



Northern  
Territory  
Government



# Greater Darwin Plan

2012

TERRITORY  
2030  
2030

**growing**the  
**Territory**

A Territory Government initiative



# Message from the Minister

**Northern Australia will underpin the economic growth of Australia in the next century, and the Greater Darwin region will be central to that prosperity.**

Major projects including Ichthys LNG and a Marine Supply Base will secure Darwin's place as an oil and gas hub. These projects, along with others including a Defence expansion, development of the Darwin Business Park, and growth at the East Arm Port and Darwin International Airport, will generate thousands of jobs and drive our economic and population growth.

Indeed, Access Economics forecasts the Territory will have the second highest growth rate in the country over the next five years, and our population is set to be one of the fastest growing in the nation. Up to 70 000 extra people are expected to call the Greater Darwin region home in the next 15 years.

The Territory Government is planning for that growth. We are turning off land for residential and industrial growth at record rates. New initiatives including a short stay accommodation workers village, an Affordable Rental Housing Company, and other planning opportunities will support Territorians to access a range of housing options.

The Greater Darwin Plan builds on that work, and provides a framework for growth for Government and business investment.

It follows the release of the Greater Darwin Region Land Use Plan consultation paper in February 2011, and incorporates feedback from industry, community organisations and individuals.

The Greater Darwin Plan outlines seven strategic directions to support growth, with sustainability at its centre.

It identifies areas for development opportunities around eight precinct areas, such as Casuarina. It puts future industrial development at Gunn Point, and keeps heavy industry away from Glyde Point. It recognises the need for alternative transport options, including identifying a light rail corridor.

Importantly, the Greater Darwin Plan confirms the Territory Government's commitment to balancing growth with the protection of our beautiful Darwin Harbour, its waterways and the wider environment.

The Greater Darwin Region is entering an exciting period of growth and economic development. The Greater Darwin Plan will provide a planning framework for sustainable development to ensure our future opportunities can be fully realised.

**Gerry McCarthy**

**Minister for Lands and Planning**



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# Section 1:

Executive Summary:

The Vision for Greater Darwin

The Greater Darwin Plan draws on the views and aspirations of the local community developed through a consultation process.

## Context

Greater Darwin is a fast growing city. Driven by major private and public investment in the first decade of the century, it now faces an even larger investment wave.

This decade will see high population growth spurred by economic expansion from new oil and gas projects, mining exports, airport and rail upgrades to cope with increased passenger loads, and defence and port development.

The announcement of the final investment decision for the \$34 billion Ichthys gas project in January 2012 has put Darwin on an irrevocable course for growth. The development of the Marine Supply Base adjacent to East Arm Wharf, secures the city's future as a major oil and gas supply and service centre.

For Darwin – strategically placed as Australia's closest capital to Asia – high quality planning is vital.

The goal of the Greater Darwin Plan is to manage future growth in a way that meets the needs and aspirations of present and future residents. In particular it provides an action plan for Greater Darwin, reflecting the Territory 2030 Strategic Plan and informed by a range of more specific strategic plans, including the Greater Darwin Region Land Use Plan – Towards 2030 Consultation Paper.

## The Challenge

The Greater Darwin Region covers an area of 419 500 ha. The vision for its future is a place that is affordable, liveable, prosperous and sustainable.

It is our challenge to mix existing population centres with new urban areas that have individual character and identity, and choice and diversity for residents.

At the core of this vision is sustainability which will cater for economic and social growth and balance environmental needs.

The Territory 2030 Strategic Plan proposes that Darwin become:

- Recognised as a university city and a hub for international education;
- A key centre for oil and gas operations, maintenance and workforce;
- An international hub for exports, education and health services, tourism, operations and maintenance; and
- One of Australia's most affordable cities.

Specifically, the vision for the region is a place where:

- A vibrant and diverse economy continues to grow to create a national and international hub for transport, exports, oil and gas, education and health;
- Our people continue to enjoy a strong sense of community, valuing our rich and diverse population and cultures from traditional Larrakia owners through to our newest arrivals;
- Residents live in balance with the natural tropical environment, making the most of both the Dry and Wet seasons; and
- The biodiversity and landscape of Darwin harbour and it's surrounds are valued and protected.

## The Greater Darwin Plan

The Greater Darwin Plan provides a framework to achieve this vision. It assesses the opportunities and challenges proposed by the natural, social and economic environments in the context of a broader strategic framework provided by the Northern Territory Government's Territory 2030 Strategic Plan.

The Greater Darwin Plan brings the views of residents and stakeholders together following consultation on the Greater Darwin Region Land Use Plan – Towards 2030 Consultation Paper that took place between February and June 2011.

## The Framework

The Greater Darwin Region has been divided into eight sub-regions for the purpose of this plan and to address the individual needs and planning requirements of each area. The eight sub-regions, as demonstrated in the Precinct Concept Plan on page 6, are:

- Cox Peninsula;
- Darwin City Centre;
- Darwin Inner Suburbs;
- Darwin Northern Suburbs;
- Darwin Palmerston Corridor;
- Litchfield;
- Palmerston; and
- Weddell.

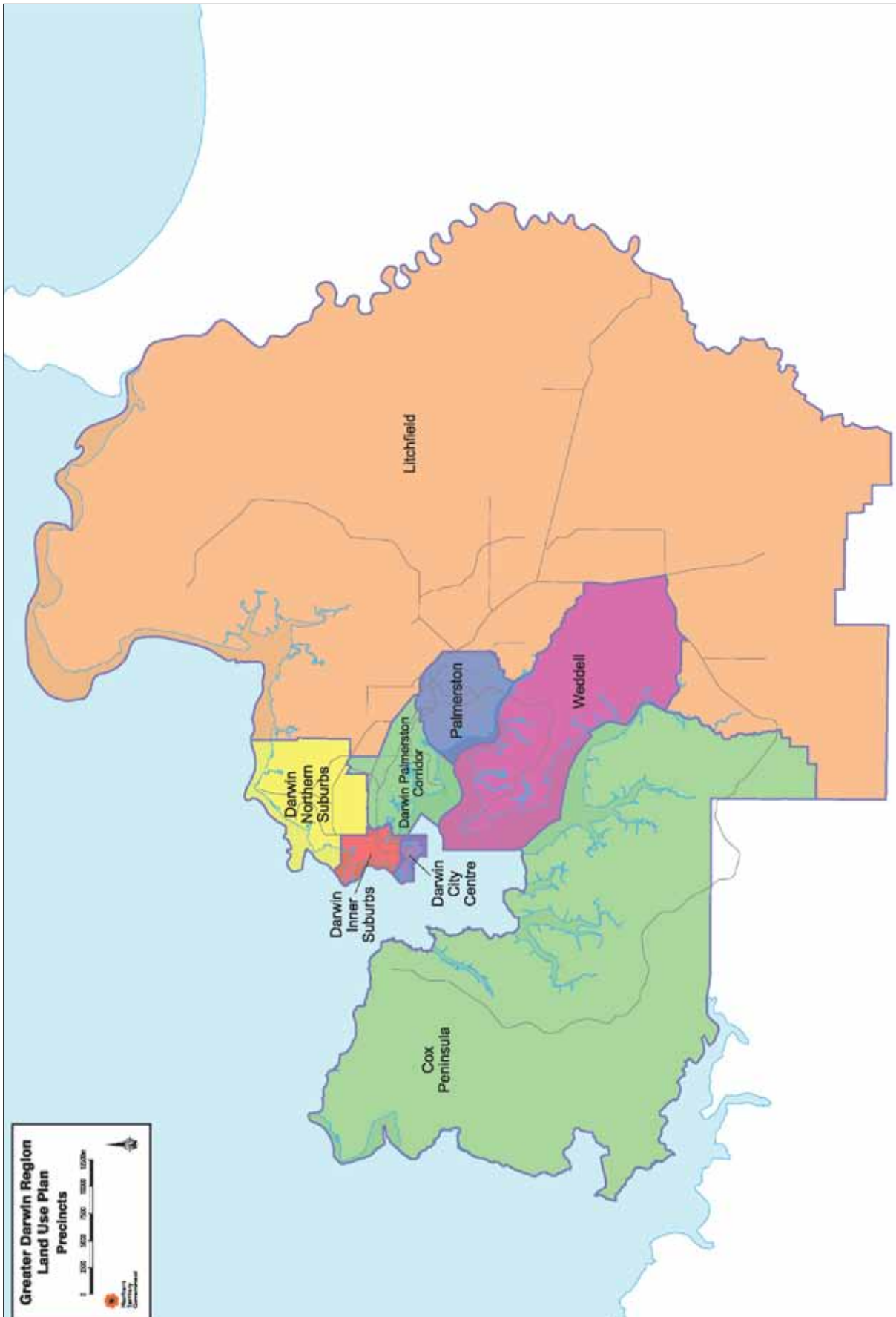
Area Plans have been developed for each sub-region and these will become part of the NT Planning Scheme. Requirements for industrial, retail, commercial and residential land have been identified for each sub-region in Section 7 of this plan.

The roadmap to manage future growth in the Greater Darwin Region is represented by the Darwin Region Land Use Framework map on page 7. It plans for industry and urban development in the region and shows the relationship between urban centres and transport corridors to inform Government investment in priority growth areas.

The Darwin Region Land Use Framework replaces the Darwin Regional Land Use Framework (2007).

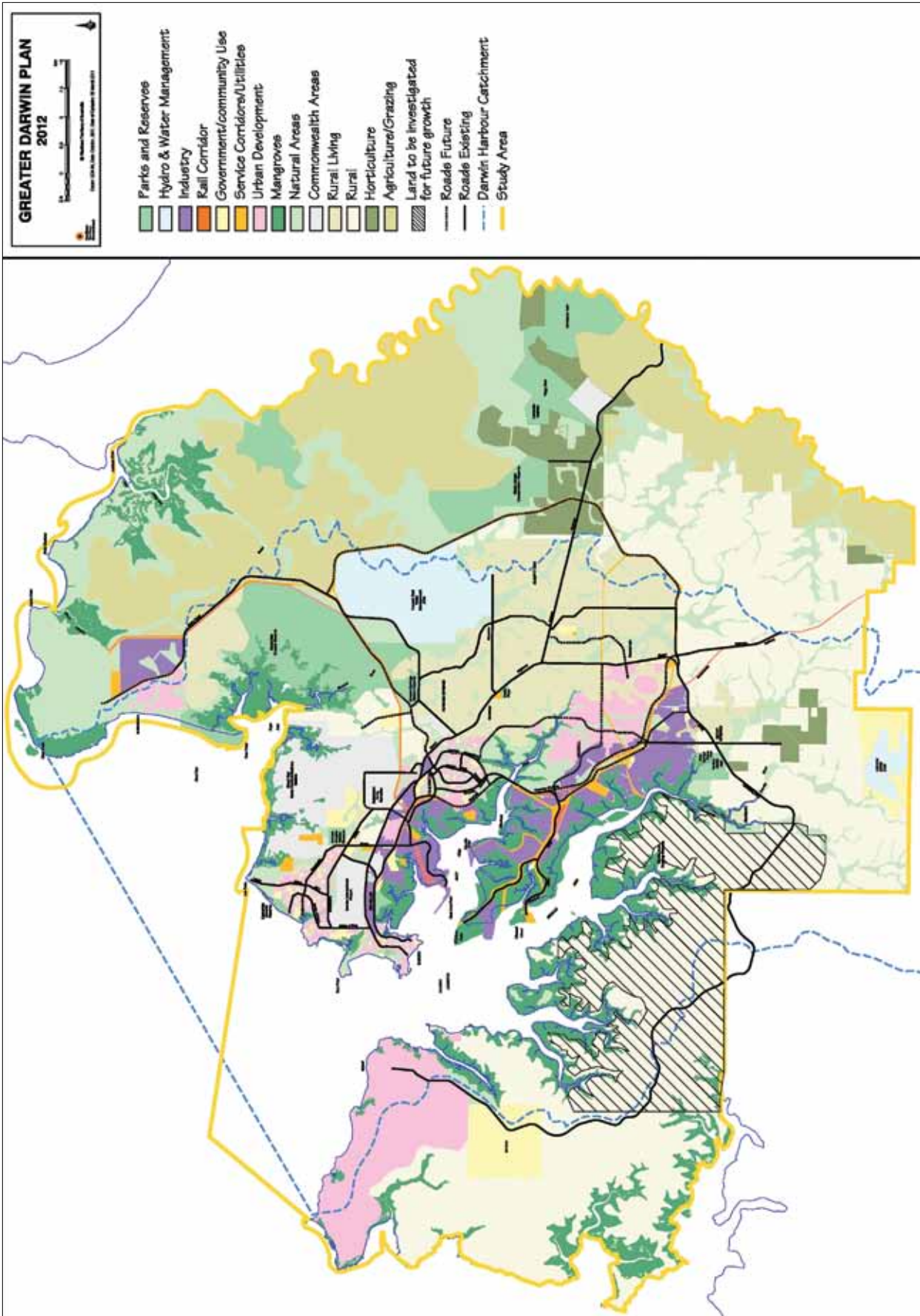
The eight Area Plans and the Darwin Regional Land Use Framework map will be incorporated into the NT Planning Scheme and the Development Consent Authority will ensure any proposed uses or developments are consistent with the plans and Framework.

Greater Darwin Plan – Precinct Concept Plan





Greater Darwin Plan



# Section 2:

## Strategic Framework

The Greater Darwin Plan sits within a strategic framework that includes Northern Territory Government strategies and plans and a national reform agenda.

## Examples of Greater Darwin Plan linkages to Territory 2030 Targets

Territory 2030	Greater Darwin Plan
<b>Theme: Education</b>	<b>Strategic Direction 3: Strong &amp; Healthy Communities</b>
<i>Target:</i> Develop a world-class education system	<i>Action:</i> Social needs assessments undertaken to ensure provision of land for long term planning for education facilities.
<b>Theme: Society</b>	<b>Strategic Direction 1: Residential Growth &amp; Diversity</b>
<i>Targets:</i> Darwin Offers affordable and appropriate housing that meets the needs of Territorians	<p>Actions: Deliver masterplans for infill sites and activity centres and facilitate regeneration of areas between activity centres.</p> <p>Amend the Planning Scheme to allow dual occupancy and small lot housing.</p>
	<b>Strategic Direction 4: Economic Development</b>
	<i>Action:</i> Implement red tape reduction for residential and commercial uses with Activity Centres.
<i>Target:</i> The Territory maintains an enviable lifestyle.	<b>Strategic Direction 2: Sustainable Future</b>
	<i>Action:</i> Develop and implement Top End Neighbourhood Design Principles.
<i>Target:</i> Investing in and valuing our people, cultures and communities.	<b>Strategic Direction 3: Strong &amp; Healthy Communities</b>
	<i>Action:</i> Develop masterplans with local communities for activity centres.
	<b>Strategic Direction 5: A Green Region</b>
	<i>Action:</i> Prepare an Open Space Network Strategy.
<b>Theme: Sustainability</b>	<b>Strategic Direction 4: Economic Development</b>
<i>Targets:</i> Capturing new opportunities. The Territory invests for long-term growth. Investment and infrastructure. Growing local industry. Cutting edge businesses.	<p><i>Actions:</i> Monitor the commercial, retail and industrial needs of the Greater Darwin Region.</p> <p>Investigate the future use of Gunn Point for strategic industrial activities.</p> <p>Identify possible future sites for major transport infrastructure including a general aviation airport and second sea port.</p>
	<b>Strategic Direction 6: Land Use Integration</b>
	<i>Actions:</i> Ensure there is sufficient serviced land in Darwin. Undertake long-term infrastructure planning
<b>Theme: Health and Wellbeing</b>	<b>Strategic Direction 3: Strong &amp; Healthy Communities</b>
<i>Targets:</i> Reforming the Territory health system.	<i>Action:</i> Social needs assessments undertaken to ensure provision of land for long term planning for health facilities.
<b>Theme: Environment</b>	<b>Strategic Direction 2: Sustainable Future</b>
<i>Targets:</i> Custodians of our national heritage. Sustainable living.	<p><i>Action:</i> Planning and design for Zuccoli will consider energy efficiency outcomes of lot orientation and incorporate sustainability features.</p> <p>Develop Weddell as a world-class green city.</p>
	<b>Strategic Direction 3: Strong &amp; Healthy Communities</b>
	<i>Action:</i> Develop a Darwin Harbour Masterplan to guide future development.
<b>Theme: Knowledge, Creativity and Innovation</b>	<b>Strategic Direction 2: Sustainable Future</b>
<i>Targets:</i> Develop a focus on research and innovation. Participation in arts and cultural activities and events. Improving access to and use of technology.	<p><i>Action:</i> Government will work with private development so subdivisions showcase the very best sustainable and energy-efficient building standards.</p>
	<b>Strategic Direction 3: Strong &amp; Healthy Communities</b>
	<i>Action:</i> Social needs assessments undertaken to ensure provision of land for community facilities.

Note: Refer to Section 3 and Section 9 for more detail on the Strategic Directions and Implementation Actions for the Greater Darwin Plan.

## Territory 2030 Strategic Plan

The Territory 2030 Strategic Plan (Territory 2030) provides a roadmap for development across the Northern Territory for the next 20 years.

Developed by an independent steering committee and with an extensive consultation process, Territory 2030 reflects the aspirations of Territorians for the future.

Territory 2030 foreshadows the growth of the Greater Darwin Region as an international hub for exports, education, health services, tourism and operations and maintenance.

## National Reform Framework

The Council of Australian Governments (COAG) has agreed to reforms to ensure capital cities are well placed to meet the challenges of the future.

### Capital City Strategic Planning Criteria

In 2009 COAG agreed nine national Capital City Strategic Planning Criteria to ensure our cities have strong, transparent and long-term plans in place to manage population and economic growth, address climate change, improve housing affordability and tackle urban congestion.

Strategic plans for the Greater Darwin Region, including the Greater Darwin Plan, will be reviewed against these criteria by the COAG Reform Council.

### National Urban Policy

The National Urban Policy sets out the Australian Government's overarching goals for the nation's cities and the role of the Australian Government in making them more productive, sustainable and liveable.

It recognises the critical roles of state, territory and local governments, the private sector and individuals in planning, managing and investing in cities. It also highlights that decisions made by the Australian Government impact urban Australia.

The Greater Darwin Plan specifically addresses a number of the objectives outlined in the National Urban Policy including:

- Integrate planning of land use, social and economic infrastructure;
- Protect corridors, sites and buffers;
- Protect and enhance natural ecosystems;
- Sustainable urban planning and regulatory reform;
- Increase resilience to climate change, emergency events and natural hazards by mitigation and adaptation;
- Encourage a range of housing styles to suit diverse household needs across metropolitan areas and regional cities;
- Locate housing close to facilities and services, including jobs and public transport, in more compact mixed use development;
- Support new outer metropolitan housing with access to facilities, services and diverse education and employment opportunities;
- Reduce travel demand by co-location of jobs, people and facilities;
- Improve the quality of the public domain;
- Enhance access to cultural, sporting and recreational activity; and
- Integrate planning systems, infrastructure delivery and management.

## Associated Northern Territory Policies and Priorities

### Climate Change Policy

The Greater Darwin Plan has the opportunity to make a significant contribution to reduce the area's carbon footprint and increase resilience to predicted climate change impacts through integrated land use planning. Key initiatives include:

- Reduce reliance on motorised transport, particularly single-occupant private vehicles;
- Provide appropriate community and business facilities close to people's homes to increase the opportunity for people to walk or cycle;
- Improve building design to reduce electricity consumption; and
- Understand the impacts of climate change on sea levels, flooding and cyclone activity to improve community resilience.

### Transport Plan

Getting people around a large area like the Greater Darwin Region requires a strong focus on transport. Existing transport within the Region is dominated by the road network with a high reliance on private vehicles for work and leisure purposes. The public bus system has been upgraded and expanded to encourage increased use but uptake remains low.

Although Darwin has the highest rate of motor vehicle use for the journey to work of all Australian capital cities it leads the way on cycling to work.

A reduction on private motor vehicle reliance and an increase in the use of public and active transport for all travel will improve the sustainability of the Darwin region.

Greater Darwin journey to work mode: 2006 Census

City	Motor Vehicle	Public Transport	Cycled	Walked
Adelaide	84.9%	10.4%	1.5%	3.2%
Brisbane	80.8%	14.5%	1.1%	3.7%
Canberra	84.2%	8.3%	2.5%	5.0%
<b>Darwin</b>	<b>85.9%</b>	<b>5.2%</b>	<b>3.2%</b>	<b>5.7%</b>
Hobart	84.3%	7.0%	1.1%	7.6%
Melbourne	80.5%	14.5%	1.3%	3.6%
Perth	85.3%	10.8%	1.2%	2.7%
Sydney	72.5%	21.9%	0.7%	5.0%
<b>AVERAGE</b>	<b>82.3%</b>	<b>11.6%</b>	<b>1.6%</b>	<b>4.6%</b>

The development of a Greater Darwin Regional Transport Plan to support the Greater Darwin Plan is underway. It covers the same area as the Greater Darwin Plan and shares its future land use projections.

The Transport Plan will provide a range of new initiatives to manage projected population densities, traffic flow and transport needs. The Plan will look at three distinct but related streams:

- **Traffic modelling:** Extensive modelling of traffic flows, including freight, private vehicle and public transport for the short, medium and long term over the Greater Darwin Region will be undertaken. The modelling will encompass four aspects of traffic flows – trip generation, trip distribution, mode of travel and time-of-day flow analysis.
- **Development of a Regional Transport Plan:** The plan will integrate the land use projections with the transport strategies derived from the traffic modelling.

- **Development of a Public Transport Strategy:** This long-term strategy will guide the expansion of public transport services and public transport network components. The strategy will also consider the timing of significant improvements to the public transport network such as the development of rapid transit services that could include bus and/or light rail when demand warrants.

The Transport Plan will provide the overall framework to address the outcomes and implications from the traffic modelling and delivery of the Public Transport Strategy.

**Infrastructure Strategy**

A 10 Year Infrastructure Strategy has been developed to guide Northern Territory Government decisions to best meet the needs and aspirations of Territorians.

The Infrastructure Strategy considers economic, social and environmental sustainability and identifies seven priorities for action: Land, Remote Services, Transport, Energy and Water, Social Infrastructure, Telecommunications

and Infrastructure Planning and Management. These priorities provide a foundation for the development of the Greater Darwin Region. Future infrastructure however is reliant on the identification and timing of land release.

The Territory Government’s Power and Water Corporation is delivering a five-year, \$1.8 billion infrastructure investment program which will support the Greater Darwin Plan.

Capital works projects outlined in the 10 Year Infrastructure Strategy include the Weddell and Channel Island Power Stations and strategic substations across Palmerston and the northern suburbs. The projects will boost the capacity of the Darwin River Dam and ultimately result in the closure of the Larrakeyah sewerage outfall.

Almost \$270 million is committed to repair and maintain essential services infrastructure such as power, water and sewage. Strategic investment in this infrastructure will need to continue to meet the demands of a growing population.

In addition to the infrastructure needs identified in the 10 Year Infrastructure

Strategy, long-term planning will be needed to accommodate the development of new air and sea ports in Greater Darwin.

### General Infrastructure Investment

In the long term, the NT Government seeks to:

- Establish a purpose-built marine facility to deliver all-weather berths and tug mooring pens;
- Secure additional LNG and value-added gas projects by promoting the Territory's competitive advantages;
- Develop Port of Darwin shipping channels to support growth in commercial shipping;
- Encourage investment in additional passing loops on the AustralAsia railway line to facilitate mining development;
- Grow bulk minerals export volumes through the rail network to service prospective mines situated along the central corridor;
- Investigate the viability of additional rail lines to service the prospective mineral developments in the Barkly region; and
- Evaluate opportunities for additional port requirements and transport corridors to service the emerging needs of the mineral provinces.

### Airports

Darwin International Airport is experiencing ongoing growth in airline and freight traffic. This growth is expected to continue in the coming years and is likely to put financial pressure on smaller aircraft that operate at the Airport.

A general aviation airport may be more financially viable for smaller aircraft which service regional and remote communities. The NT Government will monitor the need for additional aviation infrastructure and work with key stakeholders to identify future options.

### Sea Ports

Increased trade through the Port of Darwin follows significant Government investment in East Arm Port, the Adelaide to Darwin Railway and associated infrastructure. Trade tonnages have quadrupled in the past eight years to more than 4 million tonnes handled annually.

The Port's capacity is to handle 8 million tonnes annually. To meet this potential, significant land reclamation is required at the site or the establishment of a second bulk loading facility elsewhere.

Under the Port Masterplan, the East Arm Port will be further developed to include a marine supply base with up to 45 ha of land available for reclamation, development of shipping channels to support growth in commercial shipping, establishment of a purpose-built marine facility to deliver all-weather berths and tug mooring pens that separate liquid and dry bulk berths from general cargo, identification of an amphibious craft land area to be used by the Australian Defence Force and other commercial operators.

### Protecting Darwin Harbour

The Darwin Harbour is an iconic feature of the Greater Darwin Region. It encompasses the Port of Darwin and Shoal Bay, and covers some 3 227 sq km of land and water. The Harbour extends from Charles Point to Gunn Point and includes the estuarine areas, tributaries and catchment areas of Cox Peninsula, Woods Inlet, West Arm, Middle Arm, East Arm and the Howard River. Land in the Harbour totals 2 417 sq km.

The Darwin Harbour Advisory Committee, established by the NT Government, is focused on sustainable development and the long-term protection of the harbour. The Darwin Harbour Strategy identifies five key goals to be considered in decision making:

- Maintain a healthy environment;
- Support recreational use and enjoyment of the environment;
- Ensure that development is implemented in an ecologically sustainable manner;
- Protect cultural values and heritage; and
- Foster community awareness, industry partnerships and stewardship of the Darwin Harbour Region.

### Housing the Territory

Housing the Territory is an NT Government initiative to improve housing affordability, accelerate housing supply and achieve a balanced housing market.

Key elements of Housing the Territory include:

- Develop an accelerated land release program that incorporates long-term planning for headworks, parallel-processing of approval and design, masterplanning of subdivisions, and auction of subdivisions with design and development approval in place;
- Involve the Land Development Corporation in urban residential and affordable housing development projects;
- Dedicate 15 per cent of all new land releases to affordable housing;
- Establish a new Affordable Housing Rental Company to fill the gap between the public and private housing markets; and
- The provision of more seniors, short-term and transition housing.

### Social Inclusion

Territory 2030 aims to create a society where everyone, irrespective of circumstance, background or culture, is a full and active participant in society. The Greater Darwin Plan recognises that land use and planning can significantly help to achieve this goal.

Land release planning considers designs to enhance liveability and accessibility to community space and amenities. Social infrastructure assessment, including the identification of schools, childcare centres and community facilities, is key to this planning.

Programs for the construction of bike paths, free water parks and crime prevention all deliver benefits to the Greater Darwin community.

### **Good Design**

The NT Government established the NT Urban Design Advisory Panel in 2007 to advise the Government on how to achieve better urban design outcomes.

Territory 2030 includes a target for Territory communities to become more in touch with their location, climate, people and sustainability, and the establishment an Office of Urban Design.

The Office will develop and oversee the principles, guidelines and policies for all aspects of urban planning in the Territory in line with sustainable, sophisticated and appropriate urban design and development.

### **Place Making**

The vision for the Greater Darwin Region is for a strong, vibrant and sustainable community. To achieve this goal a multi-dimensional approach to public space planning, design and management is needed.

Place Making involves the community in the planning process to ensure places are built to cater for people's needs and aspirations. Place Making helps to foster a sense of place and community, and promote health, happiness and wellbeing.

The Greater Darwin Plan promotes Place Making as an important factor in developing communities. Particular emphasis will be on activating public places in the Darwin and Palmerston Central Business Districts.

# Section 3:

## An Action Plan – Seven Strategic Directions

Economic development will be supported by providing certainty around land development and ensuring land is available for growth.



The Greater Darwin Plan's strategic principles have sustainability as a core focus.

The seven Strategic Directions set out below will ensure a balance between the community's social and economic needs and the needs of the environment.

A strategic approach will allow better integrated land use planning, transport and infrastructure corridors that assist government in delivering more sustainable and cost-effective outcomes for the community.

This Plan provides the framework and strategies at the Darwin regional level. Specific implementation actions are detailed in Section 9 of this Plan (Implementation, Monitoring, Review and Evaluation).

## 1. Residential Growth and Diversity

The Plan will support access and choice, assist housing affordability and achieve compatibility between employment, transport infrastructure and population growth.

Growth will be accommodated through a combination of new development areas, increased density along transport corridors and around centres and the use of under-utilised land within the broader urban framework.

## 2. Sustainable Future

This plan has a strong focus on ensuring the future development of Greater Darwin will be sustainable, with an emphasis on:

- Our ecological footprint;
- Maintaining a healthy Darwin Harbour;
- Reduce car dependency; and
- Use contemporary measures to conserve water and energy.

## 3. Strong and Healthy Communities

Strong and healthy communities are enhanced when we create liveable communities with distinct local character and identity with:

- Compact forms of residential development within discrete neighbourhoods, incorporating a mix of uses and residential densities to encourage alternative modes of transport and the efficient delivery of infrastructure.
- The coordinated and timely delivery of social infrastructure for health, sport, education and recreation to support the range of community needs and to enhance social inclusion for an ageing population, disadvantaged communities and new neighbourhoods.

## 4. Economic Development

Economic development will be supported by providing certainty around land development and ensuring land is available for growth.

- Growth will be accommodated in urban areas through a combination of activity centres, specialised employment centres and additional growth through diversification in tourism and recreation.
- Access to transport will assist in linking jobs to homes, ensuring employment containment of the Region and efficiency of services.
- A hierarchy of centres will guide and accommodate growth and provide accessible facilities for communities.

## 5. A Green Region

Sustainability will be at the centre of planning and urban development and the health of Darwin Harbour will be recognised as central to the future of the Region to ensure the tropical lifestyle, natural environment and biodiversity continue to be enjoyed by residents and ensure new development is balanced with enhanced natural corridors and open space.

## 6. Land Use Integration

Through a series of strategies the Plan will introduce better coordination and sequencing of land use and transport planning and the protection of corridors for different modes of transport.

The Plan is intrinsically linked with the Northern Territory Infrastructure Strategy and the Greater Darwin Regional Transport Plan.

Consolidating urban growth will reduce travel time, costs, distances and from this minimise the carbon footprint of the transport sector and improve access to essential services.

Mixed residential, commercial and community facilities will be located at Activity Centres and along corridors between Activity Centres to reduce the impacts of traffic congestion and to increase provision, accessibility to and use of public transport services.

Connectivity between alternative modes of transport, cycling and walking will assist in reducing car dependence.

## 7. Regional Connections

Regional connections include links both within the Greater Darwin Region as well as to the remainder of the Northern Territory and beyond. This plan aims to:

- Strengthen the economic, infrastructure, planning and transport connections between the administrative and trade centres of Darwin and Palmerston with the primary production and resources sectors located within the Litchfield sub-region, the Coomalie sub-region, the Daly Region and the Katherine Region.
- Develop Darwin as an international hub for exports, education and health services, tourism and operations and maintenance.
- Expand the capacity of the East Arm Wharf and Darwin International Airport as significant national infrastructure connecting Australia to the World, particularly South East Asia.

# Section 4:

## Regional Snapshot

Darwin is a modern cosmopolitan city that has a multicultural character and enjoys arguably the best lifestyle in Australia.

## History

Founded in 1870 as “Palmerston” and renamed Darwin in 1911 the northern capital is Australia’s youngest. Yet its history is colourful.

On four occasions the city’s built environment has been tested and destroyed. First from tropical cyclones in 1897 and 1937, and then from attacks by the Japanese during World War II, before Cyclone Tracy struck in 1974.

Darwin is located on the traditional lands of the Larrakia people and surrounded by the sea on three sides. It was the landscape that dictated development by Goyder in the 1870s and which continues to impact urban development today.

Darwin’s first economic boom was sparked by the discovery of gold at Yam Creek in 1872 and the city population swelled with Chinese immigrants who looked for work on the goldfields. It was perhaps the making of Darwin’s vibrant and multicultural community.

Within two decades, the Chinese community outnumbered all ethnic groups in Darwin including the Larrakia and several other Aboriginal groups that called Darwin home.

In 1911 when the Commonwealth took over the Northern Territory, one of the first acts introduced evicted the Larrakia living at Lamaroo Beach near the Esplanade to “Kahlin Compound”. Located between Myilly and Emery Points, the compound became the official residence of all Aboriginal groups in Darwin.

The restriction on Aboriginal rights remained in place through a local downturn that dominated the 1920s, global depression in 1929 and World War II. It was 1962 before the laws were finally lifted.

By that stage, the city had been twice decimated by the 1937 cyclone and the Bombing of Darwin in World War II. Darwin was bombed two months after Pearl Harbour on 19 February 1942 in raids that would last almost 20 months.

During the war effort, Darwin’s population doubled and a number of infrastructure projects were completed including the construction of Stokes Hill Wharf and Manton Dam and the sealing of highways from Mount Isa to Darwin and Alice Springs.

The bombings did destroy more than half of the buildings in Darwin and it was some years before the city was eventually rebuilt to its original layout. Returning citizens and new arrivals found accommodation in the abandoned military camps at Winnellie, Parap, Nightcliff and Stuart Park. The suburbs of Larrakeyah, Fannie Bay and rural subdivisions at Berrimah and Leanyer were developed in the decade that followed.

On Christmas Eve in 1974 Darwin was again destroyed, this time by category 5 tropical cyclone Tracy. In the evacuation, Darwin’s population plummeted to 10 600 – one quarter the number of former residents.

Over the next decade the city grew and stabilised. New residential development started in the northern suburbs in the late 1970s and by the time of self-government in 1978 Darwin’s population was more than 50 000 people.

In the early 1980s, the new satellite city of Palmerston was established along with the Royal Darwin Hospital at Casuarina, the Museum and Art Gallery, Larrakeyah Naval Patrol Boat base and a new Casino and hotels dotted the sea front.

The first “Darwin Region Structure Plan” was prepared in 1984 and foreshadowed a city on Middle Arm Peninsula. A pipeline that connected Darwin to the gas fields of the Amadeus Basin and a new gas-fired generator supported the growing city. By the end of the century, Darwin had a new State Square development including Parliament House and Supreme Court buildings and a transcontinental rail link nearing completion.

The last decade has seen the railway, East Arm Port and foundation for onshore gas industries at Wickham Point completed, and the city undergo a modern facelift with the Darwin Waterfront urban development, greening of the Mall and high rise residential development. The Kenbi Land Claim and later the 1993 Mabo decision on Native Title have also influenced urban development across the Greater Darwin Region.

Darwin’s history continues to be characterised by a combination of cultural diversity, driving vision and a transient population. The Larrakia are today actively engaged in the cultural, economic and political life of the city and are the primary land owners of land on the Cox Peninsula.

## Population Profile

	NT	Darwin	Australia
Median Age	31.3	34	37
Indigenous proportion	30.4	11.1	2.5
Males per 100 females	107	111	99
Proportion 55 and over	14.5	16.1	24.6
Proportion 85 and older	0.3	0.3	1.7

## Population

Population growth in Greater Darwin has largely followed economic expansion, with interstate migrants moving to Darwin to work on major projects. At June 2010 the population of the Greater Darwin Region was 127 532, making up 55 per cent of the Northern Territory population.

Darwin's population is younger and has a higher percentage of males and Indigenous Australians than any other capital in the country. Its population is also highly mobile with high migration and routine turnover of Defence personnel and fly in/fly out workers on mining and large construction projects. The number of people moving in and out of the area over any five-year period is equivalent to its total population.

With the final investment decision to build the Ichthys LNG project at Blaydin Point, the next phase of population growth is now upon us

## Economic Profile

Recent strong growth in private business investment has led to a broadening of the Greater Darwin Region's economic base.

Economic growth is likely to be sustained in the Darwin area over the next decade and beyond, fuelled by the oil and gas industries

and mining and defence sectors. These industries are supported by agriculture, fishing, tourism, public administration and services.

Global demand for major exports from the NT including mineral and petroleum commodities is forecast to remain strong in the medium term and lead continued growth in private business investment.

Darwin is emerging as a hub for energy developments, in line with the Territory 2030 target to establish Darwin as a key centre for oil and gas operations, maintenance and workforce. The establishment of a gas pipeline from the Bayu Undan gas field to the liquefied natural gas (LNG) plant at Wickham Point, along with the \$34 billion Ichthys LNG project, heightens focus on the energy industry.

Darwin is developing its strategic position and proximity to Asia for shipping, regional freight and as a distribution gateway.

The domestic component of the Territory economy includes retail, finance, business, engineering and insurance sectors. Although comparatively small in relation to the other sectors, these services support the growing population and major industries and reduce economic volatility.

## Industry Overview

Northern Territory Industry contribution <sup>1</sup>	Greater Darwin Employment <sup>2</sup>	No. of Firms <sup>3</sup>	Land use
<b>Minerals and Energy</b>			
\$2.8 billion 17.4% of NT GSP	845 people 2% of employment in Greater Darwin.	54	Product is transported to Darwin road and rail for export through the Port of Darwin. A marine supply base is to be developed on land adjacent to East Arm Port.
<b>Public Administration and Safety</b>			
\$1.5 billion 9.3% of NT GSP	11 476 people 21% of employment	39	Defence areas include Defence Establishment Berrimah, Darwin Naval Base, Larrakeyah Army Base, RAAF Base Darwin, and Robertson Barracks.  Most Northern Territory Government office accommodation is located in the three main activity centres of the Darwin CBD, Casuarina and Palmerston CBD.
<b>Tourism<sup>4</sup></b>			
(note: 2008-09) \$710 million <sup>4</sup> 4.1% of NT GSP	10 400 people <sup>4</sup> 9% of employment	514	The majority of hotel, motel and tourism serviced apartment accommodation is located within or close to the CBD. Most tourist/caravan parks are located within the Darwin Palmerston Corridor or Litchfield. Harbour tour vessels predominately utilise Cullen Bay and Stokes Hill Wharf. Other tourism businesses and infrastructure (such as attractions, vehicle hire and tour and transport operations) are located in many areas within Greater Darwin. Land will be required to support the growth of, and investment in, the tourism industry. An additional 1 200 hotel/motel/serviced apartment rooms will be needed in the Greater Darwin area in the next decade.
<b>Agriculture and Fishing</b>			
\$545 million 3.3% of NT GSP	721 people 1% of employment	562	Live cattle are exported via Darwin. Frances Bay Marina is used primarily by fishing and associated vessels. Horticulture industry is mainly located in Litchfield with the main products being mangoes, citrus and Asian vegetables.
<b>Health, Education and Community Services</b>			
\$1.5 billion 9.3% of NT GSP	9 029 people 17% of employment	396	The health precinct at Tiwi is home to Royal Darwin Hospital, Darwin Private Hospital, Menzies School of Health Research and a number of associated facilities. The Charles Darwin University main campus is located at Casuarina, with a second major campus at Palmerston.
<b>Transport</b>			
\$710 million 4.4% of NT GSP	2 860 people 5% of employment	594	East Arm Port and the adjacent Darwin Business Park are key localities for the transport industry. Darwin International Airport forms an important hub for commercial airlines
<b>Construction</b>			
\$1.7billion 10.7% of NT GSP	4 238 people 8% of employment	2 174	Construction includes residential, commercial and civil construction projects.

Source: <sup>1</sup>ABS Cat No 5220.0

<sup>2</sup>ABS Census 2006

<sup>3</sup>ABS Cat No 8165.0 - Counts of Australian Businesses (Includes employing and non-employing businesses).

The Department of Business and Employment lists a total of 9 205 businesses operating in the region.

<sup>4</sup>Tourism NT - Economic Contribution of Tourism to the Northern Territory 2008-2009.

## Where Greater Darwin Residents Work

Place of Work	Place of Residence <sup>1</sup>			Total	No. of firms <sup>2</sup>	Main Employers
	Darwin	Palmerston	Litchfield			
Darwin City Centre	8 794	1 686	829	11 312 (24%)	577	Administration, Retail and Hospitality
Inner Suburbs	3 605	601	372	4 579 (10%)	495	Retail, Arts and Recreation
Northern Suburbs	9 632	1 289	623	11 547 (25%)	942	Hospital, University
Palmerston	1 163	2 561	856	4 581 (10%)	499	Retail, CDU
Darwin-Palmerston Corridor	5 603	2 015	1 222	8 841 (19%)	544	Retail, Administration, Education
Litchfield	1 705	1 551	2 703	5 951 (13%)	508	RAAF Base, Transport (Port, Airport, Logistics) & light industry
<b>SUB TOTAL</b>	<b>30 502</b>	<b>9 703</b>	<b>6 605</b>	<b>46 811</b>	<b>3 565</b>	<b>Robertson Barracks, Agriculture, Construction</b>
Rest of NT				3 629		
Rest of Australia				821		
Unknown				2 978		
<b>TOTAL</b>				<b>54 239</b>		

Source: <sup>1</sup>ABS Census 2006.

<sup>2</sup>ABS Cat No 8165.0 - Counts of Australian Businesses (Includes employing businesses only).

## Where People Work

Where people work in the Greater Darwin Region has a significant impact on land use and transport planning. Only one quarter of jobs are located in the CBD, catering for government administration, retail and hospitality workers.

The Casuarina and Tiwi areas are major employment centres with Casuarina Shopping Centre, the Royal Darwin and Darwin Private Hospitals and Charles Darwin University all located within them. Palmerston City Centre, Defence bases at Larrakeyah, RAAF Base and Robertson Barracks and the Winnellie, Berrimah and Yarrowonga industrial areas are also large employment centres in the Region.

Outside of these main employment centres a significant proportion of residents work in suburban schools, the community services sector and outside of Greater Darwin.

Employment within the Greater Darwin Region is geographically dispersed and residents regularly travel between sub-regions for work. For example, three in four Palmerston workers are employed outside of Palmerston with 15 per cent travelling to the Litchfield sub-region and 60 per cent elsewhere in Greater Darwin for work.

Territory 2030 aims to reduce environmental impact by lowering private vehicle usage. Strategies in this Plan to encourage employment in activity centres and ensure suburbs are well connected by appropriate infrastructure and public transport will help meet this target.

## The Impact of Ichthys LNG Project

The gas processing facility at Blaydin Point was confirmed in January 2012. It is the largest project undertaken in the Northern Territory and will fundamentally change the economy of Greater Darwin.

The project involves the development of Ichthys gas field 820 km southwest of Darwin, piping the gas onshore via a subsea pipeline and processing gas and storing the Liquefied Natural Gas (LNG) onshore for export.

Construction and commissioning will take up to five years with the first exports due in late 2016. The project has an expected life of 40 years.

The project is estimated to cost around \$34 billion and directly employ more than 3 000 people in Darwin at the peak of construction and 300 during its operational phase. An additional 3 000 jobs across a range of industries including construction and manufacturing, professional and technical services and the retail sector are expected to be generated from the project.

The effects of increased demand and population in Darwin will be seen in the following ways:

- A stressed housing market as it adjusts to higher demand levels;
- Increased demand for hotels, serviced apartments and other forms of short to medium term stay accommodation;
- Increased demand for government services, police and nurses to service the growing population;
- More trucks on the road, with approximately 4.4 million tonnes of material to be transported;

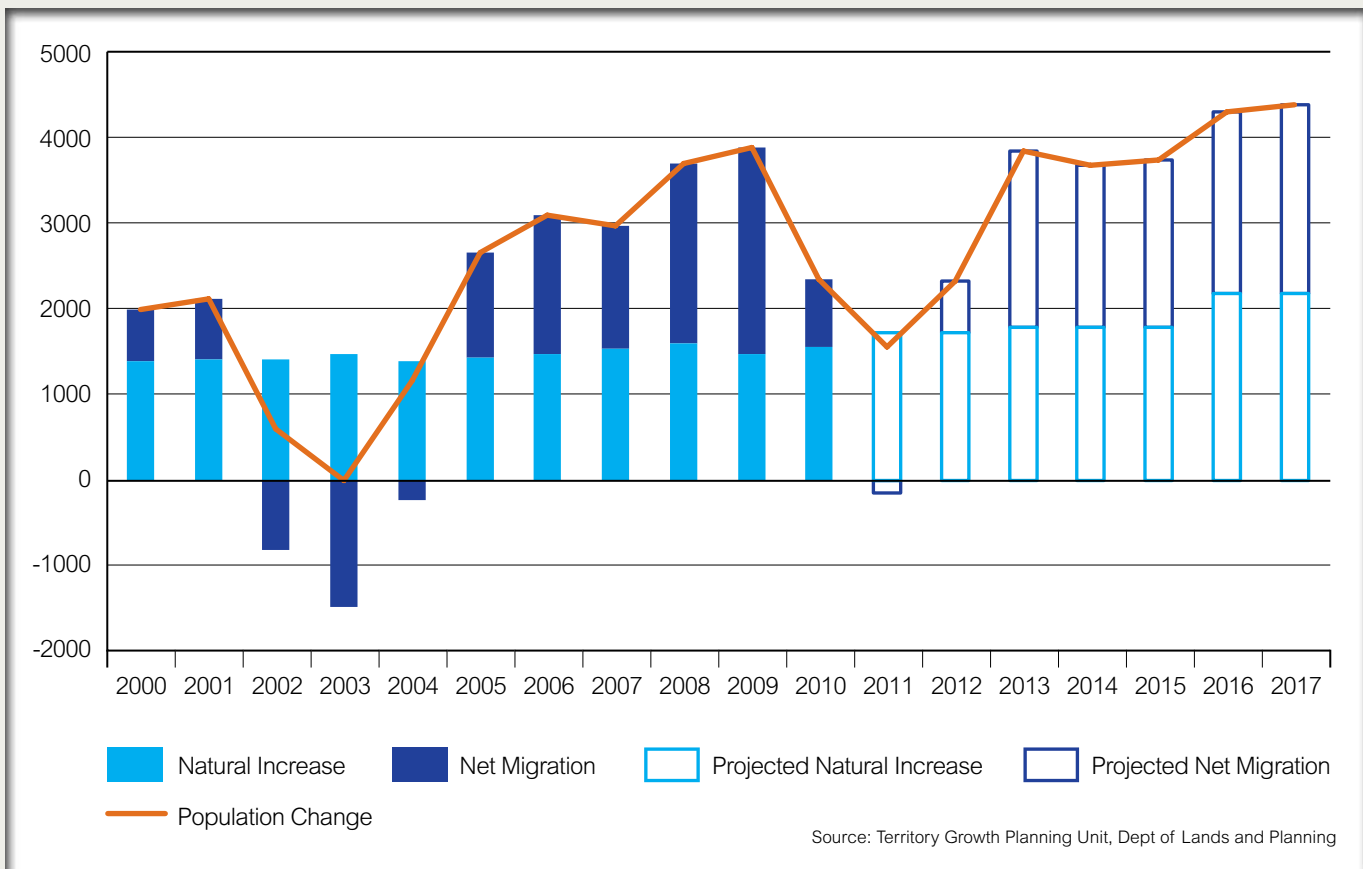
- Increased numbers of fly-in-fly-out workers moving through the airport and increased demand for public transport services;
- High levels of usage at East Arm Port and nearby facilities for marine supply, transport, laydown, customs and quarantine are expected; and
- Opportunities for local businesses to provide goods and services such as manufacturing of some specialised components, asset management, maintenance, transport, accommodation and catering.

The NT Government is committed to creating an environment that will enable Darwin to prosper and grow with the opportunities presented by the project. To achieve this objective it is working closely with INPEX to understand the requirements of the project and its likely impacts on Government services, accommodation, transport and key infrastructure.

There will be continued focus on increasing housing supply through implementation of the Housing the Territory Strategy, including a special focus on the allocation of land to support the establishment of short-stay workers accommodation.

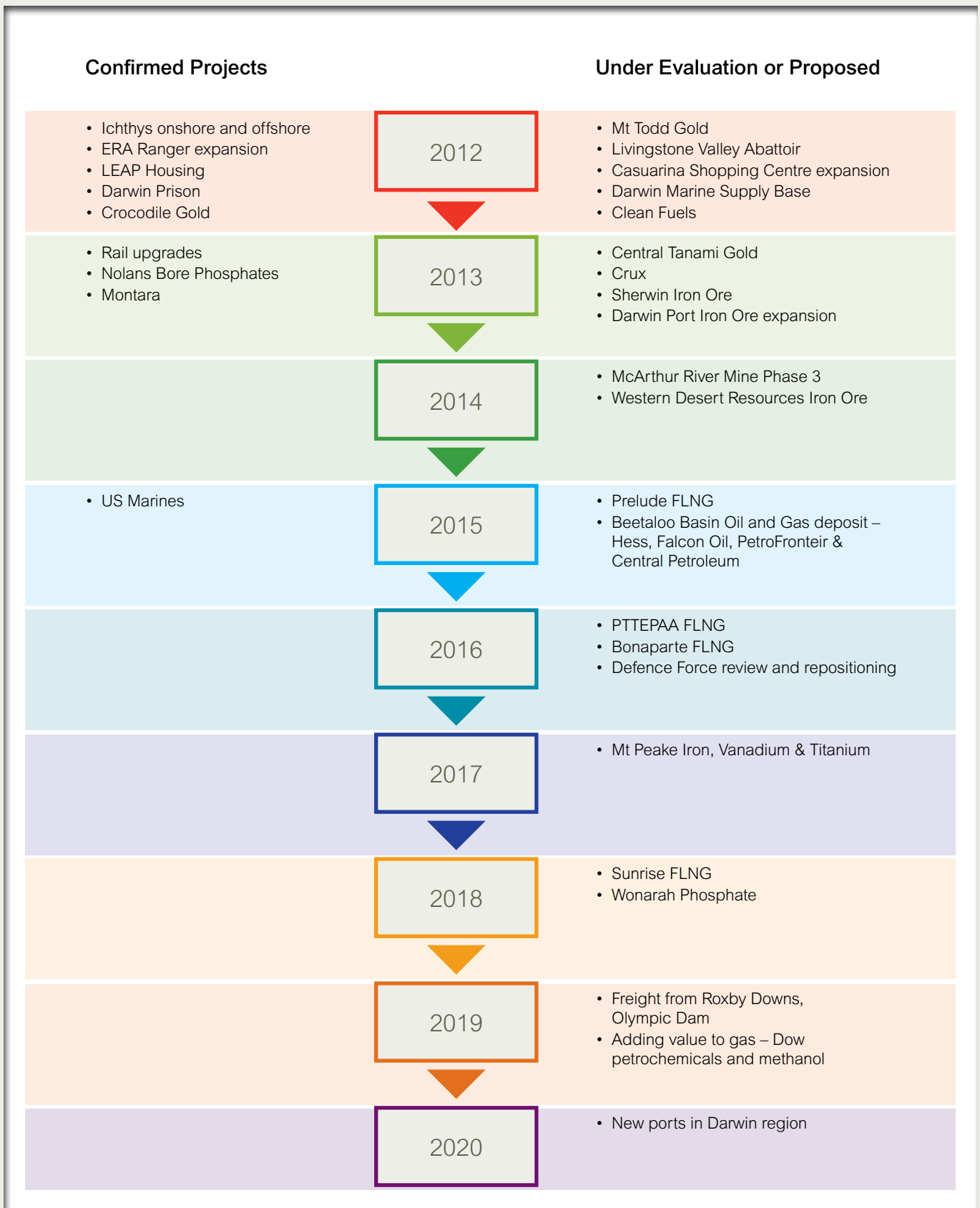
While the Ichthys LNG project is by far the largest, it is one of several large projects commenced for construction in the Greater Darwin Region during the next five years including the new Darwin Correctional Facility, the short-stay accommodation village in Marrara and the Marine Supply Base.

### Components of population growth





Investment Timeframe for Major Projects Impacting on Greater Darwin



# Section 5:

## Future Growth

The Greater Darwin Region is growing rapidly, and understanding that growth is essential in planning for the future of our communities.

## Population Projections

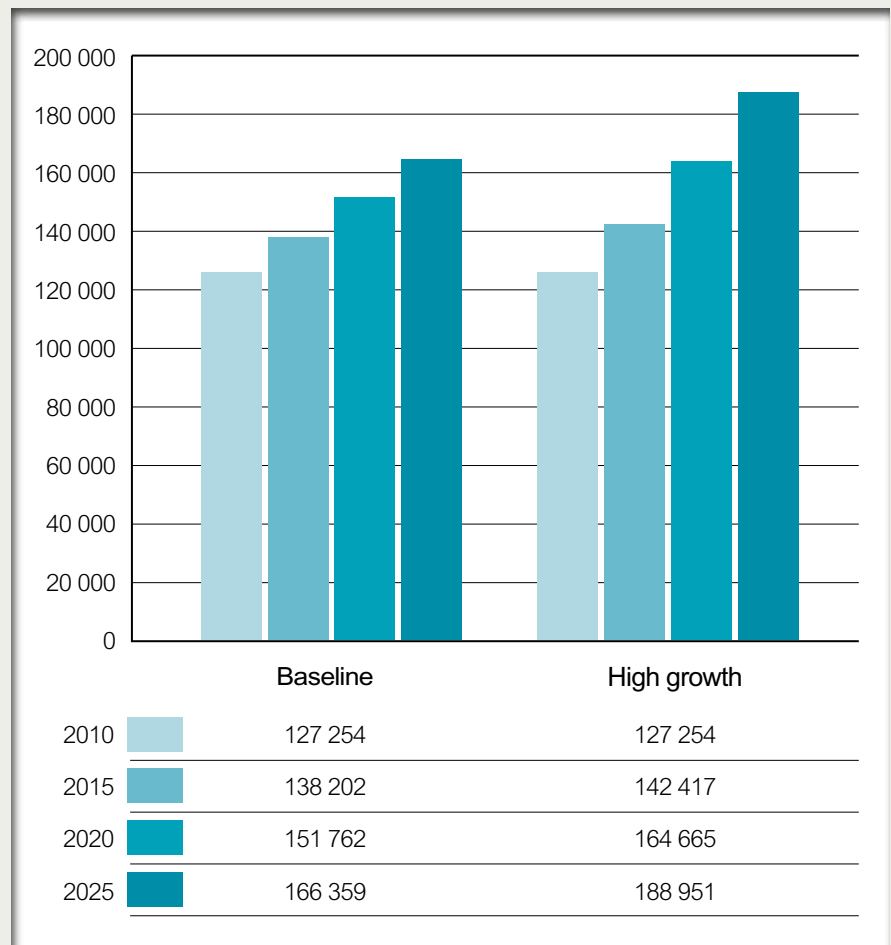
Population statistics and growth projections are important for understanding and planning for the potential future growth of the Region, including where land and services need to be provided.

Northern Territory Treasury's latest population assessments, published in September 2011, predict the Greater Darwin Region will grow by between 39 000 and 62 000 people over the next 15 years, as shown on the graph.

Treasury provides two projections – a “baseline” projection based on typical growth and migration patterns and a “high growth” scenario. These two projections thus encompass a range of possibilities under which population growth might occur.

In order to reflect a possible sustained high growth outlook for Greater Darwin – in view of the significant pipeline of major projects either already confirmed or proposed within the next 15 years – The Greater Darwin Plan adopts the “high growth” scenario for that period. This approach is important because it allows Government to plan for high growth while addressing actual growth in the short and medium term.

## Population Projections



## Accommodating Growth

Territory 2030 identifies the importance of ensuring there is sufficient serviced land to support investment and population growth. Forecasts in this document are based on the highest projected growth. This ensures that, should high demand eventuate, Government's investment can happen in accord with the plan in a timely manner.

Projections for 2025 are:

- Continued infill development in Darwin, focussed around the CBD and well connected activity centres will accommodate up to another 25 000 people;

## Predictions for Growth to 2025

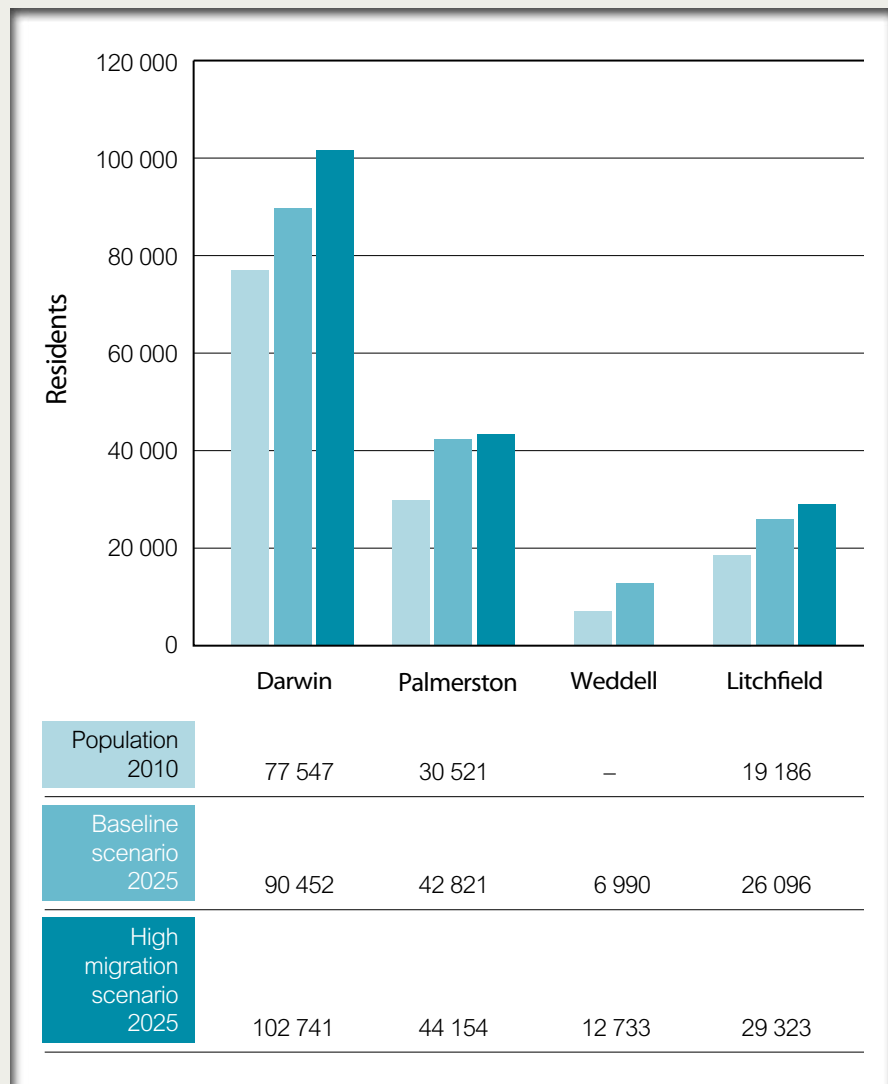
<b>Growth</b>	The region anticipates growth of between 39 000 and 62 000 persons
<b>Dwellings</b>	The region will have up to 24 500 additional dwellings
<b>Retail</b>	Core retail space will increase by up to an additional 125 000 sqm
<b>Bulky goods</b>	Bulky goods will increase by up to an additional 76 600 sqm
<b>Commercial</b>	Commercial office space will increase by up to an additional 90 000 sqm
<b>Industrial</b>	Industrial land will increase by up to an additional 600 ha

- Palmerston will have an expected population of 45 000 and reach its limit to grow through greenfield development. Future population growth in Palmerston will be accommodated through infill development;
- The population of Litchfield will be approaching 30 000 people with increased commercial and residential activity focussed around centres in Coolalinga, Humpty Doo, Noonamah and Berry Springs; and
- The new city of Weddell will have an initial population of 6 000 which could grow to 12 000 in the first few years of development. The city could house up to 50 000 residents at full capacity.

### Growth Areas

Growth will be accommodated through a combination of greenfield and infill developments. The capacity of different areas to meet future demand depends on the present make-up and character of each area, as shown in the table.

### Projected Residential Growth



## Growth Areas

Areas	Contribution to Growth
<b>Darwin City Centre</b>	
The existing CBD and associated inner suburbs	Targeted infill and redevelopment will accommodate growth. Frances Bay, Waterfront and key sites within the CBD are identified as places where higher density development can occur sustainably. The CBD has planning controls that allow building heights to 90 m above ground level.
<b>Darwin Inner Suburbs</b>	
Cullen Bay, Fannie Bay, Stuart Park, Bayview and The Gardens	There is potential for growth through continuing redevelopment, infill and some densification of medium density housing.
<b>Darwin Northern Suburbs</b>	
Including Casuarina	Development will occur by increased density in the area surrounding the Casuarina Shopping Centre and commercial area. There will be a mixture of Greenfield land releases, such as Muirhead, and infill development. Redevelopment of land for medium density housing will also be encouraged.
<b>Darwin-Palmerston Corridor</b>	
Berrimah Farm, Berrimah Prison land and The Narrows.	Development and growth in this area will be a mixed-use development of commercial, industrial and residential. Berrimah Farm and Berrimah Prison are examples of infill sites that could support mixed residential and commercial development.
<b>Palmerston</b>	
Palmerston	Residential development will continue in Palmerston, including the Palmerston East suburbs of Bellamack, Johnston, Zuccoli and Mitchell, and the Charles Darwin University campus site. Residential development in the CBD will be promoted.
<b>Weddell</b>	
Weddell	The new City of Weddell and associated future development areas around Noonamah will be the focus of new land release. Weddell is a Greenfield development site undergoing detailed masterplanning.
<b>Litchfield</b>	
Existing and planned development areas within the Litchfield local government area.	Development will occur in and around the rural district centres of Girraween, Pine Forest, Coolalinga, Fred's Pass, Virginia, Humpty Doo, Noonamah and Berry Springs. Development will be mainly on infill sites with increased density in the heart of the centres.
<b>Cox Peninsula</b>	
Land at the northern end of Cox Peninsula.	This Greenfield site could be developed for urban residential and supporting community and commercial uses subject to the provision of essential services. The Cox Peninsula could accommodate private development for up to 10 000 people over the life of the Greater Darwin Plan.
<b>Darwin industrial options</b>	
Darwin industrial options	Industrial land identified in the Greater Darwin Plan includes East Arm and Middle Arm Peninsulas and development of a Weddell industrial precinct, business park and commercial developments, including Darwin International Airport. The industrial land will cater for light, general and strategic industrial opportunities. Potential for future (beyond 15 years) industrial development at Gunn Point adjacent to the proposed Murrumujuk area can be considered.
<b>Darwin Port</b>	
Darwin Port	Darwin Port Corporation controls and manages the land, waterways and facilities within the Port of Darwin. The Darwin port is expected to play a significant role for the future trade with Asia, including Singapore. Darwin Port Corporation has announced the East Arm Wharf Facilities Masterplan 2030 Land Use Strategy, including a \$150 million upgrade to facilities. The proposed Marine Supply Base adjacent to the East Arm Wharf and associated works would secure increased tonnage movement, exports and job growth.

# Section 6:

## Considerations in Land Planning

The Greater Darwin Region is diverse, ranging from the Darwin CBD on the edge of the harbour to the Malacca swamp on the Adelaide River, one of the Territory's wildest natural habitats. The diversity of the natural environment as well as a range of other factors must be taken into account when deciding where and how land can be developed.

## Land Constraints

While the Greater Darwin Region is very large, there is a range of factors that limit the ability to develop some land.

### **Storm surge, waterlogging, wetlands, water bodies and conservation-zoned land:**

The general flat topography of Darwin, its monsoonal climate and coastal location make the region particularly susceptible to these factors. The current storm surge maps for Darwin, Palmerston, Litchfield and Cox Peninsula incorporate sea level rise predictions from climate change. Extensive areas near the coast are vulnerable to inundation by storm surge while land further inland adjacent to rivers, semi-permanent streams or lagoons is subject to seasonal inundation for weeks or months at a time.

**Defence facilities:** Urban developments are now much closer to operating Defence bases and training areas giving rise to concerns about the impacts of Defence activities on nearby communities.

Future development around Defence bases and training areas will need to continue to have regard to planning considerations in relation to:

- Aircraft noise and training area noise and vibration;
- Aircraft safety;
- Naval shipping movements, logistic support operations and amphibious requirements near

Defence and commercial port infrastructure and associated safety and security considerations;

- Public safety areas;
- Bird strike;
- Explosive ordnance safeguarding;
- Extraneous lighting;
- Security;
- Traffic and access; and
- Proximity of hazardous and noxious industries.

**Water and sewerage buffers:** The need for buffers around existing wastewater treatment facilities impacts the type and level of future development in proximity to these facilities.

**Land subject to exposure to aircraft noise:** Australian Noise Exposure Forecast Contours identify various levels of impacts on different land use development associated with aircraft noise. The contours represent constraints on the suitability of land for residential development in the vicinity of the Darwin International Airport and RAAF Base Darwin.

**Aquifers:** Future development needs to take account of the contribution of groundwater from aquifers underlying the Darwin region to the local and regional water supply as well as environmentally significant areas.

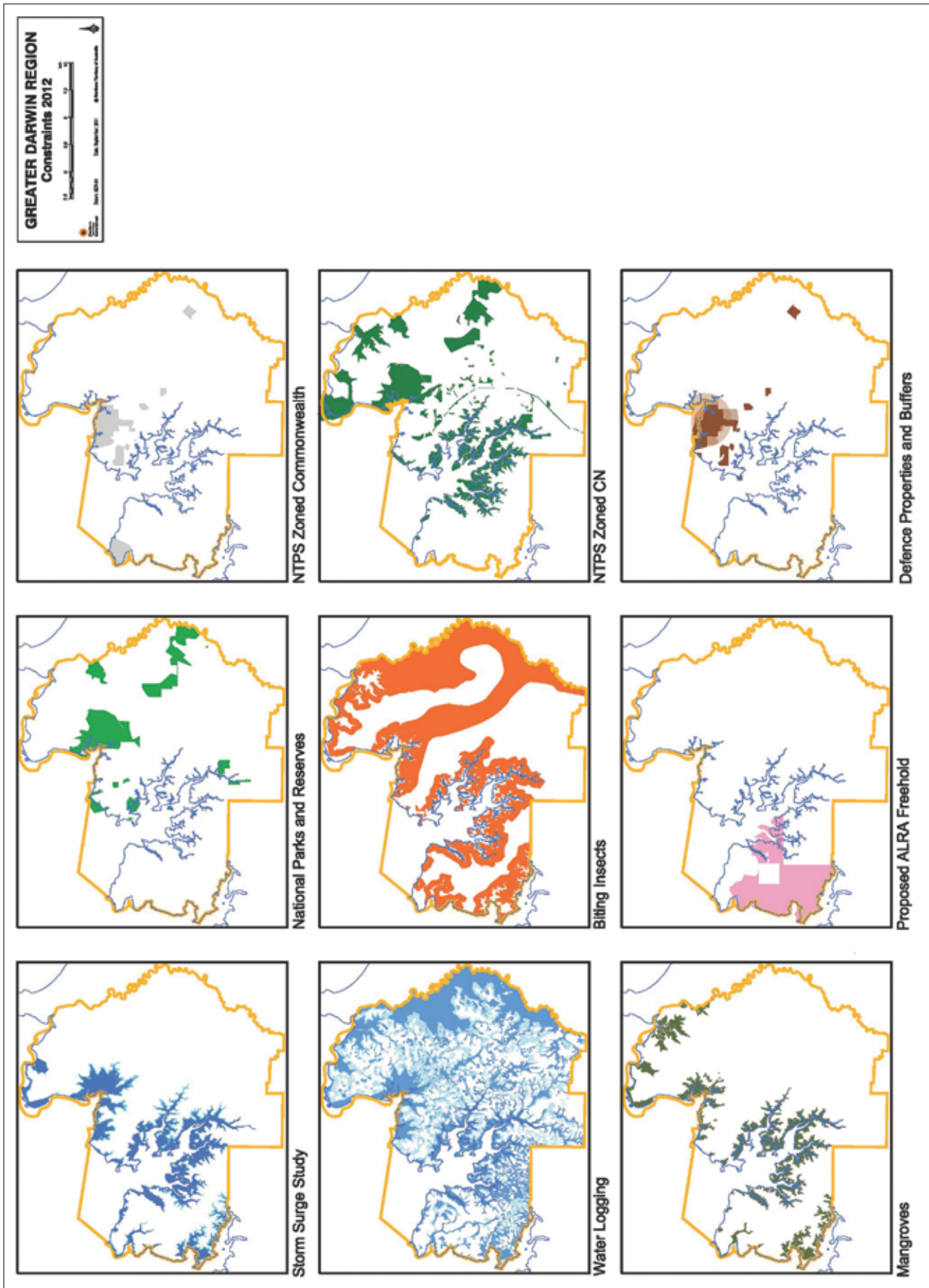
### **Biting insects and public health:**

Biting insect habitats around coastal and wetland habitats pose both nuisance and health risks. Although mitigating engineering solutions

may address the problem in isolated situations, they are often prohibitively expensive or potentially damaging to the natural environment. Identifying potential biting insect habitats is therefore an important consideration in devising a regional framework for development.

**Acid sulphate soils:** Acid sulphate soils are often associated with extensive mangrove areas around the coast of the Darwin region and development of such soils requires particular care. To negate potential detrimental impacts, they must be considered in determining a framework for future development.

Greater Darwin Region Constraints





## Priority Land Uses

The Land Use Framework also takes into consideration priority land uses important for the economy, social outcomes or the environment.

### Cultural Heritage

Within the terms of the *Heritage Conservation Act 1991*, two main types of heritage sites are recognised – those entered onto the Northern Territory Heritage Register (declared heritage places) and those prescribed as archaeological places and objects.

The heritage register has a total of 253 declared sites or objects across the Territory with 100 places awaiting assessment or consultation. Declared places or objects are protected under the Act and any work on these requires a specific permit.

World War II sites in particular are an important component of the heritage and character of the Darwin region.

Prescribed archaeological places and objects include sites of Aboriginal and Macassan origin from the prehistoric or protohistoric period.

The Northern Territory Aboriginal Sacred Sites Act provides protection for registered and recorded Aboriginal sacred sites.

As the register of Aboriginal sacred sites is not exhaustive and many prescribed archaeological places and objects are yet to be recorded, detailed investigation at the time of development is required to determine the existence or potential of such sites.

Predictive modelling indicates that archaeological places or objects are often associated with the coast or watercourses or in rocky outcrop areas near food sources or the raw material for making stone tools.

### Defence Land

Meeting the future needs of the defence industry is an important aspect of this Plan given the economic importance of the defence industries to the region and Darwin's strategic importance to national security.

About 13 000 Defence personnel and their families are based in the Northern Territory, primarily in the Greater Darwin Region, and this presence is continuing to grow. Defence's presence in the Darwin Region contributes \$614 million annually to consumption in the Northern Territory and generates 10 087 additional jobs. Plans for US troops to be stationed in the Top End will add to this growth.

Darwin is one of Australia's busiest naval ports and Australian and international Navy vessels regularly visit the city for recreation. The Territory is also host to a number of joint training military exercises each year. Defence therefore makes a significant contribution to the NT economy.

The arrival of new military platforms in the Territory, including Abrams tanks, Tiger Armed Reconnaissance Helicopters and Armidale Class Patrol Boats, will provide new opportunities to grow the Defence support sector.

The Port of Darwin is also recognised as being important to Defence operations, logistics, support and training.

Sound planning is essential in meeting the demand for both industrial and residential land for Defence-related activity. It is important that secure access to infrastructure and land is available to ensure current and future Defence capabilities.

Headworks are progressing for the 53 ha Defence Support Hub located near Robertson Barracks. The hub will provide industrial land to support the growth of speciality services for the Defence Forces and other industries.

The suburb of Lyons in Darwin's northern suburbs has delivered around 620 homes. It will soon be complemented by the development of Muirhead by Defence Housing Australia.

### Natural Heritage and Biodiversity

Around 42 per cent of land in the Greater Darwin Region is currently retained as open space, conservation, biodiversity, water bodies and natural areas.

The local community places a high value on the protection and conservation of the natural environment with a particular focus on coastal and wetland habitats including mangroves, inland lagoons, streams and riparian vegetation. The habitats are often linked by seasonal surface and groundwater

flows, which make it imperative that planning for future development includes an integrated approach to the protection of these natural values. This Plan has been prepared taking account of the significance of Darwin Harbour and the natural environment.

Parks, reserves, conservation areas and remnant vegetation provide essential recreational experiences for residents and they add significantly to the amenity of residential areas. They act to conserve native plants and animals.

Increased development will remove some of the natural bush areas that are currently acting as buffer zones and wildlife corridors. This development could create water, sediment, pollution and fragmentation issues in the parks and remnant vegetation and could increase weed risks and impact on feral animal and fire management that can threaten the quality in these areas unless managed well. Good planning will be needed to manage those risks.

The predicted increased population will also increase demand in existing parks. The Plan recognises that there may be a need to develop new parks and reserves to spread the visitor load and maintain wildlife corridors to offset the impact of new developments.

New areas and parks, further from Darwin, will need to be established to cater to demand for recreational activities. Detailed biodiversity studies will be undertaken to retain significant environmental areas.

## **Land Tenure**

Land held by the Australian Government or by Indigenous interests is identified as requiring particular consideration because its availability for development will depend on specific negotiation with the landholders.

## **Darwin International Airport**

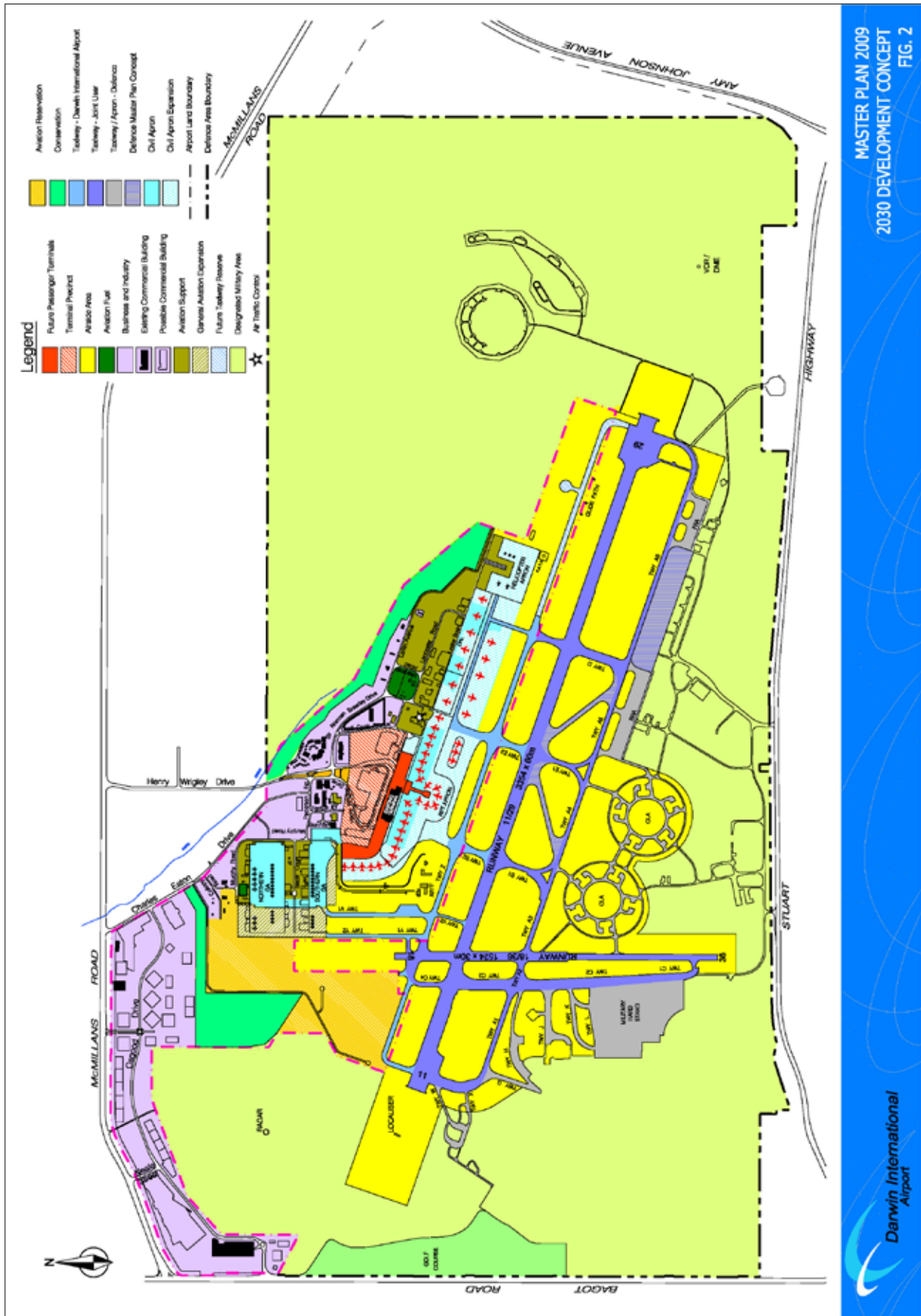
Darwin International Airport plays a strategic role in the region and has been identified as a priority land use within the plan. Forecasts suggest that by 2030 it will accommodate up to 4 million passengers and 130 000 flights a year.

Darwin International Airport Pty Ltd has a 50-year lease to manage and develop the airport. Given the airport's status as a joint-user facility, a joint-user deed with the Department of Defence governs the co-located operation of the airport and RAAF Base Darwin.

The Darwin International Airport 2010 Master Plan outlines priorities for airport development over the 20 years to 2030, with a mix of aeronautical and non-aeronautical uses. The Airport Master Plan is proposed to be a Reference document under the Planning Scheme.

As outlined in the Masterplan, there is considerable opportunity to diversify airport income by expanding its property portfolio. Darwin International Airport land includes 87 ha of undeveloped land that could be used for commercial businesses, a high-technology park or tourism accommodation.

Darwin International Airport Master Plan



MASTER PLAN 2009  
2030 DEVELOPMENT CONCEPT  
FIG. 2

Darwin International Airport

# Section 7:

## Land and Housing for Growth

Taking into account the land constraints and priority land uses discussed in the previous section, this section examines the need to identify suitable land for use and development to support future growth of the Greater Darwin Region.

Land for future growth falls into three broad categories – residential, including both greenfields and infill, industrial and commercial.

## Land for Residential Development

### Infill Development

Over the past 20 years, Darwin and Palmerston combined have achieved an average 50-50 split between infill and greenfield developments. As the Greater Darwin Region population grows, there will be a need to continue this balance.

The Greater Darwin Plan supports infill development through residential densification, particularly on underutilised land and land in and around activity centres. The Plan supports an emphasis on the creation of mixed-use centres and opportunities for employment to be located close to the place of residence. Infill development can help minimise transport requirements between work and home.

For the purpose of this Plan four types of infill development have been identified.

**Infill sites:** specific sites that are currently vacant or under development that have the potential to be redeveloped for residential, commercial and industrial land purposes. Some infill sites might be presently used for industrial or commercial purposes. These are commonly known as “brownfields” sites and these typically require site remediation from contamination.

**Underutilised medium and high density zoned land:** land currently zoned for medium and high density that has not been developed to its potential.

**Activity Centres:** residential land located within a proposed activity centre.

**Dual Occupancy:** large blocks currently zoned Single Dwelling that could support dual occupancy.

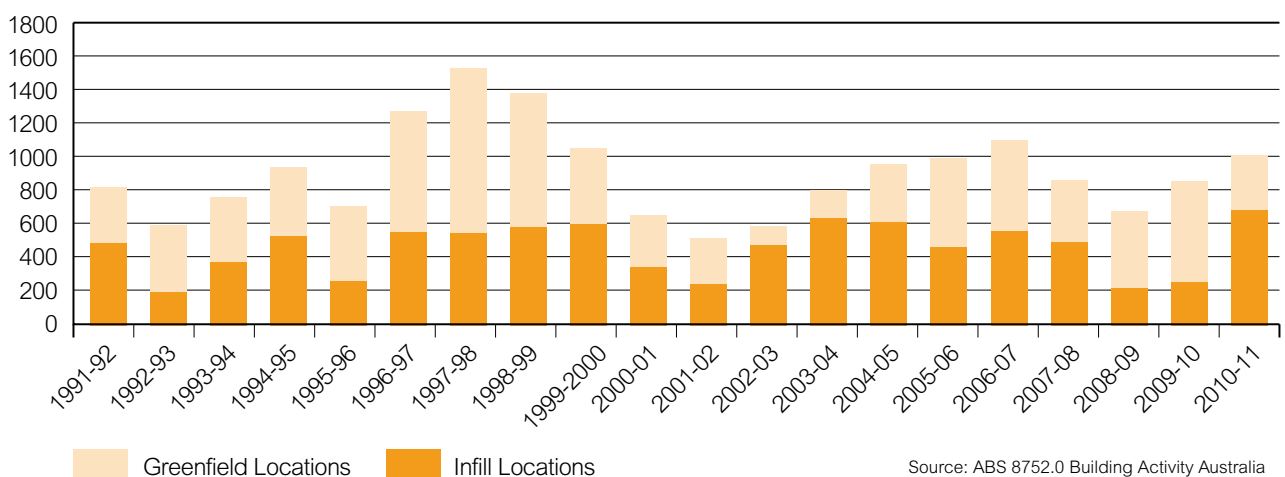
Infill developments may be on NT Government, Commonwealth, or privately-owned land. Land ownership and the cost of servicing infill development will ultimately impact the timing of future development.

The cost of servicing infill development and densification varies greatly depending on the extent to which a particular site is currently serviced. Predominantly, infill development consists of upgrading the water, sewer and electrical supply to cater for the new lot arrangement as well as the provision of off-street carparking. The costs are still typically in the order of \$20 000 to \$30 000 per dwelling.

The assessment and development of an infill site is a lengthy process; it can take four to five years before the first residents move into their new homes. Many infill sites will need to be rezoned.

### History of Infill and Greenfields developments

Number of Dwellings approved in Darwin and Palmerston



Some of the most attractive large-scale infill sites held privately in Darwin include:

- The CDU campus at Palmerston, a new housing estate on a 90 ha site that could cater for up to 750 lots with a range of housing types and land for community purposes;
- The former Shell Depot in McMinn Street, Darwin CBD;
- Post Office Carpark, Darwin CBD;
- The old Woolworths Supermarket, Darwin CBD; and
- Old Rite Price Supermarket in Nightcliff.

The NT Government also has a range of sites that might be included in a 'pipeline' of developments to augment the supply of infill housing. These include:

- Older brownfields sites, such as the Motor Vehicle Registry and NT Bus depot;
- Redevelopment sites, such as Berrimah Farm and Berrimah Prison;
- Older public housing sites, such as Kurringal, Bill Stokes and Tomaris Court;
- Existing staged development at the Darwin City Waterfront; and
- Old Darwin Hospital site, Myilly Point.

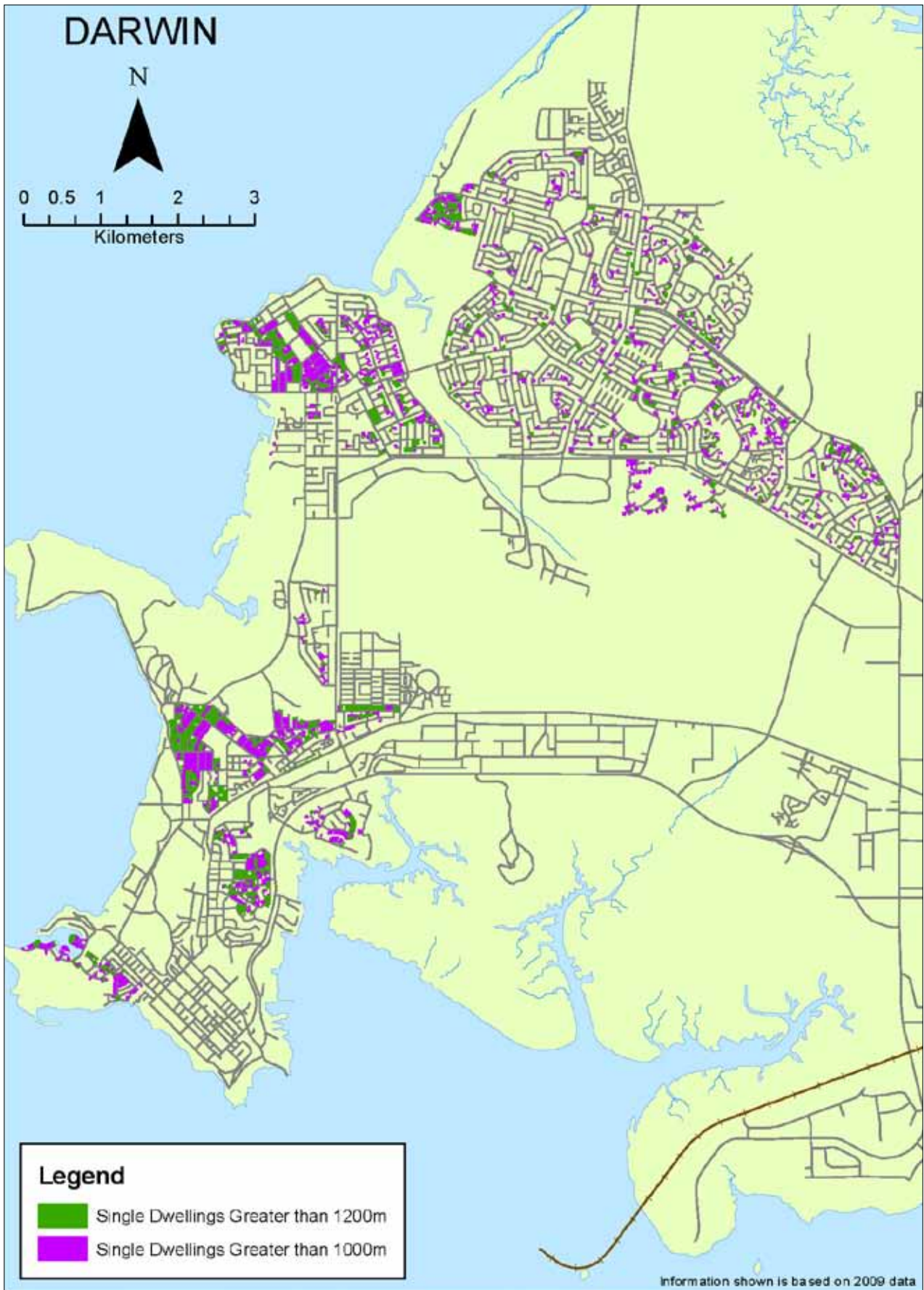
The Northern Territory Government is proposing policy initiatives that will facilitate the development of infill, such as:

- Development of masterplans for key infill and regeneration areas to identify opportunities within an overall vision for the surrounding area; and
- Possible 'fast tracked' approvals for smaller projects, such as medium density housing.

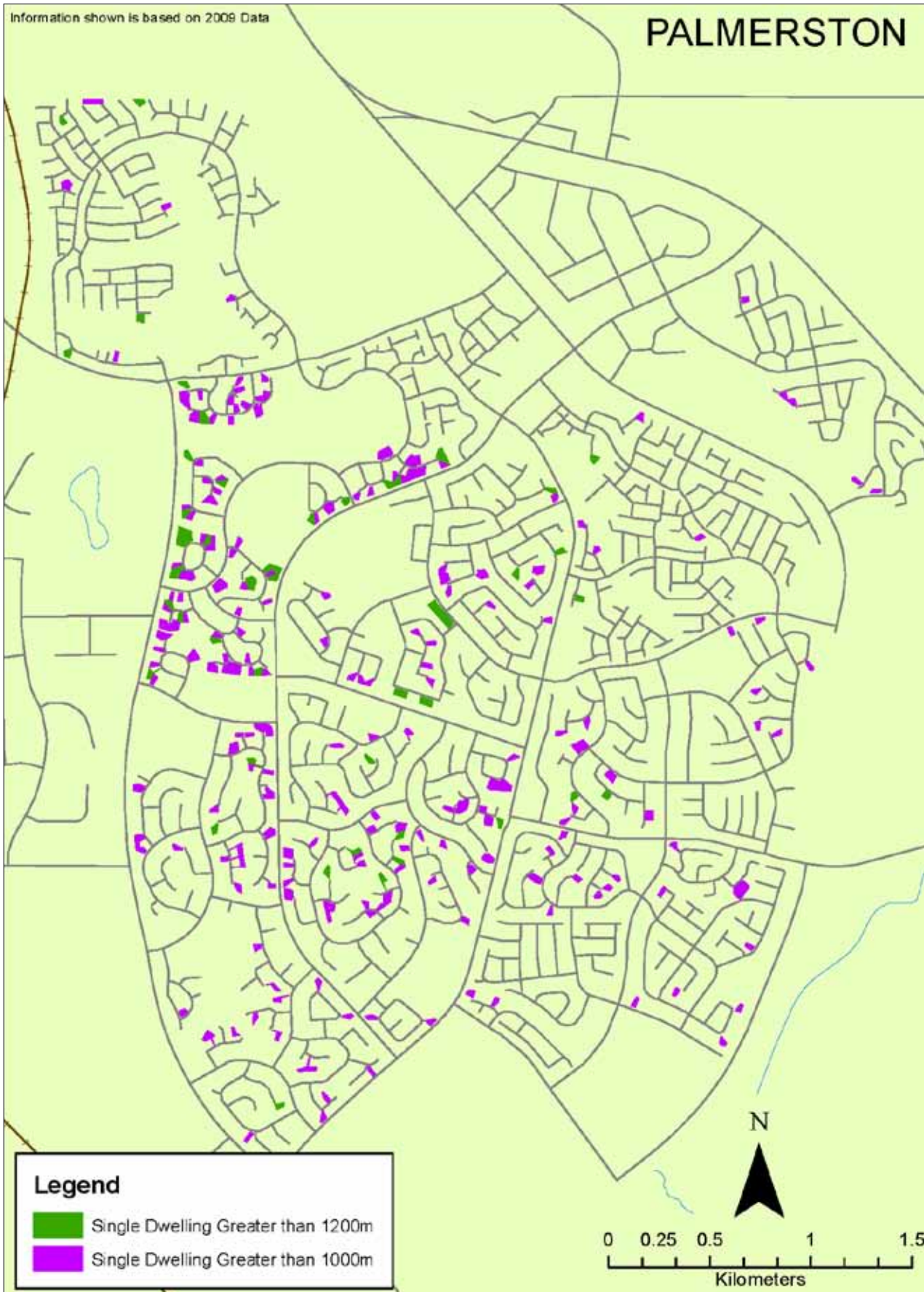
It is proposed that a dual occupancy strategy be developed to facilitate improved housing choice and maximise the use of existing infrastructure. The policy would allow for dual occupancy in the Darwin region for lots 1 000 sqm and over in the SD zone as shown on the maps at pages 37 and 38. Considerations would include:

- Performance criteria for lot size, site coverage, building setbacks, car parking, building height and open space provisions;
- Infrastructure capacity investigations, including developer contributions;
- Building design and landscaping guidelines including dwelling typologies; and
- Best practice dual occupancy developments as part of a display village at Northern Territory Government land releases.

Single Dwellings Lots Greater Than 1 000 sqm in Darwin



Single Dwellings Lots Greater Than 1 000 sqm in Palmerston





## Berrimah Farm Infill Development

Northern Territory Government owned land at Berrimah Farm and Berrimah Prison offers an opportunity for a mixed-use infill development incorporating commercial and industrial opportunities, community facilities and housing.

Strategically located, between Stuart Highway, Berrimah Road and Tiger Brennan Drive, the land is currently underutilised and underdeveloped. It enjoys close access to the city, transport and infrastructure that makes it ideal for future homes. The NT Government has commenced detailed studies of the development opportunities for the site.

### Greenfield Developments

Due to Darwin's relatively small size, strong economic and population growth can quickly place strong demands on the housing market. Families in particular still have a strong preference for detached dwellings, driving the continued need for greenfield land release.

A key action under the Territory 2030 strategy is to implement a Territory

Land Strategy that includes measures for land planning and release.

The Northern Territory Government is fast-tracking land release in four new suburbs in Palmerston East – Bellamack, Johnston, Zuccoli and Mitchell.

Other Greenfields developments in the Darwin Region include the Defence Housing Australia development of Muirhead in

Darwin's northern suburbs, the new city of Weddell and development of Greenfield sites in the Litchfield area. Greenfield sites are typically identified for future urban growth through strategic planning documents and then appropriately zoned to facilitate future development.

### Proposed and planned new lots in Greenfield Developments

	2010 or earlier	2011	2012	2013	2014 & beyond	Total
Bellamack	198	189	162	91	38	678
Johnston	91	114	49	57	174	490
Zuccoli		44	87	92	1177	1 400
Mitchell					300	TBC
Muirhead <i>DHA development</i>		166	155	155	620	1 096
Muirhead North					200	200
Weddell					10 000	10 000

Notes: There are also a number of other private developments planned.

Lot numbers and timing are indicative only and may change as plans are developed and the strength of housing demand.

Unless stated otherwise, developments are on Northern Territory Government controlled Crown Land. As such, the Government can respond quickly to shifts in housing demand through the release of Greenfield land.

## Weddell – A Tropical, Sustainable and Liveable City

The new city of Weddell south of Palmerston is expected to become home for up to 50 000 people

It is not often that a community has the opportunity to design a whole new city on a greenfield site. For the Territory, Weddell represents just that.

Territory 2030 foreshadowed that the new city of Weddell would become a model for cities and towns of the future, with environmentally-sustainable homes and buildings, good urban design, integration of broadband and communications infrastructure, public transport links, affordable and appropriate housing, community spaces, gardens and parklands.

Located 50 km south of Darwin, work is well underway in masterplanning the new city to accommodate a significant proportion of future growth in the Darwin region.

### Potential Growth Areas

About 23 500 additional dwellings would be required to accommodate Treasury's high population growth projection of 62 000 people.

There is potential for almost 50 000 new dwellings in Greenfield locations in Darwin, Palmerston, Weddell and the Cox Peninsula and a further 40 000+ from future development in activity centres, infill sites, dual occupancy and redevelopment of underutilised multiple dwelling zoned land, including Rural Activity Centres.

The potential for infill development is based on various density assumptions depending on location, neighbourhood character and adjacent developments. Generally, higher density development (15-30 dwellings per hectare) is possible in close proximity to transit nodes, transit corridors and activity centres, while lower densities of 8-12 dwellings per hectare would be more likely in fringe areas.

Within Activity Centres, the following density assumptions were made:

- Around 50 to 80 per cent of the site would be available for residential purposes;
- In major commercial areas such as Darwin CBD, a density of 40 dwellings per hectare was applied;

- In large commercial areas such as Casuarina a density of 30 dwellings per hectare was applied;
  - In smaller neighbourhood centres a density of 15 dwellings per hectare was applied; and
  - In areas such as Cox Peninsula a density of eight dwellings per hectare was applied.
- Timing is based on the following:
- Dwellings from land release in Palmerston East and Muirhead tail off as final lots in these subdivision areas are completed;
  - The first lots at Weddell being available from 2014 with the first residents moving in from 2016, gearing up to full lot production in the 2020-2025 time period;
  - The number of dwellings generated from infill opportunities increases as planning policies change and development opportunities are taken up by private sector owners; and
  - New land releases in privately held rural subdivisions continue at the current rate initially before increasing as infill development in rural activity centres are taken up.

### Assumed take-up of residential development capacity

Development type	Additional potential for new dwellings	15 year take-up as proportion of identified capacity
Activity Centres	13 200	20%
Infill sites	14 000	40%
Dual Occupancy	900	15%
Redeveloped MD Land	4 300	35%
Land Release	5 200	95%
Land Release - Weddell	14 000	35%
Cox Peninsula	30 000	3%
<b>TOTAL POTENTIAL DWELLINGS</b>	<b>81 600</b>	

## Potential Dwelling Yield

Precincts	Type	Potential Yield (dwellings)	2010–2015	2015–2020	2020–2025	Total
<b>Darwin City</b>		<b>10 400</b>	<b>620</b>	<b>1 070</b>	<b>1 250</b>	<b>2 940</b>
	Activity centre	5 900	180	410	580	1 170
	Infill sites	4 400	430	650	650	1 730
	Redeveloped MD land	100	10	10	20	40
<b>Inner Darwin</b>		<b>6 250</b>	<b>405</b>	<b>635</b>	<b>755</b>	<b>1 795</b>
	Activity centre	2 800	80	200	280	560
	Dual occupancy	350	15	15	15	45
	Infill sites	2 100	210	320	320	850
	Redeveloped MD land	1 000	100	100	140	340
<b>Northern Suburbs</b>		<b>7 900</b>	<b>915</b>	<b>1 075</b>	<b>915</b>	<b>2 905</b>
	Activity centre	3 300	100	230	330	660
	Dual occupancy	500	25	25	25	75
	Infill sites	1 700	160	250	250	660
	Redeveloped MD land	1 300	130	130	200	460
	Greenfield	1 100	500	440	110	1 050
<b>Darwin Palmerston Corridor</b>		<b>4 800</b>	<b>450</b>	<b>700</b>	<b>710</b>	<b>1 860</b>
	Activity centre	300	10	20	30	60
	Infill sites	4 500	440	680	680	1 800
<b>Palmerston</b>		<b>8 250</b>	<b>2 220</b>	<b>2 090</b>	<b>990</b>	<b>5 300</b>
	Activity centre	900	30	60	80	170
	Dual occupancy	50	0	0	10	10
	<b>Infill sites</b>	<b>1 300</b>	<b>130</b>	<b>200</b>	<b>200</b>	<b>530</b>
	Redeveloped MD land	1 900	190	190	290	670
	Land Release	4 100	1 870	1 640	410	3 920
<b>Weddell</b>		<b>14 000</b>	<b>0</b>	<b>1 400</b>	<b>3 500</b>	<b>4 900</b>
	<b>Land Release</b>	<b>14 000</b>	<b>0</b>	<b>1 400</b>	<b>3 500</b>	<b>4 900</b>
<b>Litchfield</b>		<b>8 700</b>	<b>900</b>	<b>1 450</b>	<b>1 450</b>	<b>3 800</b>
	Rural Activity Centre	8 700	900	1 450	1 450	3 800
<b>Cox Peninsula</b>		<b>30 000</b>	<b>0</b>	<b>100</b>	<b>900</b>	<b>1 000</b>
	<b>Greenfield</b>	<b>30 000</b>	<b>0</b>	<b>100</b>	<b>900</b>	<b>1 000</b>
<b>GRAND TOTAL</b>		<b>90 300</b>	<b>5 510</b>	<b>8 520</b>	<b>10 470</b>	<b>24 500</b>

## Land for Industrial Development

The strategic release of suitable land for industrial development is essential to realising the opportunities offered by economic growth.

Industrial development will continue to be focused mostly around Darwin Harbour to enable access to the deep-water port. There is also potential for additional industrial uses across Greater Darwin to be provided within zoned industrial land for various smaller industrial land requirements.

Land for industrial development generally falls into one of three main categories:

**Strategic Industry:** clean gas, oil or port-related industries and associated industries.

**Light industry:** industry in which processes carried out on machinery, goods or services are not the kind that adversely affect the amenity of the surrounding area. They typically include warehousing, storage and high-tech industries.

**General industry:** the process of manufacturing including dismantling, treatment, packaging, analysing and storing. It does not include light industry or rural industry.

There is presently around 4 100 ha of industrial land zoned in the Greater Darwin Region. About 450 ha is currently serviced and vacant, 250 ha of which is zoned for light industry, 140 ha for general industry and 60 ha for strategic industry.

Around 60 per cent of all vacant land is located in East Arm and Middle Arm and will be developed in accordance with the East Arm Masterplan.

International and national trends indicate the need to provide for a rolling 15-year supply of zoned industrial land to meet market demand and provide market choice and range of lot sizes.

Recent take up of industrial land has been between 25 and 35 ha per year. This Plan is framed around an annual take up of 35 ha, requiring a rolling land bank of 525 ha to cater for a 15-year supply.

In order to maintain this rolling land bank, an additional 600 ha of industrial land is required to be released over the next 15 years. A greater amount is required initially in order to bring the existing vacant land stock of 450 ha up to the rolling target of 525 ha.

There is also a need to identify a large area of land of 1 000 ha or more to accommodate future potential heavy and gas-based industries away from residential areas but with access to a deep-water port. The Northern Territory Government has announced its intention for strategic, clean industry around Darwin Harbour and has protected Glyde Point from heavy industry.

## Accommodating Industrial Growth

Proposed land to be released and developed for industrial	Potential Yield (ha) <sup>***</sup>	2010–2015	2015–2020	2020–2025	Total
<b>Current vacant land</b>					
Light industrial	260	60	60	60	180
General Industrial	140	70	70	70	210
Strategic industrial	30	20	20	20	60
<b>TOTAL</b>	<b>430</b>	<b>150</b>	<b>150</b>	<b>150</b>	<b>450</b>
<b>Current Identified precincts</b>					
<b>1. Darwin CBD</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>2. Darwin Inner Suburbs</b>	<b>60</b>	<b>10</b>	<b>5</b>	<b>5</b>	<b>20</b>
Light industrial	60	10	5	5	20
<b>3. Darwin Northern Suburbs</b>	<b>40</b>	<b>10</b>	<b>5</b>	<b>5</b>	<b>20</b>
Light industrial	40	10	5	5	20
<b>4. Winnellie/Berrimah</b>	<b>1 650</b>	<b>200</b>	<b>80</b>	<b>70</b>	<b>350</b>
Light industrial	330	60	10	10	80
General Industrial	290	40	10	0	50
Strategic industrial	1 030	100	60	60	220
<b>5. Palmerston</b>	<b>180</b>	<b>20</b>	<b>10</b>	<b>10</b>	<b>40</b>
Light industrial	50	20	10	10	40
General industrial	130				
<b>6. Weddell</b>	<b>5 200</b>	<b>0</b>	<b>65</b>	<b>65</b>	<b>130</b>
Light industrial	2 850	0	25	25	50
General Industrial	1 350	0	10	10	20
Strategic industrial	1 000		30	30	60
<b>7. Litchfield</b>	<b>1 480</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>30</b>
Light industrial	130	10	10	10	30
General Industrial	350				
Strategic industrial	1 000				
<b>8. Cox Peninsula</b>	<b>1 150</b>	<b>0</b>	<b>0</b>	<b>10</b>	<b>10</b>
Light industrial	150	0	0	10	10
Strategic industrial	1 000				
<b>Any Precinct</b>	<b>1 000+</b>				
Specialised large industry	1 000+				
<b>TOTAL (ha)</b>	<b>9 760</b>	<b>250</b>	<b>175</b>	<b>175</b>	<b>600</b>

## Land for Commercial Development

### Retail Development

The ability to provide retail floor space in each of the Activity Centres will depend on the current retailing environment within a particular area, its population size and characteristics.

A number of major projects have already been flagged by private developers including the expansion of Casuarina Shopping Centre to cater for the potential Myer development.

Based on the high population projection, there is an estimated need for an additional 201 000 sqm of retail floor space by 2025, comprising 125 000 sqm of core retail space and 76 000 sqm of bulky goods space.

An expenditure-based approach and use of economic modelling was used to determine future retail provision, taking into account facts such as average per capita expenditure, retail turnover growth and current and future floor space per capita of retail supply available.

The additional floor area required is based on an estimated total retail turnover density of \$5 690 per sqm and 1.82 sqm of floor space for every projected resident.

### Office Development

The fundamental driver for commercial floor space in Greater Darwin is the provision of NT and Federal Government offices as well as private sector demand.

There is future demand for an additional 72 000 sqm of core office space within 15 years and an additional 18 000 sqm of office space within other Activity Centres.

Commercial office demand is calculated on commercial office space per capita. The study area currently requires 0.87 sqm per person of core office space, and this is anticipated to increase to between 0.94-1.05 sqm per person by 2025.

The amount of additional office space at various locations was determined by considering factors such as the composition of the local labour force, in particular the white collar work force and understanding the hierarchy of office floor space.

### Accommodating Commercial Growth

	2010–2015 sqm	2015–2020 sqm	2020– 2025 sqm	Total
<b>Core Office</b>				
Darwin City	23 700	25 800	22 500	72 000
<b>Secondary Office</b>				
Palmerston	2 500	1 000	1 000	4 500
Berrimah	500	1 000	600	2 100
Parap Village				0
Casuarina	1 500	1 000	1 500	4 000
Hibiscus	500	1 000		1 500
Coolalinga	500	500	800	1 800
Other	500			500
Weddell	0	1 500	2 100	3 600
<b>SUB TOTAL</b>	<b>6 000</b>	<b>6 000</b>	<b>6 000</b>	<b>18 000</b>
<b>OFFICE TOTAL</b>	<b>29 700</b>	<b>31 800</b>	<b>28 500</b>	<b>90 000</b>

## Accommodating Retail Growth

	Existing sqm	2010–2015 sqm	2015–2020 sqm	2020–2025 sqm	Total
<b>Current Activity Centres</b>					
Darwin City	57 608	6 000	6 000	4 700	16 700
Parap Village	3 000	1 000	1 000	2 000	4 000
Casuarina	51 500	5 000	3 500	2 000	10 500
Hibiscus	4 640	3 000	2 000	4 000	9 000
Northern suburb neighbourhood centres	21 000	2 100	1 000	1 000	4 100
Palmerston	40 167	7 000	6 000	6 000	19 000
Palmerston neighbourhood centres	10 000	5 000	6 000	4 000	15 000
Coolalinga	4 500	7 000	2 000	2 000	11 000
Humpty Doo	2 300	2 100	2 000	0	4 100
<b>SUB-TOTAL</b>	<b>194 715</b>	<b>38 200</b>	<b>29 500</b>	<b>25 700</b>	<b>93 400</b>
<b>Proposed Activity Centres</b>					
Berrimah		2 800	4 000	7 400	14 200
Weddell		0	6 000	7 000	13 000
Noonamah			2 000	2 400	4 400
CoxPeninsula		0	0	0	0
<b>SUB-TOTAL</b>	<b>0</b>	<b>2 800</b>	<b>12 000</b>	<b>16 800</b>	<b>31 600</b>
<b>RETAIL TOTAL</b>	<b>194 715</b>	<b>41 000</b>	<b>41 500</b>	<b>42 500</b>	<b>125 000</b>
<b>Specialised Activity Centre</b>					
Jape Homemaker Village	34 200	2 000	2 000		4 000
Airport Business Park	10 000	7 000	5 000	10 000	22 000
Berrimah	6 500	15 000	14 000	8 000	37 000
Other	27 235	1 800	2 000	1 000	4 800
Weddell			4 400	4 500	8 900
<b>BULKY GOODS TOTAL</b>	<b>77 935</b>	<b>25 800</b>	<b>27 400</b>	<b>23 500</b>	<b>76 700</b>
<b>TOTAL RETAIL TARGET</b>		<b>66 800</b>	<b>68 900</b>	<b>66 000</b>	<b>201 700</b>

## Activity Centres

An Activity Centre is a mixed-use urban area where there is a concentration of business, administrative, civic, retail, employment and residential development. Activity Centres allow for a clustering of uses and activities to provide for social, environmental and economic benefits.

A hierarchy of Activity Centres for the Greater Darwin Region has been developed to create the opportunity for possible redevelopment of land where services and facilities can be provided in a sustainable and cost-effective manner.

The adequate provision of retail floor space within the hierarchy of centres will allow residents to undertake more shopping close to home, meaning less travel, more multi-purpose trips and greater community interaction.

Following detailed assessment, 40 activity centres were identified across Darwin, Palmerston, Litchfield and Cox Peninsula areas. The majority of the identified Activity Centres currently exist, even on a small scale and a few are proposed due to anticipated new growth into areas such as Cox Peninsula.

Each Activity Centre has its own unique character shaped by its location, the demographics of nearby residents, local activities and facilities, historic use and surrounding natural and built environments.

Residential growth will be encouraged around Activity Centres where appropriate to allow people to live close to work and services.

This Plan identifies current Activity Centres that could be strengthened by supporting increased residential and mix of uses. In identified Activity Centres a new planning regime will be implemented to allow the development of Masterplans in consultation with the community. The Area Plans in Section 8 of this document identify the Activity Centres within each of the sub-regions.

## Rural Activity Centres

As more land is developed for rural living purposes, there is a greater need to plan for the redevelopment and expansion of Rural Activity Centres. Although rural district centres were first identified in the early 1980s in response to the demand for local infrastructure and services, the lack of reticulated water and sewerage has constrained development of the concentration of activities envisaged in these centres. The exception is the Humpty Doo district centre where reticulated water and sewerage support a wide range of activities including commercial, service commercial, industrial and community uses and some urban style residential.

Increased growth and development in the Litchfield Shire is putting pressure on land and water resources as the community grows.

To successfully meet predicted market trends and the associated demand for local facilities and services, planning needs to consider both social and biophysical sustainability. Factors particularly pertinent to Rural Activity Centre development include:

- Protection of the amenity of existing rural living areas;
- The sustainability of groundwater resources which have underpinned residential living on large lots utilising bores for water supply and on site waste disposal;
- Housing choice outside urban areas particularly for older people with a preference for aspects of the rural lifestyle;
- Limitations the lack of reticulated water and sewerage imposed on the development of local facilities and services in Rural District Centres; and
- Difficulties aggregating sufficient land to establish the economic viability of required infrastructure because of fragmented ownership.

The NT Government's Rural Villages Discussion Paper formed the basis for consultation with the community from April to June 2011 and attracted 32 submissions as well as good attendance at public meetings.

While some rural residents express concern about lots less than the generally accepted minimums of 2 ha and 8 ha, residents of small lots ranging from 4 000 sqm to 1 ha, in



historical subdivisions at Whitewood Park and Howard River Park, consider themselves to be part of the rural community with interests and concerns in common with residents on larger lots. Recently created rural residential lots of 1 ha at The Grange, Girraween Estate and Sayer Road have been well received by the market.

Notwithstanding possible concerns about lots less than 2 ha, the potential for such lots to satisfy the aspirations of at least some people who wish to reside in the rural area needs to be carefully considered. Smaller appropriately serviced lots have the potential to increase the sustainability of rural living on unserviced larger lots through reduced impacts of future population growth on natural resources, particularly groundwater, and increased availability of local facilities and services and associated employment.

A choice of housing styles in specific locations also has the potential to minimise the impacts of continued population growth on the amenity of existing rural living areas by reducing pressure for ad-hoc development.

Particular attention will also need to be paid to sustainable development of rural lots in terms of water, infrastructure viability and the ability to support local services and employment.

## Hierarchy of Activity Centres

### Purpose and examples

#### Tier 1

**Central Business District:** Providing a full range of facilities, services and tenants. Darwin CBD will remain the primary centre in the Region.

#### Tier 2

**Principal / Major Activity Centres:** Typically incorporating one or more full line discount department store and one or more supermarkets. Given the elevated retail role and function and its ability to draw from a wider catchment, the centre should also provide a wide mix of commercial, service, community, social and entertainment facilities. The current centres of Palmerston and Casuarina remain major activity centres. Future major activity centres are planned for Weddell and Berrimah.

#### Tier 3

**Secondary Activity Centres:** Incorporating one or more supermarkets. Given the elevated retail role and function as well as location and therefore its ability to draw from a wider catchment, the centre should also provide a wide mix of commercial, service, community, and social facilities. Hibiscus Village and Coolalinga are examples of current secondary activity centres in the Region

#### Tier 4

**Neighbourhood Activity Centres:** Effectively a retail shopping centre serving a localised catchment, the centre should source most of its trade from within 2-5 km depending on geography and competition. Limited local commercial and service floor space may be provided. Examples include Fannie Bay and Parap centres. A neighbourhood centre could be either urban or rural, with rural centres being of a more rural-based character, but providing a mix of retail, community and social facilities.

There are many neighbourhood activity centres. As future infill development and increased density occurs, these local neighbourhood centres will be busier and more viable. In the rural areas there are centres at Howard Springs Pine Forest and Humpty Doo. Future centres are predicted for Noonamah and Berry Springs. If development is undertaken at Cox Peninsula, Wagait has been identified as likely to grow to a neighbourhood activity centre over the next 15 years and eventually a major activity centre.

#### Tier 5

**Specialist Activity Centres:** These include facilities such as homemaker centres, discount factory outlets and other themed centres. The Plan proposes specialist activity centres, with a mix of bulky goods and retail uses, at the Darwin International Airport, in the Berrimah area and at Weddell. Specialist activity centres are normally associated with key retail activity centres and a mix of uses, and are spread across the region to meet the needs of the market.

Specialised centres provide different retail to that of local centres, as specialised centres usually include bulky goods, or larger floor plate buildings, with some theming as a destination facility. Specialised centres are different to the local neighbourhood facilities, as local neighbourhoods provide for local daily service needs, while specialised centres generally provide for major large retail uses, such as bulky goods stores. Examples are Jape Homemaker Village and Darwin International Airport.

## Masterplans

Since Self-Government a range of planning documents have existed under successive Acts variously known as town plans, planning instruments, control plans, Land Use Objectives, development provisions and incorporated documents.

These have been supplemented by a variety of guidelines and policies having various legislative standing, directives of Ministers to the Authority and policies of the Authority itself.

The NT Planning Scheme includes strategic land use planning policy through the following:

- Planning Principles and relevant Framework Drawings;
- Area Plans and associated Planning Principles;
- Policies and Planning Concepts;
- Guidelines applicable to a use or development;
- Zone Purpose Statements; and
- Clause Purpose Statements.

The NT Planning Scheme allows for local variations in planning policy. For example, building height requirements in Alice Springs refer specifically to the natural landscape and surrounding urban development.

The NT Planning System is comparable to other jurisdictions in that it has tiers of strategic planning, policy statements, zoning regulations and a decision-making body that has community representation. The Greater Darwin Plan strengthens the planning policy in the NT Planning Scheme by:

- Updating the existing Darwin Region Land Use Framework and Planning Principles;
- Introducing Area Plans for six of the precincts or sub-regions;
- Introducing the requirement for masterplans to be prepared for Activity Centres, major infill development sites and greenfields sites; and

- Identifying reforms to the NT Planning Scheme that help to achieve the vision for the Region such as new mixed-use zones, red tape reduction, neighbourhood design guidelines and built form design guidelines.

The purpose of a Masterplan is to provide a detailed vision for future land use and identify how it should be developed as well as providing certainty to landowners, residents, workers, investors, community groups and users.

A Masterplan will also assist the Development Consent Authority and Minister for Lands and Planning in making an assessment of the proposed development and enable appropriate conditions to be attached to any determination. It could include:

- Identification of broad land uses, priority land uses and constraints, indicative residential density, open space and open space networks and public realm concepts including streetscapes, parks and buffers, and land allocated for commercial and community purposes and commercial centres hierarchy;
- Traffic study and recommendations for road network and hierarchy;
- Building height and scale and typologies for the built form;
- Character statements for precincts within the study area;
- Detailed site analysis, land capability assessment and integration and linkages with the surrounding land/areas;
- Staging of the development;
- Provision of transport links, including road networks, pedestrian and cycle paths and public transport routes;
- Stormwater management flow paths both through and connecting to the land;

- Maintenance of environmental qualities and landscape characters; and
- Provision of amenity and safety for future residents.

Masterplans will be developed for the following priority Activity Centres and infill and greenfields sites:

- Casuarina Shopping Centre and Casuarina Shopping Village;
- Nightcliff Shopping Centre;
- Berrimah Farm and Berrimah Prison;
- Parap Road and Parap Village;
- All land bounded by Salonkia Street, Stuart Highway, Goyder Road and Gilruth Avenue;
- NT Fleet and Bus Depot, Woolner future Government-owned infill sites; and
- Stuart Park Shopping Centre.

Some of these sites will be developed in partnership with key NT Government agencies such as the Department of Housing, Local Government and Regional Services, which owns sites suitable for regeneration throughout the Darwin Region.

Local government councils in the Darwin Region provide services to residents and hold knowledge about local community needs. A collaborative approach will ensure best community outcomes in masterplanning for these sites.

The draft Palmerston Central Activity District Masterplan is a current example of a masterplan for an Activity Centre.

## Reducing Red Tape

Streamlining the Northern Territory planning system reduces the cost and time for smaller developments to proceed through the full development application process, allowing housing to be released on to the market faster and releasing capital for development.

## Northern Territory Hierarchy of Plans



### Land Use Framework and Planning Principles

- Guides future growth at a regional level
- Long term plan



### Area Plans and Planning Principles

- Guides future growth at a municipality or sub-regional level
- Medium and long term plans



### Masterplans

- Guides development of greenfields and infill sites at a local neighbourhood level in the short to medium term
- Informed by detailed studies



### Zoning Maps and Development Provisions

- Facilitates land use and development at the municipality level
- Short term plans and provisions guided by the three levels of policy above and subject to periodic review

## PALMERSTON CENTRAL ACTIVITY DISTRICT



However, any such change would need to be accompanied by a management system that ensures good planning and community outcomes are built into the planning process.

Issues to be considered include:

- Community acceptance of allowing development, for example dual occupancy development on a site or shops, without notification and appeal rights;
- Ensuring that the assessment criteria and certification process adequately deals with the design merits and design outcomes of a development; and
- Ensuring that adequate strategic planning and community consultation has been completed before permitting dual occupancy, medium density and commercial buildings without consent.

The Greater Darwin Plan proposes that certain types of development be allowed without development approval in designated Activity Centres provided:

- The Activity Centre has a masterplan developed through community consultation which includes character statements and an overall vision;
- Developments are consistent with the Masterplan; and

- A zone with performance criteria is implemented for each Activity Centre to specify the type of development, built form, height, density and other criteria as agreed by the Masterplan.

### Developer Contributions Plans

The *Planning Act* allows for the preparation and implementation of Developer Contribution Plans by a service authority.

In the Greater Darwin Region, local government has established Developer Contribution Plans for the construction of roads, stormwater drainage infrastructure and car parking provision in certain locations. Power and Water Corporation is further developing Contribution Plans for the upgrade of water and sewerage facilities.

When the Northern Territory Government has released Crown land for new suburbs, the requirement for social infrastructure such as schools, churches and health facilities has been met through the appropriate allocation of land to accommodate these facilities.

In the context of the existing urban areas in the region, these facilities are often already established or could be established through sufficient appropriately zoned land.

The gradual redevelopment of these areas will place demands on existing social infrastructure and there will also be a continued demand for rezoning privately owned land in the CP - Community Purpose Zone to meet higher order uses such as housing or mixed use commercial and housing developments.

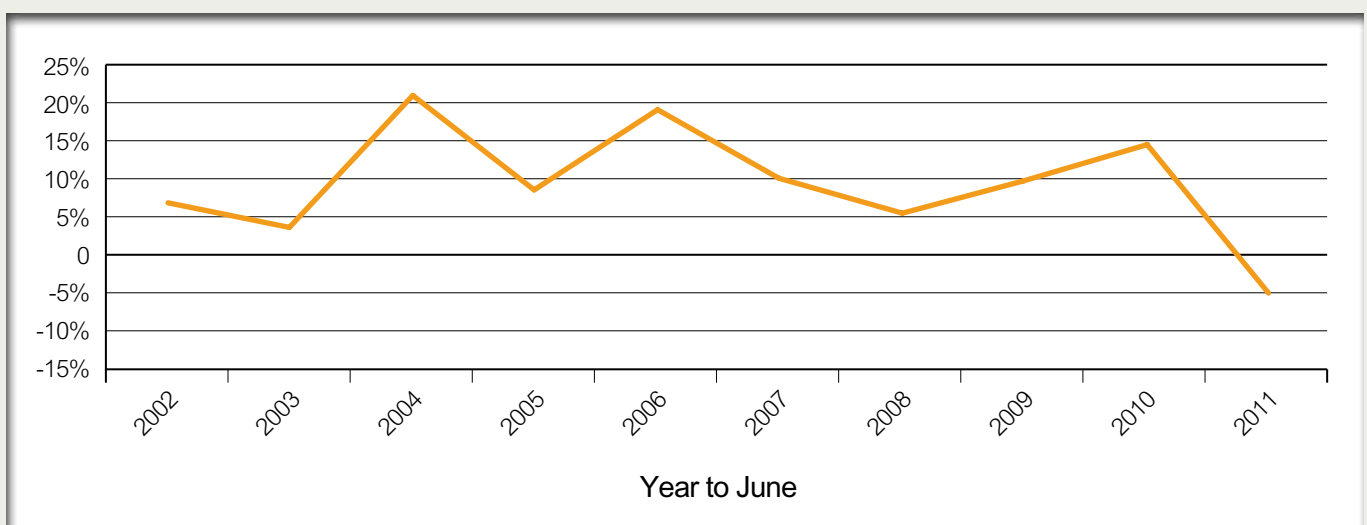
Development Contribution Plans for social infrastructure could provide the mechanism for ensuring that the areas undergoing redevelopment and increased populations are appropriately serviced with a range of social infrastructure.

Some factors that will be investigated as part of Developer Contribution Plans for social infrastructure in existing urban areas are:

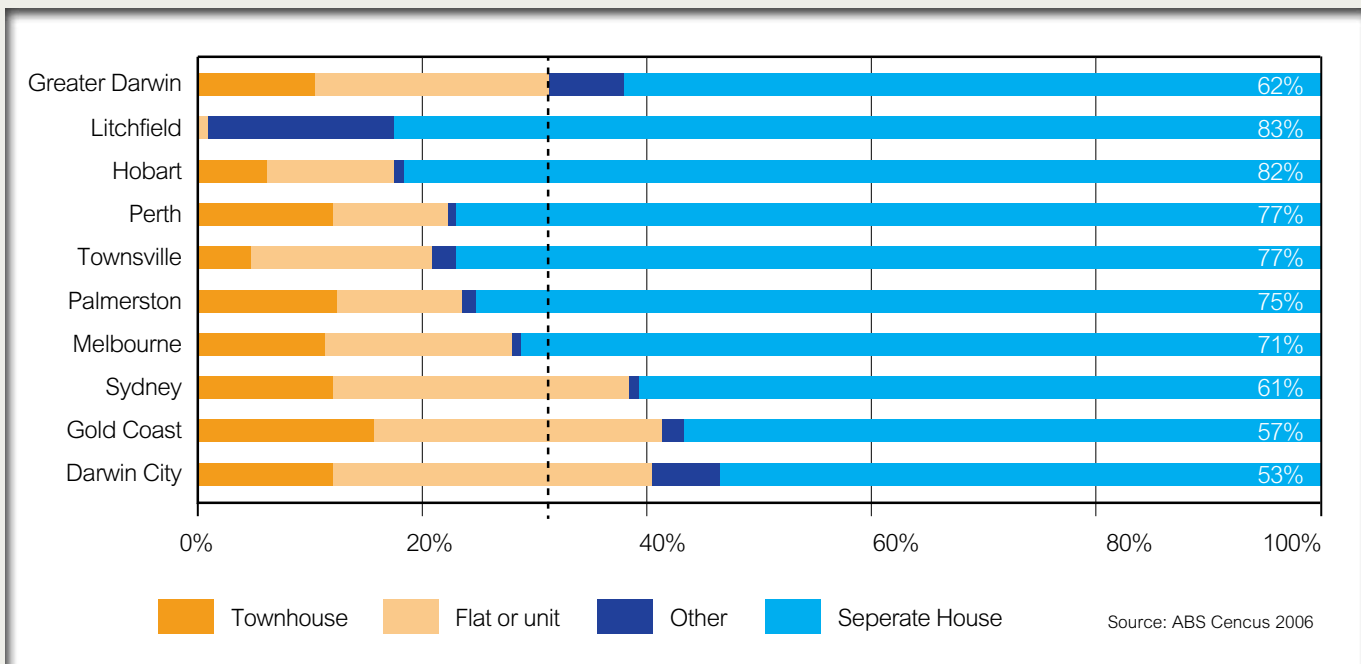
- The thresholds of existing social infrastructure;
- The availability of land for social infrastructure and land-banking;
- Catchments for social infrastructure; and
- The types of social infrastructure required.

These investigations require consultation with providers, Government agencies, community organisations, local government and other stakeholders.

Year-on-year Change in Real House Prices in Darwin



## Comparison of Housing Types



## Housing

The recent housing supply and demand experience in Greater Darwin is highly volatile, driven by periods of strong population growth usually associated with major projects. Over the past decade annual population growth has ranged between zero in 2003 to around 4 000 new residents in 2009.

While following the general pattern of population growth, the number of new dwellings completed is far less volatile ranging from 617 completions in 2003 through to 1 154 completions in 2009.

This mismatch between population growth and housing supply can create a gap in the housing market leading to escalating house prices. This lag was evident in the period between 2004 and 2010.

Population growth was lower in 2009-2010 at 2.1 per cent, and was lower again in 2011-2012, reflecting moderating economic and employment growth, lower net overseas migration and the relocation

of the 1st Brigade's 7th Battalion Royal Australian Regiment to South Australia.

This has provided an opportunity for housing supply to catch up, and consequently the gap between dwelling demand and supply is closing and housing price growth has moderated.

Housing supply in Darwin is largely delivered by the private sector with around 85 per cent of new dwellings delivered by the private sector. The Government can provide improved policy settings for housing supply and has been doing this through its Housing the Territory Initiative.

### Housing Choices

It is also important that the type of housing supplied meets the needs of the population.

A 2011 study of housing preferences in Greater Darwin found around 3 in 4 people still prefer a detached house in a traditional block of land. Almost 3 in 5 residents indicated a preference for rural living

while around 1 in 3 expressed a preference to live in higher-density areas close to shops and offices.

Housing preferences change not only over time but also the lifecycle of people and families.

The Northern Territory Government is responding to this change through the provision of more multiple dwelling and medium-rise lots in new sub-divisions and opportunities for higher density development in urban infill sites and activity centres.

At the 2006 Census there were an estimated 43 500 dwellings in the Greater Darwin Region of which 62 per cent were detached dwellings. While Darwin has a reputation as a low-density city, as a whole Greater Darwin has a higher proportion of units and townhouses than any other Australian capital city except Sydney.

### Housing Affordability

Escalating housing prices in the region between 2006 and 2009 resulted in worsening housing affordability for residents. The Real

## Percentage of Income spent on Housing – September 2011

	Aust	NT	NSW	VIC	QLD	SA	WA	TAS	ACT
Percentage of median weekly family income needed to meet average loan repayments	33.6	21.4	37.1	35.6	32.5	33.5	23.9	28.0	17.9
Percentage of median weekly family income required to meet weekly rent for a three-bedroom house.	24.6	24.6	26.4	22.7	23.4	26.4	19.3	26.4	16.4

Estate Institute of Australia reported the proportion of median family income required to meet average loan repayments has increased from 13.7 per cent in 2001 to 22.8 per cent in 2011.

Statistically, however, housing affordability in Darwin compares favourably with other states. On average the Northern Territory has the nation's second-best home loan affordability, with only the ACT listed as more affordable.

Average rental affordability in the Northern Territory is not quite as favourable, with local families requiring the fourth-highest proportion of median family income to meet their rent. Low-income families are more likely to spend more on rent (28 per cent) than the average Territorian (19 per cent).

The "30/40 rule" is a commonly used measure of housing stress. A household is said to be in housing stress if it spends more than 30 per cent of its gross income on housing costs and if it also falls into the bottom 40 per cent of the equalised disposable household income distribution.

Housing stress is not evenly distributed across the region. The highest concentrations of housing stress can be found around Casuarina, Wagaman, Coconut Grove, Millner and the older suburbs of Palmerston.

### Making Homes More Affordable

The Territory 2030 Strategy listed affordable housing as one of its key priorities, requiring innovative solutions and new ways of thinking.

The Northern Territory Government has implemented a policy to dedicate 15 per cent of all new land releases to affordable and social housing.

Since its inception in 2009, the policy has resulted in around 70 new affordable lots, houses or units on the market, including:

- Bellamack: 25 new house and land packages starting at \$342 000;
- Johnston Stage 1: 19 blocks of land at \$140 000, with sizes ranging from 700 to 752 sqm; and
- Johnston Stage 1A: 21 units under construction ranging in price from \$320 000 to \$390 000. A further eight are due for release in 2012.

Public housing developed under the program has resulted in additional public housing stock including a seniors village in Bellamack and a future seniors village in Johnston.

### Home Ownership

Improving the affordability of housing is a key element of achieving the Territory 2030 target to increase home ownership for all Territorians.

Darwin has a relatively low rate of home ownership, with 56 per cent of households either owning

or purchasing their own home at the 2006 Census compared with a national average of 71 per cent. This is more pronounced for Indigenous households, where only 20 per cent own or are purchasing their home.

While the level of ownership is low, it is increasing, with the average home ownership rate up from just 50 per cent in 2001. Territory 2030 has specific targets for improving home ownership levels as key to improving social and economic conditions.

The Northern Territory Government has offered a range of incentives over the years to encourage home ownership. Those in operation in 2012 include:

**HomeStartNT** offering low deposit, shared equity and fee assistance loans;

**Stamp duty concessions** are available for principal place of residence, first home owners, pensioners, carers and senior Territorians; and

**BuildBonus** assists Territory homebuyers with a one-off grant of \$10 000 for homebuyers who build or purchase a new home up to the value of \$600 000. It applies to contracts signed from 3 May 2011 to 30 June 2012.

# Section 8:

## Area Plans

The Network City approach provides a structure to each of the eight precincts.



While the Greater Darwin Plan looks at the region as a single networked city, it also recognises that there are distinct communities within it, each with their own character and features.

For this reason, eight Area Plans address the individual needs and planning requirements for each area. These Area Plans recognise that Darwin CBD will have different planning needs than Cox Peninsula or Litchfield.

Area Plans have been developed for most of the precincts of the Greater Darwin Region.

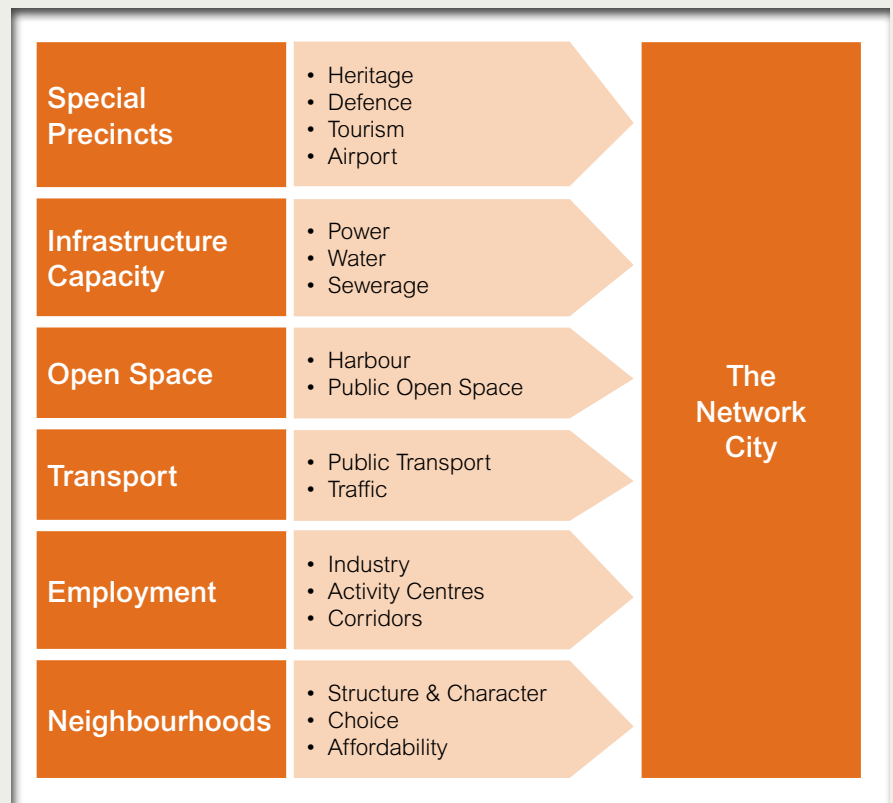
The Area Plans are premised on the Greater Darwin Region being a Network City – a city made up of various interconnected networks, as illustrated in the diagram.

The NT Planning Scheme establishes the following role for Area Plans:

- Where an Area Plan is identified on a zoning map as being relevant to a location, reference should be made to that plan;
- Area Plans, found in Part 8 of the Scheme include both text and diagrams explaining the intentions for use and development in that area;
- Area Plans show intended land use outcomes for the guidance of the community and the consent authority;
- Although not binding on the consent authority, it should not make determinations demonstrably inconsistent with or frustrate achievement of the outcomes; and
- Area Plans may be accompanied by planning principles specific to the area described.

Other factors that have been considered in developing the Area Plans for the precincts include land ownership and tenure, natural features, land constraints, priority land uses, major transport corridors and infrastructure facilities.

## The Network City



The Area Plans show how the city is linked by open space and natural corridors, as well as the need to retain community, health and social facilities. In creating the network city it is important to ensure that employment, community facilities and shopping are accessible from where people live.

The Area Plans indicate the current and proposed hierarchy of Activity Centres and where masterplans need to be developed to determine the sustainable future of those centres.

The land use category “areas under investigation” in the Area Plans refers to sites that provide opportunities for redevelopment. It does not automatically mean that those sites will be rezoned or allowed to be developed for more intense use – only that they have the potential for further development or investigation.

The Greater Darwin Plan provides the opportunity for provision of a diversity of housing, including affordable public housing and seniors accommodation.

Major land release and project sites have also been included to provide known development opportunities within the region. These sites will require further detailed investigation and an associated masterplan. For each precinct, the Greater Darwin Plan provides an overview of the potential capacity and targets within each Area Plan and the opportunities investigated for each area.

Within the rural areas, the Area Plan provides the framework for rural, pastoral, horticultural, and rural living as well as development in and around the Rural Activity Centres.

## Darwin City Centre

### The CBD, Waterfront, Cullen Bay, Larrakeyah and Frances Bay

The CBD will remain the primary activity centre in the Region.

Targeted infill and redevelopment will accommodate growth.

Frances Bay, the Waterfront and key sites within the CBD are identified as places where higher density development can occur.

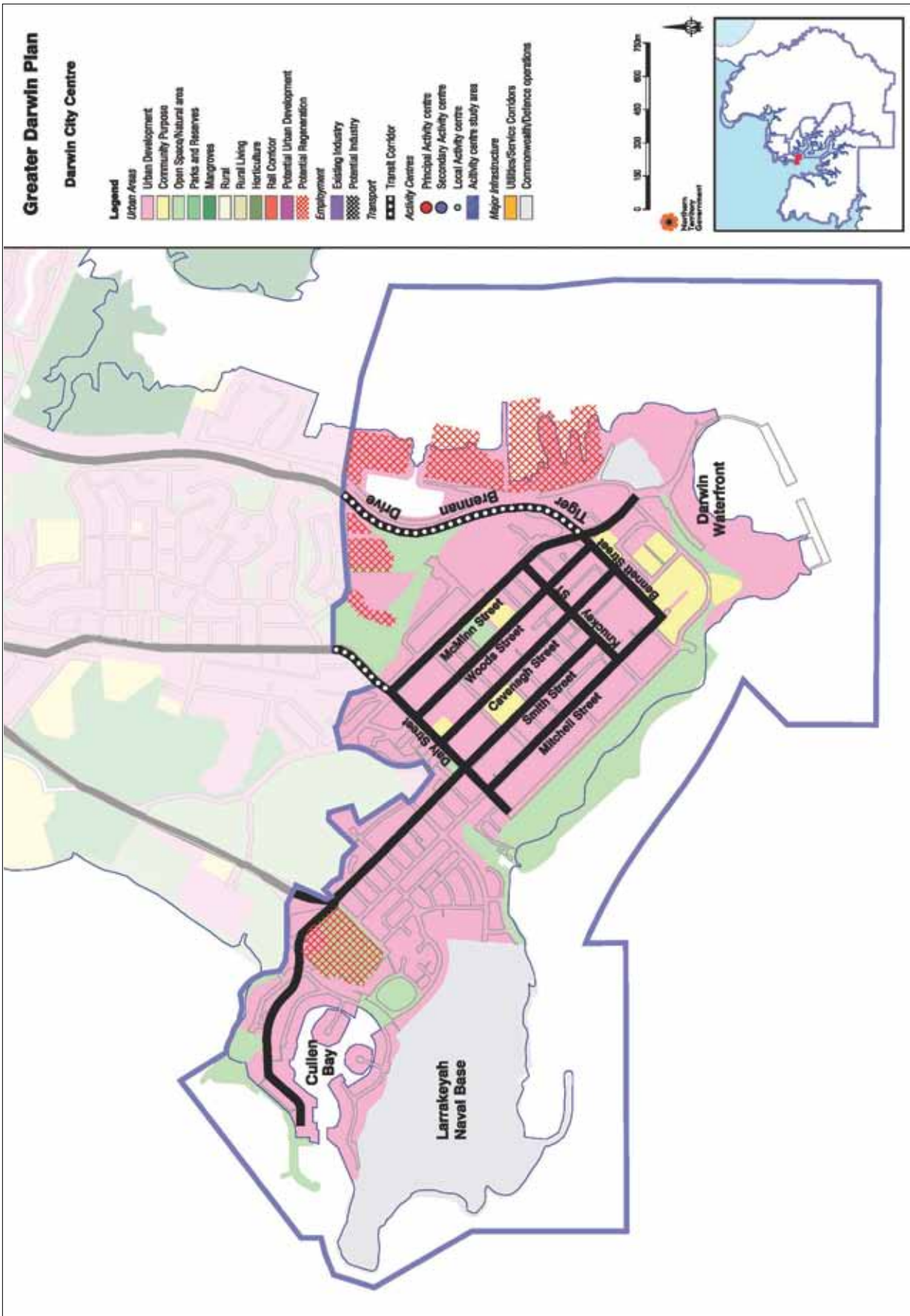
The CBD has planning that allows building heights to 90 m above ground level.

Residential	New additional dwellings
CBD activity centre	1 170
Infill sites – Waterfront, Frances Bay	1 730
Redeveloped MD Land	40
<b>TOTAL</b>	<b>2 940</b>

Commercial	Floor space (sqm)
Activity centre retail	16 700
Core Office	72 000
<b>TOTAL</b>	<b>88 700</b>

Greater Darwin Plan – Darwin City Centre



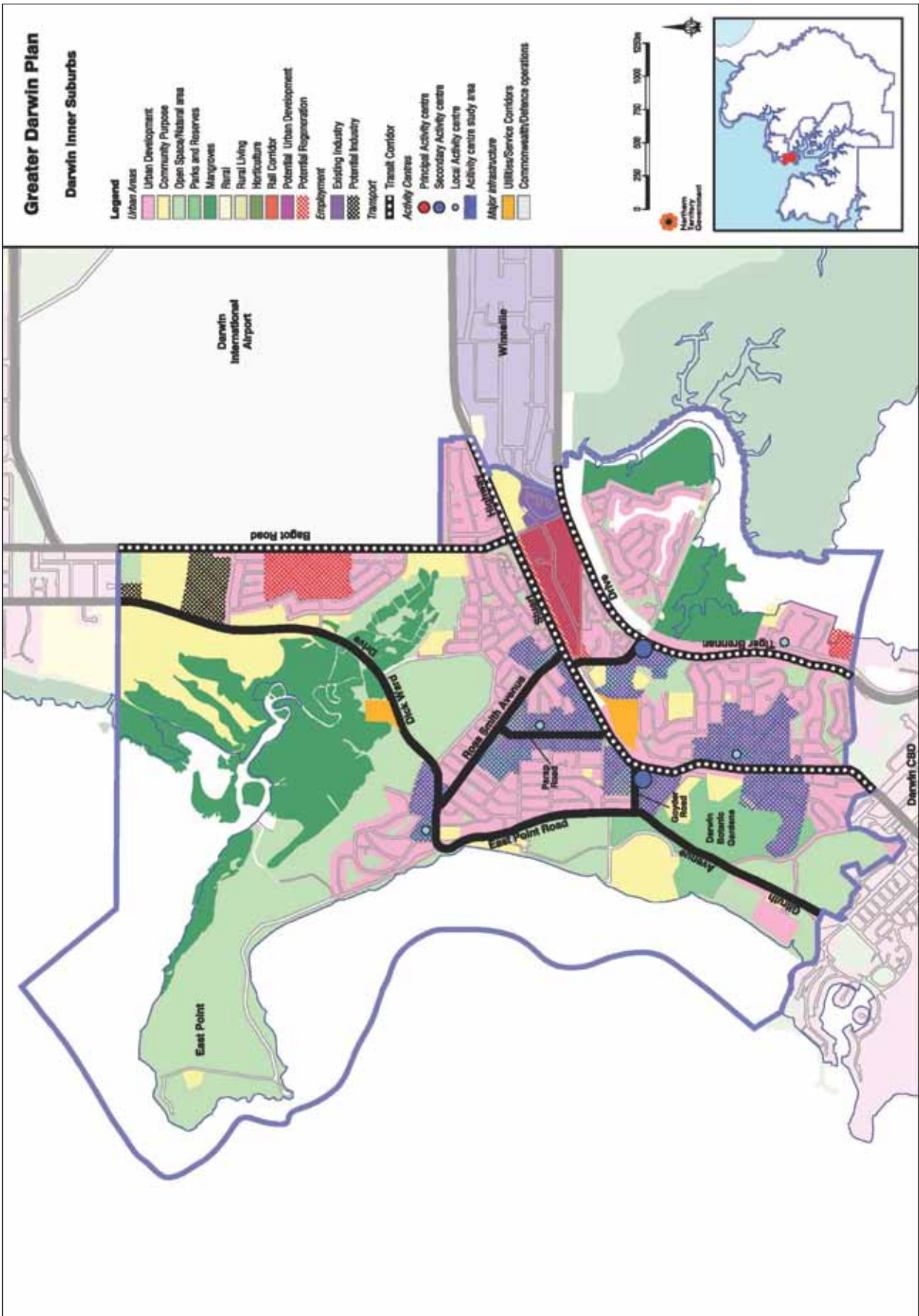
## Darwin Inner Suburbs

### Cullen Bay, Fannie Bay, Bayview, Stuart Park, Parap, The Narrows and The Gardens

There is potential for growth through continuing redevelopment, infill and some densification of medium density housing.

Residential	Additional dwellings
Activity centres	560
Dual occupancy	45
Infill sites	<b>850</b>
Redeveloped MD Land	340
<b>TOTAL</b>	<b>1 795</b>
Commercial	Floor space (sqm)
Activity centre retail	4 000
<b>TOTAL</b>	<b>4 000</b>
Industrial	Hectares
Light industrial	20
<b>TOTAL</b>	<b>20</b>

### Greater Darwin Plan – Darwin Inner Suburbs



## Darwin Northern Suburbs

### Northern Suburbs including Casuarina

Development will occur by increased density in the area surrounding the Casuarina Shopping Centre and commercial area.

There will be a mixture of Greenfield land releases, such as Muirhead, and infill development.

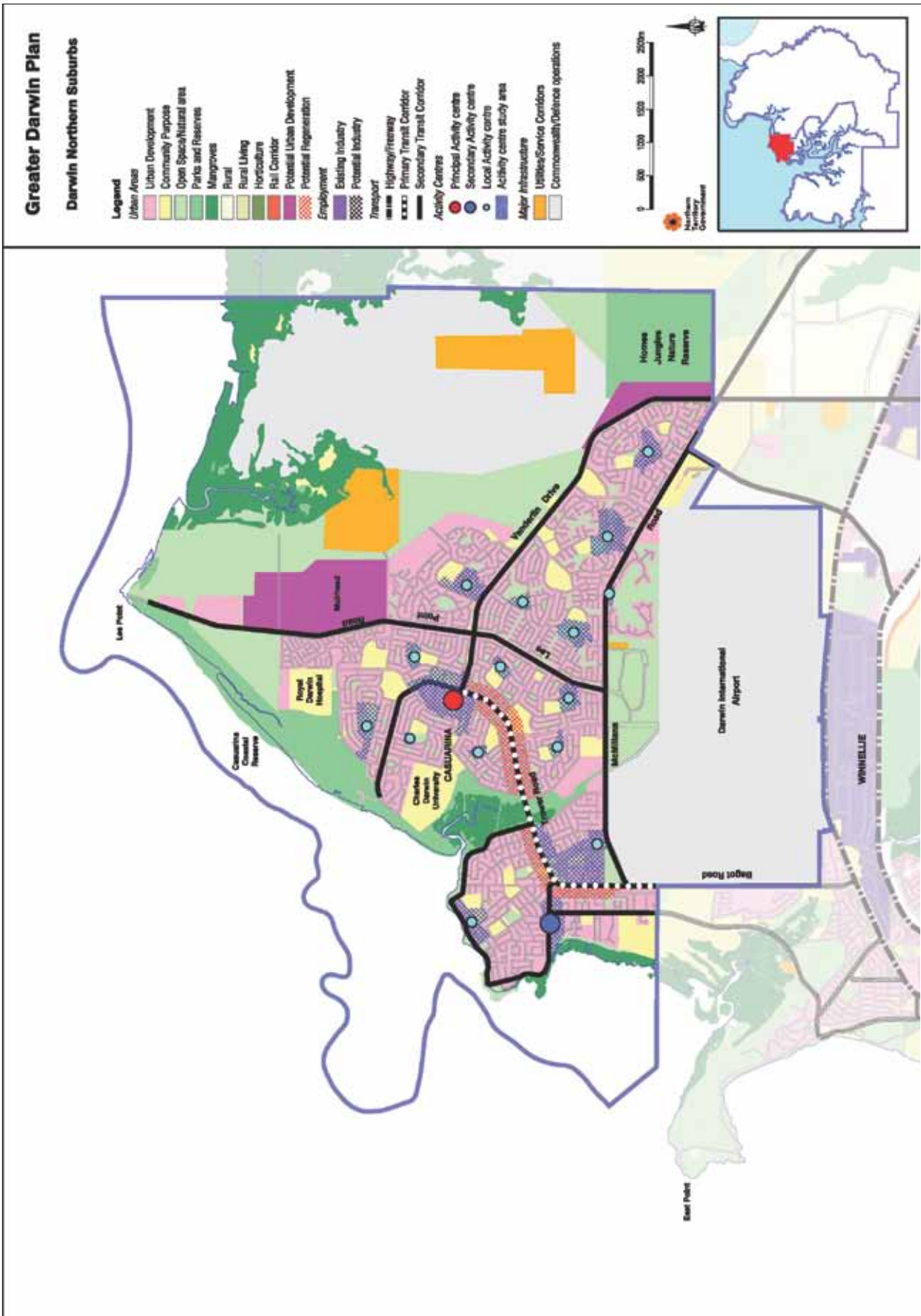
Redevelopment of land for medium density housing will also be encouraged.

Residential	Additional dwellings
Activity centres	660
Dual occupancy	75
Infill sites	660
Redeveloped MD Land	460
Greenfield land release	1 050
<b>TOTAL</b>	<b>2 905</b>

Commercial	Floor space (sqm)
Activity centre retail	23 600
Bulky goods retail	26 000
Secondary office	10 000
<b>TOTAL</b>	<b>59 600</b>

Industrial	Hectares
Light industrial	20
<b>TOTAL</b>	<b>20</b>

Greater Darwin Plan – Darwin Northern Suburbs



## Darwin-Palmerston Corridor

### Berrimah, Winnellie, RAAF Base, Airport

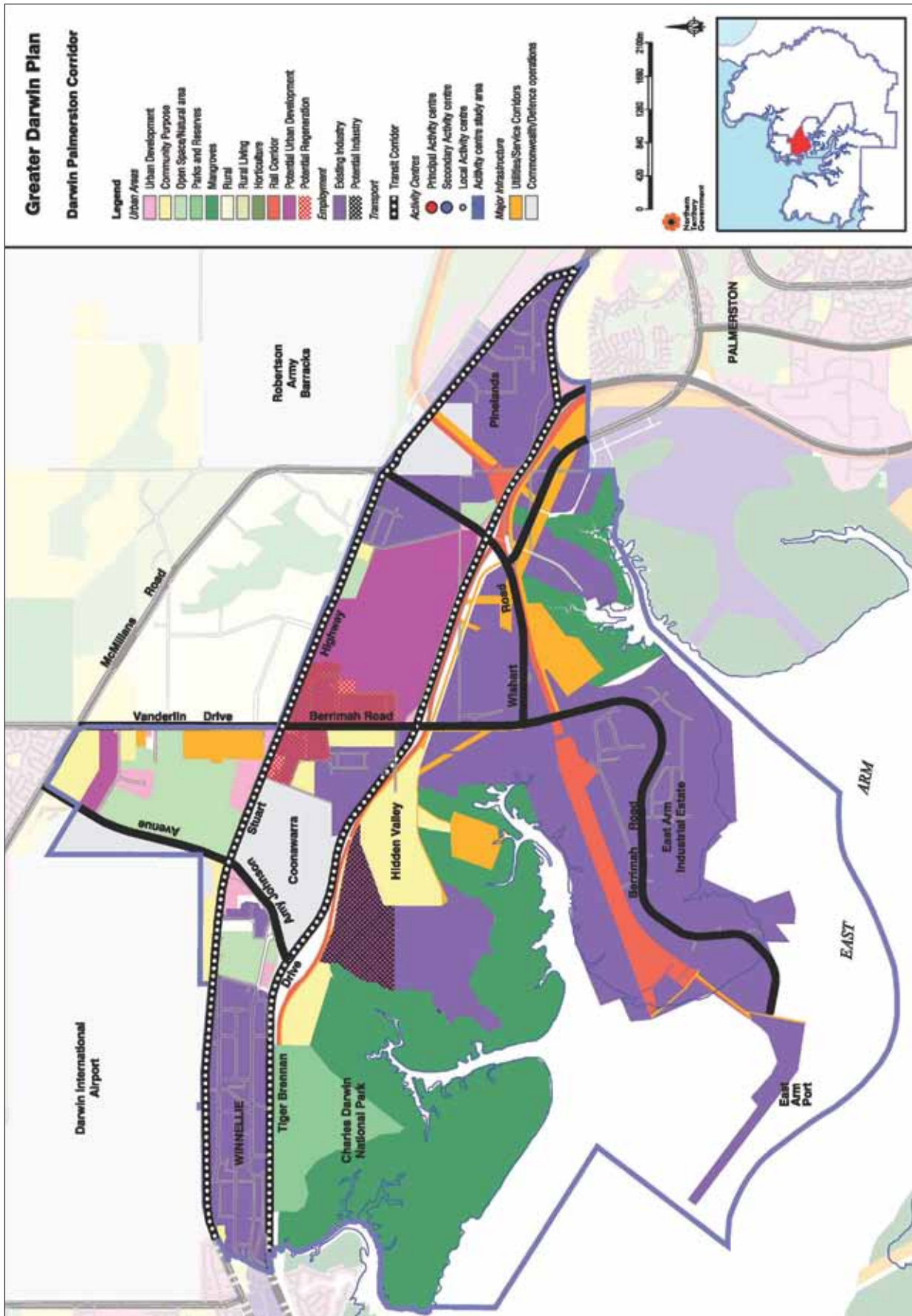
Development and growth in this area will be a mixed of commercial, industrial and residential.

Proposed redevelopment of Berrimah Farm and Berrimah Prisons are examples of infill sites that could produce well located mixed residential and commercial development.

Residential	Additional dwellings
Activity centres	60
Infill sites	1 800
<b>TOTAL</b>	<b>1 860</b>
Commercial	Floor space (sqm)
Activity centre retail	14 200
Bulky goods retail	37 000
Secondary office	2 100
<b>TOTAL</b>	<b>53 300</b>
Industrial	Hectares
Light industrial	80
General industrial	50
Strategic industrial	220
<b>TOTAL</b>	<b>350</b>



Greater Darwin Plan – Darwin-Palmerston Corridor



## Palmerston

### Palmerston CBD and suburbs

Residential development will continue in Palmerston, including the Palmerston East suburbs of Bellamack, Johnston, Zuccoli, Mitchell and the Charles Darwin University Campus site.

The CBD will also be energised with targeted projects including the so-called 'super-block'.

Residential development in the CBD will be promoted.

Residential	Additional dwellings
Activity centres	170
Dual Occupancy	10
Infill sites	530
Redeveloped MD Land	670
Greenfield land release	3 920
<b>TOTAL</b>	<b>5 300</b>
Commercial	Floor space (sqm)
Activity centre retail	34 000
Secondary office	4 500
<b>TOTAL</b>	<b>38 500</b>
Industrial	Hectares
Light industrial	50
<b>TOTAL</b>	<b>50</b>



## Weddell

### Weddell

The new city of Weddell and associated future development areas around Noonamah will be the focus of new land release.

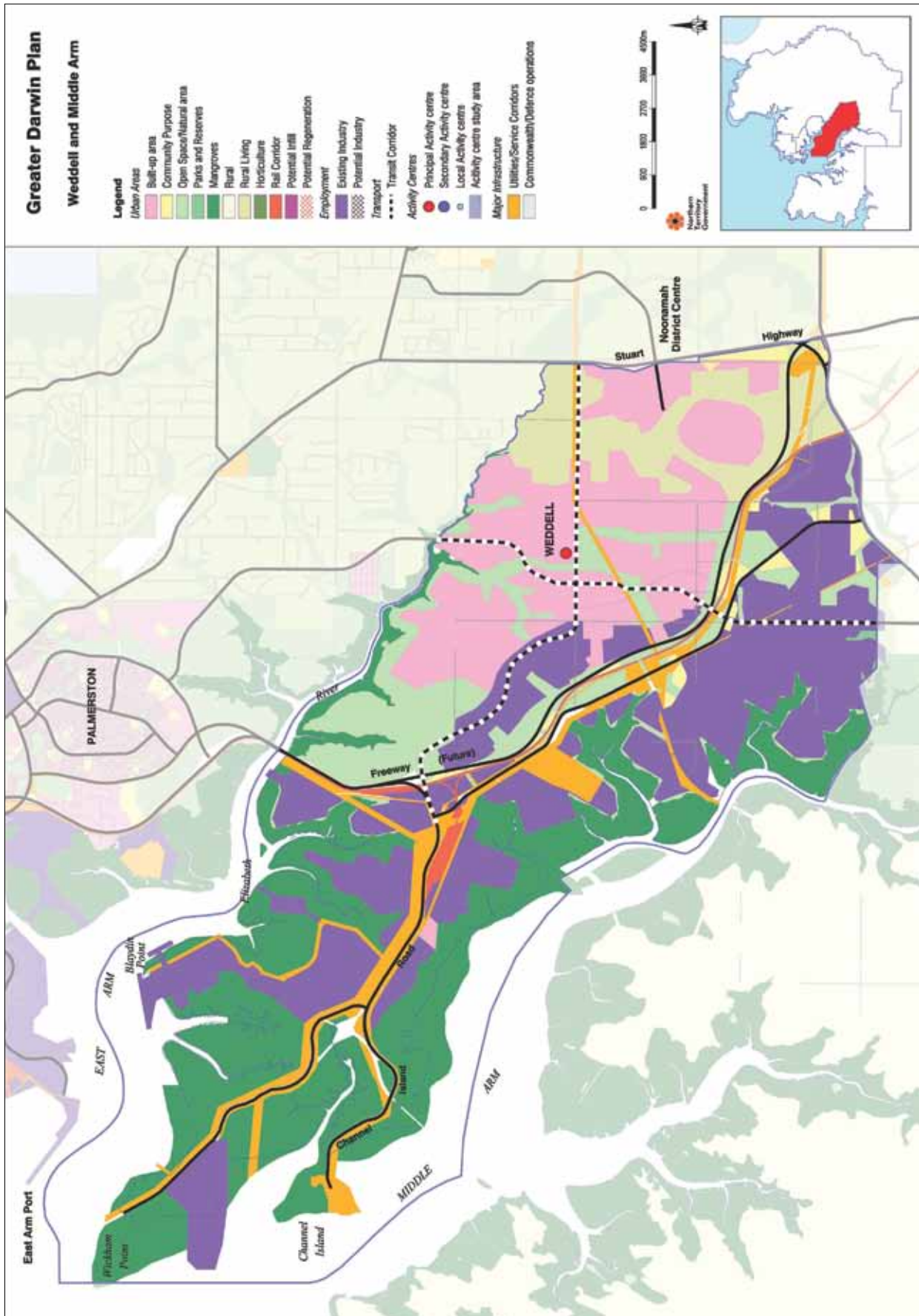
Weddell is a Greenfield development site undergoing detailed masterplanning.

Residential	Additional dwellings
Greenfield land release	4 900
<b>TOTAL</b>	<b>4 900</b>

Commercial	Floor space (sqm)
Activity centre retail	13 000
<b>Bulky goods retail</b>	<b>8 900</b>
Secondary office	3 600
<b>TOTAL</b>	<b>25 500</b>

Industrial	Hectares
Light industrial	50
<b>General industrial</b>	<b>20</b>
Strategic industrial	60
<b>TOTAL</b>	<b>130</b>

Greater Darwin Plan – Weddell



## Litchfield

### Litchfield

Development will occur in and around the rural Activity Centres of Girraween, Howard Springs Pine Forest, Coolalinga, Fred's Pass, Virginia, Humpty Doo, Noonamah and Berry Springs.

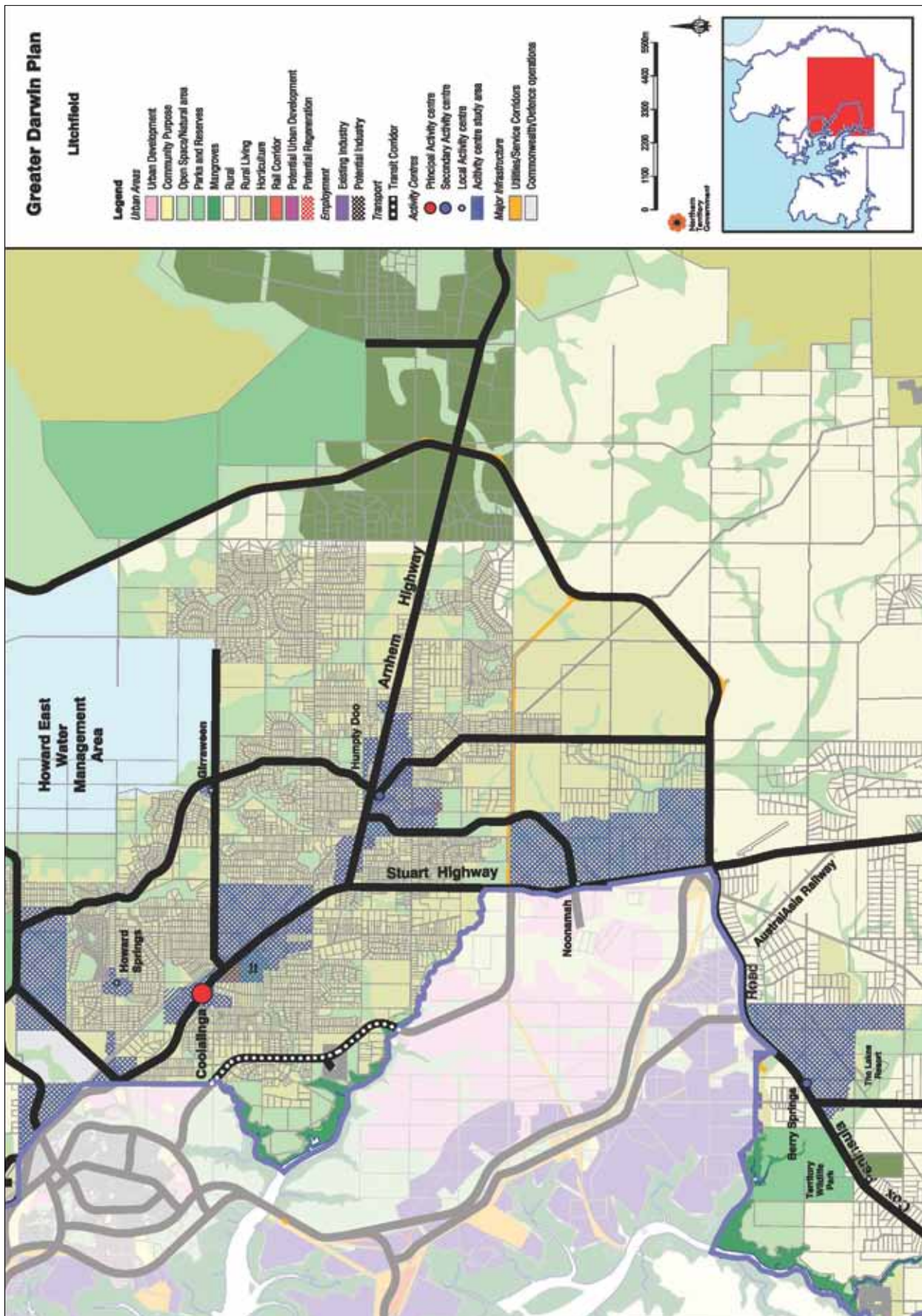
This will be mainly on infill sites with increased density in the heart of the centres.

Residential	Additional dwellings
Rural activity centres	3 800
<b>TOTAL</b>	<b>3 800</b>

Commercial	Floor space (sqm)
Activity centre retail	19 500
Secondary office	1 800
<b>TOTAL</b>	<b>21 300</b>

Industrial	Hectares
Light industrial	30
<b>TOTAL</b>	<b>30</b>

Greater Darwin Plan – Litchfield



## Cox Peninsula

### Cox Peninsula

This Greenfield site could be developed for urban residential and supporting community and commercial uses subject to the provision of essential services. Pending the settlement of the Kenbi land claim, the Cox Peninsula could be opened for private development for up to 10 000 people of the life of this Plan.

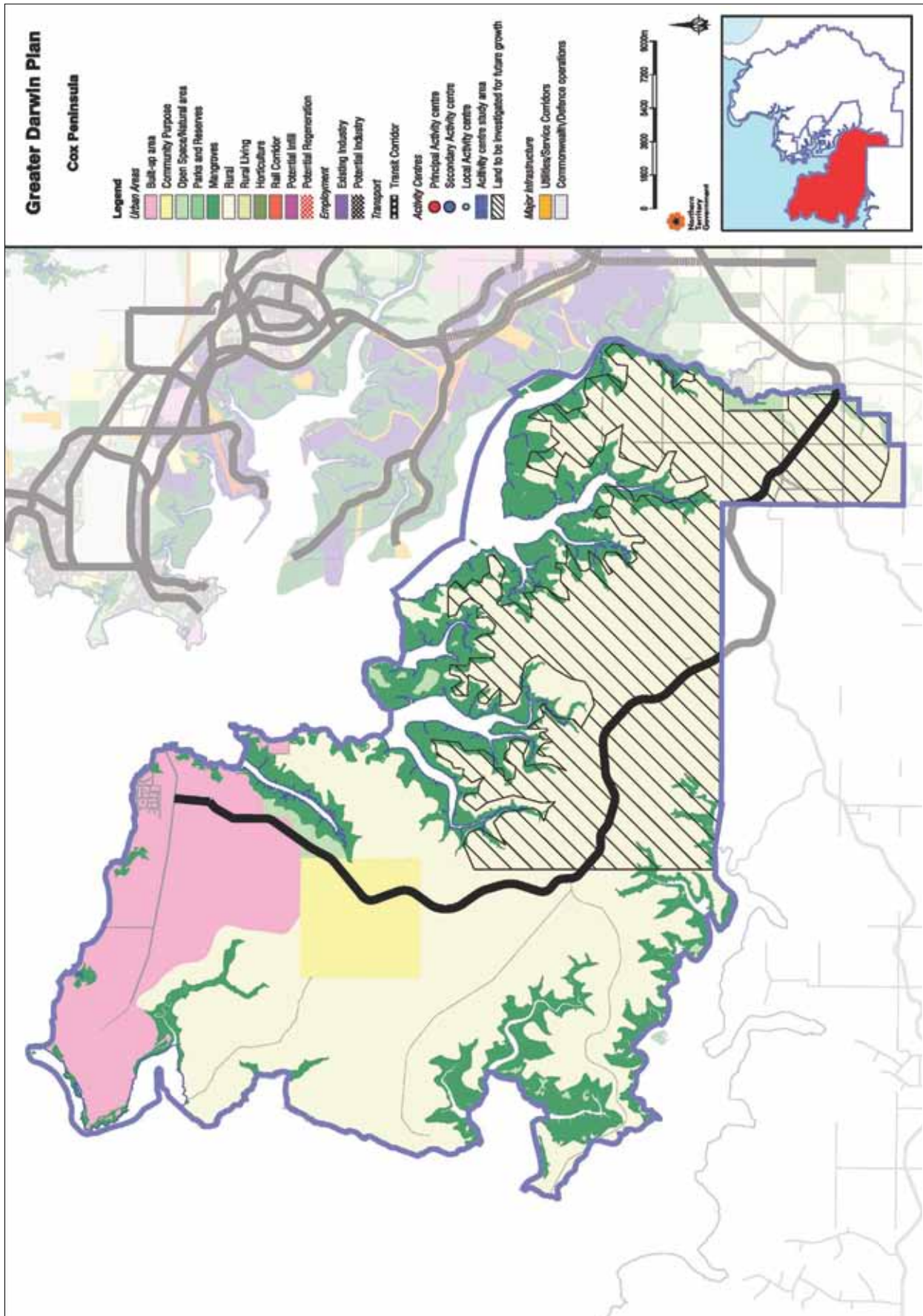
Residential	Additional dwellings
Land release	1 000
<b>TOTAL</b>	<b>1 000</b>

Industrial	Hectares
Light industrial	10
<b>TOTAL</b>	<b>10</b>



Greater Darwin Plan – Cox Peninsula



# Section 9:

## Implementation, Monitoring, Review and Evaluation

A plan is only as good as its implementation, so a robust system is being developed to ensure the Greater Darwin Plan is coordinated, implemented and monitored.

## Implementation

Implementation of this Plan will lead to changes to the NT Planning Scheme to achieve a number of the policy aspirations.

Amendment of the NT Planning Scheme is required to replace the existing *Darwin Regional Land Use Framework (2007)* with the proposed *Darwin Region Land Use Framework (2010)* and associated planning principles.

The 10-year program of investigation and delivery of actions set out under each of the Strategic Directions form the basis for implementation of this Plan.

Necessary actions to implement the plan have been nominated as either short term (0-5 years) or medium term (5-10 years).

The Action Plan will be a dynamic document, updated every five years. The first 10-year Action Plan summary is contained later in this document.

The key actions will lead to well-planned, well-designed and well-connected communities and assist government in delivering more sustainable outcome for the region. Together the actions will achieve the Strategic Directions of the Greater Darwin Plan.

The Department of Lands and Planning is the lead agency for all actions listed in this Plan.

## Monitoring

The Strategic Directions section of this Plan also sets the framework for monitoring the plan. This will comprise:

- monitoring the progress of each of the actions in the Plan against its nominated timeframe; and
- Monitoring outcomes of the plan against the Plan's performance indicators.

The Department of Lands and Planning is developing performance indicators to monitor this Plan. They will align with performance indicators established for National Partnership Agreements, the Territory 2030 Strategic Plan and other Northern Territory Government strategic planning documents, including:

- National Affordable Housing Agreement;
- National Partnership Agreement on the Nation Building and Jobs Plan;
- National Partnership Agreement on Energy Efficiency;
- National Healthcare Agreement and National Partnership Agreement on Hospital and Health Workforce Reform;
- Darwin Harbour Strategy;
- Territory 2030 Data Snapshots and Scorecard; and
- The Territory 2030 Scorecard progress reporting, undertaken every two years across the Northern Territory.

## Reporting

Reporting on this Plan will align with the reporting timetable for Territory 2030. This includes:

- Publishing of Snapshots on each of the Territory 2030 targets. Territory 2030 targets have been identified as being relevant to this Plan.
- A full public report on every target of the Territory 2030 Strategic Plan is published every two years to track progress against all of the Territory 2030 targets. The first Territory 2030 report will be published in early 2012 as a scorecard.
- A full public report on every action in the Greater Darwin Plan along with reporting against each of the Plan's performance indicators will be published every two years, commencing in 2014.
- All agencies also publicly report on their progress towards Territory 2030 targets for which they are responsible in their annual reports.

## Review

An Independent Review of the Territory 2030 Strategic Plan is undertaken every five years. The first review is due in 2015.

This Plan will be reviewed subsequently to ensure continuing alignment with the Strategic Directions of this Plan with the Territory 2030.

Actions for the next five-year period will be identified at this point in time so that there is always a rolling five-year program of actions.

## Collaboration

Given the broad impact of this Plan, implementation will require a coordinated and collaborative approach to a range of planning and funding implications involving local government, the Australian Government, the community and private sector.

### Local Government

Coordination with local government on the implementation of this Plan will be achieved through a combination of statutory and non-statutory forums.

The *Planning Act* requires local authorities to be notified of proposals to amend the Planning Scheme and development applications within their jurisdiction and the notification must include an invitation to make a submission. Development Consent Authorities also provide advice to the Minister on amendments to the Planning Scheme.

The NT Government has established regular engagement with the local government councils within the Region.

On a regional scale, the relevant coordination forum for local government is the Top End Regional Organisation of Councils.

### Commonwealth Government

The NT Government will continue to work with the Department of Defence and the Australian Government Department of Infrastructure and Transport regarding safeguarding the operations of RAAF Base Darwin and Darwin International Airport. The NT Government is also working with the Department of Defence on managing urban encouragement issues associated with Defence facilities.

The Northern Territory Government will also liaise with the Commonwealth Government to access funding for major infrastructure.

### Community and Business

The Northern Territory Government will continue to use a wide variety of forums to consult with the community and business.

## Action Plan

### 1. Residential Growth and Diversity

The Plan will support access and choice, assist housing affordability, and achieve compatibility between employment, transport infrastructure and population growth.

Growth will be accommodated through a combination of new development areas, increased density along transport corridors and centres and the use of under-utilised land within the broader urban framework.

Territory 2030 Objective	Actions	Timeframe
<b>Darwin offers affordable and appropriate housing that meets the needs of Territorians</b>	Develop and implement a strategy for regeneration areas between identified activity centres, and associated urban design guidelines and performance criteria.	0-5 years
<b>Investment and infrastructure</b>	Amend the NT Planning Scheme to permit dual occupancy on lots of 1000sqm and larger, subject to performance criteria that address local character and amenity.	0-5 years
	Amend the NT Planning Scheme to allow for small lot housing (ie less than 800sqm) with associated performance criteria and built form guidelines.	0-5 years
	Continue to amend the NT Planning Scheme to encourage the provision more affordable housing.	5-10 years
	Develop detailed masterplans for the following: 1. NT Government infill sites; 2. Berrimah Farm/Prison; 3. Motor Vehicle Reguistry site at Parap; 4. Public housing redevelopment sites including John Stokes, Kurringal and Tomaris Court; and 5. NT Bus Depot, Woolner.	0-5 years
	In partnership with landowners and in consultation with key stakeholders, develop an Area Plan for the identified development area on the Cox Peninsula.	0-5 years

## 2. Sustainable Future

This plan has a strong focus on ensuring the future development of the Greater Darwin will be sustainable, with an emphasis on:

- Our ecological footprint;
- Maintaining a healthy Darwin Harbour;
- Enhancing the economy and quality of life of the residents;
- Build and maintain community identity;
- Reduce car dependency; and
- Use contemporary measures to conserve water and energy.

Territory 2030 Objective	Actions	Timeframe
<b>Sustainable Living</b>	Develop and implement Top End Neighbourhood Design Principles and Guidelines in consultation with key stakeholders and the NT Urban Design Advisory Panel.	0-5 years
	Develop Weddell as a world-class green city and a model for the future.	0-5 years
	Identify a suitable site for a regional waste facility and create an associated management strategy.	0-5 years
	Government will work with private developers so new developments and subdivisions have display homes showcasing the very best sustainable and energy-efficient building standards.	0-5 years
	Planning and design for the new Palmerston suburb of Zuccoli will consider the energy efficiency outcomes of lot orientation and incorporate sustainability features.	0-5 years

### 3. Strong and Healthy Communities

Strong and healthy communities are enhanced when we create liveable communities with distinct local character and identity. This includes:

- Compact forms of residential development within discreet neighbourhoods, incorporating a mix of uses and residential densities to encourage alternative modes of transport and the efficient delivery of infrastructure.
- The coordinated and timely delivery of social infrastructure for health, sport, education and recreation to support the range of community needs and to enhance social inclusion for an ageing population, disadvantaged communities and new neighbourhoods.

Territory 2030 Objective	Actions	Timeframe
<b>The Territory maintains an enviable lifestyle</b>	Develop masterplans with local communities and key stakeholders for each of the following activity centres: Nightcliff, Parap, Casuarina, Goyder Road Parap and Stuart Park.	0-5 years
	Complete the Rural Activity Centres Area Plans and determine the detailed need for infrastructure provision in the rural areas.	0-5 years
<b>Investing in and valuing our people, culture and communities</b>	Continue ongoing social needs assessment to ensure provision of land for long term planning for schools, sport and recreation and other community facilities is met in infill and rural activity centres.	0-5 years

## 4. Economic Development

Economic development will be supported by providing certainty around land development and ensuring land is available for growth. This includes:

- Growth accommodated in urban areas through a combination of activity centres, specialised employment centres and additional growth through diversification in tourism and recreation.
- Access to transport to assist in linking jobs to homes, ensuring employment containment of the Region and efficiency of services.
- A hierarchy of centres to guide and accommodate growth and provide accessible facilities for communities.

Territory 2030 Objective	Actions	Timeframe
<b>The Territory invests for long-term growth</b>	Implement red tape reduction for residential and commercial uses within Activity Centres with an approved Masterplan.	0-5 years
<b>Growing local industry</b>	Implement initiatives to encourage and facilitate tourism development.	0-5 years
	Monitor the commercial, retail, industrial and tourism needs of the Greater Darwin Region and develop strategies for land banking and land release.	0-5 years
<b>Investment and Infrastructure</b>	Investigate the future use of Gunn Point for strategic industrial activities.	10-15 years
	Identify possible future sites for major transport infrastructure including a general aviation airport and second sea port.	10-15 years



## 5. A Green Region

Sustainability will be at the centre of planning and urban development and the health of Darwin Harbour is be recognised as central to the future of the Region.

This will ensure that the tropical lifestyle and natural environment and biodiversity continue to be enjoyed by residents and new development is balanced with enhanced natural corridors and open space.

Territory 2030 Objective	Actions	Timeframe
<b>Custodians of our natural heritage</b>	Prepare an Open Space Network Strategy for the Darwin Municipality after a detailed investigation into the need and location of long term requirements for open space and consultation with key stakeholders.	0-5 years
<b>Manage the Northern Territory's natural resources according to the principles of ecologically sustainable development.</b>	Develop a Darwin Harbour Masterplan to guide future development for community consultation.	0-5 years

## 6. Land Use Integration

Through a series of strategies the Plan will introduce better coordination and sequencing of land use and transport planning, and the protection of corridors for different modes of transport.

The Plan is intrinsically linked with the Northern Territory Infrastructure Strategy and the Greater Darwin Regional Transport Plan.

Consolidating urban growth to reduce travel time, costs, distances and from this minimise the carbon footprint of the transport sector and improve access to essential services.

Mixed residential, commercial and community facilities will be located at Activity Centres and corridors between Activity Centres to reduce the impacts of traffic congestion and to increase provision, accessibility to and use of public transport services.

Connectivity between alternative modes of transport, cycling and walking will assist in reducing car dependence.

Territory 2030 Objective	Actions	Timeframe
<b>Investment and Infrastructure</b>	Undertake long-term infrastructure planning for roads, power, water, sewerage and telecommunications in Darwin.	0-5 years
	Ensure there is sufficient serviced land in Darwin to support investment and population growth.	0-5 years
	Investigate the role of Development Contribution Plans for land servicing and social infrastructure provision in the urban and rural areas of the Region.	0-5 years
	Review and update the Greater Darwin Plan every five years following the completion of the Greater Darwin Regional Transport Plan.	5-10 years
	Review the Northern Territory Infrastructure Strategy every two years, which will contribute to the two-yearly Territory 2030 Scorecard progress report.	0-5 years
	Review and update the Darwin Regional Transport Plan every five years.	5-10 years

## 7. Regional Connections

Regional connections include links both within the Greater Darwin Region as well as to the remainder of the Northern Territory and beyond. This plan aims to:

- Strengthen the economic, infrastructure, planning and transport connections between the administrative and trade centres of Darwin and Palmerston with the primary production and resources sectors located within the Litchfield sub-region, the Coomalie sub-region, the Daly Region and the Katherine Region.
- Develop Darwin as an international hub for exports, education and health services, tourism and operations and maintenance, particularly with South East Asia.
- Expand the capacity of the East Arm Wharf and Darwin International Airport as significant national infrastructure connecting Australia to the World, particularly South East Asia.

Territory 2030 Objective	Actions	Timeframe
<b>The Territory maintains an enviable lifestyle</b>	Review the Litchfield Planning Concepts and Land Use Objectives 2002 and link with the outcomes of the Rural Activity Centres.	5-10 years
<b>Growing local industry</b>	Develop a regional land use plan for the Finnis and Coomalie region and determine links to the Greater Darwin Region.	5-10 years

# Section 10:

Annexes and Additional Information

## Community Consultation

*The Greater Darwin Region Land Use Plan – Towards 2030* Consultation Paper was launched on 4 February 2011, and was placed on public exhibition until 11 May 2011. Comments were received until end of June 2011.

During the exhibition period, consultation sessions on the Consultation Paper integrated with discussions on the Rural Villages Discussion Paper were also held.

Briefings were also provided to the following organisations:

- Darwin City Council;
- Litchfield Council;
- Urban Development Institute of Australia;
- Property Council of Australia;
- NT Urban Design Advisory Panel;
- Environment Protection Authority; and
- Darwin Harbour Advisory Committee.

Sixty nine written submissions were received from a range of organisations and individuals including residents, landowners, professionals, peak bodies, industry associations, local councils and Commonwealth Government Departments including Defence.

## Meetings Held and Number of Attendees

Meeting	Attendees
Howard Springs	34
Humpty Doo	4
Bees Creek	13
Berry Springs	34
Landowners	26
Palmerston	20
Wagait	19
Belyuen	43
Darwin	13
Litchfield	111

## Strategic Issues and Priorities

This table shows the number of online consultation respondents who listed each of the strategies as priority 1, 2 or 3.

	Priority 1 (No of respondents who indicated this as a priority 1)	Priority 2 (No of respondents who indicated this as a priority 2)	Priority 3 (No of respondents who indicated this as a priority 3)
Accommodating future residential growth and diversity	16	0	0
Promoting economic development	0	7	1
Integrating land use and transport	0	3	13
Creating a more sustainable future	16	5	0
Retaining green region and links	2	13	5
Consolidating regional connections	0	0	13
Supporting strong and healthy communities	2	8	1

## Online Feedback: Planning Principles

This table shows the number of online respondents who supported each of the principles.

Key principles	Principle is supported (No of respondents who supported the principle)	Principle is not supported (No of respondents who did not support the principle)	Total number of respondents to that question
Medium density	33	3	36
Brownfields	28	8	36
Rural villages	24	13	37
The Darwin CDB being the primary centre	22	14	36
There should be a hierarchy of activity centres	26	10	36
Bulky goods/ specialised centres	33	4	37
Transport corridors	33	4	37
Social	35	1	36
Corridors	28	8	36
Industrial	28	9	37
Sustainability	25	10	35

## Summary of Issues Raised during Consultation

This table summarises the key issues raised through the consultation process, including meetings, online comments and written submissions.

Issue	Comments
<b>The plan and process</b>	<p>Praise for Government release of the Plan.</p> <p>Underpinning data should be released.</p> <p>Too broad and required more detail.</p> <p>Community engagement needs to be ongoing.</p> <p>Need plans for monitoring.</p>
<b>The environment</b>	<p>Need a full environmental impact assessment.</p> <p>Retain tropical, green environment.</p> <p>Need to understand climate change impacts (see also below).</p>
<b>Climate change</b>	<p>There is an opportunity for Government to plan for climate change.</p> <p>Must use land sustainably.</p> <p>Need to encourage less people to drive to work</p> <p>Need to design and build for the tropics.</p>
<b>Urban design</b>	<p>Need guidelines for good urban design.</p> <p>Design with people in mind.</p> <p>Make sure buildings are Green.</p>
<b>Alignment and Integration with COAG, Territory 2030 and other strategies and plans</b>	<p>Need to make links clear.</p> <p>Need to have an infrastructure strategy as well as infrastructure funding.</p> <p>Integrate land use and transport planning.</p>
<b>Open space</b>	<p>Needs to a consideration in all zones, not just residential.</p> <p>Need to set aside open space adjacent to transport corridors.</p> <p>Should include open space in industrial zones.</p>
<b>Transport</b>	<p>Road network upgrades will be critical, particularly for key arterials.</p> <p>Need to locate places of work closer to where people live to reduce need for transport.</p>
<b>Power, water and sewerage</b>	<p>Critical that water and sewerage in rural areas is addressed.</p> <p>Consider bore production and impact of further development, particularly smaller lot sizes.</p>
<b>Pace of land supply</b>	<p>The pace of development needs to be faster to ensure there is enough land to facilitate affordable housing.</p> <p>Release of land not fast enough.</p> <p>Process of land release and planning approval needs to be streamlined.</p>
<b>Weddell</b>	<p>Some questions on whether it is needed.</p> <p>Support for it to be a sustainable city.</p>
<b>Social infrastructure</b>	<p>Need for health and education facilities in rural areas.</p> <p>Standard formula needed to calculate social infrastructure need based on population.</p> <p>Easy access to social infrastructure is required to encourage people to walk, ride or use public transport.</p>
<b>Infill development</b>	<p>Mixed support for infill development.</p> <p>Need to consider impact on existing uses and neighbours.</p> <p>Need a support mechanism to encourage development of private land.</p> <p>Consider Public Private Partnerships.</p>

## Summary of Issues Raised during Consultation - Continued

Issue	Comments
Activity Centres	Support for hierarchy of activity centres. Need a Masterplan for Casuarina.
Dual occupancy	Mixed support for lot size, although general support on blocks 1000 sqm or more.
Land use mix	Diversity of land use supported. Aged care needs to be considered.
Other	Ensure Aboriginal interests considered. Good to see culture and heritage considered. Social inclusion needs to be part of the plan. Siting of airport is a limiting factor in growth. Consider moving. Impact of biting insects needs to be taken into account. Crime prevention through environmental design principles should be considered. How will waste be managed in the future? Unclear on how Gunn Point will be developed. Call for Finniss, Dundee and Bynoe Harbour to be included in plan.

## Alignment with Territory 2030

Objective	Target	Greater Darwin Plan Strategic Direction
<b>Education</b>		
<b>Develop a world-class education system</b>	By 2030, Darwin will be recognised as a university town and a hub for international education and Alice Springs as a national hub for remote education.	3
<b>Society</b>		
<b>Darwin Offers affordable and appropriate housing that meets the needs of Territorians</b>	Improve access to accommodation: by 2030 every Territorian will have access to appropriate accommodation	1
	A balanced Darwin housing market offering good value for money and affordability, ultimately becoming one of Australia's most affordable housing markets, across all market segments.	2 and 4
<b>The Territory maintains an enviable lifestyle</b>	Territorians and Darwin's suburbs are connected by appropriate infrastructure.	6
	Improve regional air and land transport services to support access to health and community services in Darwin.	6
	Our communities are more in touch with their location, climate, people and sustainability.	2 and 3
	Territorians have access to a wide range of facilities and activities that enhance the Darwin lifestyle.	3 and 5
	People with a disability have access to a wide range of opportunities in Darwin.	3 and 6
	Darwin will be recognised for its high public amenity	3 and 5



Alignment with Territory 2030 - Continued

Objective	Target	Greater Darwin Plan Strategic Direction
<b>Society</b>		
<b>Investing in and valuing our people, cultures and communities</b>	By 2012, the Northern Territory Government to develop an approach to social inclusion, including a strong focus on joined-up government responses and a people-centred approach.	2 and 3
	Improve access to support for Territorians with a disability living in Darwin.	3 and 6
	In Darwin there is official recognition of Indigenous place names and the stories that link them as an official acknowledgement that they are valuable cultural property.	2 and 3
<b>Economic Sustainability</b>		
<b>Capturing new opportunities</b>	Develop Darwin as one of Australia's most affordable cities	1 and 2
<b>The Territory invests for long-term growth</b>	Continue to grow the Darwin economy	4
	Darwin continues to grow the size and skills of its workforce to meet the growth target.	4
<b>Investment and infrastructure</b>	Undertake long term infrastructure planning for roads, power, water, sewerage and telecommunications in Darwin	2 and 6
	Identify new solutions to the key infrastructure challenges in Darwin by 2010 for rural roads and highways and by 2012 for high-speed broadband.	2 and 6
	Ensure there is sufficient serviced land in Darwin to support investment and population growth.	1 and 6
	Darwin continues to secure new private sector investment to drive economic growth and expansion.	4 and 6
	Governments maintain high levels of investment in public infrastructure in Darwin to underpin long-term development and growth.	6
<b>Growing local industry</b>	Expand the manufacturing industry in Darwin with a particular focus on gas-based industry.	4
	Continue to expand the Defence supply and service sector in Darwin.	4
	Increase the number of aviation passengers and shipping movements to Darwin.	4
	Expand the tourism industry in Darwin.	4
	Develop the contribution from the community services sector in Darwin.	3
	Identify suitable land and water near Darwin for further long term and sustainable food production.	6
	Support the continued contribution of the resources sector in the Darwin economy.	4
	Establish Darwin as a key centre for oil and gas operations, maintenance and workforce.	4 and 6

Alignment with Territory 2030 - Continued

Objective	Target	Greater Darwin Plan Strategic Direction
<b>Economic Sustainability</b>		
<b>Capturing new opportunities</b>	Develop Darwin as an international hub for exports, education and health services, tourism, and operations and maintenance.	4
	Develop a single focal point for promoting the opportunities for business, education, tourism, investment and jobs, and integrate the various campaigns to lift Darwin and the Territory's national and international profile.	4
	Develop a program to attract businesses to establish their regional headquarters in Darwin and across the Territory.	4
<b>Cutting edge businesses</b>	Dramatically lift the productivity of Darwin businesses.	4
	Increase the number of entrepreneurs establishing businesses in Darwin.	4
	Increase Indigenous/non-Indigenous business partnerships in Darwin.	4
	Darwin offers a highly competitive business environment.	4
	Develop greater connections between business, the Charles Darwin University, the Batchelor Institute of Indigenous Tertiary Education, and other training providers.	3
<b>Health and Wellbeing</b>		
<b>Reforming the Territory health system</b>	All Territorians will have improved access to essential healthcare services by 2030.	3
	Services for senior Territorians and people with a disability or requiring rehabilitation will be accessible at the same level as elsewhere in Australia.	3 and 6
<b>Environment</b>		
<b>Custodians of our national heritage</b>	Manage the NT's natural resources according to the principles of ecologically sustainable development.	2 and 3
	Ensure no deterioration in the health of biodiversity in the NT.	5
	By 2030, the Territory will have a comprehensive set of connected systems protecting the terrestrial environment, making up 20% of the Territory's land area, and substantially increasing the length of coastline under conservation management.	5

Alignment with Territory 2030 - Continued

Objective	Target	Greater Darwin Plan Strategic Direction
<b>Environment</b>		
<b>Sustainable living</b>	Develop Weddell as a world-class green city and a model for the future.	1, 2 and 4
	Reduce the impact on the environment through reducing reliance on private motor vehicles.	6
	Continue to meet or better national air quality standards in Darwin.	2 and 5
	Reduce the amount of water that Darwin households use by 20% by 2015 and a further 10% by 2020, compared to 2009 consumption levels.	2
	Ensure efficient use of water by business and industry in Darwin	2
	By 2015, reduce greenhouse gas emissions intensity from power generation at the Power and Water Corporation's Channel Island and Weddell power stations by 10%.	2 and 6
	By 2020, wholesale electricity purchasers in the Territory will meet their national 20% renewable energy target from Territory sources.	2 and 6
	Energy and water efficiency in residential and commercial buildings in Darwin meet standards in the Building Code of Australia.	1 and 2
	Reduce the amount of waste being taken to our rubbish dumps by 50% by 2020.	2
	The NT contributes to the national target for greenhouse gas reduction.	2 and 6
<b>Knowledge, Creativity and Innovation</b>		
<b>Develop a focus on research and innovation</b>	Continue to establish government-sponsored partnerships with Asia on research and development.	2 and 4
	Build or further develop a number of major centres of research and teaching.	3
<b>Participation in arts and cultural activities and events.</b>	Establish national Indigenous arts and cultural precincts across the Territory, with regional hubs.	3
<b>Improving access to and use of technology.</b>	Territorians in Darwin will have access to high-speed broadband and the internet on the same terms as the rest of Australia as a matter of priority	6

## National Capital Cities Strategic Planning Criteria

The Northern Territory Government's achievements against each of the nine national Capital City Strategic Planning Criteria are detailed below.

### 1. Integrated, strategic planning systems

*Territory 2030* Strategic Plan is embedded into Budget Processes, Agency Corporate Plans and Chief Executive Performance Agreements.

*Territory 2030* Targets relate to the nine capital city criteria – all relate to Greater Darwin, and some specifically to Greater Darwin.

Some Territory planning documents are broader than Greater Darwin, but reflect *Territory 2030*, which covers the whole of the Territory. The Territory population of 230,000 makes this logical.

Integrated nature of *Territory 2030* – with Greater Darwin Plan, 10 Year Infrastructure Strategy and Darwin Regional Transport Plan – provides a comprehensive approach for Greater Darwin.

### 2. Provide a consistent hierarchy of future oriented and publicly available plans

A hierarchy of plans is well under construction including;

- *Territory 2030* (complete);
- new consultation draft *Greater Darwin Plan* (to replace our existing land use framework); and
- other plans such as 10 year Infrastructure Plan, 10 year Roads Plans, and Darwin Regional Transport Strategy are approved or close to completion.

Significant research and community engagement has occurred in developing plans.

Effective governance arrangements are in place.

### 3. Provide for nationally-significant economic infrastructure (both new and upgrade of existing)

Northern Territory planning systems facilitate the identification and scheduling of nationally significant investments. In Greater Darwin's planning the "national" focus has been on helping enable Australia's ongoing economic expansion.

Achievements in nationally significant infrastructure include:

- Adelaide to Darwin Railway;
- New East Arm Port (and expansion activities);
- Northern Gas Hub (Conoco Philips LNG plant) from Timor Gap;
- INPEX LNG production trains from Browse Basin WA;
- Darwin International Airport Expansion;
- Gas Pipeline to Central Australia;
- Optical Fibre communication link to Darwin; and
- Development of Marine Supply Base (contractor selection process underway).

Darwin's key infrastructure, corridors and growth centres are planned and protected.

#### 4. Capital City Planning should address nationally significant policy issues

*Territory 2030* addresses nationally significant policy issues. Specific actions and targets for all ten areas are specifically identified.

(Population Growth) Detailed demographic projections underpin development of the Greater Darwin Plan and all development issues including development of the new city of Weddell.

(Productivity/competitiveness). Achievements are consistent with *Territory 2030* goals. The NT consistently ranks 2nd or 3rd of all states and territories because of:

high workforce participation; major investments in nation infrastructure ( eg Adelaide-Darwin Railway, East Arm Port); and growing industrial critical mass (eg two LNG investments and the proposed marine supply base).

(Climate Change/mitigation/adaptation). The 2009 NT Climate Change Policy is referenced to *Territory 2030*. In this context, the Northern Territory Government is developing the Northern Territory Climate Change Adaptation Action Plan in 2011.

(...Use of Existing and New Infrastructure). The Infrastructure Strategy builds on work undertaken by the *Territory 2030* Steering Committee (eg long term planning for roads, power, water, sewerage and telecommunications etc).

(Connectivity of people to jobs and businesses to markets). This analysis is reflected in the Greater Darwin Plan.

(Development of Major Urban Corridors). *Territory 2030* sets targets, reflected in the Greater Darwin Plan, of which two examples are: Upgrade of Tiger Brennan Drive and Master plan for Darwin airport.

(Social Inclusion). Reflecting *Territory 2030* a social policy division has been established in the Department of the Chief Minister and is responsible for the development of a Northern Territory social inclusion plan that will be progressively embedded across government processes. *Housing the Territory* policy stipulates programs including redevelopment of public housing, accelerated land release to improved affordability, and establishment of an affordable housing rental company. Planning processes also take into account socially inclusive parameters of design that enhance the liveability of community space and amenities.

(Health, Liveability and Community Wellbeing). Consistent with *Territory 2030* the financial commitment for improving Health, Liveability and Community Wellbeing in NT 2011-12 budget is nearly 50 per cent of the total budget for Greater Darwin.

(Housing Affordability). The Northern Territory Government's *Housing the Territory* Policy directly reflects the *Territory 2030* goal. Key elements are: accelerated land release; extending the role of the NT Land Development Corporation into the residential sector; redevelopment of public housing; and establishment of an affordable rental housing company.

(Matters of National Environmental Significance). Activities are integrated under *Territory 2030* and the Northern Territory Climate Change Policy cascades down through the *Greater Darwin Plan* and through to regulation of development proposals through the Development Assessment and Environmental Impact Assessment processes.

#### 5. Strengthen the networks between capital cities and major regional centres

Integration - Darwin has significant links with the major NT regional centres because Darwin is the administrative, economic and political hub.

Exchange - This connection is highlighted in the infrastructure plans developed for NT's 20 growth towns, which recognise the commercial, cultural connections and opportunities between NT regions and Greater Darwin.

International - Stronger connections with regional trading partners is driving increased shipping volumes and having a positive effect on Gross State Product.

## 6. Planned, sequenced and evidence-based land release and an appropriated balance of infill and Greenfields ...

Outcomes - Darwin has consistently achieved a 50/50 balance between infill and Greenfield sites since 1992.

Governance - Through its Housing Sub-Committee Cabinet receives monthly updates on the housing situation across the NT, including progress updates on land release and dwelling supply.

Future - Weddell was identified as a development opportunity only after comprehensive analysis of land and infrastructure constraints, and population & housing projections.

## 7. ...identified priorities for investment of policy effort...effective framework for private sector investment and innovation...

Significant past investments demonstrate Greater Darwin's ability to complete major infrastructure investments, such as:

- The Conoco Phillips and ENI Kitan gas pipelines; and
- Operation of Darwin International Airport under a long term lease.

Pending major projects confirm that Greater Darwin planning sets an attractive environment for the private sector to invest, such as:

- The INPEX LNG project;
- The Marine Supply Base; and,
- Significant investments to expand mine capacity, with exports via Port of Darwin.

## 8. Encourage world class urban design and architecture

Recent history - since 2007 the NT Urban Design Advisory Panel have advised Government on strategies to deliver better urban design outcomes. Government adopted the Enquiry by Design Process for the new cities of Weddell (Darwin) and Kilgarriff (Alice Springs).

Future steps - Later in 2011 Government will establish an Independent Office of Urban Design.

Outcomes - Numerous Darwin developments have won nationally recognised industry awards for architecture and design of both public and private assets, such as the Darwin Waterfront Master Plan, the Darwin Convention Centre and Darwin Middle School.

## 9. Effective implementation arrangements and supporting mechanisms

National alignment - The Northern Territory (including Greater Darwin) has over 50 National Partnership Agreements agreed or in development with the Commonwealth including Agreements on housing and environment and infrastructure development.

Control and coordination - The Northern Territory has only one planning scheme and one layer of planning - an efficient, effective system.

Local government - A high degree of consultation/discussion exists between the Northern Territory Government and Councils of Darwin, Palmerston and Litchfield. Their issues are recognisably diverse.

Collaboration across government - The establishment of the Darwin Capital and Palmerston City Committees as major consultation mechanisms with the Northern Territory Government encourages local Government to have input into planning issues, including strategic land use planning.

Balanced input - Enabled through participations on development planning and decision agencies. For example, the two Local Councils have two out of five seats on the Development Consent Authority.

Community engagement in planning - Northern Territory Government utilises a broad range of mechanisms to engage with the community; e.g. performance snapshots against *Territory 2030*, and Enquiry by Design Processes for significant new developments such as Weddell.

## Links to Climate Change Policy

### Percentage of Income spent on Housing

Goal	Target Number and description
Undertake innovative government practices that provide leadership to Territorians on climate change and reduce government emissions.	9. By 2020, at least five cogeneration projects will be operational, supplying smarter power for major Territory Government infrastructure.
Develop the Territory's green energy industry and make the Territory a world-leading provider of green energy in remote areas.	12. By 2020, wholesale electricity purchasers in the Territory will meet their national 20% Renewable Energy Target (RET) from Territory sources.
Maximise economic opportunities arising from emerging carbon markets for Territory land managers, including traditional owners.	<p>14. By 2020, the Territory Government will work with business and the community to establish a carbon offset industry in the Northern Territory, removing four million tonnes of carbon per year from the atmosphere through land management based carbon offsets.</p> <p>15. Establish new carbon fund arrangements to provide financing for investment in land management, renewable energy technology and other sustainability programs in the Territory.</p> <p>16. Territory land managers will be at the forefront of sustainable land management, running economically and environmentally sustainable businesses that are ready to grasp opportunities from carbon storage in the land.</p> <p>19. Explore the viability of developing a Territory-based biofuels industry.</p>
Build smart and sustainable cities and towns for the future.	<p>21. Develop sustainable housing and buildings policies and programs for the Territory so that by 2020, six, seven and eight star ratings for energy efficiency will be the norm in the Territory's residential and commercial building stock.</p> <p>Develop Weddell as a world-class green city and a model for the future.</p> <p>Plan and implement an integrated public transport system that sees a 20% increase in the use of cycling, walking and public transport across the Territory by 2020.</p>
Help Territory business and industry successfully transition to the green economy of the future and make their contribution to tackling climate change.	30. The Northern Territory will be a leading green tourism destination.
Build the Territory's and Territorians' resilience to climate change and protect the Territory's communities and unique natural environment.	<p>35. By 2011, develop a Territory Climate Change Adaptation Action Plan.</p> <p>36. Take conservation efforts into the 21st century by partnering with landholders to create Territory Eco-link, a 1600 km conservation corridor from the tropics to the desert that will link our national parks and provide the buffer that species need as they adapt to the changing climate.</p> <p>37. The Territory will be a low land-clearing jurisdiction, protecting the 'carbon bank' in our landscape. The rate of clearing will be contained. The government will introduce native vegetation management legislation to protect Territory vegetation.</p> <p>38. Provide leadership across Northern Australia through continued sustainable water use planning and allocations in the Top End and Central Australia, ensuring water resources are proactively managed to respond to climate change impacts.</p>

## Housing Preferences Study

In 2011 the Department of Lands and Planning commissioned a housing preferences study for the Greater Darwin region. 252 telephone interviews were carried out with respondents who identified as being likely or very likely to purchase a home or land in the Northern Territory at some stage during the next five years.

The sample was made up of first home buyers (45%), investors (37%), retirees (14%) and other home buyers (49%).

Ground level and elevated detached houses were found to be the most attractive types of housing; with 81 per cent of respondents rating ground level detached homes either highly attractive or attractive and 58 per cent of respondents rating elevated detached homes as either highly attractive or attractive.

The areas identified as the most attractive places to live were the Nightcliff area (71%), the Northern Suburbs (60%) and Darwin CBD (60%).

In addition to usual market segments, a psychographic segmentation analysis was also conducted. Psychographic segmentation analysis is a research technique that can be used to segment the market attitudinally.

The psychographic segments identified four psychographic segments in the Greater Darwin housing market:

### Suburbanites (32%)

The Suburbanites prefer large traditional blocks of land and tropical style homes. The Suburbanites are the residential property investors and they represent middle Darwin being middle aged and having middle incomes.

### Traditionalists (28%)

This group has the highest percentage of people who would prefer to live in an older style elevated on a large traditional block of land. They also find the idea of living in a rural area appealing (68% compared to 57% of the total sample) and prefer a low density predominantly residential suburb.

### Homebodies (20%)

Sixty per cent of homebodies find the idea of living in or very close to the city appealing with the same percentage preferring a smaller low maintenance allotment. Homebodies also have a higher preference (40% compared to 30% of the sample) for a higher density area with a mix of shops, offices and apartments.

### Urbanites (20%)

Urbanites are attracted to the idea of city living or higher density areas with a mix of shops, offices and apartments. They also find the idea of apartment living appealing and have a preference to live on a smaller low maintenance allotment.

## The Need for Weddell

The city of Weddell is currently planned to provide for up to 50 000 residents. South of Palmerston, Weddell is bounded by the Elizabeth and Blackmore Rivers, the Middle Arm Peninsula and the Stuart Highway.

The need for Weddell is based on Northern Territory Treasury's high migration population projections, with an underlying demand of 1 700 new dwellings a year from 2015 to 2020 rising to over 1 800 new dwellings a year from 2020 to 2025, as shown in the table below.

Unless this demand can be met, the likely result will be an ongoing period of constrained dwelling supply and rapidly escalating prices.

While some argue the demand can be accommodated through other greenfield and infill development, the data shows this is not the case.

Muirhead and Zuccoli will be the final greenfield developments within the existing urban boundary of Greater Darwin. Without Weddell greenfield dwelling supply will fall considerably from 2018 onwards. Future housing supply in Greater Darwin would then rely solely on infill development.

While Darwin has a successful record of infill development, this has achieved an average of 455 new dwellings a year, with a peak of 681 dwellings in 2010-2011. Given that Darwin already has a high proportion of apartments and townhouses, it is unlikely infill development could sustain the 1 700 new dwellings a year required to meet demand.

Other factors impacting on the need for Weddell include:

- A high preference for detached housing that cannot be accommodated by infill developments;
- The higher cost of developing infill compared with Greenfield developments; and
- Limitations on land available for infill, including community attitudes, access to finance and planning risk.

Maintaining a mix of product on the market and keeping a buffer of land ready for development facilitates an affordable housing market. It protects the market from short term spikes in demand associated with rapid growth in population.

It is therefore crucial to maintain a balance between infill and greenfields development to mitigate the risk to housing affordability.

Weddell needs to start supplying dwellings from 2018 at the latest, when supply from Muirhead and Zuccoli starts to tail off. That means site works should commence as early as 2015.



## Projections for Dwelling Demand

	2015	2020	2025
Population (persons) <sup>1</sup>	142 417	164 665	188 951
	2010 to 2015	2015 to 2020	2020 to 2025
Five year growth (persons)	15 163	22 248	24 286
<b>Average annual underlying dwelling demand (@ 2.64 persons per household)</b>	1 150 dwellings a year	1 700 dwellings a year	1 850 dwellings a year

<sup>1</sup> Northern Territory Treasury, Greater Darwin High Migration Projection – September 2011

## Major Residential Development Areas in Greater Darwin

	Timeframe	Dwellings
<b>Government Greenfield land release</b>		<b>4 100</b>
Bellamack	2010 to 2014	700
Johnston	2011 to 2017	1 000
Zuccoli	2012 to 2019	2 100
Mitchell	2015 to 2016	300
<b>Other major new developments</b>		<b>2 350</b>
CDU Palmerston	2013 to 2016	650
Muirhead	2012 to 2018	1 200
Coolalinga	2013 to 2016	500
<b>TOTAL</b>		<b>6 450</b>

### A World-Class, Sustainable City

Territory 2030 set a vision for the new city of Weddell to become a world-class model for sustainable cities, demonstrating innovative approaches to sustainable transport, jobs self-sufficiency, environmental management and mixed use development.

The Weddell Conference and Design Forum in September 2010 was a week-long initiative to engage with the public to explore future options for the development of Weddell, and to provide a framework for the next stages of planning.

This event provided the opportunity for both the general and professional community of Darwin to participate in a process alongside internationally-renowned urban design leaders.

Around 400 people attended the Weddell Conference and selected sessions of the Weddell Design Forum.

The workshop involved defining eight different growth scenarios to ensure the different parameters for Weddell's future could be designed, tested and debated in a realistic, site-responsive manner.

## Indicative Development Costs

Capital Works		Social/Environmental Infrastructure	
Landscape - lake stag 2	\$8m	Landscape	\$36m
Roads	\$22m	Schools	\$80m
Water	\$8m	Corner store/community	\$3m
Power	\$25m	Police	\$7m
Sewerage	\$40m	Health Clinic	\$8m
Recycled Water	\$16m	Bus terminal	\$1m
<b>SUBTOTAL</b>	<b>\$119m</b>	<b>AFFORDABLE HOUSING (CONTRIBUTION)</b>	<b>\$75m</b>
<b>Site Infrastructure</b>	<b>Third pipe reticulation</b>		<b>\$2m</b>
<b>\$75k-\$90k+ per lot:</b>	<b>\$240m</b>	<b>Subtotal</b>	<b>\$212m</b>

### Indicative Development Costs

Indicative costs for physical, social and environmental infrastructure for a new city at Weddell were considered during the Design Forum. Prior costings were available for major physical infrastructure and the typical costs of residential land development. The workshop also estimated typical costings for social, community or environmental infrastructure as these components were considered critical to ensure that Weddell is able to become a successful and sustainable city of choice, rather than a low income fringe residential estate.

The typical costs for physical and social/environmental infrastructure were estimated for 4 000 dwellings as shown in the table on the following page.

### Public Transport Costs

Estimates for the costs of light rail, bus transitway and on-street bus were made (excluding any land cost), together with an estimate of the total trips likely, and the average cost per trip. This ranged from \$30 per trip for light rail, to \$8 per trip for bus transitway and \$7.50 per trip for on-street bus, based only on customers generated by Weddell's population.

More work is required to estimate the passenger loads generated beyond Weddell, especially to help justify the higher costs of light rail construction. It also showed that the bus transitway might be only slightly higher in cost per trip than an on-street bus service; this is because it can attract greater passenger numbers.

### What the Scenario Outcomes have told us

The Forum outcomes reveal the wide range of choices still evident in the future shape, location, extent and structure of Weddell, and the complex issues underlying further refinement of the future framework for Weddell. However, there was broad concurrence that the first neighbourhoods or first town centre should be located around the Jenkins and Finn Road junction, west of Bennett's Creek and generally north to the potential lake site.

The table below provides a summary of the estimated costs for 4 000 dwellings or around 10 000 residents based on the indicative physical and social/environmental infrastructure costs shown.

## Land Costs

<b>Social and Environmental Infrastructure</b>	\$50 000-\$70 000 per dwelling On-budget expenditure over time
<b>Lead-in Infrastructure</b>	\$40 000 per dwelling
<b>Construction + Local Infrastructure</b>	\$82 500 per dwelling
<b>Development Profit @ 20%</b>	\$45 000 per dwelling
<b>Raw Land Value</b>	\$50 000 per dwelling



For more Information:

**Department of Lands and Planning**

GPO Box 2520  
DARWIN NT 0801

Telephone: (08) 8999 5511  
Email: [planning@nt.gov.au](mailto:planning@nt.gov.au)