

# **Business Papers**

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## **Town Planning Committee Meeting**

Tuesday, 4 October 2016  
5:00pm



# Notice of Meeting

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To the Lord Mayor and Aldermen

You are invited to attend a Town Planning Committee Meeting to be held in Council Chambers, Level 1, Civic Centre, Harry Chan Avenue, Darwin, on Tuesday, 4 October 2016, commencing at 5.00 pm.

**B P DOWD**  
**CHIEF EXECUTIVE OFFICER**

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# OPEN SECTION

TP10/1

## CITY OF DARWIN

### TOWN PLANNING COMMITTEE

**TUESDAY, 4 OCTOBER 2016**

MEMBERS: Member S J Niblock, (Chair); The Right Worshipful, Lord Mayor, Ms K M Fong Lim; Member R K Elix; Member J A Glover; Member G J Haslett; Member R M Knox; Member G A Lambert; Member G Lambrinidis; Member M Palmer; Member R Want de Rowe; Member E L Young.

OFFICERS: Chief Executive Officer, Mr B Dowd; General Manager Infrastructure, Mr L Cercarelli; Executive Manager, Mr M Blackburn; Manager Design, Projects & Planning, Mr D Lelekis; Strategic Town Planner, Ms C Robson; Planning Officer, Mr B Sellers; Town Planner, Ms N Smith; Executive Assistant, Ms A Smit.

**Enquiries and/or Apologies: Arweena Smit**  
**E-mail: [a.smit@darwin.nt.gov.au](mailto:a.smit@darwin.nt.gov.au) - PH: 89300 685**  
**OR Phone Committee Room 1, for Late Apologies - PH: 89300 519**

### ***Committee's Responsibilities***

- Development Applications referred from the Development Consent Authority
- Town Planning Strategy, Policies and Procedures
- Development and Planning Matters referred to Council from Developers, Community Groups and Individuals
- Signage Applications, Policies and Procedures

*THAT effective as of 16 April 2012 Council, pursuant to Section 32 (2)(b) of the Local Government Act 2008, hereby delegates to the Town Planning Committee the power to make recommendations to Council and decisions relating to Town Planning matters within the approved budget.*

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# OPEN SECTION

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# OPEN SECTION

TP10/3

## Town Planning Committee Meeting – Tuesday, 4 October 2016

### 1. MEETING DECLARED OPEN

### 2. APOLOGIES AND LEAVE OF ABSENCE

Common No. 2695036

#### 2.1 Apologies

#### 2.2 Leave of Absence Granted

THAT it be noted Member R K Elix is an apology due to a Leave of Absence previously granted on 30 August 2016 for the period 25 September 2016 to 4 October 2016.

### 3. ELECTRONIC MEETING ATTENDANCE

Common No. 2221528

Nil

### 4. DECLARATION OF INTEREST OF MEMBERS AND STAFF

Common No. 2752228

#### 4.1 Declaration of Interest by Members

#### 4.2 Declaration of Interest by Staff

### 5. CONFIDENTIAL ITEMS

Common No. 1944604

Nil

## OPEN SECTION

TP10/4

### Town Planning Committee Meeting – Tuesday, 4 October 2016

#### **6. WITHDRAWAL OF ITEMS FOR DISCUSSION**

THAT the Committee resolve under delegated authority that all Information Items and Officers Reports to the Town Planning Committee Meeting held on Tuesday, 4 October 2016 be received and considered individually.

#### **7. CONFIRMATION OF MINUTES PERTAINING TO THE PREVIOUS TOWN PLANNING COMMITTEE MEETING**

THAT the Committee resolve that the minutes of the previous Town Planning Committee Meeting held on Tuesday, 2 August 2016, tabled by the Chair, be received and confirmed as a true and correct record of the proceedings of that meeting.

#### **8. BUSINESS ARISING FROM THE MINUTES PERTAINING TO THE PREVIOUS TOWN PLANNING COMMITTEE MEETING**

##### **8.1 Business Arising**

#### **9. DEPUTATIONS AND BRIEFINGS**

Nil

# OPEN SECTION

TP10/5

Town Planning Committee Meeting – Tuesday, 4 October 2016

## 10.1 OFFICERS REPORTS (ACTION REQUIRED)

ENCL:  
YES

TOWN PLANNING COMMITTEE/OPEN

AGENDA ITEM: 10.1.1

**GUIDELINE FOR PROPOSED SEPARATION DISTANCES BETWEEN INDUSTRIAL  
LAND USES AND SENSITIVE LAND USES**

REPORT No.: 16TS0172 CR:hd

COMMON No.: 3388258

DATE: 04/10/2016

**Presenter:** Acting Manager Design, Planning & Projects, Cindy Robson

**Approved:** General Manager Infrastructure, Luccio Cercarelli

**PURPOSE**

The purpose of this report is to present to the Town Planning Committee comments on the draft *Guideline: Proposed Separation Distances Between Industrial Land Uses*, as developed by the Northern Territory Environment Protection Authority.

**LINK TO STRATEGIC PLAN**

The issues addressed in this Report are in accordance with the following Goals/Strategies of the City of Darwin 2012 – 2016 as outlined in the 'Evolving Darwin Towards 2020 Strategic Plan':-

**Goal**

1. Collaborative, Inclusive and Connected Community

**Outcome**

- 1.4 Improved relations with all levels of government and significant stakeholders

**Key Strategies**

- 1.4.2 Play an active role in strategic and statutory planning processes

**KEY ISSUES**

- The Northern Territory Environmental Protection Authority (EPA) has prepared the draft *Guideline: Proposed Separation Distances Between Industrial Land Uses*, as included in **Attachment A**.
- It is recommended that Council endorse the comments to the EPA in **Attachment B**.
- The draft guideline outlines recommended separation distances for a range of industrial uses that may impact upon adjoining sensitive land uses.
- The table of listed uses that require separation distances describe a number of existing uses in the City of Darwin, including uses that the City of Darwin undertakes, such as a 'Landfill site facility'.
- The proposed guideline will provide greater certainty in terms of suitable separation distances between sensitive land uses and assist in the assessment of development applications where conflicting land uses are proposed.
- Further clarification is sought in relation to the description of certain uses listed in the Table of Appendix A of the guideline.



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## **RECOMMENDATIONS**

THAT the Committee resolve under delegated authority:

- A. THAT Report Number 16TS0172 CR:hd entitled Guideline For Proposed Separation Distances Between Industrial Land Uses And Sensitive Land Uses be received and noted.
- B. THAT Council endorse the submission, dated 30 September 2016, to the Northern Territory Environmental Protection Authority within **Attachment B** to Report Number 16TS0172 CR:hd entitled Guideline For Proposed Separation Distances Between Industrial Land Uses And Sensitive Land Uses.

## **BACKGROUND**

As the Northern Territory experiences population growth, it is recognised that more intense development of land will occur.

Consequently, it is likely that conflicts will arise where developments with sensitive land uses, directly encroach upon industrial, and agricultural land uses. Efficient land-use planning is critical in balancing the dynamics and minimising the potential for conflict between existing or emerging industrial land uses and adjacent sensitive land uses.

The guideline states that the EPA is increasingly being called on to provide advice to industry proponents and relevant service authorities on what are the appropriate standards for separation distances between existing and emerging industries within the Northern Territory.

The EPA has prepared the draft *Guideline: Proposed Separation Distances Between Industrial Land Uses*, as a technical guideline establishing minimum separation distances between industrial land uses that have the potential to cause environmental harm through off-site emissions of odour, noise, smoke, dust or fumes, and sensitive land uses.

*“The guideline aims to support effective decision making regarding land use to:*

- *Provide consistent advice and clarity to the relevant industry proponents, consent authorities and service authorities.*
- *Protect the health and well-being of humans and, the amenity values of an area.*
- *Protect existing and emerging industry from encroachment by new sensitive land uses.*
- *Prevent emerging or expanding industrial land uses from impacting on existing sensitive land uses, and*
- *Prevent land adjacent to industry from being underutilised.”*

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## **DISCUSSION**

The guideline states that it “...considers only, the off-site emissions of offensive or unreasonable odour, noise, smoke, dust or fumes generated through the functional activities of industrial land uses which may have the potential to cause an adverse impact on the environment”. This includes “...emissions which affect the environment in respect to the wellbeing of humans and amenity values of an area, in line with the legislative framework of the Waste Management and Pollution Control Act ...”.

Impacts from land use such as horticulture and aquaculture and their associated activities have not been covered in this guideline.

The on-site environmental impacts and management of a land use are considered separately under *the Waste Management and Pollution Control Act*.

The guideline states that in some instances, as a result of site-specific operational or environmental conditions, the appropriate separation distance may vary from that which is proposed in this guideline. In such cases, it is recommended that a detailed site assessment and a subsequent proposal that satisfies the relevant consent authority is provided in support of the application.

### **Why separation distances are needed**

Even with good onsite pollution control technology and practices, there may still be unintended emissions which must be anticipated and allowed for. There is a need to consider contingencies to deal with the likely impacts that any off-site emissions may have on *existing* land uses and, the *likely* future land uses.

Separation distances seek to avoid the consequence of unintentional emissions of odour, noise, smoke, dust or fumes, by allowing adequate time for the emissions to dissipate without adversely impacting on the amenity values of adjacent sensitive land uses. Sensitive land uses are described as:

Sensitive land uses	Any land uses which require a particular focus on protecting the beneficial uses of the air environment relating to the health and well-being of humans, and the amenity values of an area. For example, sensitive land uses may include but are not limited to: residential premises, subdivisions, accommodation, childcare centres, schools and outdoor recreation facilities.
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The guideline states that the acceptable separation distances listed (Appendix A) are not an alternative to source control; they should be used in conjunction with best practice environmental management. The guideline also states that the EPA is not condoning uncontrolled off-site air emissions. Rather, the guideline acknowledges that there is the *potential* for industrial land uses to cause environmental harm off-site.

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Remedial action to overcome inadequate separation distances between sensitive land uses and industrial land uses could result in costly solutions which are potentially uneconomic. Accordingly, the viability of the industry is impaired and the off-site impacts are still not alleviated. Providing adequate separation distance seeks to avoid these potential lose-lose situations.

### Methods of measuring separation distances

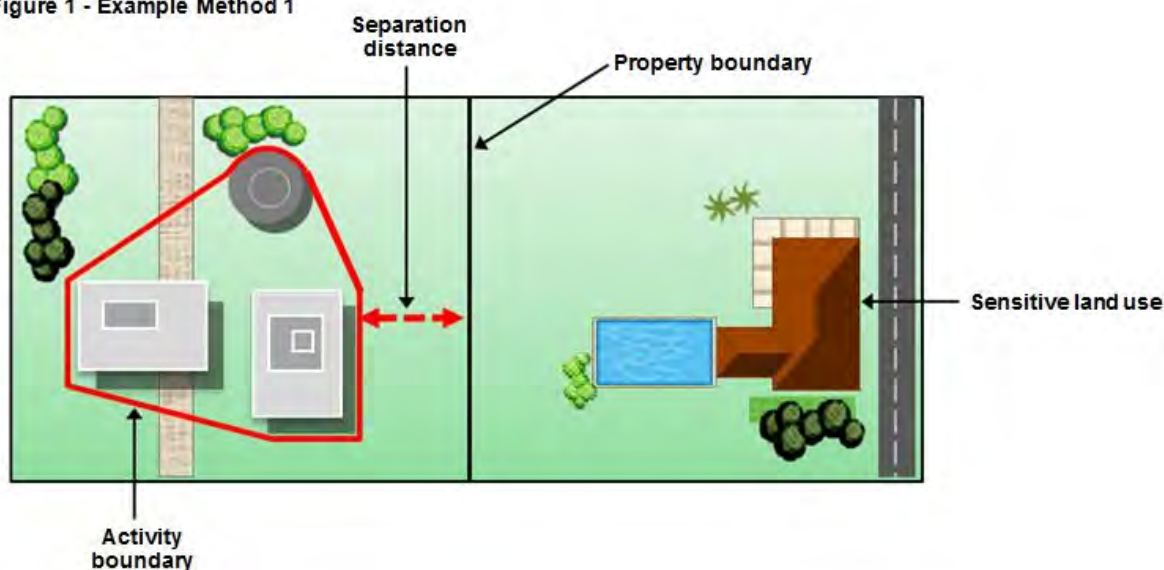
The guideline outlines two methods of measuring separation guidelines:

Method 1 (the Urban Method) measures the separation distance from the activity boundary of the industry to the property boundary of the nearest sensitive land use, as illustrated in Figure 1.

Method 1 should be applied where the nearest sensitive land use is either:

- In an urban area or township;
- On a site less than 0.4 hectares, or in a zone allowing subdivision to be less than 0.4 hectares.

Figure 1 - Example Method 1

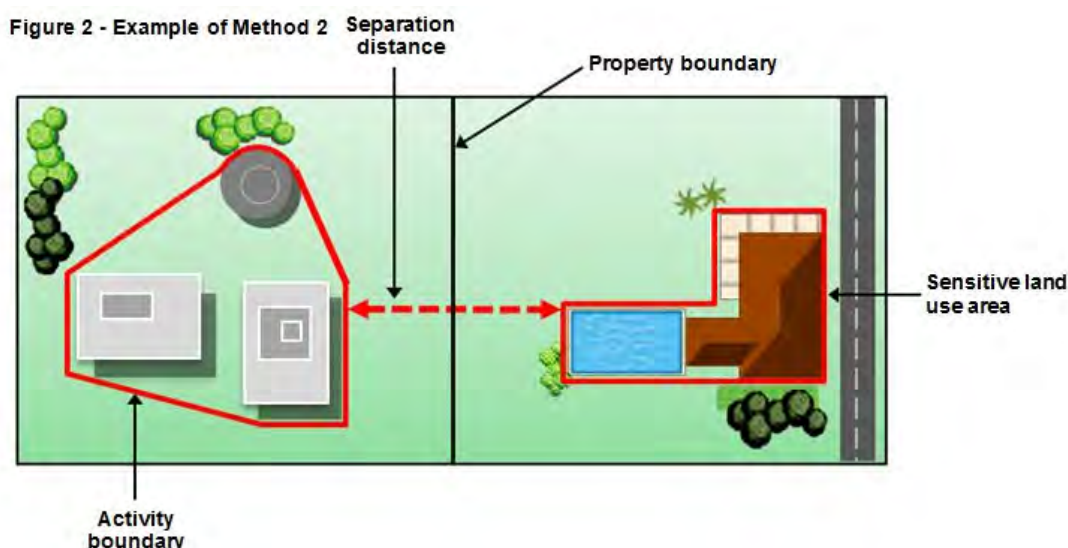


Method 2 (Rural method) measures the separation distance from the activity boundary of the industry to the activity boundary of the sensitive land use, as illustrated in Figure 2. The activity boundary of the sensitive land use is the area (within a convex polygon) that includes all current or proposed sensitive uses (including but not limited to; residences, garages and carports, BBQ areas, clotheslines, playgrounds and swimming pools).

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Method 2 should be applied where the nearest sensitive land use is both:

- Not in an urban area or township;
- On a site at least 0.4 hectares, or in a zone requiring subdivisions to be at least 0.4 hectares.



### Key Council Issues

The following uses have been extracted from the guideline (Appendix A): Industry Types and refers to a number of existing uses that occur in the City of Darwin:

Industry Type	Industry activity	Scale and industry description	Proposed separation distance (m)
Scrap metal recovery	Premises on which metal scrap is fragmented or melted, including premises on which lead acid batteries are reprocessed.	>100 tonnes per year	500
Seafood	Premise (other than fish wholesalers) on which fish or other seafood is processed.	>200 tonnes per year	500
Boat building and maintenance	Building or maintenance of vessels for commercial sale and/or where organotin compounds are used or removed from vessels.		1,000

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Although clarification is being sought in relation to a number of the below uses, the following generally describes uses similar to those undertaken by City of Darwin:

Industry Type	Industry activity	Scale and industry description	Proposed separation distance (m)
Fuel burning	Process of which gaseous, liquid or solid fuel is burnt in a boiler for the supply of steam or in power generation equipment.	Aggregate fuel >500 but <2,000 kilograms per hour with sulphur content <0.25%	300
		Aggregate fuel >500 kilograms per hour with fuel sulphur content >0.25%	500
		Aggregate fuel >2,000 kilograms per hour with sulphur content <0.25%	
Oil or gas production	Whether on land or offshore, via wells or other mechanisms, premises on which: crude oil, natural gas or condensate is extracted from below the surface of the land or the seabed, as the case requires, and is treated or separated to produce stabilised crude oil, purified natural gas or liquefied hydrocarbons gases; or, commercial production of oil or gas occurs (including the reforming of hydrocarbon gas).	>5,000 tonnes per year	2,000
Landfill site facility	Landfills uses for the discharge, or deposit of solid wastes onto land.		Case by case
Liquid waste facility	Premises on which liquid waste (other than	>1,000 tonnes per year	1,000

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	sewerage waste) is stored, reprocessed, treated or irrigated.		
Materials recovery and recycling facility	Collecting, dismantling, treating, processing, storing, recycling, or selling used or surplus materials.		Case by case
Solid waste depot/transfer station	Premises on which solid waste is stored, or sorted, pending transfer final disposal or re-use.	>500 tonnes per year	250

Further clarification is being sought in regards to whether the extraction and burning of landfill gas for electricity production at Shoal Bay Waste Management Facility will fall into either the 'Oil and Gas Production', or 'Fuel Burning Categories' listed above. Both activities are considered ancillary to the main Landfill use, which has an established licence to operate under the *Waste Management and Pollution Control Act*. Further to that, while the landfill gas recovery does fit the Oil and Gas Production description, it is considered that the intent of the description is directed at mining operations not landfill gas recovery, which is a requirement of the licence and not a use on its own.

Further clarification will also be sought in relation to the intention of the 'Liquid Waste Facility' description and separation distances. Leachate ponds at the Shoal Bay Waste Management Facility may fit into this broad description, although the leachate ponds are not considered to emit any significant odour or other pollution warranting a 1,000 metre setback. A strict enforcement of the 1,000 metre setback may limit future operations at Shoal Bay Waste M Facility.

While the guideline provides generic separation distances, discussions with staff from the Development Assessments Services indicate that the guideline will only apply to new development proposals and any development application that includes uses listed in the table of Appendix A to the guideline will continue to be referred to the EPA for assessment and comment. The guideline will provide developers and the Development Consent Authority with some clarity regarding setback standards; however, will still be assessed on a case by case basis.

### Summary

The proposed guideline will provide greater certainty in terms of suitable separation distances between sensitive land uses and assist in the assessment of development applications where conflicting land uses are proposed.

Further clarification is sought in relation to the description of certain uses in Table to Appendix A of the guideline.

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## **CONSULTATION PROCESS**

In preparing this report, the following external parties were consulted:

- Manager Darwin, Development Assessment Services

In preparing this report, the following City of Darwin officers were consulted:

- Manager Climate Change and Environment
- Manager Technical Services

## **POLICY IMPLICATIONS**

The establishment of guidelines for separation distances between sensitive land uses may result in minimum setbacks

## **BUDGET AND RESOURCE IMPLICATIONS**

Not Assessed.

## **RISK/LEGAL/LEGISLATIVE IMPLICATIONS**

Any future City of Darwin land uses listed in the Table to Appendix A would need to consider any adopted guidelines.

## **ENVIRONMENTAL IMPLICATIONS**

The acceptable separation distances, listed in the guideline (Appendix A) are not an alternative to source control; they should be used in conjunction with best practice environmental management. Controlled uses will still require separate application and permits to operate under the appropriate legislation.

The separation distances intended to provide adequate distance between land uses so that any impacts of an industrial land use can dissipate before reaching more sensitive land uses.

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### **COUNCIL OFFICER CONFLICT OF INTEREST DECLARATION**

We the Author and Approving Officers declare that we do not have a Conflict of Interest in relation to this matter.

**CINDY ROBSON**  
**ACTING MANAGER DESIGN,**  
**PLANNING & PROJECTS**

**LUCCIO CERCARELLI**  
**GENERAL MANAGER**  
**INFRASTRUCTURE**

For enquiries, please contact Cindy Robson on 8930 0528 or email:  
 c.robson@darwin.nt.gov.au.

#### **Attachments:**

**Attachment A:** Draft Guideline for Proposed Separation Distances Between  
 Industrial Land Uses And Sensitive Land Uses

**Attachment B:** City of Darwin, Letter of Response to NT EPA, dated 30 September  
 2016



# ATTACHMENT A

DRAFT

June 2016  
Version 1.0

### **Acknowledgement**

To assist in the formulation of this document of guidance a review and synthesis was undertaken giving consideration to various guidelines, legislative frameworks and research papers within other jurisdictions.

The Northern Territory Environment Protection Authority (NT EPA) acknowledges, in particular the contributions from the following:

- Environment Protection Authority Victoria's Publication 1518 – Recommended Separation Distances for Industrial Residual Air Emission – Guideline (2013)
- Government of Western Australia, Department of Environment Regulations, Draft Separation Distances – Guidance statement (2015)
- Environment Protection Authority South Australia, Guidelines for Separation Distances (2007).

### **Disclaimer**

The NT EPA has prepared this document in good faith, exercising all due care and attention, but no representation or warranty, express or implied, is made as to the relevance, completeness or fitness for purpose of this document in respect of any particular user's circumstances. Users of this document should satisfy themselves concerning its application to their situation and, where necessary, seek expert advice.

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## 1 Introduction

This technical guideline proposes the minimum separation distances between industrial land uses that have the potential to cause environmental harm through off-site emissions of odour, noise, smoke, dust or fumes, and sensitive land uses.

The guideline aims to support effective decision making regarding land use to:

- provide consistent advice and clarity to the relevant industry proponents, consent authorities and service authorities
- protect the health and well-being of humans and, the amenity values of an area
- protect existing and emerging industry from encroachment by new sensitive land uses
- prevent emerging or expanding industrial land uses from impacting on existing sensitive land uses, and
- prevent land adjacent to industry from being underutilised.

## 2 What are the objectives of this guideline?

The guideline seeks to achieve the following objectives:

- improved guidance and increased consistency pertaining to advice being given to industry proponents and the relevant consent, and service authorities
- minimising the overall potential for conflict between industrial land uses and receptors within more sensitive land uses
- limit the risk to future stakeholders through increased protection to sensitive receptors and existing and emerging industrial land uses ensuring the amenity and functional activities of the competing land uses are not compromised
- reduce environmental complaints regarding adverse impacts to the amenity of an area caused by industrial land uses that emit offensive or unreasonable odour, noise, smoke, dust or fumes off-site; which subsequently can reduce the need for expensive remedial action, and
- encourage planning authorities to adopt the proposed separation distances in the determination of development assessment proposals, rezoning's and in preparation of strategic land use plans in order to manage the interface between competing land use and, to further augment and protect industrial uses in appropriate locations.

## 3 Scope of this guideline

In the Northern Territory, avoiding and alleviating off-site emissions from offensive or unreasonable odour, noise, smoke, dust or fumes is a shared responsibility between industry proponents, consent authorities and planning authorities. However, ultimately in applying the legislative framework under the *Waste Management and Pollution Control Act*, the proprietor and operator of an activity, causing off-site *environmental harm* is responsible for the appropriate management.

The guideline considers only, the off-site emissions of offensive or unreasonable odour, noise, smoke, dust or fumes generated through the functional activities of industrial land uses which may have the potential to cause an adverse impact on the environment.

For the purpose of the guideline, emissions which affect the environment in respect to the wellbeing of humans and amenity values of an area, in line with the legislative framework of the *Waste Management and Pollution Control Act* include offensive or unreasonable emissions of odour, noise, smoke, dust or fumes.

Impacts from land use such as horticulture and aquaculture and their associated activities have not been covered in this guideline.

## 4 Application of this guideline

The guideline serves as a tool for industry proponents in planning proposals and amendments to existing development plans (i.e. operation expansions).

Decision makers are encouraged to adopt the proposed separation distances in the determination of development assessment proposals, rezoning proposals and in the preparation of strategic land use plans. It is not intended to be applied retrospectively to existing industrial land uses or, constitute or restrict the rezoning of surrounding land to prevent future development.

In some instances, as a result of site-specific operational or environmental conditions, the appropriate separation distance may vary from that which is proposed in this guideline. In such cases, it is recommended that a detailed site assessment and a subsequent proposal that satisfies the relevant consent authority is provided in support of the application.

## 5 Background

The Australian Government 's inquiry into the 'Development of Northern Australia 2014', considered policies to further the potential for economic development within areas of Australia that lie north of the Tropic of Capricorn, spanning across Western Australia, Northern Territory and Queensland. Specifically, the strategic vision for the Northern Territory is continued growth associated with major private and public investment.

As particular areas within the Northern Territory experience rapid *current* and *future* population growth, it is recognised additional land to accommodate the various forms of residential developments will be required. To support this long term growth, growth of industrial land uses including agricultural activities are essential in continuing to provide the functional goods and services that support transport, infrastructure and development for home and commercial workplaces. It is important to consider good quality agricultural land is a finite resource which must be conserved and managed appropriately for long term sustainability.

Consequently, it is likely that conflicts will occur where developments with sensitive land uses, directly encroach upon industrial, and agricultural land uses. Efficient land-use planning is critical in balancing the dynamics and minimising the potential for conflict between existing or emerging industrial land uses and adjacent sensitive land uses.

The NT EPA is increasingly being called on to provide advice to industry proponents and relevant service authorities on what are the appropriate standards for existing and emerging industries within the Northern Territory in relation to separation distances.

## 6 Why separation distances are needed?

In an attempt to reduce the potential for conflict caused by competing land uses this guideline seeks to inform existing and emerging industry proponents, and sensitive land uses that neighbouring land uses *may* change in future. Therefore there is a need to consider contingencies to deal with the likely environmental harm that any off-site emissions caused by odour, noise, smoke, dust or fumes may have on *existing* land uses and, the *likely* future land uses.

It is widely recognised that even with good pollution control technology and practices, there may still be unintended emissions which must be anticipated and allowed for. Equipment failure, accidents and abnormal weather conditions are among the causes that can lead to emissions affecting sensitive land uses beyond the boundary of the source premises.

Separation distances seek to avoid the consequence of unintentional emissions of odour, noise, smoke, dust or fumes, by allowing adequate time for the emissions to dissipate without adversely impacting on the amenity values of adjacent sensitive land uses.

The acceptable separation distances, listed within this guideline (Appendix A) are not an alternative to source control; they should be used in conjunction with best practice environmental management<sup>1</sup>. In preparing this guideline, the NT EPA is not condoning uncontrolled off-site air emissions. Rather, this guideline acknowledges that there is the *potential* for industrial land uses to cause environmental harm off-site.

When there are inadequate separation distances between sensitive land uses and industrial land uses causing environmental harm, subsequent remedial action to alleviate off-site effects may require costly, high technology solutions which are potentially uneconomic. Accordingly, the viability of the industry is impaired and the off-site impacts are still not alleviated. Providing adequate separation distance seeks to avoid these potential lose-lose situations.

## 7 Proposed Separation Distances

The proposed minimum separation distances are stipulated in the Index of Industries (the Index) found in Appendix A. The Index:

- broadly defines the industry types requiring a separation distance
- lists and assigns proposed separation distances between industrial land uses and sensitive land uses, and
- references other guidelines if they are relevant to particular industries.

## 8 How to measure separation distances

Separation distances should be determined by measuring from the 'activity boundary' of the industrial land use activity to the nearest sensitive land use. The activity boundary of the industrial activity is the area (within a convex polygon) that includes all current or proposed industrial activities (including the plants, buildings or other sources) from which off-site emissions of offensive or unreasonable odour, noise, smoke, dust or fumes may arise (including but not limited to stockpiles, windrows, leachate ponds and odour-control equipment).

Measuring from the activity area allows for any separation that is provided within the property boundary of the industry site to be considered. If an industry changes its use or

<sup>1</sup> *best practice environmental management* means the management of an activity or premises in a cost-effective manner that, having regard to national or international practices for management of activities or premises of the same kind, ensures the continued minimisation of the actual or potential environmental impact of the activity or premises.

moves a functional activity within the property boundary, these changes may need to reconsider the adequacy of separation distances.

Two methods to measure separation distances are provided below. These methods differ in the way the measurement point for the nearest sensitive land use is determined.

For selection of the appropriate measurement method, refer to Table 1 below.

**Table 1. Selection of measurement method**

		Site area or subdivision requirements	
		Less than 0.4ha	0.4ha or greater
Is the subject site located within an Urban area, township or community?	YES	Method 1	Method 1
	NO	Method 1	Method 2

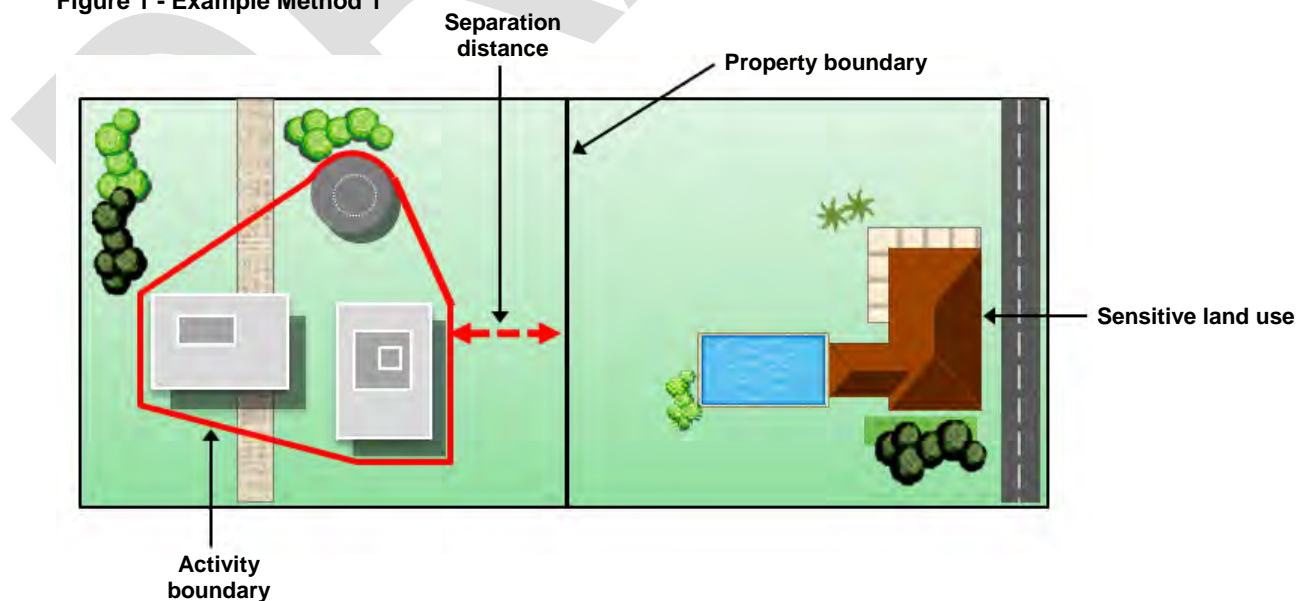
### 8.1 Method 1 Activity boundary to property boundary (the 'urban' method)

Method 1 measures the separation distance from the activity boundary of the industry to the property boundary of the nearest sensitive land use, as illustrated in Figure 1.

Method 1 should be applied where the nearest sensitive land use is either:

- in an urban area or township;
- on a site less than 0.4 hectares, or in a zone allowing subdivision to be less than 0.4 hectares.

**Figure 1 - Example Method 1**



### 8.2 Method 2 Activity boundary to activity boundary (the 'rural' method)

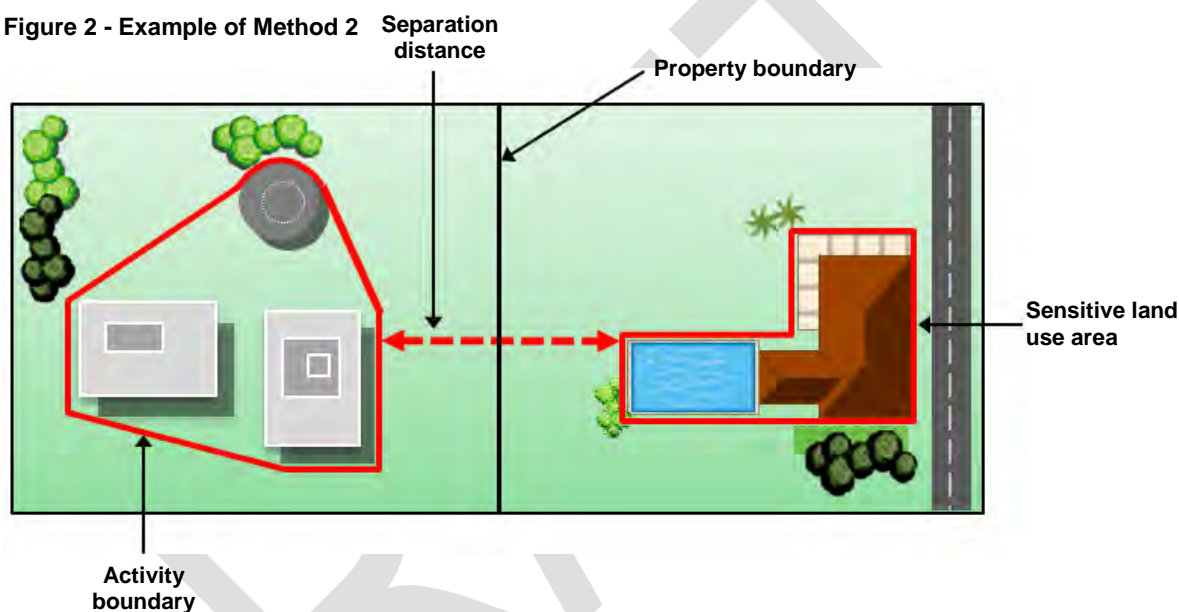
Method 2 measures the separation distance from the activity boundary of the industry to the activity boundary of the sensitive land use, as illustrated in Figure 2. The activity boundary of the sensitive land use is the area (within a convex polygon) that includes all current or proposed sensitive uses (including but not limited to; residences, garages and carports, BBQ areas, clotheslines, playgrounds and swimming pools).

Method 2 should be applied where the nearest sensitive land use is both:

- not in an urban area or township;
- on a site at least 0.4 hectares, or in a zone requiring subdivisions to be at least 0.4 hectares.

**Irrespective, of where off-site effects may be experienced, the industry functions with the potential for producing any odour or dust emissions should be separated as far as possible from the nearest sensitive land use.**

Figure 2 - Example of Method 2



## 9 Further considerations

### 9.1 Limitations

The NT EPA recognises that the separation distances in this guideline are based on generality. It is consequently important when determining separation distances to consider the key parameters that influence emission dispersion including local meteorology (i.e. intensity of rainfall, seasonality, cloud cover, solar exposure, wind speed, wind direction and atmospheric stability) and topography. Industry air emissions and sensitivity to the particular emissions can be variable. The impacts of emissions can be subjective and the effects psychological and physiological.

Whilst separation distances are recognised as a planning tool, it is the expectation that they are to be used together with best practice environmental management.

#### Site specific variations

Where a variation from the proposed separation distance listed in this guideline is sought, site and activity specific dispersion models can demonstrate more accurate separation distances. Separation distances still need to be determined on a case by case basis having regard to the concepts stated above, in addition to site specific circumstances.



In most cases the party seeking variation from the proposed separation distance will be the proponent of the proposed land use change.

Nevertheless, situations may arise where another party, including the relevant consent authority, might seek to vary the proposed separation distance. This may include increasing the proposed separation distance, to better account for the specific circumstances of the site.

Table 2 provides some of the criteria that must be considered during the assessment of site-specific variation to the recommended separation distances.

**Table 2. Criteria for site-specific variation**

Criteria	Explanation
Transitioning of the industry	Existing industry has formally indicated that it will transition out of an area over a specified timeframe.
Plant equipment or operation	The industrial plant and equipment have an exceptionally high standard of industrial emission control technology.
Size of plant and scale of operation	The plant is significantly smaller or larger than comparable industries.
Topography or meteorology	There are exceptional parameters that affect industrial emission dispersion including local meteorology (i.e. intensity of rainfall, seasonality, cloud cover, solar exposure, wind speed, wind direction and atmospheric stability) and topography.
Likelihood of emission	Particular industrial emissions are either highly likely or highly unlikely to occur.

## 9.2 Agent of change principal

The proponent of any new development has the onus to avoid or demonstrate to the relevant consent authority of the appropriateness of a particular separation distance. This will include evidence of all amenity mitigation measures.

The 'agent of change' is the proponent of the proposed land use that will give rise to consideration of separation distances. Table 3 below illustrates the different proposed land uses and the 'agent of change' in each case.

Where both an industrial land use and a sensitive land use are proposed that give rise to the consideration of separation distances between them, then both can be considered the 'agent of change'. Where this is the case, and where a variation to the proposed separation distances is sought, the relevant consent authority should consider where the onus of proof lies, having regard to this guideline.

**Table 3. Determining the agent of change**

Proposal	Agent of Change
New or expanded industrial land use is proposed	Proponent of the Industry
Sensitive land use is proposed	Proponent of the proposed development

### 9.3 Cumulative impacts

Cumulative effects are those individually minor but collectively significant effects that result from an activity in combination with other projects and activities. Cumulative impacts are potentially more difficult to predict than other impacts on the environment.

This guideline does not seek to recommend specific separation distances for any cumulative impacts resulting from the co-location of like industries. However, where a cluster of industries of the same type exists or is proposed, consideration of cumulative impacts may be necessary when all of the following conditions arise:

- an existing or proposed industrial land use occurs in the proximity of the same type of industrial land use;
- the industry and their associated functional activities will have, or has overlapping separation distances;
- the combined capacity of the individual industries is in excess of the 'scale of operations' listed in the Index.

### 9.4 Interfaces land uses

Interface land uses are those that can be located within separation distances between industrial land uses and sensitive land uses.

Interface land uses neither generate significant off-site emissions caused by odour, noise or hazardous pollutants, nor warrant protection from them. Interface land uses typically include zones that are for the purpose of business, agricultural/rural activity, **recreation and conservation**, and other special purpose zones; except where sensitive land uses are permitted.

Table 4 below provides examples of activities and their suitability as interface land uses. The examples provided in Table 4 are not intended to be an exhaustive list of all activities. Other activities not listed should be assessed in accordance with the principles contained in this document.

**Table 4. Examples of interface land uses and their suitability**

Suitability	Examples of interface land use
Encouraged	Agriculture, car parks, natural systems, offices, conservation zones, recreational zones, research centres and service stations.
Discretionary (subject to assessment)	Light industry with no adverse amenity potential and utilities (except for sewage works).
Prohibited	Sensitive land uses and industrial land uses that require separation distances as listed in the Index.

## Appendix A: Index of Industry Types

Note: scales of activities not mentioned, or where separation distances are not specified are to be determined on a case by case basis.

No.	Industry Type	Industry activity	Scale and industry description	Proposed separation distance (m)
<b>Agriculture</b>				
1.	Grain and stockfeed mill, and handling facility.	Receiving, storing, fumigating, bagging, transporting, and loading grain or stock feed.	>20,000 tonnes per year	250
2.	Mushroom farm	Using blended solids or compost for the production of mushrooms.		Case by case
3.	Piggery	Premises pigs are fed, watered and confined in pens for the purpose of agricultural productions.	>1,000 head	1,000  Refer to <i>National Environmental Guidelines for Piggeries</i> (Australian Pork Limited, 2010).
4.	Stock feedlot	Premises where animals are confined for the purpose of agricultural production; beef, dairy, buffalo or bison.	Beef, buffalo or bison  >500 head	1,000  Refer to <i>National Guidelines for Beef Cattle Feedlots in Australia</i> (Meat and Livestock Australia,

				2012).
			Dairy	5,000
5.	Livestock saleyard or holding pen	Premises where pigs, cattle or other stock are temporarily confined for sale, transport, processing or slaughter.	<10,000 head per year	500
			>10,000 head per year	1,000
<b>Metal products</b>				
6.	Metal coating	Premises on which metals products (excluding vehicles) are spray painted, powder coated or enamelled.	>1,000 Litres of paint or powder per year	200
			Spray painted is conducted inside a spray booth	
			Work is conducted in the open(no spray booth)	
			Metal products are powder-coated or enamelled	
7.	Metal finishing	Premises which metals are chemically cleaned or metals, plastic products are plated, electroplated, anodized, coloured or otherwise coated or finished.		200
			Iron or steel is galvanised	500
8.	Metal melting or casting	Process where metal or scrap metal is melted in furnaces or cast.	>100 tonnes per year	500
9.	Metal smelting or refining	Process where metal ore, metal ore concentrates or metal waste is smelted, fused, roasted, refined or processed.	>1,000 tonnes per year	Case by case
10	Scrap metal recovery	Premises on which metal scrap is fragmented or melted, including premises on which lead	>100 tonnes per year	500

		acid batteries are reprocessed.		
<b>Chemical, petroleum and coal products</b>				
11.	Biocide production	Production of biocides.	>2,000 tonnes per year	1,000
12.	Briquette (coal) production	Production of briquettes.	>2,000 tonnes per year	250
13.	Bulk storage of chemicals	Storage of acids, alkalis or chemicals that contain at least one carbon to carbon bond and are liquid in standard temperature and pressure (STP).	>1,000 cubic metres in aggregate	1,000
14.	Carbon stripping	Reprocessing carbon granules from a gold extraction process located external to the site.	>100 tonnes per year	300
15.	Chemical blending or mixing	Premises on which chemicals or chemical products are mixed, blended or packaged.	>50 but <500 tonnes per year Likely to cause discharge of waste	300
			>5,000 tonnes per year Not likely to cause discharge of waste	300
			>5,000 tonnes per year Likely to cause discharge of waste	500
16.	Chemical manufacturing	Manufacturing chemical products (other than those mentioned within this index) by a chemical process.	>1,000 tonnes per year	1,000
17.	Fertiliser production	Production of inorganic fertilisers.	>2,000 tonnes per year	1,000
18.	Formaldehyde production	Production of formaldehyde.	>2,000 tonnes per year	500

19.	Industrial gas production	Production of industrial gases.	>2,000 tonnes per year	1,000
20.	Oil or gas refining	Refining oil or gas, producing hydrocarbon fractions or liquefying gas.	>2,000 tonnes per year	2,000
21.	Paint and ink production	Production of paint or ink.		500
22.	Pesticides manufacturing	Manufacturing by a chemical process herbicides, insecticides or pesticides.		1,000
23.	Pharmaceutical and veterinary product production	Production of pharmaceutical or veterinary products.	>2,000 tonnes per year	500
24.	Recycling of chemicals or oil	Premises on which waste liquid hydrocarbons or chemicals are refined, purified, reformed, separated or processed.		1,000
25.	Rubber, polyester and synthetic resins production	Production of rubber products, polyester or synthetic resins.	>2,000 tonnes per year	1,000
26.	Rubber products production, using either organics solvents or carbon black	Production of rubber products using organic solvents or carbon black.	>2,000 tonnes per year	250
27.	Soap and detergent production	Production or soap or detergent.	>2,000 tonnes per year	500
<b>Food, beverage and manufacturing</b>				
28.	Abattoir	Premises on which animals are slaughtered – no rendering.	>200 tonnes per year With wastewater treatment ponds	1,000
			>200 tonnes per year Without wastewater treatment ponds	500

29.	Alcoholic and non-alcoholic beverage manufacturing	Premises on which an alcoholic or non-alcoholic beverage is manufactured.	>200 kilolitres	500
30.	Coke production	Premises on which coke is produced, quenched, cut, crushed or graded from coal or petroleum.	>100 tonnes per year	2,000
31.	Edible oil or fat production	Premises on which vegetable oil, or oil seed or animal fat is processed using seed crushing, solvent extraction or fat deodorising.	>200 tonnes per year	500
32.	Food processing of small goods	Premises on which vegetables are, or fruit or meat is, preserved, cooked, dried, canned, bottled or processed.	>200 tonnes per year	500
33.	Malt works	Production of malt.	>200 tonnes per year	250
34.	Milk products	Processing of milk or dairy products which;  Milk is separated or evaporated (other than a farm); or  Evaporated or condensed milk, butter, ice cream, cheese or any other product is manufactured.	>100 tonnes per year	500
35.	Pet food production	Production or manufacturing of animal food.	>100 tonnes per year	500
36.	Rendering and casings works	Abattoirs, knackereries or poultry processing works involving rendering.	>200 tonnes per year	1,000
37.	Seafood	Premise (other than fish wholesalers) on which fish or other seafood is processed.	>200 tonnes per year	500
38.	Starch manufacturing	Premises on which starch or gluten is manufactured.	>200 tonnes per year	500

39.	Sugar milling or refinery	Premises on which sugar cane is crushed or sugar is refined.	>1,000 tonnes per year	1,500
<b>Mining and extractive industry</b>				
40.	Coal mining	Premises on which:  Water is extracted and discharged into the environment to allow coal mining; or  Coal mining or processing occurs and tailings are discharged.		5,000
41.	Gas and oil extraction	All natural gas or oil production wells including tight, shale and coal seams.		2,000
42.	Mine dewatering	Premises which water is extracted from ore with a chemical solution.	>50,000 tonnes per year	500
43.	Mineral sands mining or processing	Premises on which mineral sands ore is mined, screened, separated or otherwise processed.	>5,000 tonnes per year	2,000
44.	Oil or gas production	Whether on land or offshore, via wells or other mechanisms, premises on which:  crude oil, natural gas or condensate is extracted from below the surface of the land or the seabed, as the case requires, and is treated or separated to produce stabilised crude oil, purified natural gas or liquefied hydrocarbons gases; or,  commercial production of oil or gas occurs (including the reforming of hydrocarbon gas).	>5,000 tonnes per year	2,000
45.	Quarry	Quarrying, crushing, screening, stockpiling	Without blasting	250



		and conveying or rock.	With blasting	500
			With respirable crystalline silica	500
46.	Screening etc. of materials	Premises on which material extracted from the ground is screened, washed, crushed, ground, milled, sized or separated.	>5,000 but less than <50,000 tonnes per year	500
			>50,000 tonnes per year	1,000
47.	Processing or beneficiation of metallic or non-metallic ore	Premises on which:  metallic or non-metallic ore is crushed, ground, milled or otherwise processed; or,  tailings from metallic or non-metallic ore are reprocessed; or,  tailings or residue from metallic or non-metallic ore are discharged into a containment cell or dam.	>50,000 tonnes per year	2,000
48.	Vat or in <i>situ</i> leaching of metal	Premises which metal is extracted from ore with a chemical solution.	5,000 tonnes per year	500
Miscellaneous manufacturing				
49.	Boat building and maintenance	Building or maintenance of vessels for commercial sale and, or where organotin compounds are used or removed from vessels.		1,000
50.	Foam products manufacturing	Resin based preparation or manufacturing of plastic foam or plastic foam products using MDI (diphenylmethane di-iso-cyanate) or TID (toluene-2, 4-di-iso-cyanate).	>1 tonnes per year	500
51.	Manufacture of products using	Manufacturing products using fibreglass or	>250 tonnes per year	250

	fibreglass and resin	resin.		
52.	Manufacturing or tanned leather and artificial leather products	Processing leather by tanning or dressing.	>250 tonnes per year	250
53.	Printing	Printing works emitting volatile organic compounds.	Emitting >100 kilograms per day	500
54.	Solar salt manufacturing	Premises on which salt is produced by solar evaporation.		1,000
55.	Fellmongering	Drying, storing, curing packaging of animal skins or hides	>1,000 skins	500
56.	Tannery	Premises on which animal skins or hides are tanned, dressed, finished or dyed.	>1,000 skins	2,000
<b>Non-metallic mineral products</b>				
57.	Asphalt plant	Premises which hot or cold mix asphalt is produced using crushed or ground rock aggregates mixed with bituminous or asphaltic materials for use external to the premises.		1,000
58.	Bitumen manufacturing	Premises on which bitumen is mixed or prepared for use external to the premises.		1,000
59.	Brick, tile, pipe and refractory manufacturing	Production of bricks, tiles, pipes, pottery goods or refractories, processed in dryers or kilns.	>10,000 tonnes per year	1,000
60.	Cement manufacturing	Production of cement form clays, or limestone in either a furnace or kiln to produce cement clinker.	<150,000 tonnes per year	500
			>150,000 tonnes per year	1,000
61.	Cement clinker grinding	Grinding or cement clinker, clays or limestone	>150,000 tonnes per year	2,000

		materials.		
62.	Ceramic goods manufacturing	Premises on which ceramic kitchen or table ware or other non-refractory ceramic products are manufactured.	>200 tonnes per year	500
63.	Char manufacturing	Premises on which wood, carbon material or coal is charred to produce a fuel or material of a carbonaceous nature or enriched carbon content.		1,000
64.	Concrete batching plant or, concrete and stone article manufacturing	Premises where finished concrete or stone products are manufactured.	>5,000 tonnes per year	500
65.	Glass or glass fibre manufacturing	Premises where glass, glass products or glass fibre is manufactured.	>1,000 tonnes per year	500
66.	Other non-metallic mineral processing	Premises on which non-metallic minerals are crushed, ground, milled or separated.	>100 tonnes per year	200
67.	Plaster and plaster article manufacturing	Premises where plaster products, plaster board, gyprock or products comprised wholly or primarily of gypsum are manufactured.	>5,000 tonnes per year	200
<b>Paper, textiles and wood</b>				
68.	Textile operations	Textiles manufacturing and processing including bleaching, dyeing or finishing cotton, linen, cotton ginning or milling, woollen yarns, carpet or textiles.	>1,000 tonnes per year	500
69.	Timber preserving	Premises on which timber is preserved for commercial purposes by the use of chemicals		500
70.	Mineral wool or ceramic fibre manufacturing	Manufactured mineral wool or ceramic fibre is.		500

71.	Paper and paper pulp manufacture by other methods	Premises on which paper pulp, wood pulp, kraft paper, kraft paperboard, cardboard, paper or paperboard is manufactured.	>5,000 tonnes per year	1,500
72.	Wool scouring	Premises on which wool is scoured or cleaned.	>1,000 tonnes per year	1,000
73.	Wood board manufacturing	Premises on which particleboard or chipboard is fabricated or manufactured.	>500 tonnes per year	2,000
<b>Storage, transport and waste management</b>				
74.	Biomedical waste incineration	Premises on which:  infectious or potentially infectious waste produced by health care systems, or by pathology, dental, or veterinary practices, or by laboratories, is incinerated; or  quarantine waste is incinerated; or  cytotoxic waste is destroyed,  but not including facilities used exclusively for human or animal cremation.		1,000
75.	Bulk material loading or unloading	Premises on which clinker, coal, ore, ore concentrate or any other bulk granular material (other than salt) is loaded onto or unloaded from vessels by a materials loading system.	>100 tonnes per day Open material loading system	2,000
			>100 tonnes per day Closed material loading system	300
76.	Contaminated soil treatment facility	Permanent facility for the temporary storage, processing and treatment of contaminated		Case by case

		soil.		
77.	Flyash disposal	Premises on which flyash is disposed on.	>100 cubic metres per day	1,000
78.	Fuel burning	Process of which gaseous. Liquid or solid fuel is burnt in a boiler for the supply of steam or in power generation equipment.	Aggregate fuel >500 but <2,000 kilograms per hour with sulphur content <0.25%	300
			Aggregate fuel >500 kilograms per hour with fuel sulphur content >0.25%	500
			Aggregate fuel >2,000 kilograms per hour with sulphur content <0.25%	
79.	Incineration	Premises on which waste is incinerated (excluding clean paper cardboard and biomedical waste).	>100 kilograms per day	1,000
80.	Landfill site facility	Landfills uses for the discharge, or deposit of solid wastes onto land.		Case by case
81.	Liquid waste facility	Premises on which liquid waste (other than sewerage waste) is stored, reprocessed, treated or irrigated.	>1,000 tonnes per year	1,000
82.	Materials recovery and recycling facility	Collecting, dismantling, treating, processing, storing, recycling, or selling used or surplus materials.		Case by case
83.	Solid waste depot/transfer station	Premises on which solid waste is stored, or sorted, pending transfer final disposal or re-use.	>500 tonnes per year	250
84.	Solid waste facility	Premises on which solid waste produced externally is stored, reprocessed, treated or	>1,000 tonnes per year	500

		discharged onto land (excluding fuel burning).		
85.	Used tyre storage	Premises on which used tyres are stored in connection with a tyre fitting business.	>100 tyres or more	200
<b>Power and utilities</b>				
86.	Electric power generation	Electrical power generation using fuel.	>20 megawatts (MW) in aggregate using natural gas	5,000
			>10 megawatts (MW) in aggregate using fuel other than natural gas	
		Commercial generation of electrical power using natural gas as fuel.	>10 but <20 megawatts (MW) in aggregate	500
87.	Sewage facility	Facility in which sewage is treated (excluding septic tanks), or which treated sewage is discharged onto land or into waters.	>20 but <100 cubic metres per day	1,000
			>100 cubic metres per day	Case by case
88.	Sewage pumping station	Premises on which sewage is pumped (excluding the pumping to and from septic tanks).		150

## Abbreviations

<b>BPEM</b>	Best Practice Environmental Management
<b>NT EPA</b>	Northern Territory Environment Protection Authority

## Glossary of terms

Term	Definition
Amenity <sup>2</sup>	In relation to a locality or building, means any quality, condition or factor that makes or contributes to making the locality or building harmonious, pleasant or enjoyable.
Beneficial use <sup>3</sup>	Means a use of the environment or any element or segment of the environment which is conducive to public benefit, welfare, safety, health or aesthetic enjoyment and which requires protection from the effects of waste discharges, emissions or deposits or of the emission of noise.
Best Practice Environmental Management <sup>4</sup>	The management of an activity or premises in a cost-effective manner that, having regard to national or international practices for management of activities or premises of the same kind, ensures the continued minimisation of the actual or potential environmental impact of the activity or premises.
Environment <sup>5</sup>	means land, air, water, organisms and ecosystems and includes: <ul style="list-style-type: none"> <li>(a) the well-being of humans;</li> <li>(b) structures made or modified by humans;</li> <li>(c) the amenity values of an area; and</li> <li>(d) economic, cultural and social conditions.</li> </ul>
Environmental harm <sup>6</sup>	Means: <ul style="list-style-type: none"> <li>any harm to or adverse effect on the environment; or</li> <li>any potential harm (including the risk of harm and future harm) to or potential adverse effect on the environment,</li> </ul> of any degree or duration and includes environmental nuisance.
Industrial land uses	Any land that is currently used for, or is identified in the Northern Territory Planning Scheme or through a planning permit as being suitable for, factories, warehouses, infrastructure, agriculture, mining

<sup>2</sup> As defined by the NT *Planning Act*.

<sup>3</sup> As defined by the Victorian *Environment Protection Act 1970*.

<sup>4</sup> As defined by the NT *Waste Management and Pollution Control Act*.

<sup>5</sup> As defined by the NT *Waste Management and Pollution Control Act*.

<sup>6</sup> As defined by the NT *Waste Management and Pollution Control Act*.

	and extractive industries, workshops, processing and storage sites, or any other industrial activity as defined by the Northern Territory planning scheme.
Pollute <sup>7</sup>	means:  emit, discharge, deposit, or disturb, directly or indirectly, a contaminant or waste; or  cause, permit, or fail to prevent, directly or indirectly, the emission, discharge, deposition, disturbance or escape of a contaminant or waste
Sensitive land uses	Any land uses which require a particular focus on protecting the beneficial uses of the air environment relating to the health and well-being of humans, and the amenity values of an area. For example sensitive land uses may include but are not limited to residential premises, subdivisions, accommodation, childcare centres, schools and outdoor recreation facilities.
Separation distances	The estimated distances proposed to separate premises and their emissions from <i>sensitive land uses</i> to preserve the <i>beneficial use</i> of the environment.
Unintended emissions	Emissions emanating from an industrial site as a result of non-routine events, including equipment failure, accidents and abnormal weather conditions.

<sup>7</sup> As defined by the NT *Waste Management and Pollution Control Act*.



30 September 2016

Please quote: 3388258 CR:hd

Ms Lauren Cooper  
Acting Manager Compliance and Enforcement  
Northern Territory Environment Protection  
Authority  
GPO Box 3675  
DARWIN NT 0801

Via email: [ntepa.consult@nt.gov.au](mailto:ntepa.consult@nt.gov.au)

Dear Ms Cooper

**Guideline for proposed separation distances between industrial land uses and sensitive land uses**

I refer to your request for comment received 23 September 2016, regarding the above.

The City of Darwin supports the preparation of the Guideline to establish appropriate minimum separation distances between industrial and sensitive land uses. This is likely to reduce or avoid the consequences of any unintentional emissions of odour, noise, smoke, dust or fumes, adversely impacting on the amenity values of adjacent sensitive land uses.

In addition to the supporting the Guideline, the City of Darwin has the following specific comments in relation to the uses listed in the Index of Industry Types included in the Table in Appendix A to the Guideline:

Further clarification is sought in regards to whether the extraction and burning of landfill gas for electricity production at Shoal Bay Waste Management Facility will fall into either the 'Oil and Gas Production', or 'Fuel Burning' categories listed above. Both activities are considered ancillary to the main Landfill use, which has an established licence to operate under the *Waste Management and Pollution Control Act*. Further to that, while the landfill gas recovery does fit the Oil and Gas Production description, it is considered that the intent of the description is directed at mining operations not landfill gas recovery, which is a requirement of the licence and not a use on its own.

Further clarification is also sought in relation to the intention of the 'Liquid Waste Facility' description and separation distances. Leachate ponds at the Shoal Bay Waste Management Facility may fit into this broad description, although the leachate ponds are not considered to emit any significant odour or other pollution warranting a 1,000 metre setback. A strict enforcement of the 1,000 metre setback may limit future operations at Shoal Bay Waste Management Facility and therefore the City of Darwin requests feedback on this separation distance requirement.

In Summary, the proposed Guideline will provide greater certainty in terms of suitable separation distances between sensitive land uses and assist in the assessment of development applications where conflicting land uses are proposed and therefore the City of Darwin supports their development.

If you have any further queries please contact me on 8930 0528 or [c.robson@darwin.nt.gov.au](mailto:c.robson@darwin.nt.gov.au).

Yours sincerely

**CINDY ROBSON**  
**ACTING MANAGER DESIGN, PLANNING & PROJECTS**

ENCL:  
YES

TOWN PLANNING COMMITTEE/OPEN

AGENDA ITEM: 10.1.2

**CONSULTATION ON THE 2042 AUSTRALIAN NOISE EXPOSURE FORECAST -  
DARWIN INTERNATIONAL AIRPORT**

REPORT No.: 16TS0173 CR:hd

COMMON No.: 3387993

DATE: 04/10/2016

**Presenter:** Acting Manager Design, Planning & Projects, Cindy Robson

**Approved:** General Manager Infrastructure, Luccio Cercarelli

**PURPOSE**

The purpose of this report is to present to the Town Planning Committee the Consultation On The 2042 Australian Noise Exposure Forecast - Darwin International Airport.

**LINK TO STRATEGIC PLAN**

The issues addressed in this Report are in accordance with the following Goals/Strategies of the City of Darwin 2012 – 2016 as outlined in the 'Evolving Darwin Towards 2020 Strategic Plan':-

**Goal**

1. Collaborative, Inclusive and Connected Community

**Outcome**

- 1.4 Improved relations with all levels of government and significant stakeholders

**Key Strategies**

- 1.4.2 Play an active role in strategic and statutory planning processes

**KEY ISSUES**

- The Northern Territory Airports Pty Ltd has commenced public consultation on the proposed Australian Noise Exposure Forecast (ANEF) contours for 2042, as included in **Attachment A**.
- It is recommended that Council endorse the submission to the Northern Territory Airports Pty Ltd, as included in **Attachment B** to this report.
- The ANEF contours are long range forecasts intended to provide guidance on future likely noise impacts on land uses.
- The contours are being reviewed and updated as a part of the Darwin International Airport Master Plan review, which occurs approximately every five years.
- Changes are proposed from the current adopted 2030 ANEF contours to the proposed 2042 ANEF contours, with some expansion and contraction of the contours.

PAGE: 2  
 REPORT NUMBER: 16TS0173 CR:hd  
 SUBJECT: CONSULTATION ON THE 2042 AUSTRALIAN NOISE EXPOSURE  
 FORECAST - DARWIN INTERNATIONAL AIRPORT

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## **RECOMMENDATIONS**

THAT the Committee resolve under delegated authority:

- A. THAT Report Number 16TS0173 CR:hd entitled Consultation On The 2042 Australian Noise Exposure Forecast - Darwin International Airport be received and noted.
- B. THAT Council endorse the submission, dated 23 September 2016, to the Northern Territory Airports Pty Ltd within **Attachment B** to Report Number 16TS0173 CR:hd entitled Consultation On The 2042 Australian Noise Exposure Forecast - Darwin International Airport.

## **BACKGROUND**

The Northern Territory Airports Pty Ltd has commenced public consultation on proposed ANEF contours for 2042, as included in **Attachment A**.

Review of the ANEF contours were last referred to Council as a part of the *Darwin International Airport 2010 Master Plan* consultation process. The Master Plan is currently being reviewed, in-line with its five yearly periodic review requirements and the 2042 ANEF will form a part of the *Darwin International Airport 2017 Master Plan*.

## **DISCUSSION**

The ANEF is a set of contours showing future noise levels. The ANEF is an important noise metric because it has status under the

- *Northern Territory Planning Scheme*; and
- *Airports Act 1996* of the Commonwealth for land use planning and development consent on-Airport.

The ANEF is used in accordance with Australian Standard AS2021-2000 to guide land use planning and development consent by the relevant authority. The ANEF is subject to review and endorsement by Airservices Australia.

The following table from Australian Standard AS2021-2000 provides guidance for new construction in relation to ANEF contours. "Conditional" means that approval may be given if appropriate noise control features can be incorporated in the construction.

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TABLE 18: BUILDING SITE ACCEPTABILITY BASED ON ANEF ZONES

BUILDING TYPE	ACCEPTABLE	CONDITIONAL	UNACCEPTABLE
House, home unit, flat, caravan park	Less than 20 ANEF	20 to 25 ANEF	Greater than 25 ANEF
Hotel, motel, hostel	Less than 25 ANEF	25 to 30 ANEF	Greater than 30 ANEF
School, university	Less than 20 ANEF	20 to 25 ANEF	Greater than 25 ANEF
Hospital, nursing home	Less than 20 ANEF	20 to 25 ANEF	Greater than 25 ANEF
Public building	Less than 20 ANEF	20 to 30 ANEF	Greater than 30 ANEF
Commercial building	Less than 25 ANEF	25 to 35 ANEF	Greater than 35 ANEF
Light industrial	Less than 30 ANEF	30 to 40 ANEF	Greater than 40 ANEF
Other industrial	Acceptable in all ANEF zones	Acceptable in all ANEF zones	Acceptable in all ANEF zones

The contours are forecasts intended to provide guidance on future likely levels. The current consultation relates to contours for 2042, a 26 year projection of likely noise levels for the Darwin International Airport in the year 2042.

Changes are proposed from the current 2030 ANEF contours adopted in the 2010 Master Plan. The proposed contours, as demonstrated in **Attachment A**, demonstrate both expansion and contraction of the contours.

In particular, the 20 ANEF contour, which is the highest acceptable noise contour for residential land uses, is predicted to marginally 'widen' over Marrara, and 'narrow' in Coconut Grove, Ludmilla, Millner and the Berrimah North area, between the 2030 and 2042 contour modelling.

It is also noted that there is a 'lengthening' of the ANEF contours over Knuckey Lagoon, returning to similar ANEF contours indicated for 2024 in the *Darwin International Airport Master Plan 2010*.

While the contours are a 26 year prediction, where it is considered additional impacts may occur to sensitive land uses, it has been suggested that landowners and residents are informed of the long-term ANEF modelling changes.

### Summary

It is recommended that Council endorse the submission to the Northern Territory Airports Pty Ltd, as included in **Attachment B** to this report.

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## **CONSULTATION PROCESS**

In preparing this report, the following City of Darwin officers were consulted:

- Manager Climate Change and Environment

## **POLICY IMPLICATIONS**

Changes to the ANEF contours indicate changes to how noise impacts may affect land uses that surround the airport into the future and how they are assessed under the Northern Territory Planning Scheme.

## **BUDGET AND RESOURCE IMPLICATIONS**

Nil

## **RISK/LEGAL/LEGISLATIVE IMPLICATIONS**

Not Assessed.

## **ENVIRONMENTAL IMPLICATIONS**

As discussed in the body of this report.

## **COUNCIL OFFICER CONFLICT OF INTEREST DECLARATION**

We the Author and Approving Officers declare that we do not have a Conflict of Interest in relation to this matter.

**CINDY ROBSON**  
**ACTING MANAGER DESIGN,**  
**PLANNING & PROJECTS**

**LUCCIO CERCARELLI**  
**GENERAL MANAGER**  
**INFRASTRUCTURE**

For enquiries, please contact Cindy Robson on 8930 0528 or email:  
 c.robson@darwin.nt.gov.au.

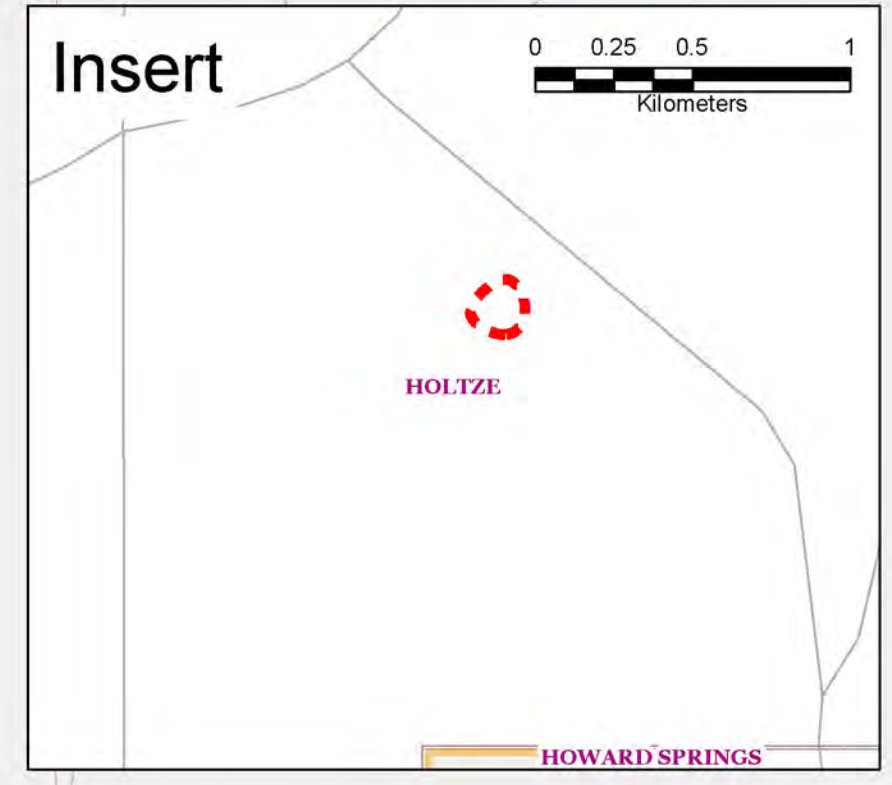
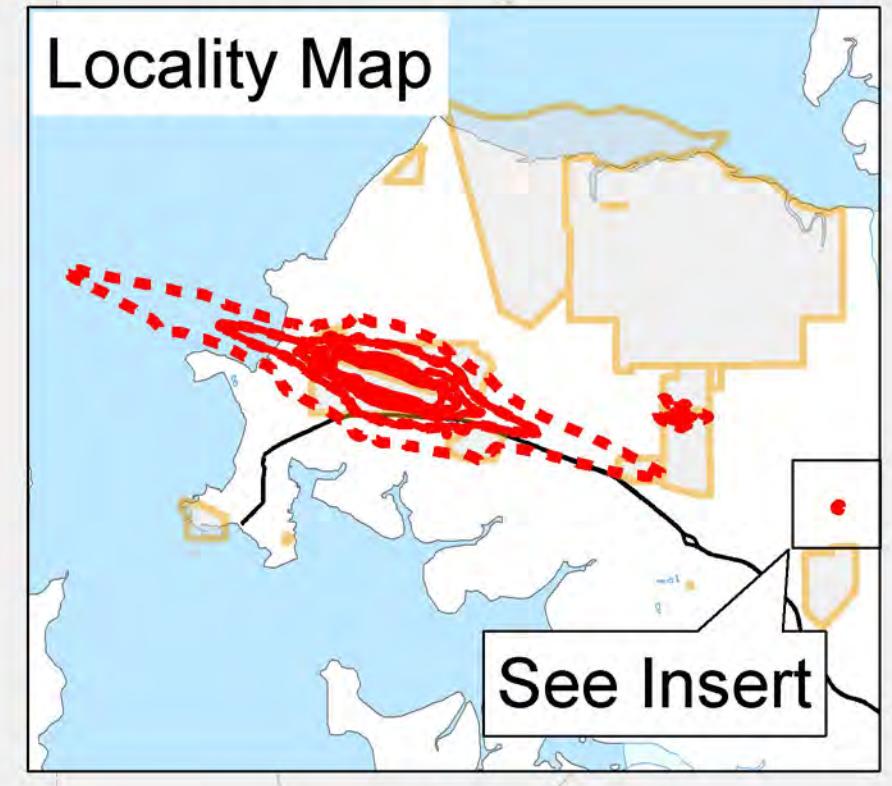
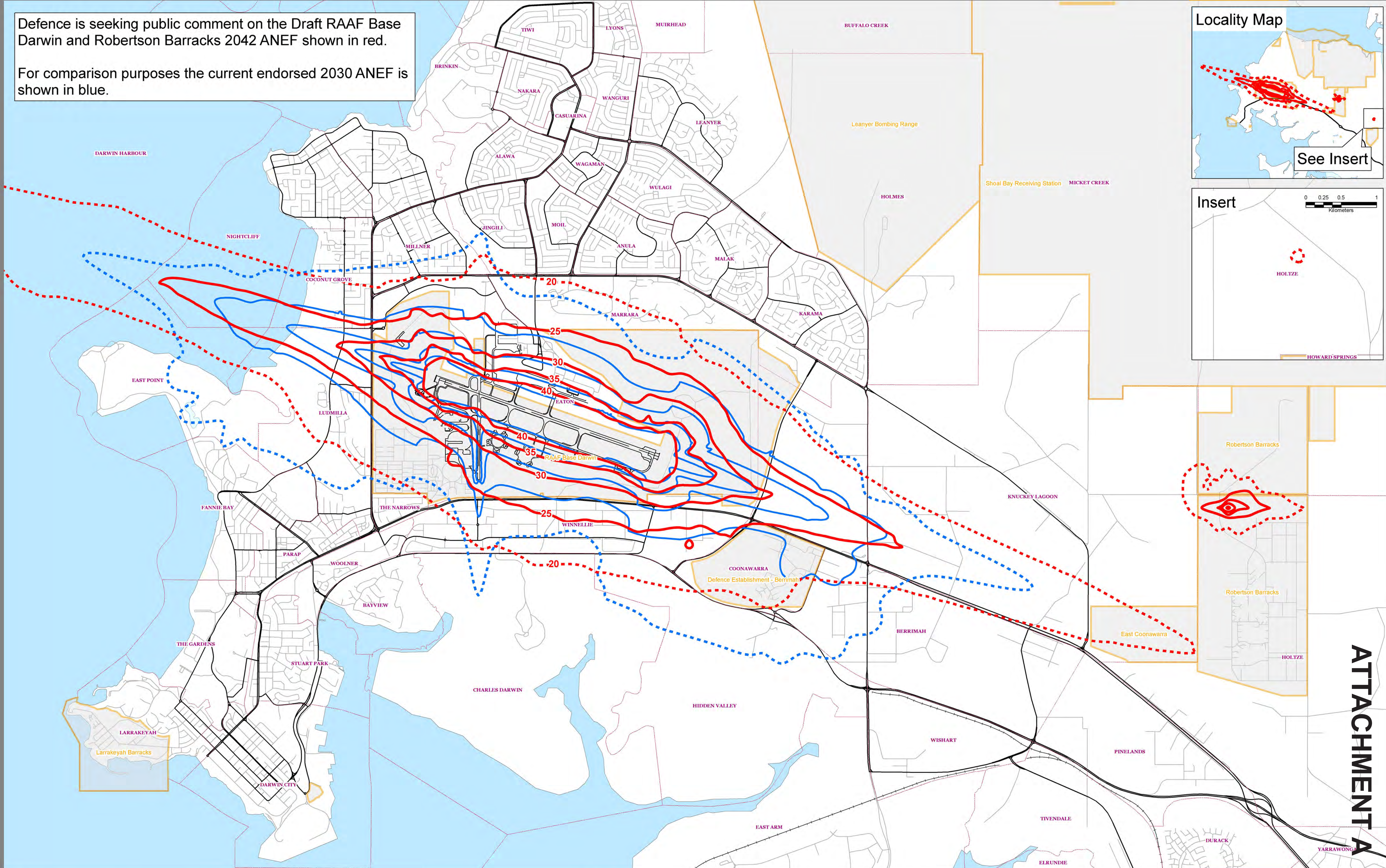
### **Attachments:**

**Attachment A:** Draft 2042 Australian Noise Exposure Forecast  
**Attachment B:** City of Darwin, Letter of Response to Northern Territory Airports Pty Ltd, dated 23 September 2016



Defence is seeking public comment on the Draft RAAF Base Darwin and Robertson Barracks 2042 ANEF shown in red.

For comparison purposes the current endorsed 2030 ANEF is shown in blue.



ATTACHMENT A

**Legend**

- Defence Property
- 2030 ANEF - 25+ Contour
- 2030 ANEF - 20 Contour
- Draft 2042 ANEF - 25+ Contour
- Draft 2042 ANEF - 20 Contour
- Highways
- Railways
- Major Roads
- Roads
- Water Areas
- Local Areas

Runway coordinates (WGS-84)  
ARP: S 12 24 52.5696 E 130 52 36.4412  
RE 11 S 12 24 33.8708 E 130 51 54.9228  
RE 18 S 12 24 31.8331 E 130 52 14.3461  
RE 29 S 12 25 09.2417 E 130 53 39.9754  
RE 16 S 12 25 21.4468 E 130 52 14.4641

Projection: GDA-94 MGA Zone 52

ANEF contour modelled with Advanced Acoustic Model using the United States Department of Defense NoiseMap suite incorporating terrain data

Horizontal datum: WGS-84; Vertical Datum: AHD

Issue date: 26 August 2016

**Disclaimer**

This map is indicative only and should not be used for detailed planning

Scale: 1:25,000 at A1

0 1 2 3 Kilometers

Australian Government  
Department of Defence

Darwin International Airport  
wyle

**Draft 2042 Australian Noise Exposure Forecast (shown in red)**

Produced by E&IG/ID/EPB Ref: AF26347002 Date Created: 22/8/2016



23 September 2016

Please quote: 3387993 CR:hd

Ms Victoria Moore  
Aviation Projects Consultant  
Northern Territory Airports Pty Ltd  
PO Box 40996  
CASUARINA NT 0820

Via email: victoria.moore@ntairports.com.au

Dear Ms Moore

**Darwin Airport / RAAF Base Darwin – Draft 2042 Australian Noise Exposure Forecast**

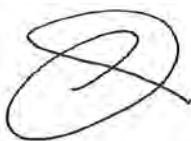
Thank you for the request for comment referred to this office 2 September 2016, concerning the above.

The City of Darwin has no technical comments in relation to the draft noise modelling. However, it is noted that there is a 'widening' of the ANEF contours in residential areas including Marrara and a 'narrowing' of the contours in Coconut Grove, Ludmilla, Millner and the Berrimah North area, between the 2030 and 2042 contour modelling. It is also noted that there is a lengthening of the ANEF contours over Knuckey Lagoon, returning to similar ANEF contours indicated for 2024 in the *Darwin International Airport Master Plan 2010*.

Where it is considered additional impacts may occur to sensitive land uses, it is suggested that landowners and residents are informed of the long-term ANEF modelling changes.

If you have any further queries please contact me on 8930 0528 or c.robson@darwin.nt.gov.au.

Yours sincerely



**CINDY ROBSON**  
**ACTING MANGER DESIGN, PLANNING AND PROJECTS**



# OPEN SECTION

TP10/6

Town Planning Committee Meeting – Tuesday, 4 October 2016

## 10.2 OFFICERS REPORTS (RECEIVE & NOTE)

**ENCL:** TOWN PLANNING COMMITTEE/OPEN  
**NO**

**AGENDA ITEM:** 10.2.1

### **STRATEGIC PLANNING ISSUES - OCTOBER 2016**

**REPORT No.:** 16TS0149 NS:hd **COMMON No.:** 2481144

**DATE:** 04/10/2016

**Presenter:** Acting Manager Design, Planning & Projects, Cindy Robson

**Approved:** General Manager Infrastructure, Luccio Cercarelli

### **PURPOSE**

The purpose of this report is to provide an updated schedule of identified Strategic Town Planning matters for referral to Town Planning Committee meetings.

### **LINK TO STRATEGIC PLAN**

The issues addressed in this Report are in accordance with the following Goals/Strategies of the City of Darwin 2012 – 2016 as outlined in the 'Evolving Darwin Towards 2020 Strategic Plan':-

#### **Goal**

1. Collaborative, Inclusive and Connected Community

#### **Outcome**

- 1.4 Improved relations with all levels of government and significant stakeholders

#### **Key Strategies**

- 1.4.2 Play an active role in strategic and statutory planning processes

### **KEY ISSUES**

- The Town Planning Committee primarily focuses on strategic town planning issues.
- This report presents an updated schedule of previously identified and known strategic matters.
- The schedule includes known current issues and will be influenced by unforeseen strategic matters requiring consideration, either directly raised by Council or via external parties, such as the Northern Territory Planning Commission.
- Updating of the schedule will be reported on at Town Planning Committee meetings.

### **RECOMMENDATIONS**

THAT the Committee resolve under delegated authority:

THAT Report Number 16TS0149 NS:hd entitled Strategic Planning Issues – October 2016, be received and noted.

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## **BACKGROUND**

Council resolved that the Town Planning Committee Meeting will be held once every two months, with a primary focus on strategic town planning matters.

This report provides an updated schedule of identified strategic town planning matters and expected time frames for addressing these matters.

## **DISCUSSION**

### **Assessment criteria and definition for Serviced Apartments in the Northern Territory Planning Scheme - Decision No.21\3135:**

In 2015, a report was requested by Council for consideration on the lack of assessment criteria and definition for 'serviced apartments' in the Northern Territory Planning Scheme.

In responding to the planning scheme amendment for low risk/low impact development a new definition was proposed for 'serviced apartments'. Council responded and recommended that:

- *"Serviced apartments should be added to Part 3, Index of Zones of the Scheme and accordingly refer to the assessment criteria appropriate to serviced apartments. Currently the only reference to serviced apartments within the Scheme is in Clause 6.5.1, Parking Requirements;*
- *Specific provisions be developed for the assessment of future development applications. Considerations should include but not be limited to; landscaping, communal open space, loading bays, amenity, privacy, design etc.; and*
- *The definition be strengthened to capture what is a temporary use".*

The draft submission to the Reporting Body was endorsed by Council on the 7 June 2016.

The Minister for Lands and Planning has since adopted the below definition for 'serviced apartments':

*"means a building (or part of a building) providing self-contained accommodation to tourists or visitors on a commercial basis and which is regularly serviced or cleaned by an owner or manager of the building or by an agent of an owner or manager of the building".*

No other amendments were made in relation to 'serviced apartments'. As the matters in relation to 'serviced apartments' requested by Council have now been raised with the Minister for Lands and Planning, it is suggested that the subject issue be removed from the strategic planning issues schedule.

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The following table provides the status of strategic planning issues identified, that are yet to be considered by the Town Planning Committee:

Issue	Council Decision No.	Expected Report Date
Tree Planting in car park areas with a view to increasing the amount of shaded land area and improving public amenity and air purification, taking into account the requirements of the Planning Scheme in relation to shading parking areas.	Decision No.21\3387	E&I  October 2016
Car parking on the podium level.	Decision No.21\3135	December 2016
Funding for Social Infrastructure and Open Space.  Identify the specific process, studies required, and associated costs to develop a social infrastructure model for the Municipality of Darwin.	Decision No.21\4277	December 2016
Delegation Report.  Discussion on the delegation of Town Planning Reports to Council		October 2017

In addition to the above, the City of Darwin is actively progressing issues as they arise, some of which are in conjunction with the Northern Territory Planning Commission, Department of Lands, Planning and the Environment and the Department of Transport. Projects include the ongoing involvement in the preparation of Area Plans across the Darwin Municipality.

Other issues include, but are not limited to, reviewing the Outdoor Advertising Signs Code along comment and input on planning scheme amendments as they arise.

### **CONSULTATION PROCESS**

In preparing this report, the following City of Darwin officers were consulted:

- Town Planner

### **POLICY IMPLICATIONS**

There are considered to be no policy implications for this report.

### **BUDGET AND RESOURCE IMPLICATIONS**

Resources are in accordance with approved Council budgets.

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### **RISK/LEGAL/LEGISLATIVE IMPLICATIONS**

There are considered to be no risk/legal/legislative implications for this report.

### **ENVIRONMENTAL IMPLICATIONS**

There are considered to be no environmental implications for this report.

### **COUNCIL OFFICER CONFLICT OF INTEREST DECLARATION**

We the Author and Approving Officers declare that we do not have a Conflict of Interest in relation to this matter.

**CINDY ROBSON**  
**ACTING MANAGER DESIGN,**  
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**LUCCIO CERCARELLI**  
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For enquiries, please contact Cindy Robson on 8930 0528 or email:  
[c.robson@darwin.nt.gov.au](mailto:c.robson@darwin.nt.gov.au)

# OPEN SECTION

TP10/7

## Town Planning Committee Meeting – Tuesday, 4 October 2016

### 11. INFORMATION ITEMS

Nil

### 12. GENERAL BUSINESS

### 13. CLOSURE OF MEETING