



Northern
Territory
Government

growing **the**
Territory

A Territory Government initiative



Weddell:

Tropical, Sustainable, Liveable

Department of Lands and Planning

Sustainability Directions



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Sustainability directions for Weddell

In developing the new city of Weddell, the NT Government is seeking to create a new benchmark for tropical, sustainable living. The Territory 2030 Strategy identified a vision for Weddell as a **world class green city and a model for the future**.

This paper seeks to identify some of the sustainability directions and practices that may help to guide the delivery of this vision.

What is sustainability?

In 1992, all State and Territory Government in Australia adopted the National Strategy for Ecologically Sustainable Development (ESD). This strategy provides a definition for ESD based on the United Nation's Report of the World Commission on Environment and Development: Our Common Future as:

'using, conserving and enhancing the community's resources so that ecological processes, on which life depends, are maintained, and the total quality of life, now and in the future, can be increased'.

To put it simply, the goal of sustainability is to ensure that the actions that we take today to meet our needs do not affect the quality of life for future Australians, including maintaining our essential ecological life support systems of clean air, clean water and fertile soils.

What is a sustainable city?

"A sustainable city is organised so as to enable its citizens to meet their own needs and to enhance their well-being without damaging the natural world or endangering the living conditions of other people, now or in the future."

Herbert Giradet (Creating Sustainable Cities 2003)

What a sustainable city looks like depends on its physical surroundings, the cultural life of its citizens and whether it is an entirely new city or reflects improvements to an existing metropolis. All sustainable cities however look to balance protecting the local environment, while supporting a high quality of life and economic opportunity.

Over the past 20 or 30 years a number of principles have been developed to help guide planners in designing a sustainable city.

These include:

- Reducing car dependency by creating a compact city
- Designing safe and attractive walkable neighbourhoods
- Providing locally based services and facilities
- Encouraging a diversity of housing types
- Creating a mixed use city centre that provides a focal point for community and cultural activities
- Ensuring abundant and diverse green spaces.

Sustainability in the Northern Territory

Since the early 90s the NT Government has been reforming government policy and programs to encourage greater consideration of sustainability in planning and developing the Territory. In December 2009 the government released the Territory 2030 Strategic Plan. It establishes principles and priority objectives to address the Territory's major environmental, social and economic issues.

The Territory 2030 Strategy sets the following objectives for Weddell:

Develop Weddell as a world-class green city and a model for the future by ensuring:

- ◆ all Weddell homes are environmentally sustainable and use tropical design principles
- ◆ Weddell has strong public transport links
- ◆ Weddell features lots of public space and parklands

In designing Weddell it will be important to reflect the strategies and action plans that have been developed by the NT Government to address components of sustainability such as climate change, biodiversity, Indigenous health and culture, education and sustainable governance. It will also be essential to ensure that sustainability initiatives developed for Weddell are practical,

affordable and have the potential to be repeated in other cities and towns within the Territory.

Weddell sustainability themes

Sustainability themes have been developed for Weddell based on the Territory 2030 Strategy and international and national sustainability performance frameworks. These are:



Climate change and greenhouse action



Sustainable transport



Ecological footprint



Biodiversity



Economic sustainability



Health and wellbeing



Culture and creativity



Equity



Theme 1: Climate change and greenhouse action

In 2009 the NT Government developed a Climate Change Policy that sets the aspirational target of reducing carbon emissions by 60% by 2050.

For Weddell, it will be important to consider the following practices to reduce greenhouse gas emissions:

- evaluating the carbon price and whole of life resource efficiency of actions as part of decision-making
- provision of renewable energy such as solar and wind and smart technology.
- setting energy efficient mandatory building standards and guidelines.
- sharing and localising infrastructure such as district cooling and water treatment.
- providing for climate adaptability and disaster resilience.

Should we be trying to achieve the following climate change and greenhouse action directions for Weddell?

- ◆ A standalone renewable powered city
- ◆ Zero net greenhouse emissions by 2050



Theme 2: Sustainable transport

There are difficulties in delivering sustainable transport in the Northern Territory due to the low population base, large distances and tropical climate. It is important, however, to identify alternatives to using private vehicles and the NT Government has set a target of increasing by 20% cycling, walking and public transport across the Territory by 2020.

In Weddell, the following practices will be important to drive transport decisions:

- creating a self-contained, compact city that avoids the need for commuting to work and provides local services and facilities
- planning for future rapid transport and protecting corridors in the short-term
- providing quality cycling and walking pathways.

Should we be trying to achieve the following world-class sustainable transport direction for Weddell?

- ◆ 80% of trips by Weddell residents are within Weddell by 2030



Theme 3: Ecological footprint

An ecological footprint is a measure of the impact that human activities have on natural resources, such as water and materials. NT Government has set the following Territory 2030 targets; to **reduce waste going to landfill by 50% by 2020** and to **reduce water consumption per household by 20% in 2015 and a further 10% in 2020**.

For Weddell, it will be important to consider the following practices to minimise its ecological footprint:

- setting targets for renewable material construction and construction waste management
- delivering stormwater capture and reuse
- implementing water sensitive urban design (WSUD), water conservation and demand management practices.

Should we be trying to achieve the following ecological footprint directions for Weddell?

- ◆ 50% reduction in potable water use compared to 'business as usual; in the Territory
- ◆ 20% renewable material construction target
- ◆ 50% reduction of domestic, commercial and construction waste
- ◆ No net nutrient impact on Darwin Harbour



Theme 4: Biodiversity

The Northern Territory due to its small population size has a highly intact range of ecosystems. The NT Government is committed to protecting its diverse plant and animal species and has identified a target of **operating under 'no net biodiversity loss'**.

For Weddell, it will be important to consider the following practices to conserve biological diversity:

- providing biodiversity offsets to counter land cleared for Weddell
- creating green corridors throughout the centre of the city
- developing a Weddell environmental management plan including a reporting and monitoring program
- protecting mangrove habitat.

Should we be trying to achieve the following biodiversity direction for Weddell?

- ◆ No net loss of mangrove habitat
- ◆ No net biodiversity loss in the Darwin catchment
- ◆ Maintaining a minimum of 80% mangrove productivity



Theme 5: Economic sustainability

One of the key planks of sustainability is to support community wellbeing through the jobs and opportunities for growth. The Northern Territory has significant economic opportunities through its significant natural resource stocks. A target of the NT Government is to **continue to grow the Territory economy at more than 1% above the national average through investment in infrastructure, skills training and new businesses.**

For Weddell, it will be important to consider the following practices to enhance economic sustainability:

- creating a hub of excellence for sustainability training and practice
- creating business clusters based on local rural industries such as horticulture, agriculture and aquaculture
- creating a virtual office hub and facilitating telecommunications infrastructure
- developing an economic strategy including establishing partnerships with local businesses
- facilitating the establishment of diverse, local jobs and supporting home businesses.

Should we be trying to achieve the following economic sustainability direction for Weddell?

- ◆ A minimum of one person per household is employed locally in Weddell



Theme 6: Health and wellbeing

Achieving a high quality of life and good health outcomes is a priority goal for the Northern Territory. There are a range of issues including Indigenous health, biting insects, mental health and community wellbeing that are a focus for the NT Government. It has set a target that by **2030 all Territorians will have improved access to healthcare services by 2030.**

For Weddell, it will be important to consider the following practices to support health and wellbeing community outcomes:

- embedding during the design stages healthy by design elements including safe, shaded and accessible streets
- providing diverse community spaces including recreation and health facilities
- undertaking a health impact assessment to ensure access to services, biting insect management, staffing and programs
- including adequate health and preventative health infrastructure such as gyms and swimming pools.

Should we be trying to achieve the following health and wellbeing direction for Weddell?

- ◆ A built environment that supports an active and healthy lifestyle



Theme 7: Culture and creativity

Place-making and cultural expression are vital components of sustainable cities. Recognising the Territory's rich artistic and cultural heritage, including the deep-seated traditions of indigenous Australians, the NT Government has stated **that high public amenity and official recognition of Indigenous place names and stories will be intrinsic to its major centres.**

For Weddell, it will be important to consider the following practices to enhance its cultural and creative life:

- developing and implementing a public art strategy
- engaging with Indigenous stakeholders and custodians of cultural property
- developing a social and cultural development strategy including developing spaces for community creativity
- integrating community engagement and participation throughout the development process.
- honouring our diverse history such as our connection with the Macassans and World War II heritage.

Should we be trying to achieve the following culture and creativity direction for Weddell?

- ◆ Weddell to have an attractive and compelling identity that draws both residents and visitors to the city.



Theme 8: Equity

One of the major issues for the nation is providing a diverse and affordable range of housing types for the community. The NT Government has set a target of **allocating 15% of all new land releases for affordable and public housing.**

For Weddell, it will be important to consider the following practices to improve equity:

- creating affordable housing models including investigating new tenure arrangements
- developing homes and buildings that support adaptation and re-use over the life stages of the householder and the community
- designing user friendly public spaces including aged, child and disabled
- ensuring public facilities, services and housing that support people with a disability.

Should we be trying to achieve the following equity directions for Weddell?

- ◆ Developing affordable housing that is designed for tropical conditions and is affordable to run and maintain over the life of the building.

Overarching sustainability outcomes for Weddell

- Future proofing Weddell through the use of latest technology and best and next practice in greenhouse emissions reduction, renewable energy provision and sustainable water management
- Establishing appropriate medium and high density building design that works for tropical environments and the top end lifestyle
- Increasing awareness and desire for sustainable living at Weddell through effective community education, communication and engagement strategies
- Creating a shared vision and understanding of creating a 'world-class green city' and what it means for Weddell based on:
 - Mandating agreeing to minimum building standards
 - Establishing sufficient financial resources and incentives
 - Creating a big picture plan
 - Establishing long-term governance structures.
- Creating a vibrant community that makes the most of its harbourside location while protecting biodiversity values and controlling biting insects
- Ensuring that Weddell provides for community well-being through social infrastructure and community development initiatives.

