



Darwin Harbour Advisory Committee

Draft Darwin Harbour Regional Management
Strategic Framework
2009–2013



Northern Territory
Government

The draft Darwin Harbour Regional Management Strategic Framework 2009-2013 has been prepared by the Darwin Harbour Advisory Committee.

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Darwin Harbour Advisory Committee
PO Box 496
Palmerston NT 0831

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Message from the Minister

Darwin Harbour is a special, sparkling jewel in the Territory's crown.

In its natural state it is perfectly formed – beautiful, fascinating and flawlessly integrated with the surrounding environment and its people.

But like any jewel, the choice of what we place around it, or the way we alter its natural wonder, is crucial.

The right kind of man-made additions can enhance our appreciation of its natural beauty and increase its value. On the other hand, the wrong kind can detract from and devalue our jewel or – in the very worst situation – damage it forever.

The current generation of Territorians are in the privileged position to make choices about the way we protect and enhance the jewel that is Darwin Harbour.

This Strategic Framework for Darwin Harbour provides the pathway for making the right choices.

I congratulate and thank the Darwin Harbour Advisory Committee – which is comprised of local people who know and love our harbour – for their fine work in developing the Strategic Framework.

I encourage members of the Darwin Harbour community and all users of the Harbour to contribute their views on this document to ensure the final Framework underpins a sustainable future for our magnificent Harbour.

Alison Anderson

Minister for Natural Resources, Environment and Heritage

Message from the Chair

Darwin Harbour is one of the most beautiful in the world, and depends on its large surrounding catchment to thrive and replenish itself.

Fortunately our harbour and its catchment are currently in very good condition. However we all need to ensure that this condition does not deteriorate, and that we can hand on the legacy of a healthy and beautiful harbour to future generations. The growth and development of Darwin, both as a population centre and as an industrial base, will put enormous pressure on harbour environments and resources, making the sustainable management of these values vital.

Our Harbour has been a working port since Goyder and his survey team "set-out" Darwin and the hinterland over one hundred and forty years ago. Prior to settlement, Darwin Harbour provided abundant food resources and sanctuary for Aboriginal people, in particular the Larrakia people. No doubt visitors from the north also used it as a safe haven from time to time.

This draft Darwin Harbour Regional Management Strategic Framework 2009-2013 has been prepared by the Darwin Harbour Advisory Committee as a key reference document. It sets out goals, principles and guidelines for all users and stakeholders of Darwin Harbour and its catchment to imbed in their planning when taking any action which could impact the on the sustainability of the region. A key objective is to protect the environment while achieving a balance between environmental, social and economic sustainability.

The Darwin Harbour Advisory Committee is seeking comment on this draft of the Strategic Framework from all users and stakeholders of the region, including the general public, business, industry and governments. The Committee seeks to capture the aspirations of the community so that once finalised the Strategic Framework will be embraced by all.

The Darwin Harbour Advisory Committee will actively promote the Strategic Framework, and thereby promote best practice sustainable use and management of the region. The Committee will also continue to provide expert advice and recommendations to Government to ensure the region retains its health, productivity and beauty.

Bill Stuchbery

Chair, Darwin Harbour Advisory Committee



Section 1: Overview



The Darwin Harbour region plays a central role in the economy of the Northern Territory, and the lifestyle and character of the Top End. It is the Territory's most densely populated area and supports the Territory's largest concentration of commerce and industry.

The Darwin Harbour region:

- provides the region's drinking water
- is a vital hub for road, rail, sea and air transport
- offers a significant range of popular recreational opportunities
- is an important tourist attraction and destination
- supports a variety of primary industries
- offers a range of lifestyles, from city to rural living
- includes significant Indigenous cultural heritage, particularly for the Larrakia people
- includes significant European and Asian heritage
- provides strategically important capability for the defence of Australia
- supports a diverse range of marine, estuarine, freshwater and terrestrial environments.

A major challenge for all Territorians is to maintain the values of the Darwin Harbour region while using the resources it provides. The Darwin Harbour Regional Management Strategic Framework 2009-2013 (Strategic Framework) will provide policy and decision-makers within government, industry, commerce and the community, with clear guidelines that will foster an integrated and cooperative approach for activities within the region. The Strategic Framework will also ensure that the region's values and the function of its ecosystems are maintained.

With the Darwin Harbour region currently experiencing unprecedented growth and development pressures it is timely to establish this Strategic Framework to assure the Northern Territory Government that community expectations are being met.

The Darwin Harbour region

The Darwin Harbour region includes Port Darwin and Shoal Bay and covers 3227 square kilometres of land and water. It extends from Charles Point to Gunn Point including the estuarine areas, tributaries and catchment areas of Woods Inlet, West Arm, Middle Arm, East Arm, and the Howard River. The total area of land area is 2417 square kilometres (see map on opposite page).

There are six local governments within the region, including: the Darwin City Council, Palmerston City Council, Litchfield Shire, Wagait Shire Council, Belyuen Community Government Council and Coomalie Community Government Council.

The current residential population of the region is 107 134¹. Additionally, 717 000 tourists visit the area annually during the 'tourist season', April to November².

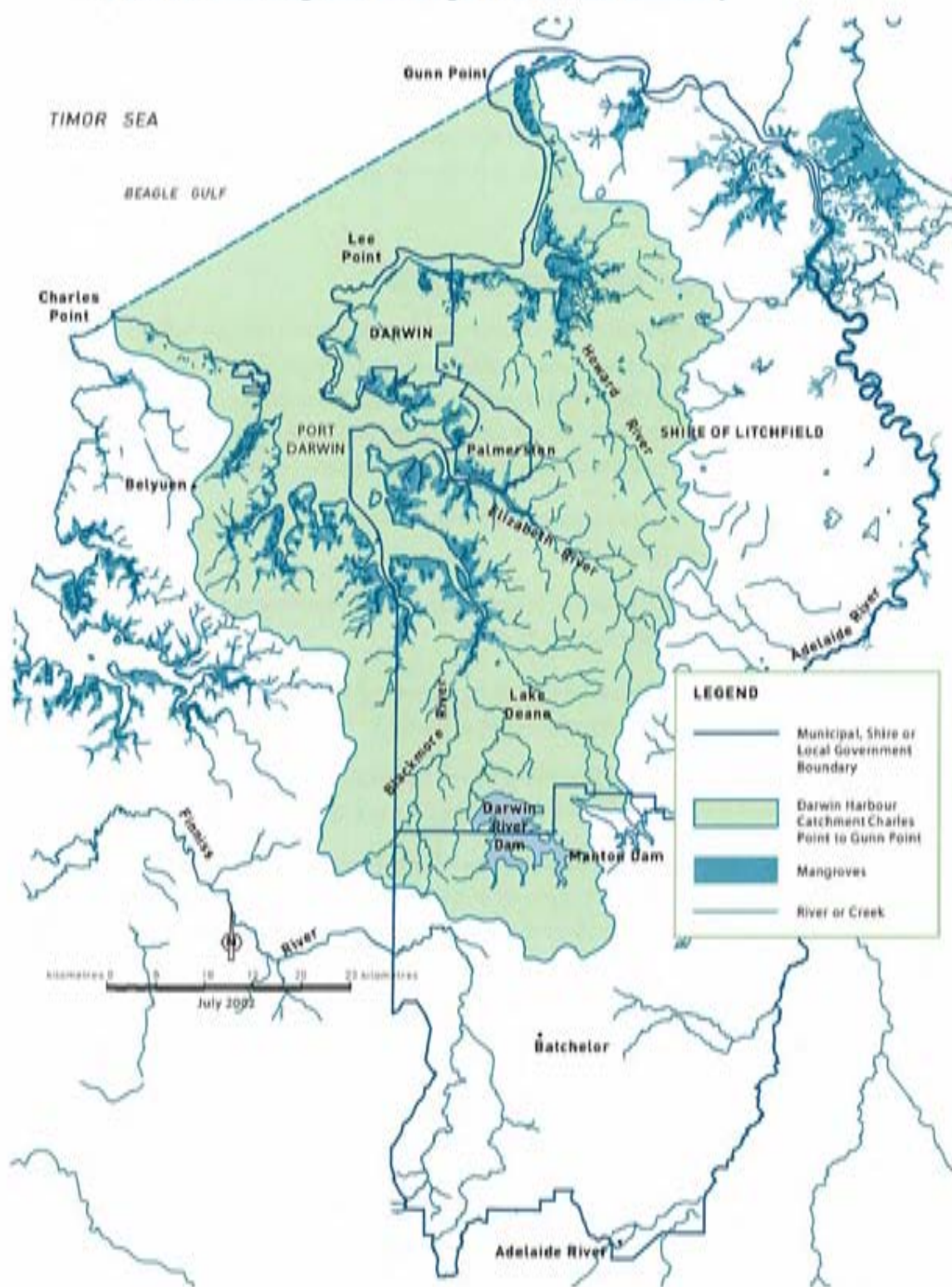
The population of Darwin City, Palmerston-East Arm and Litchfield is projected to increase to up to 184 500 by 2021, according to a series of projections released by the Australian Bureau of Statistics³.

¹ Source: Local Government Area Snapshot 2006 Census State of Northern Territory Usual Resident Population Profile for Darwin City, Palmerston City, Litchfield Council, Cox Peninsula, Belyuen and Coomalie, viewed June 2008
<http://ld.com.au/nt/commprofile/Default.asp?bhcp=1>

² Source: Tourism NT "Snapshot: year ending June 2008", viewed 20 February 2009
http://www.tourismnt.com.au/nt/system/galleries/download/NTTC_Research/Regional_Snapshot_YE_June_2008.pdf

³ Australian Bureau of Statistics viewed 20 February 2009
<http://www.abs.gov.au/AUSSTATS/abs@.nsf/mediareleasesbyReleaseDate/3708578965453857CA256A9400814AFD70>

Darwin Harbour Regional Strategic Framework boundary



Scope

This Strategic Framework supersedes the 2003 Darwin Harbour Regional Plan of Management. It presents a policy framework and guidelines for the management of environmental, social, cultural and economic values and uses of the Darwin Harbour region. It acknowledges the need for the community, industry and government to work together, to ensure that values of the region are recognised and conserved for current and future generations.

Application and evaluation

This Strategic Framework brings together the founding principles, goals and guidelines for the use of the Darwin Harbour region in one document. While it supersedes the 2003 Plan of Management, it does not replace or duplicate other plans, policies or legislation, nor is it a detailed document for managing catchment land use. Rather, it provides a new strategic and integrated overview to:

1. inform the community on the important elements and appropriate use and treatment of the harbour
2. inform industry and business of community and government expectations on the use and conservation of the region
3. guide all levels of government in decision-making processes regarding development and natural resource management
4. guide all users of the region including the community, industry, business and developers in decision-making regarding their use of the region.

There are many users and decision-makers for the region, and it is expected that this Strategic Framework will guide all of these. In particular, it is expected that government, as a major decision-maker for the region, will be informed and guided by this document in all decisions that affect the region.

The Strategic Framework takes into account community expectations, and provides guidelines that will ensure a consistent approach to decision-making and use for the region.

The effectiveness of the Strategic Framework and its implementation can be evaluated by the alignment of outcomes in the region with its goals and guidelines. Annual evaluation and reporting of the Strategic Framework will be undertaken and reported publicly (refer to page 25, Reporting).

Relevance to legislation and policy

The requirements of Northern Territory and Australian Government legislation take precedence over the guidelines in this Strategic Framework, should inconsistencies occur. While some guidelines are underpinned by legislation and current policies, others are not, and should be used as guides. They may, however, highlight gaps where legislation or policy could be developed. The guidelines are not cross-referenced to legislation and policy because of the inevitability of change. Users of the region should make their own investigations regarding legislation and policy requirements (refer to page 27, Associated Documents, for a list of relevant key legislation, policies and plans)

Darwin Harbour Advisory Committee

The Darwin Harbour Advisory Committee (DHAC) was established in 2002 to develop and review the Darwin Harbour Regional Plan of Management, and to oversee its implementation.

The Plan was finalised in November 2003 after extensive community consultation. Identifying issues and values, and developing and endorsing appropriate strategies in partnership with the community was considered imperative. Several consultation activities were undertaken including written submissions, public presentations, technical workshops, public forums and public hearings. Reports on the outcomes of the public consultation were prepared, published and are available through libraries, and online at <www.harbourplan.nt.gov.au>.

DHAC is appointed by the Minister for Natural Resources, Environment and Heritage and has the sustainable development and the long-term protection of the Darwin Harbour as its focus. The purpose of DHAC is to provide the Northern Territory Government with advice on planning, development, land use and use of natural resources within the Darwin Harbour region. DHAC members are community representatives interested in the planning and management of the coastal and marine environments.

Status of 2003 Plan of Management

A review of the 2003 Darwin Harbour Regional Plan of Management (the 2003 Plan) has led to this Strategic Framework. The 2003 Plan is a valuable, comprehensive and ambitious document prepared through extensive consultation. It was subject to annual review and designed as a five-year rolling plan. Its implementation relied on a large set of definitive actions being resourced by government. Most of the information contained in the 2003 Plan and the community aspirations expressed within it remain current. However, the list of actions in the 2003 Plan is now outdated. Some actions were completed, while others are to be addressed. Further progress on their implementation will not be measured. It is expected that a number of actions will be undertaken as part of normal government and community business.

The 2003 Plan, while no longer current, remains a valuable information resource. This Strategic Framework draws on the background and resources contained in the 2003 Plan. The 2003 Plan is available online at <www.harbourplan.nt.gov.au> or in hard copy from the Department of Natural Resources, Environment, The Arts and Sport.

Developing the Strategic Framework

DHAC undertook and publicly released the following two reviews on the implementation of the 2003 Plan:

1. Status report on the implementation of the Darwin Harbour Regional Plan of Management 2004-2005
2. Status report on the implementation of the Darwin Harbour Regional Plan of Management 2005-2006

Both reviews are available online at <www.harbourplan.nt.gov.au>

In late 2007, DHAC commenced its third review of the 2003 Plan, with the objective of evaluating its implementation and effectiveness, and developing the next five-year rolling plan. This review went beyond an examination of the implementation of the Plan, to reshaping the 2003 Plan into the Darwin Harbour Regional Management Strategic Framework 2009-2013 using the background resources contained in the 2003 Plan.

The vision and goals of the 2003 Plan remain an integral component of this Strategic Framework as they continue to reflect the context and community expectations for the management of the region⁴. The key difference with this Strategic Framework is it includes founding principles that underpin the document, and guidelines to support the goals. The guidelines replace the outcomes and actions that supported the goals in the 2003 Plan. These additions will help the Strategic Framework achieve its purpose.



⁴ The wording of some of the goals has been changed from the 2003 Plan to clarify the original intent

Section 2: The Strategic Framework



Integrated management and protection of Darwin Harbour region is the responsibility of everyone who has connections with the region including those living within the region, using or developing its resources and facilities.

The Darwin Harbour Regional Management Strategic Framework 2009-2013 (Strategic Framework) provides a shared vision for the region, as well as founding principles to underpin its management. It contains goals and guidelines to ensure any development and activities in the region maintain its residential, recreational, cultural, urban, economic and scenic values, and the function of its ecosystems.

Applying the guidelines within this Strategic Framework should be part of all decision-making and activities affecting the region.

Vision for Darwin Harbour region

**A biologically rich and diverse marine and
terrestrial environment for our enjoyment
and use today and for the future.**

Purpose of Strategic Framework

The purpose of this Strategic Framework is to provide policy and decision-makers within government, industry, commerce and the community, with clear guidelines that will foster an integrated and cooperative approach for activities within the region, to ensure that the region's values and the function of its ecosystems are maintained.

Founding Principles

The Strategic Framework is supported by a series of founding principles which should be the foundation of all decision making processes, and/or plans of action that could impact on the Harbour region.

These principles are:

1. **Ecologically sustainable development:** All decisions, actions and uses of the Darwin Harbour region are to be undertaken in accordance with the principles of Ecologically Sustainable Development (ESD), that is:

- protecting the biological diversity and maintaining the integrity of essential ecological processes and life-support systems
- the precautionary principle⁵
- inter and intra generational equity⁶
- improved valuation pricing and incentive mechanisms that reflect 'true cost economics' (such as 'polluter pays').

(Refer to Glossary for further information on ESD)

2. **Climate change:** The effects of climate change must be considered in all planning and decision-making processes regarding current and future developments and uses of the Darwin Harbour region.
3. **Community and Stakeholder engagement:** The community and stakeholders such as Northern Territory and Commonwealth Government Agencies, local Government, business and industry should be engaged and where appropriate form partnerships in the development and implementation of the Strategic Framework. The public should be informed of current management and monitoring actions, issues and the health of the environment.
4. **Transparency in decision-making:** Decisions impacting on the Darwin Harbour Region should be made through processes that are clear and transparent to stakeholders. There should be obvious links to the founding principles, goals and guidelines of this Strategic Framework where they apply.

⁵ Where the possibility exists of serious or irreversible harm, lack of scientific certainty should not preclude cautious action by decision-makers to prevent such harm. Management needs to anticipate the possibility of ecological damage, rather than react to it as it occurs. (viewed 20 February 2009 http://jnevill.customer.netspace.net.au/?precautionary_principle.htm)

⁶ Fairness and justice between and within generations.

5. **Integration:** Decision-making processes should effectively integrate both long-term and short-term environmental, social, economic, cultural and equitable considerations, and include the conservation of biological diversity and maintenance of ecosystem function as a fundamental consideration.
6. **Flexibility:** Environmental goals for the management of the region should be achieved through preparation and implementation of a strategic and flexible mix of policy, legislative and economic instruments.
7. **Equity:** Deal equitably with the needs and aspirations of Indigenous people as well as non-Indigenous people residing in the region.
8. **Adaptive management:** Taking a systematic approach to continually improving management policies and practices by learning from the outcomes of operational programs

Goals

Five key goals have been identified, each supported by a series of guidelines. As with the founding principles, these guidelines are to be considered, where appropriate, as part of decisions that are made, actions that are taken, or uses proposed that could impact on the harbour and its catchment.

The five goals of the Strategic Framework are:



Goal 1: To maintain a healthy environment



Goal 2: To support recreational use and enjoyment of the environment



Goal 3: To ensure that development is implemented in an ecologically sustainable manner



Goal 4: To protect cultural values and heritage



Goal 5: To foster community awareness, industry partnerships and stewardship of the Darwin Harbour region

Guidelines to support goals

The following section sets out guidelines for the use of the harbour in relation to more specific subjects. When taking actions to comply with these guidelines people should consider incorporating the approaches, tools and planning embodied within ecosystem-based management. Multi-use and bioregional planning, developing decision support systems and developing administrative processes that address complex issues involving different disciplines and sectors could be considered where appropriate.



Goal 1: To maintain a healthy environment

General

1. Consideration of proposed development in the region should take account of the triple bottom line⁷. Economic development is not to have a net negative environmental impact on the region. If development is accepted where environmental impact is unavoidable then measures to minimise the impact should be undertaken including consideration of offset programs with preference given to programs based in the Darwin Harbour region or as a second preference the Northern Territory. This Framework recognises that there are thresholds and benchmarks beyond which the values of the Darwin Harbour region would be significantly compromised and development should therefore not proceed. Thresholds or benchmarks determined through relevant legislative processes, policy or guidelines should be taken into account. If such thresholds or benchmarks for Darwin Harbour region have yet to be established they should be determined or appropriate national or international thresholds or benchmarks should be used as a second preference.
2. Management and decisions affecting the region are to be informed through ongoing research, monitoring and understanding of our environment.

Water

3. Water quality and ecological health of the marine, freshwater and terrestrial catchment environments in the region are to be maintained and improved where possible if quality and health have been negatively impacted through human activity.

⁷ Economic, social and environmental criteria

4. Any development decisions which impact on water resources are to be based on legislated water quality and quantity criteria, endorsed policy or declared guidance.
5. All activities in the region that have the potential to impact on water quality must meet appropriate water quality objectives as declared under the Northern Territory *Water Act*. Where regional water quality objectives have not been formally declared appropriate criteria developed in alignment with the National Water Quality Management Strategy must be taken into consideration.
6. The management and use of the fresh water resource should be supported by resource management policies, including water allocation planning and water conservation initiatives, best practice water pricing aligned with the National Water Initiative and National Water Reforms, and a national approach to environment protection measures for water quality.
7. The quality and quantity of groundwater is to be maintained at levels suitable to maintain ecosystem function or improve ecosystem function when the function has been negatively impacted through human activity.
8. The principles of water demand management should be applied by water users and suppliers when meeting domestic, commercial, and industrial water needs (refer to Glossary for further information about water demand management).

Stormwater

9. Stormwater collection systems are to be designed and managed to minimise pollution of receiving waters, protect the structure of waterways, optimise the protection of property and ensure public health and safety.

Ecosystem function and biodiversity

10. The integrity of ecosystem function and the protection of both terrestrial and marine biodiversity are to be maintained.

Coastal zones

11. Development in the harbour should not impact on the free flow of water and sediments if that impact will adversely affect the overall environmental health of the harbour, or impact on sensitive ecosystems that have been identified as important to preserve.
12. Development within coastal areas is to be managed to avoid leachate from acid sulphate soils entering the natural environment and where possible, avoiding disturbance of acid sulphate soils altogether.

Climate change

13. Practices that minimise, reduce or offset greenhouse gas emissions are to be implemented wherever possible to contribute to global efforts to mitigate climate change and address climate change.
14. Climate change projections relevant to the region produced by Australian and international scientific research agencies are to inform decisions affecting the region. This research includes projected changes to sea level, land and sea temperatures, cyclone intensity and frequency of fire, weather and extreme weather events including storms, drought and flood and relevant adaptation measures.



Goal 2: To support recreational use and enjoyment of the environment

1. Responsible and sustainable recreational use of the region is to be strategically planned in order to minimise impacts to the environment.
2. The quality of our leisure time associated with the harbour should be enhanced by protecting and enhancing recreational amenity, recreational opportunity and the diverse range of aesthetic values of the Darwin Harbour region including its visual amenity.
3. Areas designated as conservation zones and recreation zones⁸ in foreshore areas, around creeks, rivers and wetlands should be retained to ensure availability of open space.

⁸ As defined in Part 3 of the Northern Territory Planning Scheme



Goal 3: To ensure that development is implemented in an ecologically sustainable manner

Economic development

1. Economic development is encouraged with the expectation that it complies with the guidelines established in this Strategic Framework.
2. All economic development should minimise the impact on ecosystem function and maximise environmental and social utility.
3. Protection of significant habitats that are sensitive to disturbance should take precedence over economic development.
4. For all development, it is the responsibility of the developer to demonstrate the environmental sustainability of the development and its minimal impact.
5. Development should minimise use of water, energy, and materials both embodied in infrastructure and during its operation, maximise energy efficiency so as to minimise the production of greenhouse gas emissions and minimise the production of other waste products.

Planning

6. Strategic land use planning and land use zoning should be based on an understanding of the environment and its capacity to support the proposed land use.
7. The cumulative impacts of developments are to be considered in decision-making and strategic planning for the region.
8. Environmental risks should be accounted for in land use planning. This includes: flooding, storm surge, coastal erosion and slip, rising sea levels, and cyclonic activity.
9. Planning processes should engage the public, reflect community values and aspirations and should reflect sound economic and environmental sustainability principles.
10. Future urban development should be designed and constructed according to sustainability principles.
11. Public transport networks should be planned for and addressed in long-term land use planning to minimise congestion and reduce greenhouse gas emissions.

Environmental impact

12. The use of natural resources of the region should be optimised in a balanced and sustainable manner that considers multiple and sequential use.
13. Proposed major developments are to be assessed using the most rigorous methods available including the use of assessment tools such as the Department of Natural Resources, Environment, The Arts and Sport's Conceptual Models of Threats to the Harbour Environment.
14. The impact of land and water based activities should be recognised and managed to maintain the (community's) values of water resources (beneficial uses) in the Darwin Harbour catchment, refer to the list of declared Beneficial Uses under Part 3 of the *Water Act*.
<<http://notes.nt.gov.au/dcm/legislat/legislat.nsf/d989974724db65b1482561cf0017cbd2/ad88f000efc65b4d6925750d002540c6?OpenDocument>>
15. Fishing, marine harvesting and aquaculture should be performed using ecologically sustainable practices and where the activities are commercial, industries should work within a framework of resource stewardship (refer to page 27, Associated documents, for further information).

Residential, commercial and industrial development

16. All development, including design, construction and operation, is to take into account climate change projections relevant to the region produced by Australian and international scientific research agencies. This research includes changes to sea level, land and sea temperatures, cyclone intensity and frequency of fire, weather and extreme weather events including storms, drought and flood, and relevant adaptation measures.
17. Residential, Commercial and Industrial developments should incorporate Water Sensitive Urban Design (WSUD)⁹.
18. All development should incorporate relevant best practice energy management standards to reduce greenhouse gas emissions.
19. Any development with the potential to pollute Darwin Harbour should implement best practice management and pollution control technology to ensure waterways and the harbour are protected from pollution. It is recognised that in some cases best practice technology may not meet triple bottom line¹⁰ considerations and in these cases other options that protect the waterways and harbour should be implemented.

⁹ WSUD seeks greater compatibility with natural hydrological and ecological processes, and emphasises the importance of on-site collection, treatment and utilisation of water flows (Water Sensitive Planning Guide for the Sydney Region, at www.wsud.org.au). See Glossary for more information.

¹⁰ Economic, social and environmental criteria

20. All development is to occur in accordance with the relevant Erosion and Sediment Control Guidelines:

The Built Environment:

<www.nt.gov.au/nreta/natres/soil/management/pdf/BuiltEnvironment.pdf>

Service Corridors:

<www.nt.gov.au/nreta/natres/soil/management/pdf/ServiceCorridors.pdf>

Transport Corridors:

<www.nt.gov.au/nreta/natres/soil/management/pdf/TransportCorridors.pdf>

21. Creeks and rivers, wetlands, distinctive landform features and distinctive stands of natural vegetation, including mangroves, should be identified, retained and protected.
22. All development with the potential to impact on visual amenity should consider community values relating to visual amenity, and this applies to the design, construction and operation of the development. Design specifications and visual image projections would assist when consulting with the community.
23. Minimising the impact of biting midges and mosquitoes in residential developments and other developments, where people spend time outdoors, should be factored into developments and addressed in the planning stage. This will minimise the need for control measures and the environmental impact of those control measures.



Goal 4: To protect cultural values and heritage

1. Indigenous and non-Indigenous cultural, spiritual and heritage sites in the Darwin Harbour region are to be managed and protected in ways considered appropriate and effective by relevant indigenous and non-Indigenous stakeholders including the Larrakia Harbour Committee.
2. Management of the Indigenous and non-Indigenous cultural, spiritual and heritage sites in the Darwin Harbour region is to be informed through improved research, and identification of sites.
3. Climate change projections relevant to the region produced by Australian and international scientific research agencies are to inform the management and protection of Indigenous and non-Indigenous cultural, spiritual and heritage sites. This research includes changes to sea level, land and sea temperatures, cyclone intensity and frequency of fire, weather and extreme weather events including storms, drought and flood and relevant adaptation measures.
4. Indigenous interests, values and concerns and Indigenous people's innate connection with the Darwin Harbour region should be recognised and respected in land use decisions and management.
5. Where Indigenous cultural uses of the region have been identified, Indigenous people should be able to continue these practices.



Goal 5: To foster community awareness, industry partnerships and stewardship of the Darwin Harbour Region

1. The community, including local Indigenous people, are to be engaged and consulted in planning, implementing and reviewing the management of the region.
2. Public awareness of environmental, social and economic values and issues is to be fostered.
3. All efforts should be made for Indigenous people to be engaged in economic opportunities in the region.
4. Partnership approaches are encouraged. For example, industries operating in the region could partner with research facilities undertaking baseline studies and other research to improve knowledge of the region.

Adoption and communication

Following the consultation period, the final Strategic Framework will be prepared and published. Its distribution will be guided by a communication strategy developed by DHAC, and will be available in hard copy and online at <www.harbourplan.nt.gov.au> to all policy and decision-makers, and users to incorporate into policy setting, decision-making, planning and use of the region.

Review

The Strategic Framework is a living document and will be reviewed and updated as required. Regular revision will ensure that the Strategic Framework reflects the current situation and is adaptive to changes occurring within the Darwin Harbour region and developments within the relevant sciences and technologies. A formal review of the Strategic Framework will be conducted every five years and include community consultation.

Individuals and organisations are encouraged to send comments and suggestions to DHAC during formal reviews and at any time during the life of the document. The Strategic Framework will be flexible and adapt to future change.

Reporting

In partnership, DHAC and the Northern Territory Government will undertake reporting against the Strategic Framework. The application of the Strategic Framework will be measured by comparing the degree to which the outcomes in the region align with the guidelines stated in the Strategic Framework. The reporting will be undertaken annually with a report from DHAC to the Minister for Natural Resources, Environment and Heritage. This report will be available online at <www.harbourplan.nt.gov.au>.

Darwin Harbour Advisory Committee Members

Bill Stuchbery (Chair)	Darwin Harbour Advisory Committee
Prue Barnard	Australian Marine Conservation Society Environment Centre Northern Territory
Alastair Black	Darwin Port Corporation
Greg Bicknell	Chamber of Commerce NT
Luccio Cercarelli	Darwin City Council representing the Local Government Association of the Northern Territory
Peter Ebsworth	Greening Australia NT
Chris Makepeace	Amateur Fishermen's Association of the Northern Territory
Robert Wasson	Charles Darwin University
Graeme Lewis	Tourism Top End (appointed 24 Nov 2008)

Glossary

Development

For the purposes of this Strategic Framework the term development refers to the general activities associated with commercial and residential growth. For example, The Waterfront Development, new housing estates and the LNG Plant at Wickham Point.

DHAC also recognises the value of expanding our conception of development and the following is provided for your information in this context.

Development means "improvement in a country's economic and social conditions". More specifically, it refers to improvements in ways of managing an area's natural and human resources in order to create wealth and improve people's lives. Development can be considered in terms of both economic and human development, and ways of measuring development are called development indicators.

The 'triple bottom line' is rapidly gaining recognition as a framework for conceptualising and measuring development. In practical terms, the triple bottom line takes into account environmental and social values and criteria in addition to economic performance (refer to Economic Development below for further information or <www.bbc.co.uk/schools/gcsebitesize/geography/development/developmentwhatisitrev1.shtml>).

Development Consent Authority

The Development Consent Authority is established under section 82 of the *Planning Act*. Divisions of the Development Consent Authority determine development applications within their division area. Currently there are seven division areas, generally associated with the larger population centres, Alice Springs, Batchelor, Darwin, Katherine, Litchfield, Palmerston and Tennant Creek. Outside of these areas the consent authority is the Minister for Planning and Lands.

More information on the Development Consent Authority can be found at <www.nt.gov.au/lands/planning/dca/index.shtml>

Economic development

From a policy perspective, economic development can be defined as efforts that seek to improve the economic well-being and quality of life for a community by creating and/or retaining jobs and supporting or growing incomes and the tax base. Economic development typically refers to improvements in a variety of indicators such as literacy rates, life expectancy, and poverty rates.

Economic development indicators include:

- Gross Domestic Product (GDP) measures the wealth or income of a country. GDP is the total value of goods and services produced by a country in a year
- Gross National Product (GNP) is another measure of a country's wealth or income. GNP measures the total economic output of a country, including earnings from foreign investments which are not included in GDP
- GNP per capita is a country's GNP divided by its population (per capita means per person)
- economic growth measures the annual increase in GDP, GNP, GDP per capita, or GNP per capita
- inequality of wealth is an indication of the gap in wealth and income between a country's richest and poorest people
- inflation measures how much the prices of goods, services and wages are increasing each year.
- unemployment
- demographics studies population growth and population structure. It compares birth rates to death rates, shows average ages, and compares numbers of people living in towns with numbers living in the countryside.

More recently the term "Human Development" has been adopted by the United Nations and other authorities to capture the holistic dimension of development, and to acknowledge that economic development does not and cannot ignore the social, cultural and environmental resources and impacts.

Ecologically Sustainable Development (ESD)

For the purposes of this Strategic Framework, Ecologically Sustainable Development (ESD) is defined as:

"Development that improves the total quality of life, both now and in the future, in a way that maintains the ecological processes on which life depends". Department of Environment, Water, Heritage and the Arts, (1992).

This definition is based on the following principles¹¹:

- protection of biological diversity and maintaining the integrity of essential ecological processes and life-support systems

¹¹ Source: Professor Gordon Duff, Professor Donna Craig, Mrs Judith King (2007). Towards an Environment Protection Authority (EPA) for the Northern Territory: EPA Board Report and Recommendations June 2007. Viewed 23 February 2009 http://www.nt.gov.au/nrta/epa/pdf/epaboard_report20070621.pdf

- the precautionary principle¹²
- inter and intra generational equity¹³
- improved valuation pricing and incentive mechanisms that reflect 'true cost economics' (such as 'polluter pays').

The concept was popularised in 1987 with the publication UN World Commission on Environment and Development Report (commonly known as "The Brundtland Report"). It defined ecologically sustainable development (ESD) as:

"Development that meets the needs of the present without compromising the ability of future generations to meet their own needs" ¹⁴.

In 1992, following the UN Conference on Environment and Development in Rio de Janeiro (the "Earth Summit") Australia developed a National Strategy for Ecologically Sustainable Development which defined ESD 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."

In 2003, the Western Australia Government developed its State Sustainability Strategy, defining ESD as:

"...meeting the needs of current and future generations through an integration of environmental protection, social advancement, and economic prosperity."

Planning

The Northern Territory Department of Planning and Infrastructure develops land use policies and strategic plans in consultation with the community. The Department also manages the planning and development framework incorporating the *Planning Act*, the Northern Territory Planning Scheme and provides professional and technical support to the Development Consent Authority.

All planning processes and zoning maps can be found at <www.nt.gov.au/lands/planning/system/index.shtml>.

¹² Where the possibility exists of serious or irreversible harm, lack of scientific certainty should not preclude cautious action by decision-makers to prevent such harm. Management needs to anticipate the possibility of ecological damage, rather than react to it as it occurs. http://neville.customer.net.net.au/Precautionary_principle.htm viewed 28 February 2009

¹³ Fairness and justice between and within generations

¹⁴ Source: Brundtland Commission Report of the World Commission on Environment and Development: Our Common Future (1987) Viewed 23 February 2009 <http://www.un-documents.net/wced-ocf.htm>

Strategic planning

The development of land use and development plans which match broad objectives to specific strategies as a means of achieving the planned outcomes, within a given timeframe. In some organisations Corporate Plans and Strategic Plans may be included in one document.

Strategic planning in terms of land use/development planning seeks to order and regulate the use of land in an efficient and ethical way. Strategic planning incorporates the scientific, aesthetic, and orderly disposition of land, resources, facilities and services with a view to securing the physical, economic and social efficiency, health and well-being of urban and rural communities.

Water Demand Management

Water Demand Management (WDM) specifically refers to the technical, regulatory and market tools, which are used to promote more efficient levels or patterns of water use. They are considered technical innovations because they are designed to generate more "water services" from a given volume.

Rather than just accessing, treating and distributing greater supplies of water - usually through building additional infrastructure such as dams or desalination plants (known as Supply Side Management) which can be expensive and bad for the environment, a demand management approach attempts to modify users' demand for water. This can be accomplished by reducing water consumption and, perhaps more critically, completing tasks with less water (i.e. being more efficient).

Examples of WDM include the use of front-loading washers, water efficient showerheads and low-flow toilets. Regulatory mechanisms include government rebates for installing water efficient appliances and water saving devices and imposing water restrictions.

Resources and information on water demand management for water managers and water users is available at <<http://www.savewater.com.au>>.

Water Sensitive Urban Design (WSUD)

WSUD is an urban planning and design philosophy that aims to overcome some of the deficiencies associated with conventional developments, by integrating the total water cycle in to new urban development and redevelopment areas from the strategic planning phase through to the design and construction phase. Taylor and Weber (2004).

WSUD seeks greater compatibility with natural hydrological and ecological processes, and emphasises the importance of onsite collection, treatment and utilisation of water flows.

Water Sensitive Urban Design in the Sydney Region (2006).

The key principles of WSUD include:

- protection of natural systems within the development
- integration of natural flow regimes into the layout of the development
- incorporation of demand-side water management techniques such as education, water-efficient technologies, restrictions and true cost pricing policies which reduce the demand for imported potable water
- increased recycling of potable water through dual reticulation networks
- greater use and conservation of water resources within a development through the use of on site collection, treatment, storage and distribution of stormwater, greywater and blackwater
- better utilisation of groundwater and introduction of aquifer storage and recovery technology
- protection of water quality by improving the quality of, and controlling stormwater leaving the development; and
- reducing run-off and peak flow volumes of wastewater leaving the development.

Melbourne Water (2004); Taylor and Weber (2004)

Associated documents

There is currently legislation, policy and a number of plans, strategies and frameworks prepared and implemented by government that complement the Darwin Harbour Regional Management Strategic Framework 2009-2013.

All Northern Territory legislation applies to the region. The following list of legislation and policy is particularly relevant to the use of the Darwin Harbour region (this list should not be considered to be exhaustive and therefore consideration of policy and legislation should not be limited to this list):

Department of the Environment, Water, Heritage and the Arts, *Environment Protection and Biodiversity Conservation Act*, viewed 12 February 2009
<<http://www.environment.gov.au/epbc/index.html>>

Department of the Environment, Water, Heritage and the Arts, *National Water Quality Management Strategy Guidelines*, viewed 12 February 2009
<<http://www.environment.gov.au/water/publications/quality/index.html#nwqmsguidelines>>

National Water Commission, *National Water Initiative*, viewed 13 February 2009
<<http://www.nwc.gov.au/www/html/117-national-water-initiative.asp>>

Darwin City Council, *Environmental Management Plan*, viewed 12 February 2009
<http://www.darwin.nt.gov.au/aboutcouncil/city_planning/EMP_mgmt_plan.htm>

Darwin City Council, *Environmental Atlas*, viewed 12 February 2009
<http://www.darwin.nt.gov.au/aboutcouncil/city_planning/empatlas.htm>

Department of Business, Economic and Regional Development, 2006, 2015: *Moving the Territory Ahead: Northern Territory Economic Development Action Plan*, viewed 12 February 2009 <<http://www.nt.gov.au/business/assistance.cfm?assistanceid=60&assistanceparentid=57>>

Environmental Protection Agency, *Stormwater: Draft Management Strategy for the Darwin Harbour Catchment*, viewed 13 February 2009 <http://www.nt.gov.au/nreta/environment/waste/stormwater/pdf/stormwater_summary.pdf>

Department of Infrastructure, Planning and Environment, *Mangrove Management in the Northern Territory*, viewed 13 February 2009 <<http://www.nt.gov.au/nreta/wildlife/nature/mangroves.html#rpt>>

Department of Planning and Infrastructure, *Marine Pollution Act*, 2004, viewed 13 February <<http://notes.nt.gov.au/dcm/legislat/legislat.nsf/d989974724db65b1482561cf0017cbd2/183741fd701fbd369256f40007c3505?opendocument>>

Department of Planning and Infrastructure, *Northern Territory Planning Act*, 2008, viewed 12 February 2009 <<http://notes.nt.gov.au/dcm/legislat/legislat.nsf/linkreference/planning%20act?opendocument>>

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Department of Natural Resources, Environment, The Arts and Sport, *Environment Assessment Act*, 1994, viewed 13 February 2009 <<http://notes.nt.gov.au/dcm/legislat/legislat.nsf/d989974724db65b1482561cf0017cbd2/05b5e3fd7d2560d3692568a90082b637?OpenDocument>>

Department of Natural Resources, Environment, The Arts and Sport, *Environment Assessment Administrative Procedures*, 2003, viewed 13 February 2009,
<<http://notes.nt.gov.au/dcm/legislat/legislat.nsf/d989974724db65b1482561cf0017cbd2/4737069c26a8af7f69256cfc00079edd?OpenDocument>>

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Department of Natural Resources, Environment, The Arts and Sport, *Water Act*, 2008, viewed 13 February 2009, <<http://notes.nt.gov.au/dcm/legislat/legislat.nsf/d989974724db65b1482561cf0017cbd2/ad88f000efc65b4d6925750d002540c6?OpenDocument>>

Department of Natural Resources, Environment, The Arts and Sport, *Waste Management and Pollution Control Act*, 2007, viewed 13 February 2009,
<<http://notes.nt.gov.au/dcm/legislat/legislat.nsf/d989974724db65b1482561cf0017cbd2/344a677ab45401df692572a0001de26d?OpenDocument>>

Department of Natural Resources, Environment and The Arts, *Integrated Natural Resource Management Plan for the Northern Territory: Sustaining our resources – people, country and enterprises*, 2005, viewed 13 February 2009,
<<http://www.nt.gov.au/nreta/natres/nht/inrm/finalplan.html>>

Department of Regional Development, Primary Industry, Fisheries and Resources, *Fisheries Act*, 2005, viewed 13 February 2009, <<http://notes.nt.gov.au/dcm/legislat/legislat.nsf/d989974724db65b1482561cf0017cbd2/17086e284fc641bb69256fef00203fc4?OpenDocument>>

Department of Regional Development, Primary Industry, Fisheries and Resources, *Fisheries Regulations*, 2008, viewed 13 February 2009, <<http://notes.nt.gov.au/dcm/legislat/legislat.nsf/d989974724db65b1482561cf0017cbd2/5a89e1746b1df40e692574ea00234796?OpenDocument>>

Other relevant publications include:

Darwin Harbour Advisory Committee, 2005-06 *Status Report on the Implementation of the Darwin Harbour Regional Plan of Management*, 2007, Department of Natural Resources, Environment, The Arts and Sport, viewed 13 February 2009, <http://www.nt.gov.au/nreta/water/dhac/pdf/dhac_status_report.pdf>

Darwin Harbour Advisory Committee, *Compilation of Publications on Darwin Harbour*, 2005, Department of Natural Resources, Environment, The Arts and Sport, viewed 13 February 2009, <<http://www.nt.gov.au/nreta/water/dhac/publications/pdf/biblio20030128.pdf>>

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http://ntha.com.au/index.php?option=com_content&task=view&id=109&Itemid=71

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Submissions

The Darwin Harbour Advisory Committee invites members of the public to provide comments on the draft Strategic Framework 2009-2013.

The feedback form overleaf has been provided to assist individuals or community groups with their comments.

Written submissions can be sent to:

Darwin Harbour Advisory Committee
Reply Paid 496
PALMERSTON NT 0831

Email: dhac@nt.gov.au

or completed online at www.harbourplan.nt.gov.au

Public comment closes on Friday 15 May 2009 and all submissions will be treated as public documents unless marked confidential.

Feedback Form

Darwin Harbour Regional Management Strategic Framework 2009-2013

The questions on this form are intended as a prompt only to assist with your response. Written submissions or feedback, using your preferred format, are also welcome.

Contact details

Your contact details should be provided voluntarily and will only be used as a point of contact if we need to gain further information about your response.

Name _____

Organisation _____

Postal address _____

Telephone _____ Email _____

Document content

Does the document cover what you expected? Do you think anything is missing? What changes, additions or deletions would you recommend, if any?

Clarity of the document

Are there any sections of the document that you find unclear or require a better explanation? Does the document represent your expectations for the Darwin Harbour region?

Other comments

Do you have any other comments?

Please return the completed form to us by Friday 15 May 2009.

All feedback received will be carefully reviewed in preparation of the final Strategic Framework. Thank you for taking the time to provide your comments.