

# Referral of proposed action

**Project title:**

Removal of heritage buildings at RAAF Base Amberley, Queensland.

## 1 Summary of proposed action

### 1.1 Short description

The Department of Defence (Defence) proposes to remove heritage buildings and features from the Flight Line area of Royal Australian Air Force (RAAF) Base Amberley, near Ipswich in Queensland. The buildings date from the World War II era and occupy premium land adjacent to the runway in the southern part of the Flight Line area. The size, design and layout of the buildings (both individually and as a group) severely limits their ability to support modern Flight Line operations. The removal of the buildings is the only prudent and feasible option available.

1.2	Latitude and longitude	Latitude			Longitude			
		location point	degrees	minutes	seconds	degrees	minutes	seconds
		1	27	38	07 S	152	42	16 E
		2	27	38	03 S	152	42	31 E
		3	27	38	21 S	152	42	39 E
		4	27	38	33 S	152	42	36 E
		5	27	38	44 S	152	42	15 E
		6	27	38	39 S	152	42	11 E

The coordinates above provide a boundary for the southern part of the Flight Line area at RAAF Base Amberley which contains the heritage buildings that are proposed for removal. The coordinates are in clockwise order.

### 1.3 Locality and property description

RAAF Base Amberley, main Base, has a total area of approximately 1,847 hectares located about 8 km south-west of the city of Ipswich in Queensland and 40km south-west of Brisbane. The RAAF Base is on level ground bounded by the Bremer River to the north and east, by Warrill Creek and the Ipswich Rosewood Road to the south and south-west and by Haigslea-Amberley Road in the west. The site is subject to major flooding during significant rain events.

RAAF Base Amberley is the largest RAAF Base, employing over 5000 people. It is the home of Australia's F/A-18F Super Hornet fleet, the C-17 Globemaster heavy transport fleet, and Headquarters Combat Support Group as well as other air command, maintenance, logistics command and training command units. Army and Joint Logistics units are also stationed at the Base. RAAF Base Amberley is used only for military purposes and is a high priority strategic Defence asset.

The Flight Line area at RAAF Base Amberley is a strip of land about 500m wide and 2600m long, parallel to the western margin of the main runway. The Flight Line has high value for military capability because it enables essential access for aircraft to and from the main runway. A World War II heritage precinct occupies the Southern Apron which is about 30% of the Flight Line area and about 800m frontage to the main runway. The Flight Line, runway and other related Base facilities are shown in Figure 1 of the attached Flight Line Master Plan, Strategic Analysis report, by AECOM (2014).

The World War II era heritage buildings are distributed over an area of about 40ha in the heritage precincts (see Figure 5, AECOM, 2014).

1.4	<b>Size of the development footprint or work area (hectares)</b>	The area affected is approximately 40 Hectares (800m X 500m)
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1.5	<b>Street address of the site</b>	Southern Amberley Road, Amberley, Queensland.
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### 1.6 Lot description

Various lot numbers

### 1.7 Local Government Area and Council contact (if known)

RAAF Base Amberley lies within the Ipswich City Council area. However, as the land is owned by the Commonwealth, it is not subject to local government requirements.

### 1.8 Time frame

The removal of heritage buildings from the Flight Line is planned to commence in mid 2014, and will be undertaken progressively as various projects proceed. The first stage of the removal will take up to six months to complete. The removal of the heritage buildings will allow the Flight Line Master Plan to be implemented with construction of facilities to support the introduction of new capability required by the Australian Government, expected to commence in 2015.

1.9	<b>Alternatives to proposed action</b> Were any feasible alternatives to taking the proposed action (including not taking the action) considered but are not proposed?	
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Yes	Yes, you must also complete section 2.2
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1.10	<b>Alternative time frames etc</b>	No
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	Does the proposed action include alternative time frames, locations or activities?		
1.11	<b>State assessment</b> Is the action subject to a state or territory environmental impact assessment?	No	The action will occur on Commonwealth land and is not subject to environmental impact assessment by the state.
1.12	<b>Component of larger action</b> Is the proposed action a component of a larger action?	No	
1.13	<b>Related actions/proposals</b> Is the proposed action related to other actions or proposals in the region (if known)?	Yes	<p>The replacement, upgrade and maintenance of facilities are on-going activities at Defence bases. The RAAF Base Amberley Flight Line Master Plan will guide the future development of the Flight Line area to best meet Australia's defence needs.</p> <p>The introduction or enhancement of certain air capabilities at RAAF Base Amberley, such as C-27J Battlefield Airlifter aircraft and EA-18G Growler electronic attack aircraft, is reasonably foreseeable and will need to be accommodated within the Flight Line area. The scopes for the new and/or upgraded facilities required for these projects are in the early planning stages. However, it is obvious that for these and other future projects to proceed, it is necessary to ensure there is space available when required.</p>
1.14	<b>Australian Government funding</b> Has the person proposing to take the action received any Australian Government grant funding to undertake this project?	No	
1.15	<b>Great Barrier Reef Marine Park</b> Is the proposed action inside the Great Barrier Reef Marine Park?	No	

## **2 Detailed description of proposed action**

### **2.1 Description of proposed action**

The Department of Defence proposes to remove heritage buildings at RAAF Base Amberley to accommodate new aircraft and support facilities along the Flight Line. A number of the buildings were constructed prior to and during World War II (see Figure 5, AECOM, 2014).

The old buildings and their curved layout are no longer suitable for modern operation of a military airfield. Most of the buildings are presently either disused or used for low value purposes such as offices, warehousing, recreational club houses, engineering workshops, and vehicle maintenance. Defence has considered options for refurbishing or adaptively reusing the buildings for higher value purposes. However, based on previous experience it was determined that this is not viable or cost-effective because of their age, structural degradation, functional inadequacy or inefficient layout.

Accordingly, Defence proposes to remove most of the heritage listed buildings and landscape features of the heritage precinct.

The citation for RAAF Base Amberley on the Commonwealth Heritage List covers 38 buildings in the heritage precinct including 13 Bellman Hangars, 10 Lysaght Huts, and several P1 type huts. The citation also includes the Command and Administration sub-precinct which is a diamond shaped site with the parade ground at the centre, the Aviation Street streetscape, several exotic landscape trees, and the School precinct which contains buildings from the early 1900s before the RAAF Base was established.

The proposed action would require removal of all 38 buildings listed on the CHL from the Flight Line, clearing of the Command and Administration sub-precinct, and removal of most of the landscape trees (see Table 5, AECOM, 2014). Some prefabricated buildings such as P1 type huts and Lysaght huts may be able to be dismantled and re-erected on a suitable site within the Base. Some landscape trees may be able to be retained and integrated with the new facilities.

The School precinct is outside the Flight Line and would be retained. It is a possible site for relocation of a sample of prefabricated heritage buildings.

### **2.2 Alternatives to taking the proposed action**

Defence engaged AECOM Australia Pty Ltd to develop a master plan for the Flight Line to facilitate strategic planning (AECOM, 2014). This work aimed to identify the highest and best use of available land before individual projects are developed for facilities and infrastructure.

The master planning project reviewed Defence strategic guidance documents which articulate the Government's intentions for RAAF Base Amberley. These documents make it clear that RAAF Base Amberley will continue to be one of the three key bases for generating and sustaining capability, particularly for air transport, strike capability and combat support.

The Government intends that RAAF Base Amberley will remain the home base for the Super Hornets and that the 12 new EA-18G Growler electronic attack aircraft also will be based there. It is also anticipated that some of the new Joint Strike Fighters will be located at Amberley.

RAAF Base Amberley is the preferred location for most of the airlift capability. There are now six C-17 Globemaster III at the Base and a dedicated maintenance facility is required. RAAF Base Amberley will be the main operating base for ten new C-27J Battlefield Airlifter aircraft. It is anticipated that the C-130 Hercules fleet (or their replacement) will be relocated to Amberley subject to Government approval.

The master planning project considered the constraints on land use and development at the Base which includes flooding, heritage values, ecological values, contaminated sites, and a spectrum of operational constraints such as explosive ordnance safety templates, security requirements, obstruction clearance surfaces and safety clearances around runways and taxiways.

The project undertook a multi-criteria analysis of three development options aimed at balancing capability requirements, the primacy of Flight Line land use, long term cost savings, minimising environment and heritage impacts, and minimising operational and safety impediments.

**Option One** would retain the heritage precinct and continue its use for low value purposes such as non essential storage and minor maintenance. However, Option One would not permit the strategic value of the Flight Line to be realised, as envisaged in Defence strategic documents such as the Defence White Papers 2009 and 2013 and the Australian Defence Force Posture Review (ADFPR). It could not accommodate the C-130 Hercules aircraft and other air lift capability, it would not permit facilities and capability functions to be arranged in an operationally effective and cost effective manner, and it would not provide for future expansion and upgrades.

The Master Plan considered sub-option 1A, to accommodate medium airlift capability to the north of the Air Movements/C-17 apron. This option would be inefficient for capability, it would require substantial flood mitigation works, relocation of explosive ordnance facilities, a new taxiway, and intrusion into the Hansen's Farm Conservation Area. This sub-option is considered not viable on the basis of capability, cost and potential environmental and indigenous heritage impacts.

**Option Two** would require removing the buildings from the heritage precinct. This option offers a redevelopment configuration that would accommodate all the capability currently proposed for the Base. The disadvantages of this option are that it would separate tactical and medium air lift capability into two areas, it would restrict expansion of hangar accommodation and it would prevent further development of the high security precinct. It also has some hangar facilities located in flood prone areas that would require additional flood protection works to buildings. This arrangement also subsequently impacts maintenance regularity to operational aircraft.

**Option Three** also requires removing the buildings from the heritage precinct. It would accommodate all the proposed capability, it co-locates the tactical and medium air lift and it offers greater scope for future capability expansion and development. Option Three arranges facilities and capability elements in the most operationally and cost effective manner (see chapter 4, Flight Line Options Assessment, AECOM, 2014).

The multi-criteria analysis demonstrated that there is no feasible alternative to removing the heritage buildings within the Flight Line. The analysis shows that Option Three offers the most operationally efficient and effective configuration of infrastructure and therefore maximises the strategic value of the Flight Line – providing Government with a more cost efficient capability.

Defence considers that there is no feasible or prudent alternative to removing the heritage buildings and redeveloping the Southern Apron in order to meet the Government's current and future capability requirements at this key Defence property. Option Three is Defence's preferred option as it maximises the strategic value of the Flight Line.

## **2.3 Alternative locations, time frames or activities that form part of the referred action**

N/A

#### **2.4 Context, planning framework and state/local government requirements**

The action does not require any approvals from state or local governments.

The proposed action is by a Commonwealth agency and will occur on Commonwealth land. The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) is the primary legislation that applies to the activity. The EPBC Act Significant Impact Guidelines 1.2 are relevant to this proposed action.

In addition, Defence revised and updated the Heritage Management Plan for the whole of RAAF Base Amberley (Converge, 2013).

#### **2.5 Environmental impact assessments under state or territory legislation**

N/A

#### **2.6 Public consultation (including with Indigenous stakeholders)**

As a Commonwealth department, Defence expenditure is analysed by the Parliamentary Standing Committee on Public Works under the *Public Works Committee Act 1969*. Any facility project of value greater than \$15 million requires referral to the Committee. Ordinarily, the Committee will conduct public hearings prior to putting its recommendations about funding the project to the Parliament.

#### **2.7 A staged development or component of a larger project**

N/A

## 3 Description of environment & likely impacts

### 3.1 Matters of national environmental significance

#### 3.1 (a) World Heritage Properties

##### Description

RAAF Base Amberley is not on or near a World Heritage Property.

##### Nature and extent of likely impact

N/A

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#### 3.1 (b) National Heritage Places

##### Description

RAAF Base Amberley is not a National Heritage Place.

##### Nature and extent of likely impact

N/A

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#### 3.1 (c) Wetlands of International Importance (declared Ramsar wetlands)

##### Description

The proposed action is not located on or near any Wetlands of International Importance. RAAF Base Amberley is located approximately 70 km upstream from the Moreton Bay Ramsar site.

##### Nature and extent of likely impact

The demolition activity is not anticipated to result in the release of any pollutants into waterways.

Taking into account the 70 km separation distance to the Ramsar site, the scale of existing urban/industrial development within the sub-catchment and that any impacts to surface water quality would in the worst case be highly localised, and the implementation of measures to prevent pollutants entering waterways, it is highly unlikely that the proposed demolition of buildings would impact on the ecological character of the Ramsar site.

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### **3.1 (d) Listed threatened species and ecological communities**

#### **Description**

The proposed action will take place on a developed site that has no natural habitat other than mature remnant trees that were retained for amenity and landscaping purposes among the buildings, roads, sports fields and car parks. Koalas are present on the RAAF Base and small numbers are found in landscaping trees in the Flight Line.

#### **Nature and extent of likely impact**

Given the developed nature of the site and the lack of habitat, the action is not expected to have significant impacts on listed threatened species or ecological communities. The potential impact on koalas is discussed below in s3.3 (a).

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### **3.1 (e) Listed migratory species**

#### **Description**

RAAF Base Amberley does not support suitable habitat where listed migratory birds are likely to occur.

#### **Nature and extent of likely impact**

N/A

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### **3.1 (f) Commonwealth marine area**

(If the action is in the Commonwealth marine area, complete 3.2(c) instead. This section is for actions taken outside the Commonwealth marine area that may have impacts on that area.)

#### **Description**

RAAF Base Amberley is an inland site about 50 km from the coast and not located near a Commonwealth marine area.

#### **Nature and extent of likely impact**

N/A

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### **3.1 (g) Commonwealth land**

(If the action is on Commonwealth land, complete 3.2(d) instead. This section is for actions taken outside Commonwealth land that may have impacts on that land.)

#### **Description**

The proposed action will take place on Commonwealth land.

#### **Nature and extent of likely impact**

Refer to Section 3.2 (d) for a description of the nature and extent of likely impacts.

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### 3.1 (h) The Great Barrier Reef Marine Park

#### Description

RAAF Base Amberley is an inland site in south-eastern Queensland and is not in a catchment that discharges into the Great Barrier Reef Marine Park.

#### Nature and extent of likely impact

N/A

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### 3.1 (i) A water resource, in relation to coal seam gas development and large coal mining development

#### Description

N/A

#### Nature and extent of likely impact

N/A

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## 3.2 Nuclear actions, actions taken by the Commonwealth (or Commonwealth agency), actions taken in a Commonwealth marine area, actions taken on Commonwealth land, or actions taken in the Great Barrier Reef Marine Park

3.2 (a)	Is the proposed action a nuclear action?	No	

If yes, nature & extent of likely impact on the whole environment

3.2 (b)	Is the proposed action to be taken by the Commonwealth or a Commonwealth agency?		
		Yes	

If yes, nature & extent of likely impact on the whole environment

The Department of Defence is a department of the Commonwealth Government.

Refer to Section 3.2 (d) for a description of nature and extent of potential impacts.

3.2 (c)	Is the proposed action to be taken in a Commonwealth marine area?	No	

If yes, nature & extent of likely impact on the whole environment (in addition to 3.1(f))

3.2 (d)	Is the proposed action to be taken on Commonwealth land?		Yes (provide details below)
		Yes	

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**If yes, nature & extent of likely impact on the whole environment (in addition to 3.1(g))**

As detailed above in s3.1, the proposed action will take place in a greatly modified part of RAAF Base Amberley that consists of pavements, buildings, recreational facilities, car parks and parklands with native and exotic landscaping trees. The site has minimal natural habitat or environmental values, although small numbers of koalas are regularly found in the landscaping trees. Potential impacts on koalas are discussed in s3.3 (a).

The Flight Line works will be undertaken according to construction industry best practice procedures that will manage all potential environmental risks such as dust and contamination of the air and surface water. Demolition materials will be handled by a licenced waste contractor and where possible, building materials will be recycled. The impacts of the action on the natural environment, people and communities are expected to be minor, localised and temporary.

The only appreciable adverse impact will be on the historic built heritage values. The proposed action will result in permanent loss of some heritage buildings and landscape features as detailed in s3.3 (h).

**3.2 (e)**

**Is the proposed action to be taken in the Great Barrier Reef Marine Park?**

No

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**If yes, nature & extent of likely impact on the whole environment (in addition to 3.1(h))**

### **3.3 Other important features of the environment**

#### **3.3 (a) Flora and fauna**

The heritage precinct is a greatly modified part of RAAF Base Amberley that consists of pavements, roads, buildings, recreational facilities, car parks and parklands with mature remnant native trees and planted native and exotic landscaping trees.

Koalas are present on RAAF Base Amberley and small numbers are regularly found in mature remnant and planted landscape trees, especially *Eucalyptus tereticornis*, in the heritage precinct. The following table addresses criteria in the Interim Koala Referral Advice for Proponents (Dept of Environment, 2012).

<b>Criterion</b>	<b>Response</b>	<b>Discussion</b>
Koala Survey: do koalas or their habitat occur in the project area?	Yes	<p>Koalas are present on the Base and in surrounding vegetated land. Defence has conducted koala surveys in most years since 2007. The survey method in the developed area of the Base, including the Flight Line, was to search every tree. Other parts of the Base were searched less intensively by driving and walking transects. Therefore the numbers sighted on other areas of the Base are likely to be an underestimate of the total population.</p> <p>The results show that small numbers of koalas are found regularly in landscape trees within the Flight Line (Figure 7, AECOM, 2014). Some individuals are repeatedly seen in these trees and are known to have raised young while living there.</p>

		<table><tr><th>Year</th><th>Total koalas sighted on the Base</th><th>No. of those koalas in the Flight Line area</th></tr><tr><td>2007</td><td>20</td><td>7</td></tr><tr><td>2008</td><td>14</td><td>7</td></tr><tr><td>2009</td><td>14</td><td>5</td></tr><tr><td>2010</td><td>9</td><td>3</td></tr><tr><td>2011</td><td>10</td><td>2</td></tr><tr><td>2012</td><td>12</td><td>2</td></tr></table>	Year	Total koalas sighted on the Base	No. of those koalas in the Flight Line area	2007	20	7	2008	14	7	2009	14	5	2010	9	3	2011	10	2	2012	12	2
Year	Total koalas sighted on the Base	No. of those koalas in the Flight Line area																					
2007	20	7																					
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2009	14	5																					
2010	9	3																					
2011	10	2																					
2012	12	2																					
Habitat description and assessment		<p>The koala habitat on the Base comprises regrowth woodland in the relatively undeveloped western part which forms a broad, although poorly connected, corridor linking riparian vegetation along Warrill Creek to Hansen's Farm and the Bremer River.</p> <p>Hansen's Farm is a 500 ha portion in the north west of the Base, bounded by the Bremer River. Hansen's Farm is open space and managed by Defence for conservation. About half the area is grassland and half regrowth eucalypt woodland including <i>E. tereticornis</i>, providing habitat for a variety of native species including koalas. It is the usual release site for koalas from the Base that have been rehabilitated following injury or disease.</p> <p>In the Flight Line, remnant and planted landscape trees, especially <i>E. tereticornis</i>, appear to provide food and shelter for a small number of koalas. However, this habitat is not likely to be viable in the long term as there is no natural recruitment of habitat trees, the land is maintained for utility and amenity purposes, and it is subject to growing development requirements.</p> <p>A broadscale assessment of koala habitat in the region by the Queensland Government classified land west of the Flight Line as of medium or low value for rehabilitation as koala habitat. Land within the Flight Line was not identified as koala habitat (see Figure 7, AECOM, 2014).</p>																					
Is the population in the Flight Line an Important Population?	No	The small number of koalas using the landscape trees in the Flight Line does not constitute a population that is necessary for the long-term survival and recovery of the species; they are not a key source population for breeding or dispersal; they are not necessary for maintaining genetic diversity and they are not at the limits of the koala's range. The proposed action in the Flight Line is expected to have minimal effects on the koala population on the Base as the woodland habitat in the western areas will not be impacted.																					
Is the habitat in the Flight Line critical to the survival of the koala?	No	Landscape trees in the Flight Line are not viable long-term habitat for koalas, nor do they provide a dispersal corridor to other areas of habitat. At best these trees provide shelter and feed for a small number of resident koalas and for those straying temporarily from woodland in the west of the property.																					
Avoiding or reducing impacts on the koala		<p>The purpose of the Flight Line Master Plan is to facilitate Defence's intention to concentrate infrastructure in already developed sites near the runway and distant from the more intact koala habitat on the Base.</p> <p>If trees need to be removed, wildlife experts will be brought in to find and, if necessary, relocate any koalas that are present.</p>																					
Conclusion: Is the proposal likely to have a significant impact on the koala?	No	The koala habitat within the Flight Line area is not viable in the long-term and the koalas that are found there do not constitute an Important Population. The proposed action will not affect the broad areas of woodland koala habitat in the western part of the Base.																					

The following table addresses the Koala habitat assessment tool in the Draft EPBC Act referral guidelines for the vulnerable koala (DoE, 2014). Ipswich has a mean annual rainfall of 877mm and the RAAF Base is therefore considered a coastal site for the purposes of the assessment tool.

Attribute	Score	Comment
Koala occurrence	2	One or more koalas have been sighted in the last two years.
Vegetation composition	0	The vegetation on the site does not constitute woodland or forest. It comprises remnant trees in an urban/industrial landscape.
Habitat connectivity	0	The site is fragmented habitat with roads, buildings, carparks and parkland.
Key threats	1	There is occasional mortality from vehicle strike.
Recovery value	0	The site is a small area, with no prospect of being maintained in the long term as koala habitat.
Total	3	The site is unlikely to be important for the recovery of the koala

### 3.3 (b) Hydrology, including water flows

Warrill Creek forms much of the Base's southern boundary. It rises in the Great Dividing Range 50km southwest of the Base. The catchment upstream of the Base is about 920km<sup>2</sup>. A tributary, Reynolds Creek, is dammed at Moosegerah, about 45 km upstream of the Base. Water is extracted from Warrill Creek for agricultural and urban supply.

The Bremer River flows a few hundred metres to the north and east of the Base. It rises in Little Liverpool Range 45 km southwest of the Base and its catchment is about 630 km<sup>2</sup>. There are no control structures on the River although it is used for agricultural and industrial water supply. Warrill Creek and the Bremer River join a few hundred metres east of the Base, before flowing through the centre of Ipswich, and further east, into the Brisbane River.

RAAF Base Amberley is on a floodplain and much of the airfield is within the one in 100 year flood extent. Recent floods, namely in 1974, 2011 and 2013 have inundated parts of the airfield, particularly the northern end of the runway and Flight Line. The southern end, where the heritage precinct occurs, is at the highest elevation and is the least prone to flooding of any part of the Flight Line (see Figure 6, AECOM, 2014).

### 3.3 (c) Soil and Vegetation characteristics

The geology map 1:100 000 series for Ipswich defines the general geological features of RAAF Base Amberley. Quaternary sediments of sand, silt, gravel and clay from undifferentiated floodplains under river terrace cover the majority of the property. Cretaceous Amberley Basin sedimentary rocks including claystone, siltstone and sandstone characterise the more elevated central western zone. The airfield is built on alluvial material with surface clay overlying sandy substrates. Shale lies at a depth of about 20m. Soils are generally reactive and dispersive and are likely to have a high potential for erosion.

Prior to the establishment of the Base, the Amberley area was extensively cleared for grazing and cropping. The Queensland regional ecosystem maps show Amberley as 'non remnant' vegetation, meaning that none of the land would fall within classifications that carry clearing controls under the Queensland *Vegetation Management Act 1999*. A fauna and flora assessment of the Base in 2001 found that about 25% of the property has native regrowth and remnant vegetation. The remainder is grassland, airfield, and land developed for accommodation, administration, military operations and training, and aircraft maintenance.

### 3.3 (d) Outstanding natural features

This site does not contain any outstanding natural features.

### 3.3 (e) Remnant native vegetation

The land in and around the heritage precinct has been extensively modified by past activities and contains only isolated remnant native trees that have been retained for amenity and landscaping purposes.

### 3.3 (f) Gradient (or depth range if action is to be taken in a marine area)

RAAF Base Amberley is on relatively flat land between Warrill Creek and the Bremer River. The eastern part of the Base is between 20m and 26m AHD, and the western part rises from 20m at Warrill Creek to 54m AHD.

### 3.3 (g) Current state of the environment

The RAAF Base has natural, modified and developed land, ranging from regrowth native woodland, riverine habitats and mown grassland around the airfield to built up areas for administration, accommodation, sporting, military operations and maintenance uses. The heritage building removals are proposed to occur in the developed part of the Base.

### 3.3 (h) Commonwealth Heritage Places or other places recognised as having heritage values

RAAF Base Amberley is listed on the Commonwealth Heritage List (CHL) primarily for its historic significance in relation to pre World War II Air Force planning and design under the British influence, its aesthetic qualities and its rarity (ID No 105650). The Base is also significant for its later role in the Korean War, the Vietnam War and in atomic testing in South Australia and Western Australia.

The farming property 'Amberley' was purchased by the Australian Government in 1938 to provide a new establishment for the RAAF. Construction commenced before the start of World War II, however, when Japan and then the United States of America entered the war, the strategic location of the new Base prompted its rapid development. The Base became the terminus for trans-Pacific air transport, and a focus for aircraft assembly, testing and deployment northwards into the Pacific theatre.

The CHL listing covers over 40 buildings including the former power generator building, guard house, sergeant's mess, airmen's mess, cinema and hospital. Numerous prefabricated structures such as Lysaght Huts, Bellman Hangars, P1 type huts and Riley Newsum Houses were erected on the Base during the War and those remaining are also noted in the CHL listing.

Landscape features in the CHL listing include fig trees, camphor laurel trees, Norfolk Island pines and hoop pines, as well as the Aviation Street streetscape, the Parade Ground and the diamond shaped Command and Administration sub-precinct.

The following table addresses the heritage impact criteria in the EPBC Significant Impact Guidelines 1.2.

Will the proposed action...	Response	Discussion
Permanently destroy, remove or substantially alter the fabric (physical material including structural elements and other components, fixtures, contents and objects) of a heritage place?	Yes	The action will require demolition or relocation of most of the buildings in the World War II heritage precinct, and clearing of the landscape elements such the layout of the old Base, its roads and planted trees.

Involve extension, renovation, or substantial alteration of a heritage place in a manner that is inconsistent with the heritage values of the place?	No	The action does not involve the extension, renovation, or substantial alteration of heritage buildings.
Involve the erection of buildings or other structures adjacent to, or within important sight lines of, a heritage place which are inconsistent with the heritage values of the place?	Yes	New aviation-related buildings and structures will be erected following the removal of the existing heritage buildings and features. This will be inconsistent with the heritage values of the place which refer to the World War II era.
Substantially diminish the heritage value of a heritage place for a community or group for which it is significant?	Yes	The action will substantially diminish the heritage values of the place for individuals or groups who hold an interest in RAAF Base Amberley's World War II era history.
Substantially alter the setting of a heritage place in a manner which is inconsistent with the heritage values of the place?	Yes	The action will result in substantial changes to the heritage setting. Some demountable buildings that are able to be reused will be relocated to a new setting.
Substantially restrict or inhibit the existing use of a heritage place as a cultural or ceremonial site?	No	There is no existing use of the site for cultural or ceremonial purposes.

### 3.3 (i) Indigenous heritage values

The Amberley area forms part of a significant Aboriginal cultural landscape incorporating the waterways of Warrill Creek, Deebling Creek, Purga Creek and the Bremer River, as well as Flinders Peak and other dreaming mountains. The area is known to have traditional associations with Aboriginal burial places, campsites, artefact scatters, stone resources and scarred trees, mostly along the riparian corridors. There is a potential for subsurface Aboriginal artefacts in undeveloped parts of the Base.

Works on the Flight Line will be conducted in accordance with the RAAF Base Amberley Heritage Management Plan (Converge, 2013), particularly Appendix I, Indigenous Cultural Heritage Zoning Plan and Indigenous Cultural Heritage Procedure, and Appendix J, Procedure for Incidental Finds. The Heritage Management Plan was developed with input from Jagera Daran Pty Ltd, the body representing the Aboriginal custodians.

The Indigenous Cultural Heritage Zoning Plan has assessed the previously developed part of the Base including the Flight Line as having low to nil potential for surface and sub-surface cultural heritage. No known Indigenous heritage sites will be affected by the proposed action. Given that the Flight Line has been extensively modified by past activities, the presence of Indigenous heritage values is considered most unlikely.

All earthworks and excavations on the Flight Line will be subject to the Procedure for Incidental Finds which requires work to stop, the site to be secured and protected and the site supervisor to immediately notify Defence environmental staff.

### 3.3 (j) Other important or unique values of the environment

There are no other important or unique values of the environment affected by, or in close proximity to the proposed action.

### 3.3 (k) Tenure of the action area (eg freehold, leasehold)

The site is Commonwealth land, purchased in 1938 and occupied by the Department of Defence.

### **3.3 (l) Existing land/marine uses of area**

RAAF Base Amberley is a working military base used only for Defence and related purposes.

### **3.3 (m) Any proposed land/marine uses of area**

RAAF Base Amberley will continue to be operated and developed as one of the Australian Defence Force's key bases for generating and sustaining military capability.

## 4 Measures to avoid or reduce impacts

Defence will complete a detailed Heritage Impact Assessment in accordance with the Heritage Management Plan 2013 and a structural analysis of affected heritage buildings in order to determine the feasibility of relocation and adaptive re-use elsewhere. This will include analysis of potential receiving sites and recommendations on the feasibility of relocating selected heritage buildings to retain some representative examples of the built heritage on the Base.

Defence will also commission archival recording of the heritage precinct and all heritage buildings in accordance with the Burra Charter principles and guided by the New South Wales Heritage Office Guidelines "*Interpreting Heritage Places and Items: Guidelines*". These guidelines are recognised in the Defence Heritage Toolkit as best practice guidelines. The archival recording will be completed before any demolition or relocation works begin.

Archival recording will ensure high quality documentation of the heritage values, including a report detailing the appearance, construction and history of the site and the buildings as they existed prior to removal. It will allow future generations to understand the history and contribution of the Base to Australia's national defence and support of its wartime allies.

As opportunities arise, Defence will continue to plant preferred koala food tree species in suitable undeveloped and buffer areas on the Base to improve habitat quality and connectivity.

The removal of buildings will be undertaken in line with best practice industry standards. Tender documentation will include a draft Defence Environmental Clearance Certificate (ECC) to assist potential contractors to accurately cost their bids including environmental management measures.

The selected contractor(s) will be required to provide a Construction Environmental Management Plan (CEMP) approved by Defence environmental personnel. The CEMP will include requirements for soil contamination testing, site management, disposal requirements, and any other factors relevant to environmentally responsible management of the project. The ECC will require the contractor(s) to submit reports including waste docketing, incident reporting, and a post-activity report. For the duration of the project, the contractor(s) will be required to operate under the RAAF Base Amberley Environmental Management System.



## 5 Conclusion on the likelihood of significant impacts

### 5.1 Do you **THINK** your proposed action is a controlled action?

<input type="checkbox"/> No	No, complete section 5.2
<input type="checkbox"/>	Yes, complete section 5.3

### 5.2 Proposed action **IS NOT** a controlled action.

The historic buildings are in many cases unoccupied or used for low value purposes such as storage. They are deteriorating and there is little, if any prospect of obtaining sufficient resources to maintain these structures due to higher priorities that clearly support military capability. The proposed action presents a realistic and timely option for conserving and recording the key heritage values of the site.

Defence has conducted a rigorous master-planning process to examine all feasible and prudent alternatives for the long term management of the Flight Line. This process has reached the conclusion that there is no feasible and prudent alternative other than redeveloping the heritage precinct.

Defence will commission a heritage impact assessment to provide advice and recommendations on all measures that can reasonably be taken to mitigate the impact of the action on the heritage values. The assessment is expected to include advice on relocating representative examples of some buildings, and archival recording of the precinct and the buildings before any demolition or relocation commences.

### 5.3 Proposed action **IS** a controlled action

#### Matters likely to be impacted

<input type="checkbox"/>	World Heritage values (sections 12 and 15A)
<input type="checkbox"/>	National Heritage places (sections 15B and 15C)
<input type="checkbox"/>	Wetlands of international importance (sections 16 and 17B)
<input type="checkbox"/>	Listed threatened species and communities (sections 18 and 18A)
<input type="checkbox"/>	Listed migratory species (sections 20 and 20A)
<input type="checkbox"/>	Protection of the environment from nuclear actions (sections 21 and 22A)
<input type="checkbox"/>	Commonwealth marine environment (sections 23 and 24A)
<input type="checkbox"/>	Great Barrier Reef Marine Park (sections 24B and 24C)
<input type="checkbox"/>	A water resource, in relation to coal seam gas development and large coal mining development (sections 24D and 24E)
<input type="checkbox"/>	Protection of the environment from actions involving Commonwealth land (sections 26 and 27A)
<input type="checkbox"/>	Protection of the environment from Commonwealth actions (section 28)
<input type="checkbox"/>	Commonwealth Heritage places overseas (sections 27B and 27C)

## 6 Environmental record of the responsible party

	Yes	No
<p><b>6.1 Does the party taking the action have a satisfactory record of responsible environmental management?</b></p> <p><b>Provide details</b></p> <p>Defence has a strong commitment to environmental management across its estate and to minimising the environmental impact of its activities. Defence's national Environmental Management System (EMS) is the framework to ensure compliance with relevant legislation, policy and environmental and heritage requirements. The Defence EMS is consistent with the international standard ISO 14001, and two Defence sites maintain certification under the standard.</p> <p>Defence employs environmental professional staff in all Defence regions to advise and assist with the implementation of the EMS at a regional and local level.</p> <p>A core EMS document is the Defence Heritage Strategy which requires that Heritage Management Plans, complying with the EPBC Act, are developed and implemented for all sites and buildings with notable heritage value. The Heritage Management Plan for RAAF Base Amberley was revised and updated in 2013.</p> <p>It is the responsibility of all Defence personnel to abide by Heritage Management Plans, and Defence environment officers facilitate implementing the actions and policies, including interpretation, maintenance requirements and archival recording procedures if a building is to be removed or altered.</p>	Yes	
<p><b>6.2 Has either (a) the party proposing to take the action, or (b) if a permit has been applied for in relation to the action, the person making the application - ever been subject to any proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources?</b></p> <p><b>If yes, provide details</b></p>		No
<p><b>6.3 If the party taking the action is a corporation, will the action be taken in accordance with the corporation's environmental policy and planning framework?</b></p>	Yes	

**If yes, provide details of environmental policy and planning framework**

The Defence Environmental Policy identifies the following environmental vision:  
'Defence will be a leader in sustainable environmental management to support the ADF's capability to defend Australia and its national interests.'

The Defence Environmental Strategic Plan (2010 to 2014) is available from Defence's environmental website at ([www.defence.gov.au/environment](http://www.defence.gov.au/environment)).

As noted in s 6.1, Defence has a national EMS and a site EMS for RAAF Base Amberley.

**6.4 Has the party taking the action previously referred an action under the EPBC Act, or been responsible for undertaking an action referred under the EPBC Act?**

Yes

**Provide name of proposal and EPBC reference number (if known)**

- 2012/6462 Moorebank Units Relocation Project, Holsworthy Training Area, NSW.
- 2012/6430 Removal of Hammerhead Crane, Garden Island, NSW
- 2011/6039 Demolition of four buildings, Gallipoli Barracks, Enoggera QLD
- 2011/5896 Defence training facilities, Greenbank Training Area, QLD
- 2010/5747 Flying operations of the F-35 Joint Strike Fighter
- 2010/5316 Expansion of Cultana Training Area, SA
- 2008/4410 Australian Super Hornet flying operations at RAAF Base Amberley, QLD
- 2007/3567 Sale of surplus land at Ingleburn, NSW
- 2008/4251 Removal of Bellman Hangars due to structural deterioration, Point Cook, VIC
- 2007/3756 Transfer of Defence land at Majura, ACT

## 7 Information sources and attachments

(For the information provided above)

### 7.1 References

Converge, 2013. RAAF Base Amberley Heritage Management Plan. This is an internal working document not available to the general public.

AECOM, 2014. RAAF Base Amberley Flight Line Master Plan Strategic Analysis. Attached to this referral.

### 7.2 Reliability and date of information

Source and date of information:

Observations and site knowledge of Defence environmental staff at RAAF Base Amberley, 2013 and January 2014.

- RAAF Base Amberley Flight Line Master Plan Strategic Analysis, 2014.

RAAF Base Amberley Heritage Management Plan, 2013.

Reliability of information:

- The RAAF Base Amberley Flight Line Master Plan was prepared by an accredited consultant from the Defence Environment and Heritage Panel, with input from Defence environmental staff at RAAF Base Amberley.
- The Heritage Management Plan was prepared by an accredited heritage consultant from the Defence Environment and Heritage Panel, with input from Defence environmental staff at RAAF Base Amberley.

### 7.3 Attachments

		✓ attached	Title of attachment(s)
<b>You must attach</b>	figures, maps or aerial photographs showing the project locality (section 1)	✓	Figure 1. RAAF Base Amberley Flight Line Master Plan Strategic Analysis
	GIS file delineating the boundary of the referral area (section 1)		
	figures, maps or aerial photographs showing the location of the project in respect to any matters of national environmental significance or important features of the environments (section 3)	✓	Figure 5. RAAF Base Amberley Flight Line Master Plan Strategic Analysis
<b>If relevant, attach</b>	copies of any state or local government approvals and consent conditions (section 2.5)		
	copies of any completed assessments to meet state or local government approvals and outcomes of public consultations, if		

available (section 2.6)		
copies of any flora and fauna investigations and surveys (section 3)		
technical reports relevant to the assessment of impacts on protected matters that support the arguments and conclusions in the referral (section 3 and 4)	✓	RAAF Base Amberley Amberley Flight Line Master Plan, Strategic Analysis
report(s) on any public consultations undertaken, including with Indigenous stakeholders (section 3)		

## 8 Contacts, signatures and declarations

### Project title:

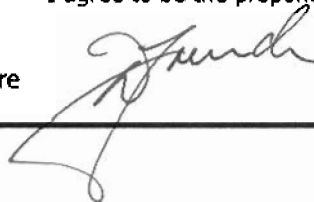
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#### 8.1 Person proposing to take action

Name David French  
Title Director Estate Planning – Qld, Vic, Tas  
Organisation Department of Defence  
ACN / ABN (if applicable) 68706814312  
Postal address PO Box 7925  
26 Brindabella Circuit  
Canberra Airport ACT 2609  
Telephone 02 6266 8549  
Email [david.french1@defence.gov.au](mailto:david.french1@defence.gov.au)

Declaration I declare that to the best of my knowledge the information I have given on, or attached to this form is complete, current and correct.  
I understand that giving false or misleading information is a serious offence.  
I agree to be the proponent for this action.

Signature



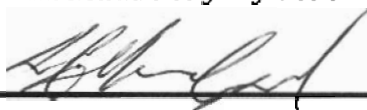
Date 29 Jan 2014

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**8.2 Person preparing the referral information (if different from 8.1)**

Name Lloyd Woodford  
Title Director, Environment Protection and Assessments  
Organisation Department of Defence  
ACN / ABN (if applicable) 68706814312  
Postal address PO Box 7925  
26 Brindabella Circuit  
Canberra Airport ACT 2609  
Telephone 02 6266 8659  
Email Lloyd.woodford@defence.gov.au  
Declaration I declare that to the best of my knowledge the information I have given on, or attached  
to this form is complete, current and correct.  
I understand that giving false or misleading information is a serious offence.

Signature



Date

24 January 2014