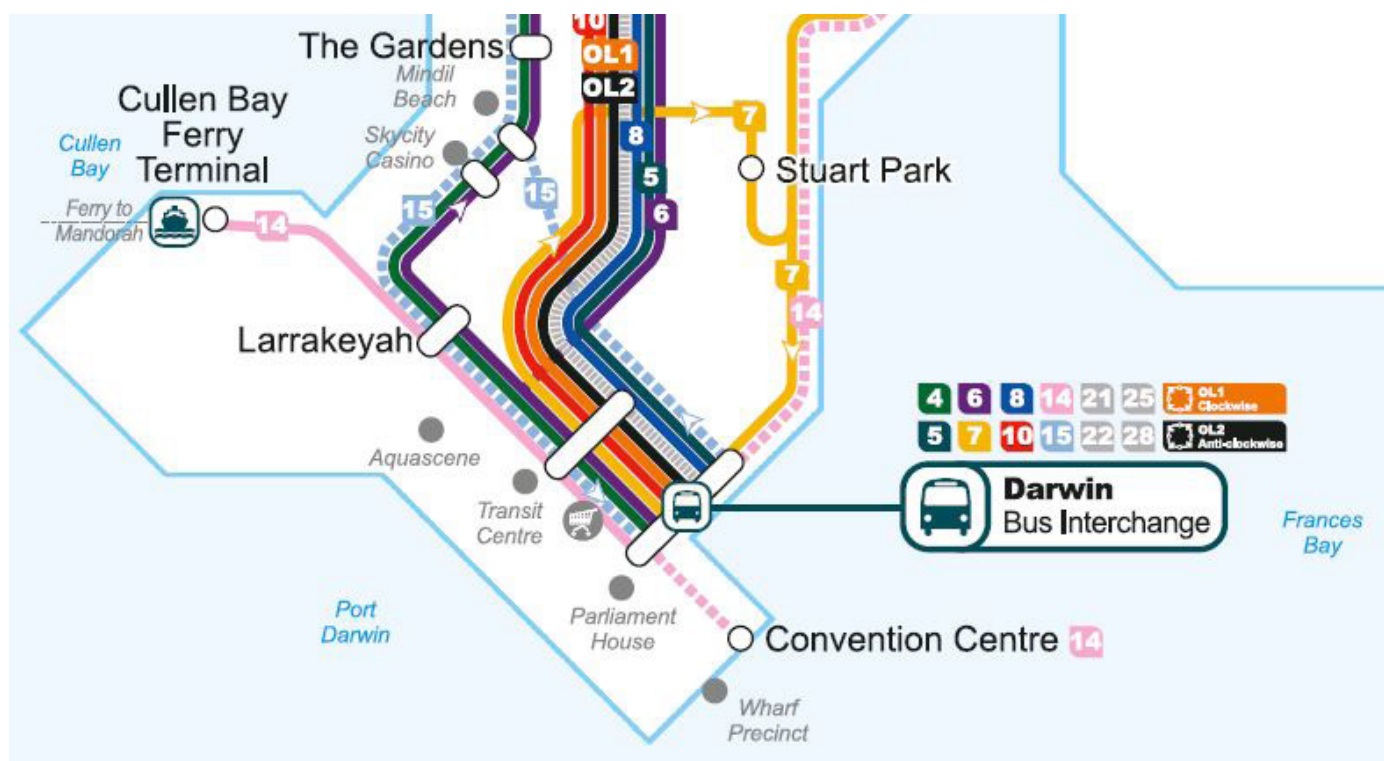
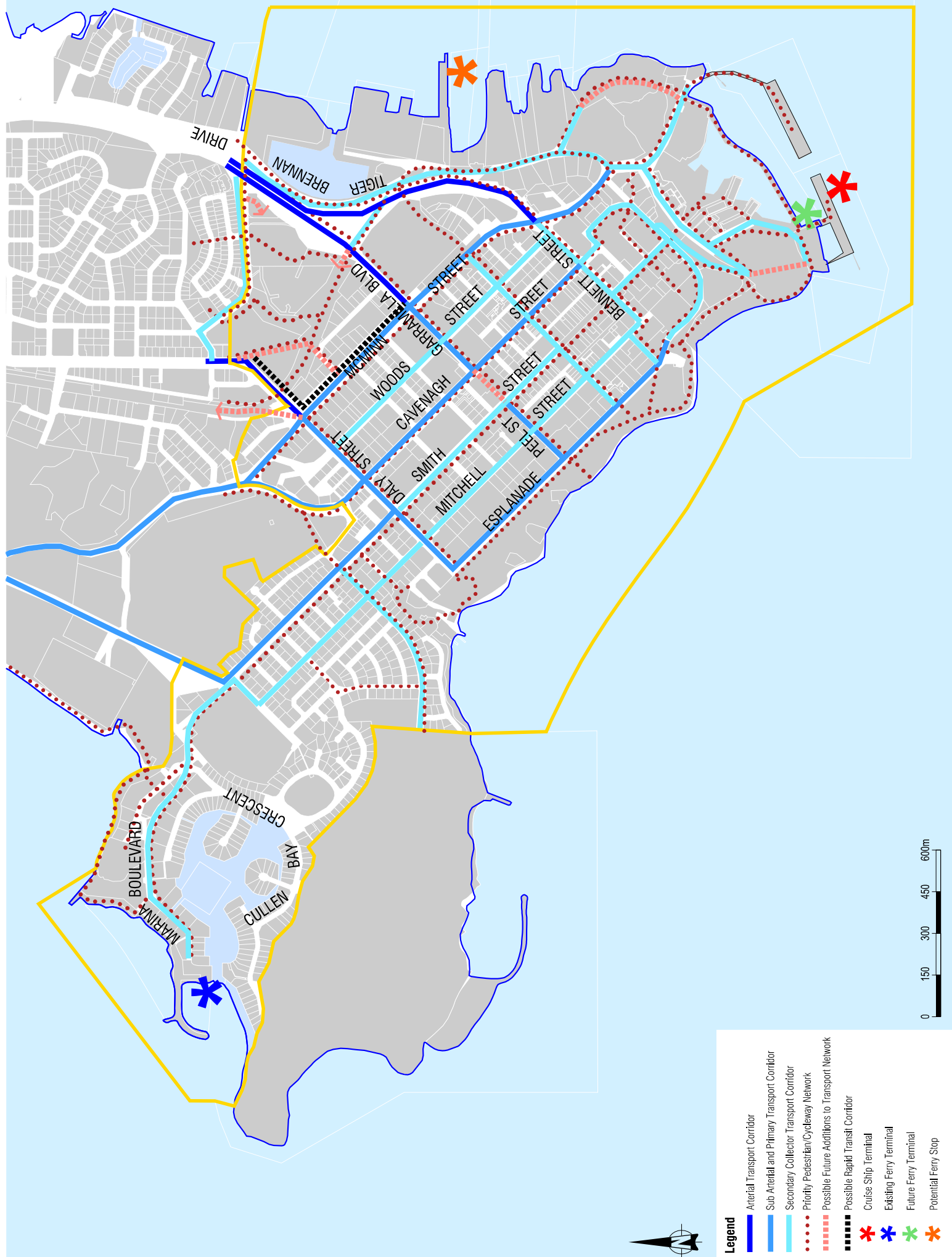


Figure 8: Bus routes within Central Darwin

Source: <https://nt.gov.au/driving/public-transport-cycling/public-buses/Darwin-and-Palmerston-timetables-and-maps>

Movement and Transport - Transport Network Map



Primary Collector Roads

Primary collector roads offer strong connectivity between suburbs and usually act as a strong link to the arterial road system. These roads serve as bus routes, links to local roads, and provide vehicle access to properties along their length.

Primary collector roads in Central Darwin include Daly Street, McMin Street, Bennett Street, Cavenagh Street, and The Esplanade. Gilruth Avenue is also an influential feeder road into the northern part of the Central Darwin network.

Upgrades to intersections will be required along Daly Street in the intermediate term as residential development continues in the locality. McMin Street facilitates traffic movement between the Stuart Highway, Darwin Waterfront, and Frances Bay. Duplication of McMin Street is anticipated to occur in the next five years.

Secondary Collector Roads

In most cases, a secondary collector road provides access to only a small percentage of residences and may also serve as a bus route. Secondary collectors in Central Darwin include Mitchell Street, Smith Street, Woods Street, Knuckey Street, Herbert Street, Harry Chan Avenue, Hughes Avenue, and Kitchener Drive.

Smith Street performs an integral role in connecting activity centres across Central Darwin. Accessibility, shade, and cycling lanes should be improved along Smith Street to support comfortable pedestrian and cyclist movement between the activity centres in Central Darwin. Smith Street's wide road reserve may be able to accommodate these changes.

Local Streets and Laneways

Local streets provide frontage, and give access, to dwellings and businesses along their length. Local streets within the city centre predominantly provide access to businesses, while in Larrakeyah they mainly serve dwellings.

Laneways have been used to provide discrete access to carparking, delivery vehicles, and waste collection services throughout several of the mixed use and commercial localities in Central Darwin. Laneways may also have a role in pedestrian movement but can appear uninviting. In the city centre most laneways are crossed by arcades (e.g. Carpentaria House to Star Arcade over Austin Lane) and improvements to these crossings may support the pedestrian experience and the role of the arcades in hosting small businesses that can benefit from passing foot-traffic.

Car Parking

The Department of Infrastructure, Planning and Logistics has commissioned a study into current and future car parking supply and demand in the city centre. The study is being conducted to complement the greening and cooling initiatives and in response to concerns that the current car parking requirements weaken the capacity of the city centre to attract new residents, visitors, and businesses. The primary objective is to provide data that enables the development of policy and levies for managing car parking provision.

The availability of car parking in a city centre is considered by many to have a major influence on whether people choose to take up sustainable travel opportunities. Poorly designed car parking can take up large amounts of space, cause visual blight, and reduce activity. To this end, it is important for parking to be well-integrated with the urban form and not detract from pedestrian amenity.

Two major car parking projects are anticipated within the city centre. A 452 bay underground car park is being constructed off Herbert Street to replace the above ground car parks in the vicinity of State Square. Studies have indicated that, as the car park replaces existing parking in the locality, impacts on the surrounding road network will be minimal. Construction of a seven-storey, 320 bay car park is also anticipated on Litchfield Street in association with the redevelopment of Cavenagh House.

Current Vehicular Network Function

Traffic studies to inform the CDAP project have assessed current network functionality. Average delays, average and maximum queue lengths, and level of service (LOS) have been reviewed for 12 key intersections under the current development scenario. Although the overall level of service, delays, and queuing for intersections is considered satisfactory (with an LOS between A and D), some of the movements have higher delays (worse than LOS D) as indicated in Figure 9. Furthermore, the approaches at Mitchell Street and McMin Street have queues extending to the upstream intersections.

Potential Network Function

Modelling of the proposed carparks, traffic movements, and new roads has been undertaken. This work has been very specific to individual projects but has shown that the State Square Carpark is expected to have limited impact on normal traffic operations and that Garramilla Boulevard should have a positive outcome for traffic.

The structure of the street network will be able to cope with the traffic generated by the population growth anticipated within the life of this area plan. Development specific impacts will need to be addressed at the development assessment stage to ensure the integrity of the road network.



Figure 9: Low level of service intersections

Community Feedback

Respondents indicated their belief that Darwin City should become a place for people first, with vehicle traffic limited and improved opportunities for shared spaces for cyclists and pedestrians. Solutions to improve access included:

- a free city bus loop - to transport people within the city centre;
- park n ride – parking stations on the outskirts of the city centre with frequent bus connections;
- bus network - bus prioritised roads and intersections;
- light rail, tram or similar – a rapid transit network; and
- cycleways – improved connections and broader network.

Many people use private vehicles to get into and out of the city but walk between destinations. Figures 10 and 11 illustrate the most common methods of travelling to and within the city as reported by respondents to a survey during Stage One consultation.

Figure 10: Stage 1 Consultation Survey Response “How do you usually get into and out of the city?”

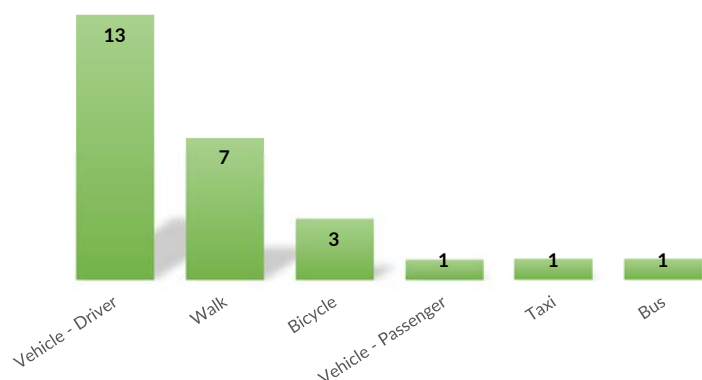
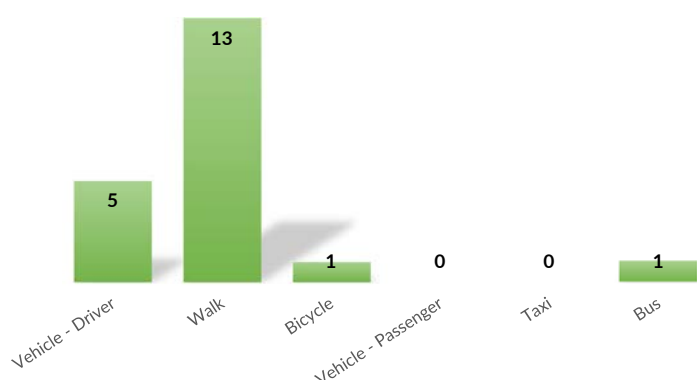


Figure 11: Stage 1 Consultation Survey Response “How do you usually get around within the city?”



Connected, quality, and prioritised pedestrian and cycle routes / paths were consistently raised during consultation. Shade, particularly that provided by tree canopy, was also a recurring suggestion to improve connectivity and encourage active transport options. Reduced vehicle usage within the city and park and ride facilities connected to the city centre via frequent, efficient public transport were other common themes.

Improvements identified by the community as being required to improve the useability of the local pedestrian and bicycle network include:

- extending paths to link the existing network between the inner suburbs and the study area;
- improve safety of crossings around major intersections;

- improved infrastructure on the network including increased signage, mid-trip facilities and shading; and
- end of trip facilities within destinations.

Implications for the Area Plan

Through the Movement and Transport theme and across focus areas, the Area Plan provides strategic land use responses relating to pedestrian and cyclist movement, road networks, and car parking within the context of the road hierarchy.

Pedestrians and Cyclists

To make walking the most important mode of transport within Central Darwin, public spaces and adjacent development must be designed to provide a safe, secure, stimulating, and pleasant walking environment. Pedestrian movements are encouraged by provisions supporting a high quality and permeable network of streets, laneways, arcades, and public spaces.

Community feedback, data regarding heat mitigation, and understanding the economic benefits of increased foot traffic all point to a need for high connectivity, via sheltered and shaded pedestrian environments. To this end the Area Plan and the NT Planning Scheme encourage development in high intensity localities to incorporate shade trees, wayfinding signage, and active frontages in the interface with the public realm.

As densification within Central Darwin increases, a proportionate increase in people utilising active transport and associated infrastructure is expected. Identification within the Area Plan of a predominately off road and waterfront focused cyclist and pedestrian network that also makes use of the former Darwin rail corridor, responds to community interest in linked open spaces. Development is encouraged to provide high amenity access to this network.

Improved lighting and design of public spaces to ensure safety are also incorporated in the Area Plan as essential components of planning for connectivity across Central Darwin.

The Area Plan supports the progressive improvement of the existing active transport network including:

- the maintenance and enhancement of the existing pedestrian and cycling routes;
- construction of the identified future/potential links in the network, and upgrades in association with augmentations of key traffic corridors; and
- the embellishment of cyclist and pedestrian routes through the provision of end of trip facilities.

Potential transport infrastructure upgrades that also provide opportunities to enhance pedestrian and cycling networks include:

- Stuart Highway / Daly Street;
- Tiger Brennan Drive;
- Garramilla Boulevard;
- McMinn Street; and
- Smith Street.

Public Transport

Plans to relocate the Darwin Bus Interchange have not yet been finalised. Stage Three of the area planning process can incorporate any decision made in the interim. Planning for McMinn Street has incorporated the potential for a rapid transit bus corridor.

Road Networks

It is acknowledged that population growth in the study area is likely to result in more vehicles using the road network. Timely upgrades to the road network will be required to maintain an acceptable level of traffic movement.

Planned and potential additions to the road network, and appropriate land uses along any anticipated road connections, have been indicated. Concept plans, objectives, and acceptable responses identify the need for any new road networks on large sites to integrate with the surrounding road hierarchy and support the nominated character and uses of the locality.

Car Parking

Car parking is indicated as an acceptable land use in a number of focus areas.

The Department of Infrastructure, Planning and Logistics is undertaking investigations into the rate of car parking provision in the city centre, the results of which will fall outside the scope of this project.

Service Infrastructure

Context

Existing power, water, and sewer assets are shown on the Essential Infrastructure Map. Studies into the current capacity, and potential future requirements, of electricity, water, sewer, stormwater, and telecommunications infrastructure have been completed, and results are detailed below.

Existing Water Supply System

The Central Darwin study area is in the Stuart Park Zone of the Darwin Water Supply Network and is specifically serviced by the West Lane (1.36 ML) and

Montoro (0.68 ML) elevated tanks. The constraints of the current network include:

- the volumes of the existing elevated tanks;
- the ability to provide adequate water pressure through the current tank heights and distribution network; and
- the capacity to provide fire and domestic flows.

Recent works allow for the areas serviced by the Parap and Salonika tanks to be incorporated into the Winnellie sub-zone. As a result, the Stuart Park ground level tank will supply only Central Darwin. Following this redistribution of the water supply system, water will flow from Stuart Park into the city centre via an existing rising main along Armidale Street and Stuart Highway, and a second main along Tiger Brennan Drive.

Potential Water Supply Upgrades

Completed studies indicate that, in order to accommodate anticipated near and intermediate term population growth, upgrades to the existing water system are likely to be required:

- through a number of streets in Larrakeyah and Cullen Bay;
- along the south-western side of Frances Bay Drive;
- along Mott Court and Harvey Street;
- in the vicinity of Daly Street;
- from the Stuart Park Pump Station along Tiger Brennan Drive, Frances Bay Rd, and Garramilla Boulevard; and
- between Frances Bay and the Waterfront.

Upgrades may also be required in small sections of the systems in McMinns Street and Woods Street.

Potential far term upgrades include infrastructure:

- from the Stuart Park Pump Station to Gardens Road;
- along a portion of Frances Bay Road;
- through the former Tank Farm;
- along a portion of Woods Street; and
- larger pumps and additional ground level water storage at the Stuart Park Pump Station

An additional 3.8 ML of elevated water storage, and associated infrastructure, will need to be constructed in the near term to ensure adequate supply in the intermediate term. Into the far term a further 1.2 ML of elevated water storage would also be required. Completed investigations propose that

two or more separate water towers will best cater for this required capacity increase. . The Essential Infrastructure Map identifies an area where at least one of these future water towers may be located; however, PowerWater Corporation are evaluating all suitable water tower site options that will achieve the required elevation.

This information will be confirmed when the final infrastructure studies are completed as part of Stage Three of the area planning process and this Needs Assessment will be updated accordingly.

Existing Stormwater System and Potential System Upgrades

An investigation of the stormwater infrastructure indicates that stormwater infrastructure in the city centre generally meets capacity requirements. Where minor street level flooding occurs, this can generally be attributed to blocked or undersized entry points in the underground pipes. The underground system is generally sized to meet current requirements. Construction of Garramilla Boulevard includes major stormwater infrastructure, which will reduce some of the impact on the existing situation in the city.

Implementing strategic upgrades to the stormwater network that target flooding along Mitchell, Smith, Knuckey and Cavenagh Streets may improve existing flooding in the CBD. The Darwin Waterfront

and Cullen Bay are well catered for by stormwater infrastructure, however some upgrades may be required in Larrakeyah.

Existing Sewerage System

Central Darwin is in the Ludmilla Sewer Zone and specifically in the catchment of the Dinah Beach pump station. From here, sewage travels to the Ludmilla Wastewater Treatment Plant where screening, grit removal, and enhanced primary sedimentation occur before the effluent is discharged at East Point or Racecourse Creek. There are currently no major works planned for the study area.

Potential Sewer System Upgrades

Completed studies have identified a number of potential upgrades to the sewerage system, and a general overview is provided in Table 9. Recommended upgrades have considered peak wet weather flows higher than those predicted during large storm events. Therefore, the system will have some spare capacity to manage excess flows.

Table 9: Potential Sewer System Upgrades

Infrastructure	Near Term	Intermediate Term	Far Term
Gravity Sewers	15 minor upgrades to local reticulation	<ul style="list-style-type: none"> 12 minor upgrades to local reticulation Duplication of the first 315m of DN900 sewer immediately upstream of the Dinah Beach pump station 	<ul style="list-style-type: none"> 4 minor upgrades to local reticulation Duplication of 605m of the DN600 sewer along Frances Bay Drive.
Pump Stations	<ul style="list-style-type: none"> Cullen Bay (No.4) Palmerston Park (underway) Dinah Beach 	<ul style="list-style-type: none"> Waterfront pump station (No.2) 	
Rising Mains		Dinah Beach	Dinah Beach
Ludmilla Wastewater Treatment Plant	Identification of upgrade requirements for the Ludmilla Wastewater Treatment Plant was outside of the scope of this study. The Plant currently receives a flow of 14.5 ML/d (48 000 Equivalent People) and has been designed to accommodate a maximum hydraulic load of 17.5 ML/d (58 000 Equivalent People).		

Existing Electricity Network

Darwin and Frances Bay zone substations provide power along a set of distribution feeders to switching stations positioned throughout Central Darwin. These Zone Substations are comfortably supplying the peak demand to the Darwin CBD. There is considerable opportunity for expansion as each substation has five spare distribution feeders. However, as the existing switching stations are nearing capacity, the construction of new feeders and/or switching stations will be required to access the remaining substation capacity.

The switching station at Mott Street has the highest remaining feeder capacity and could service approximately 600 residences or 50 000m² of commercial floor space. New distribution feeders would be required to utilise this spare capacity. Switching stations at Austin / Knuckey and Woods Street were found to be exceeding their feeder load limit.

Potential Electricity Network Upgrades

Three Darwin and two Frances Bay feeders are expected to exceed their capacities under a full development scenario. Brief analysis suggests this could be resolved through using spare feeders to redistribute the load. These upgrades are minor in nature and are not anticipated to require land allocation.

Existing Telecommunications Network

Telecommunications services and products are predominantly provided through Telstra, Optus, and Vodafone networks. While the type of signal on offer will vary depending on the towers available, generally there is adequate mobile phone service throughout Central Darwin. The level of acceptability for data service is less well defined and has too many variables to accurately state data speeds and reliability.

Potential Telecommunications Network Upgrades

The widespread availability of high-speed broadband throughout Central Darwin is not comparable to services in other capital cities, as population density and customer numbers do not support the investment necessary to upgrade or install additional infrastructure. However, full coverage of Central Darwin by the NBN rollout has now been achieved.

Community Feedback

While neither the Discussion Paper nor the online survey posed any particular questions about physical infrastructure, a number of submissions recognised the need to plan for and fund future required infrastructure.

Implications for the Area Plan

Generating a vibrant inner city character and establishing economic viability for Central Darwin is relatively dependent on increased numbers of residents and visitors. To this end, the Area Plan guides planning for infrastructure development in the context of:

- focusing retail and commercial development in the City Centre - Core;
- prioritising residential development in the parts of Larrakeyah that are underdeveloped for current zoning; and
- providing a broad guide to the development of sites that need further investigation or are not required until the far term but on which development may begin earlier, such as the former Tank Farm area and Frances Bay.

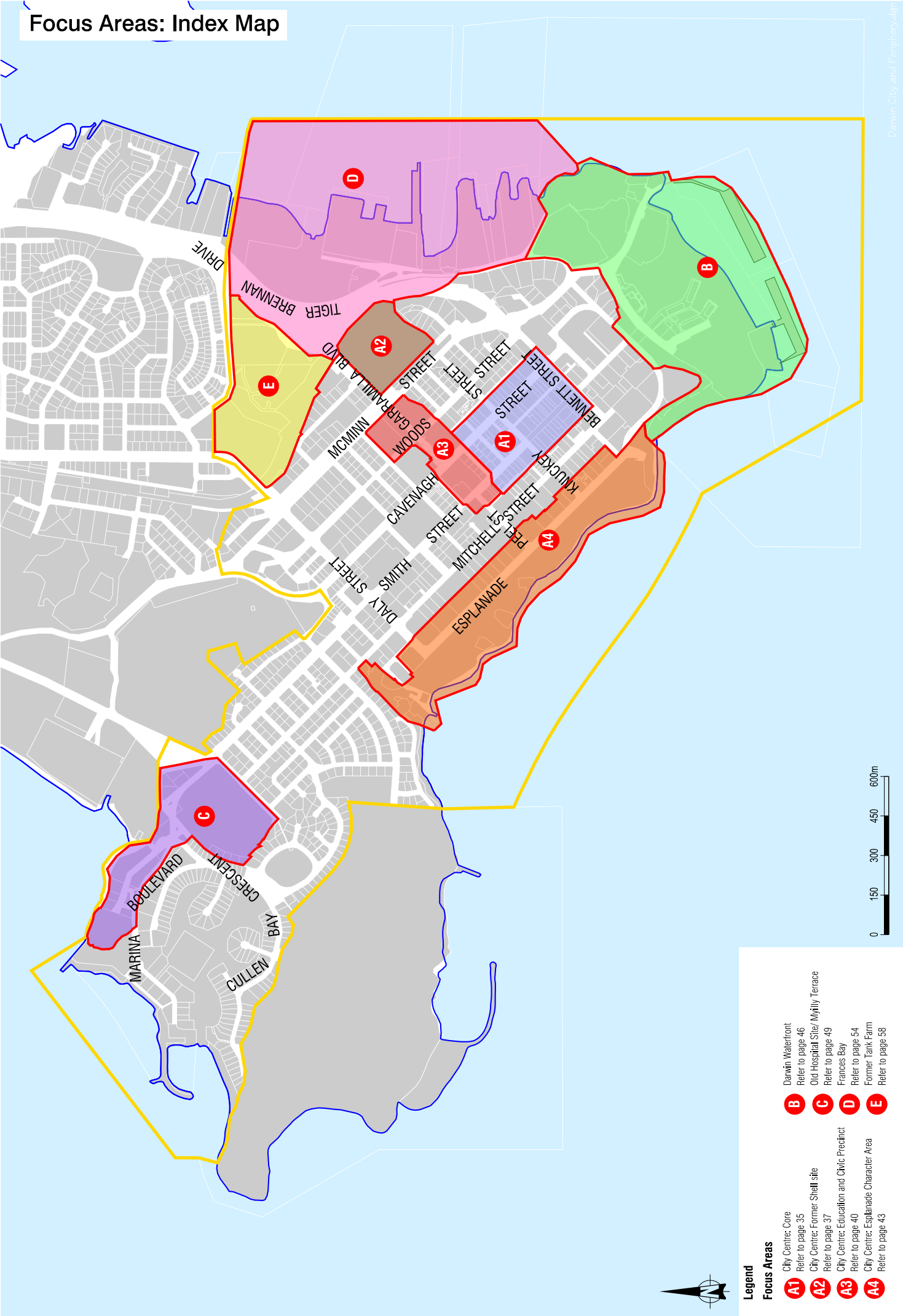
The growth areas and land uses identified in the Area Plan will inform an infrastructure master plan. This master plan will provide service authorities with direction as to what infrastructure should be developed at which time. The Area Plan also serves as a mechanism to coordinate the design, development, and funding contribution for required upgrades.

At the more detailed level, the Area Plan also encourages infrastructure to be:

- presented in a manner that does not detract from public amenity; and
- innovative and sustainable with regard to digital technologies, water and waste management, and heat mitigation.

FOCUS AREAS

Focus Areas: Index Map



Legend

Focus Areas

- A1** City Centre: Core
Refer to page 35
- A2** City Centre: Former Shell site
Refer to page 37
- A3** City Centre: Education and Civic Precinct
Refer to page 40
- A4** City Centre: Esplanade Character Area
Refer to page 43
- B** Darwin Waterfront
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- C** Old Hospital Site/ Myilly Terrace
Refer to page 49
- D** Frances Bay
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- E** Former Tank Farm
Refer to page 58

City Centre

Context

The Darwin City Centre performs a critical role as the dominant commercial, cultural, administrative, tourist and civic centre of the Northern Territory and Darwin region. The Darwin City Centre provides the greatest diversity in employment and business opportunities in the Territory, offers the highest density housing choices, and is the focal point for public transport.

The predominant zoning in the city centre is Zone CB (Central Business). This is a flexible zone intended to provide for a diversity of activities with a commitment to the segregation of incompatible activities. Although there are many street-fronting buildings within the city centre and within Zone CB, a number of these sites are underdeveloped. This means there is extensive potential for further mixed use development.

Much of the retail, commercial, residential, and tourism floorspace demand discussed in section 4.1 is anticipated to be met by development in the city centre. While Zone CB supports the broad range of potential future projects within the city centre, it is imperative to consider how this growth could be distributed and designed so that it contributes to an engaging, prosperous, and high activity city environment.

Community Feedback

Common themes that arose across all modes of consultation included:

- appreciation of connections to the waters of the Harbour, green public spaces, and established shady trees;
- a need for expanded and improved pedestrian and cyclist connections;
- a need to improve shade, and particularly that provided by tree canopy, to improve connectivity and encourage active transport options; and
- the potential for the city centre to present as a 'tropical city' with unique responses to the climate.

Consultation identified the risk of fragmenting the city centre if higher order retail and commercial development is permitted outside of a core area. Other submissions also stated that the city should be allowed to develop organically as market forces dictate.

Submissions advocated the use of design guidelines as a means of:

- improving built form outcomes;
- encouraging climatically and contextually appropriate built-form;
- encouraging access to open space;
- building on the distinctive character of different sub-localities through the use of signage, public art, lighting, and street furniture; and
- improving the interface between public and private domains in relation to activating streetscapes, awnings, and amenity.

An urban village incorporating education facilities and the relocation of university facilities to the city centre were suggested during consultation. Consultation identified that all levels of education within Central Darwin require additional capacity and that adult learning should be a focus of education provision.

Implications for the Area Plan

The current flexibility allowed under Zone CB (Central Business) should be maintained. There are particular localities within the city centre that could benefit from an additional level of strategic planning in order to ensure they are developed in a way that strengthens the role and character of the city centre. These localities include:

- an area focused around the intersections of Knuckey/Smith Streets and Knuckey/Cavenagh Streets that has been referred to as A1 City Centre – Core;
- a high exposure 7.2ha site at 38 McMinn Street that has been referred to as A2 City Centre – Former Shell Site;
- land along the future Garramilla Boulevard between McMinn and Cavenagh Streets that has been referred to as A3 City Centre – Education and Civic Precinct; and
- land along the Esplanade from Parliament House to Doctors Gully, that has been referred to as A4 City Centre - Esplanade Character Area.

Built form objectives and acceptable responses have been prepared for Focus Areas A1-A4, to support increased city centre activity, amenity, and 'liveability.' It is considered that use and development of the remaining land presented within the Stage One discussion paper as the city centre focus area is adequately regulated by the provisions of Zone CB (Central Business) and the Urban Design Requirements for Central Darwin in the NT Planning Scheme.

The Area Plan recognises that the city centre presents an opportunity to provide co-ordinated mixed use development that integrates a diversity of activities. Encouraging the co-location of compatible land uses with different accommodation types will be necessary to deliver the vision for the city centre captured within the Darwin Regional Land Use Plan.

As part of growing the residential sector, the Area Plan encourages greater diversification of housing types and a larger and more robust demographic spread of city centre residents. The permanent residential population of the city centre is encouraged to grow by supporting developments that focus on liveability and which cater to owner-occupiers.

Focus Area A1: City Centre - Core

This focus area encompasses the areas of the city centre that receive the most foot traffic and have the highest proportions of retail land uses. Smith Street Mall serves as the primary pedestrian urban space and focus of activity in the city centre and is often used for public events.

Typical street blocks in the City Centre - Core are long and serviced by laneways that run primarily north-west / south-east. These laneways can appear long and uninviting for pedestrians. Internal arcades through buildings break up the length of street blocks and provide alternative pedestrian routes that are often air-conditioned.

There are substantial opportunities for growth and development through intensification of the built environment. Two sites with significant redevelopment opportunity are the former Woolworths site at the corner of Smith Street and Knuckey Street and land at the intersection of the Cavenagh Street and Garramilla Boulevard.

Objectives and Acceptable Responses for the City Centre – Core encourage:

- an intensification of mixed use retail and commercial development that attracts people and activity;
- a high amenity pedestrian environment by incorporating arcade connections, shade, and wayfinding signage; and
- the role of Smith Street Mall to be emphasised.

Focus Area A2: City Centre – Former Shell Site

The former Shell site, a 7.2ha site at 38 McMinn Street, was identified in the Stage One discussion paper as an opportunity for urban renewal. A consolidated and undeveloped site of this size in a city centre is exceptionally rare within Australian Capital Cities and represents a unique development opportunity. As the development of Garramilla Boulevard will make the site more accessible, it is important to plan for its integration with long term development in surrounding localities and for an appropriate mix of uses.

The site has strong connections to the City Centre Core, Frances Bay, the former Tank Farm, and Stuart Park. However, as McMinn Street and Garramilla Boulevard are very wide and serve as primary transit corridors there is a risk that development of the Shell site would be isolated from the city centre.

The site's size and regional connectivity make it ideal for a high amenity, mixed use development able to play a key strategic role in accommodating the anticipated population, retail, and commercial growth. Natural connectivity will then draw people to the precinct, enhancing its viability. There is also potential for the site to accommodate a premier sporting facility capable of hosting major national and international competition.

Objectives within the Area Plan for the former Shell site build on this connectivity and inherent potential by encouraging:

- a coordinated development;
- an attractive and active transport friendly environment; and
- local street networks that connect with the surrounding network and support active transport.

Residual contamination does not significantly restrict development but will influence built form.

Focus Area A3: City Centre - Education and Civic Precinct

The construction of Garramilla Boulevard creates new street frontages to significant sites which are currently underdeveloped and several of which are Government owned.

Additional community, education, retail, and accommodation uses need to be provided within Central Darwin in the far term. For this growth and development to occur it is essential that sufficient land is identified. The Education and Civic Precinct Focus Area recognises the potential of the Post Office car park

and former Darwin Primary School for meeting the civic and community development needs of Central Darwin.

The Education and Civic Precinct will act as an education, civic, and community node and provide high density housing to students and city centre workforces, playing a key role in activating the city centre and fulfilling social infrastructure needs into the future. Civic, education, and residential land uses are encouraged along with complementary retail and commercial activity that will employ and attract high numbers of people day and night.

Physical and visual connectivity across the precinct and with neighbouring localities is promoted through provisions requiring:

- a fine grained urban layout;
- the design of pedestrian laneways, public open spaces, or a local road network; and
- active frontage to, and integration, with activities in the City Centre Core.

Garramilla Boulevard and McMin Street will have a strong influence on activity and movement within the precinct. Garramilla Boulevard has been planned to provide cyclist and pedestrian amenity through both shade and nominated movement corridors. The Area Plan contains provisions to guide the similar development of McMin Street as a shady boulevard offering priority to public and active transport users. Opportunities to extend green spaces and increase tree planting have also been identified in the Education and Civic Precinct concept, objectives, and acceptable responses.

Focus Area A4: City Centre - Esplanade Character Area

The Esplanade presents a 'postcard' setting for Darwin when viewed from a distance, reinforcing the city's identity as a harbour city and as Australia's Northern Capital. The numerous and varied areas of high amenity and activity attract high numbers of locals and visitors, and contribute to an individuality of character that cannot be replicated anywhere else in the Northern Territory.

The Esplanade supports a number of uses, including hotels, restaurants (including in adapted heritage buildings), offices, and residential development. Development that fronts the Esplanade is afforded a prestigious, high amenity outlook to Bicentennial Park and Darwin Harbour, an extensive area of public open space. Darwin's Cenotaph is also located within Bicentennial Park, along with a number of other military and civil memorials.

The taller, urban buildings of the Esplanade primarily do not feature a podium, and many buildings have large setbacks that provide for porte cocheres and car parking, as well as private recreation space with pools behind fencing. A minority of buildings provide an active frontage to the Esplanade and Bicentennial Park, and very few encourage pedestrian permeability between the Esplanade and Mitchell Street. The NT Planning Scheme currently regulates building heights along the Esplanade and back into the city centre.

The objectives and acceptable responses for the Esplanade Character Area encourage:

- a mix of land uses that capitalise on the high amenity location;
- a high amenity pedestrian environment by incorporate arcade connections, shade, and wayfinding signage; and
- an attractive and active transport friendly environment.

Darwin Waterfront

Context

The Darwin Waterfront is a well-established specialist activity centre providing a major dining and entertainment precinct for the City, anchored by high amenity foreshore attraction. It is a quality tourist destination that attracts domestic and international visitors to Northern Australia.

Development at the Darwin Waterfront has been guided by an Area Plan and Planning Principles within the NT Planning Scheme. These statutory controls have guided the development of the locality as a residential, business, and entertainment precinct that responds to its maritime and historical connections. The CDAP project was tasked with updating the current Area Plan and Planning Principles and integrating them in the final Area Plan.

To the northeast and southwest of the established Darwin Waterfront area there remain significant parcels of undeveloped land including:

- the Stokes Hill Commonwealth defence property;
- coastal land between Stokes Hill Road and Frances Bay currently earmarked for an iconic waterpark facility; and
- land earmarked for development of a six star hotel.

The appropriate development and integration of these sites with surrounding land uses could be significant for accommodating the anticipated residential and tourism demand into the far term.

Some sites may require remediation prior to development.

Community Feedback

Community feedback on the style and form of existing development in the Waterfront focus area was generally positive. Suggestions for the future of the area were predominantly “more of the same”, particularly mentioning the scale and height of existing developments and green spaces.

Maintaining and improving public access to the water’s edge, green space, and pedestrian and cyclist networks, as well as social infrastructure facilities, such as the Deckchair Cinema, playground(s) and recreation spaces, were regularly mentioned.

Specific suggestions were made for the potential urban renewal of sites in the north-eastern locality of the area, as identified in the Stage One discussion paper. Suggestions included a:

- sports stadium;
- Larakia cultural centre;
- lookout; and
- active recreation / tourist focussed development.

The relocation of the university from the Waterfront to the CBD was proposed during consultation. The potential long term benefits of a centralised campus with associated accommodation and services were cited as grounds for the relocation as were potential opportunities to utilise the current Waterfront university site for higher intensity, year round activities.

Implications for the Area Plan

The Darwin Waterfront concept plan, objectives, and acceptable responses within the Area Plan work to maintain the established character of the locality and support the development of the remaining land in the precinct. This work builds upon the existing statutory framework for the Waterfront, which is included in the NT Planning Scheme. The objectives for the Darwin Waterfront encourage the expansion of tourism, recreation, residential, retail, and commercial development on the periphery of the locality, while protecting the ongoing maritime uses and facilities associated with Defence and the cruise ship terminal.

To support this expansion, and integration of the locality with the city centre, Frances Bay, and Bicentennial Park, a number of expanded and strengthened pedestrian links have been indicated in the concept plan. These links ensure public access to the Waterfront is maintained via a promenade

running from Frances Bay, through the Waterfront, and up to Bicentennial Park.

The Area Plan has retained provisions relating to the scale and positioning of developments at the Darwin Waterfront in order to maintain the sense of character and place that human scale and view corridors provide. Integration of the area’s historical and maritime connections are also encouraged as part of development.

Site of Kahlin Compound / Old Hospital Site / Myilly Terrace

Context

A framework is needed to identify appropriate and sensitive future uses for the significant Old Hospital Site. Potential development of the site must recognise and include significant associations, meanings, and activities.

Historically, a number of concepts have been prepared for the Old Hospital Site, Myilly Point, and Flagstaff Park. The most recent of these was taken to community consultation by the Northern Territory Planning Commission in 2014. This concept was based on previous consultation which emphasised that future use of the area should be characterised by development that:

- reflects a consciousness of Larrakia cultural ties and the history associated with the Kahlin Compound, World War II, Cyclone Tracy, the Old Hospital, and the Myilly Point Heritage Precinct;
- is of a high quality;
- is economically viable; and
- is a premier residential area that complements existing development.

Smith Street and Mitchell Street connect the Old Hospital Site and Myilly Point area with commercial and recreation facilities, including the small retail centre around Harriet Place, the Darwin Waterfront, the CBD, and Cullen Bay.

The long term planning of this locality will be influenced by this established connectivity as well as the interface between city blocks, apartment sites, and suburban residential lots.

Community Feedback

Stage One engagement assumed the construction of a museum on the Old Hospital Site and asked respondents to consider what land uses could complement that development.

Several submissions on this focus area received during Stage Two engagement focused on developing a caravan park as a temporary land use that may increase visitation to Cullen Bay and nearby attractors i.e. the casino.

Other suggestions for complementary land uses received during Stage Two engagement included:

- outdoor exhibits of historical and cultural displays;
- tertiary schooling with student accommodation;
- food and beverage outlets;
- community gardens;
- parkland incorporating both large shade trees and open spaces;
- water features;
- natural bushland;
- botanic gardens; and
- community meeting spaces.

The distance between the site and the core of the CBD was noted in a number of submissions. There was some concern raised that the movement connections between these areas was not clear, and there was not enough shade in place for use of this network. Some submissions stressed the importance of quality, convenient connections between this site and other tourist attractors and accommodation across the study area.

Pedestrian and cycle connections were another frequent discussion point, with particular importance placed on connections to the city centre, and through the overall study area and its nearby attractors. A suggestion was made to improve the green link between the Myilly Area, Old Hospital Site, and Mindil Beach.

Implications for the Area Plan

In light of community and stakeholder concerns, and upon further investigation, the Northern Territory Government has decided not to proceed with a museum at this site, at this time. It is recognised that further work is required to determine the highest and best use of land within this Focus Area and that this assessment needs to be informed by community and stakeholder consultation. To this end, the Area Plan discusses the history of land use in this focus area, presents indicative concepts, and invites community input on future land use.

Old Darwin Hospital Site

The Old Darwin Hospital site may be revitalised in a manner that acknowledges and respects the various historical uses of the land. The objectives presented

in the Area Plan for community consideration during Stage Two prioritise the provision of:

- open space with a focus on culture, heritage, and recreation, and
- connectivity for pedestrians and cyclists across the locality.

Future use of the land is also intended to support Cullen Bay's role as a specialist activity centre and address some of the need for housing and population diversity, particularly in relation to senior's independent living.

Myilly Terrace

Myilly Point, Flagstaff Park, and surrounding underutilised land has been identified as a Potential Area for Change in the Area Plan with a view to future land uses including public open space, residential, and tourist commercial.

Objectives and acceptable responses associated with the concept plan encourage:

- revitalisation of the area and recognition of natural assets;
- attractive open space with a focus on culture heritage and recreation; and
- the connectivity of public open spaces within the focus area and to surrounding localities.

Frances Bay

Context

Land adjacent to Frances Bay was the site of the terminus for the North Australia Railway, which operated until the late 1970's. Since this time, a broad range of business operations and associated employment has operated in Frances Bay. The precinct has provided mooring and facilities for the fishing fleet. Maritime uses that operate, or have operated, from the area include shipping, ship repair and maintenance, and retail and wholesale seafood supplies.

Many of these maritime activities are relocating to East Arm. This presents a great opportunity to ensure the vision for redevelopment of the area is considerate of current planning influences, and consistent with the community's objectives.

The NT Planning Scheme currently contains an Area Plan and Planning Principles for Frances Bay. This area is also subject to a Specific Use Zone. These provisions, and several concepts in the Darwin City Centre Master Plan, recognise the area's significant location and identify opportunities for redevelopment to create a mixed-use precinct. Accordingly, the CDAP project was tasked with

updating the current Area Plan and Planning Principles and integrating them in the final Area Plan. Alterations to the existing Specific Use Zone that applies to the locality may also eventuate as a result of, but not in association with, the CDAP project.

The existing strategic framework recognises the important contribution open space and recreation facilities make to the network of public places in the city centre.

The potential for a publicly accessible promenade within a Frances Bay redevelopment is recognised. This promenade may include landscaped waterfront open space and ensure that both public and private realms have access to waterfront amenities. Active and vehicular transport connectivity are also important considerations in long term planning for this area.

Community Feedback

Consultation informing the original Area Plan and Darwin City Centre Master Plan emphasised the importance of developing land adjacent to the water to reinforce Darwin's identity as a harbour city.

Stage One consultation for the CDAP project revealed support for the transition of the Frances Bay area to a low to medium rise and medium density mixed use waterfront development incorporating residential, tourist, restaurants, and cafes. However, incorporating recognition of the area's maritime and railway history, connections to surrounding areas, and a desire to retain the operational marine and fishing activities in the area are key to that support. A number of examples were provided by submitters including Teneriffe in Brisbane, the docks in Hobart, and Fremantle Western Australia.

Public access to the foreshore was regularly cited by submitters as desirable, as was ensuring that any development is considered in the context of the entire focus area rather than individual lots. The need for co-ordinated development was noted, particularly in relation to built form, road networks and connections, and access to the waterfront.

The project team met with a number of Frances Bay land owners in a workshop style setting shortly after the close of Stage One public consultation. The key points of the discussions are listed below.

- Building height limit to be revisited.
- Frances Bay development to be inter-linked with city centre via well-planned vehicle, pedestrian, cycling, public transport linkages.
- Breakwater required for storm surge management.
- Seafood industry is important for tourism, existing location preferred.

- Seafood industry requires "duck pond" like facility unaffected by tidal change.
- Potential impact of industry and residential land use on each other.
- Public waterfront access to have minimal impact on development potential.
- Government should initiate/encourage development with initial investment in up-front infrastructure provision. Possible incentive scheme and funding arrangement to be negotiated.
- Research successful examples of similar developments.

Implications for the Area Plan

The Frances Bay concept plan, objectives, and acceptable responses within the Area Plan focus future activity around a mixed-use waterfront precinct while maintaining its historic role as the home of the fishing industry. The objectives for Frances Bay promote a coordinated development comprising a combination of tourism, entertainment, retail, commercial, residential, and seafood industry uses.

The future character of Frances Bay is anticipated to centre around fishing related industry which, while separated from other sensitive uses, will provide interest and activity to the locality. In order to enhance the sense of place, development is also encouraged to:

- reflect historical connections to the fishing and rail industries;
- maintain views through to Darwin Harbour;
- provide opportunities for passive and formal recreation activities; and
- offer a variety of building heights to create visual interest.

To support integration of the locality with the city centre, Darwin Waterfront, Stuart Park, and the former Tank Farm, a number of anticipated pedestrian links have been indicated in the concept plan. These links also ensure public access to the Waterfront is maintained via a promenade running from Frances Bay, through the Waterfront, and up to Bicentennial Park. Additionally, the former Shell site is envisaged to perform an important function as a pedestrian/cyclist connection between the CBD and Frances Bay.

Connections between the city centre and Darwin Harbour are also expected to be enhanced by a local road network that integrates with the regional hierarchy. A green corridor is encouraged along Frances Bay Drive to provide an entry statement

for the city centre and to screen the locality from the impacts of Tiger Brennan Drive. Provision has also been made in the Area Plan for a potential ferry terminal to be located at Frances Bay.

In response to the opportunities and constraints identified for the area, and after considering the feedback from consultation, the Area Plan proposes the establishment of a consistent shoreline, achieved through either a sea wall or landfill, to enable co-ordinated growth of the marina area. This shoreline would create opportunities for foreshore recreation, more substantial development sites, and the mitigation of storm surge impacts.

Former Tank Farm

Context

Much of the land between the historic Darwin rail corridor and Dinah Beach Road was historically used for fuel storage in association with shipping and rail. This land has been underdeveloped for some time but close proximity to the city centre, Stuart Park, Botanic Gardens, and golf course signifies high development potential. The size and location of the former Tank Farm area presents a large-scale opportunity for growth that transitions, and provides connectivity, between the city centre and Stuart Park.

Land in Zones LI (Light Industry) and GI (General Industry) within the former Tank Farm locality reflect previous activities, and long term planning must consider the most appropriate and viable uses for this land into the far term. Land in Zone CL (Community Living) is privately held and managed. The Northern Territory Government also holds land interests in the area, comprising land within Zones CP (Community Purpose), PS (Public Open Space), and FD (Future Development).

The area is well connected regionally, being framed by two higher order roads and the future Garramilla Boulevard. However, the locality is currently constrained by a lack in local connectivity, with Dinah Beach Road providing the only access to the site. Major road augmentations such as Garramilla Boulevard and the potential Stuart Highway bypass will significantly increase the opportunities for connection into the precinct for all road users. Equally important for the development of the area will be internal connectivity, and ensuring transport and movement planning considers the circulation within the wider precinct.

Community Feedback

Community responses suggested a wide variety of possible land uses for this area including:

- greenbelt and parkland;
- cultural and heritage recognition;
- sports stadium;
- amphitheatre, large performance or community gathering space;
- mixed use entertainment, tourism and cultural precinct;
- low cost housing, temporary accommodation, backpackers;
- stormwater management; and
- hospital or medical centre.

Only a small number of comments were made regarding the desired built form of any development in the area. Of the comments received, there appeared to be a preference for low to medium rise development as a transition between the City and the residential areas of Stuart Park. Eight storeys maximum was particularly mentioned by some commenters.

Service authorities emphasise a need to consider stormwater management and the management of mosquito breeding sites in any development of the area.

One landowner in the focus area reaffirmed a desire to proceed with an earlier rezoning proposal that would support mixed residential and commercial development of their site.

During Stage Two engagement, feedback from the public on development of the area was extremely supportive, with one respondent stating that they believe “residential at the tank farm is a great idea”. Results from the online survey indicated parts of the community feel facilities such as a cultural centre could be incorporated within the One Mile Dam community site.

Other responses suggest no change to existing arrangements aside from refurbishment or replacement of existing community housing is required.

One submission presented a vision for the land to be developed as a culturally themed retail and tourism precinct

The majority of the survey respondents did not agree with the residential densities proposed by the draft Area Plan, with 14 disagreeing, 6 agreeing, and 7 neutral. While it was clear that there was disagreement regarding the densities proposed, some respondents were unaware that there is no requirement proposed for the One Mile Dam site to change their community living activities.

A submission from a landowner within the Focus Area was partly supportive of the Focus Area Concept noting that the Focus Area represents a significant urban renewal opportunity however a Zone Central Business (CB) was preferable. In response, CB is not considered appropriate as this would result in the zone extending to Dinah Beach Road which would create an undesirable interface with Stuart Park.

The Area Plan proposes a transition in densities in recognition of the potential of this Focus Area 'stepping down' in development intensity from the city centre to its hinterland.

Implications for the Area Plan

The Area Plan identifies much of the land associated with the former Tank Farm as having potential for uses that better reflect the cultural, heritage, and environmental values of the area. Much of the locality has been nominated as a Potential Area for Change to support residential and open space land uses.

Residential development is expected to be of a density that provides a transition from the city centre to the existing lower densities around One Mile Dam and Dinah Beach Road.

Land nominated for public open space along the south of the former Tank Farm and linking with the patch of remnant rainforest will provide a significant connection to the broader regional open space, pedestrian, and cycle network. Development of this land is also to incorporate acknowledgement and interpretation of the area's history.

The Area Plan also encourages the provision of an integrated local road network that facilitates the realignment of the Stuart Highway and connects appropriately with the surrounding road network.

Constraints, including mosquito breeding sites, storm surge, and residual contamination from historic uses, are also required to be addressed within future development proposals.

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