



13070  
27 June 2014

Mr Alan Stoneham  
The General Manager  
Penrith City Council  
601 High Street  
PENRITH NSW 2760

Attention: Gavin Cherry

Dear Gavin

**TEMPORARY HAUL ROAD  
CENTRAL PRECINCT, ST MARYS**

JBA has prepared this Statement of Environmental Effects (SEE) on behalf of Lend Lease in support of a Development Application (DA) for the construction of a temporary haul road. The proposed haul road will connect the St Mary's Central Precinct with Link Road in the Dunheved Industrial Precinct via the road corridor that traverses the Dunheved Precinct, the Regional Park and Regional Open Space of the St Marys Regional Environmental Plan (REP) Site.

The proposed temporary haul road traverses the Penrith and Blacktown local government areas (LGA) as such this application has been submitted concurrently with both Councils.

The road will be used to facilitate the movement of trucks in support of the importation of fill to the Central Precinct. The importation and compaction of fill within the Central Precinct will be the subject of a future development application.

This report describes the Site, its environs, the proposed development, and provides an assessment of the proposal in terms of the relevant matters for consideration under Section 79C(1) of the Environmental Planning and Assessment Act 1979 (EP&A Act). It should be read in conjunction with the following supporting documentation appended to the report:

- DA Form, DA Fee and Integrated Development cheque;
- Location Plan and Engineering Plans prepared by Cardno (**Attachment A**);
- Flora and Fauna Assessment prepared by Cumberland Ecology and accompanying letter (**Attachment B**);
- St Marys site-wide Site Audit Statement CHK001/1 issued on 7/6/1999 (**Attachment C**);
- Assessment of European Heritage for the Dunheved Precinct prepared by Casey & Lowe (**Attachment D**);
- Aboriginal Heritage Impact Permits, Aboriginal Heritage Impact report for the Dunheved Precinct, and accompanying letters prepared by GML Heritage and Jo McDonald CHM (**Attachment E**);
- Civil Report prepared by Cardno(**Attachment F**);
- Traffic Assessment Report prepared by Cardno (**Attachment G**);
- Waste Management Plan prepared by Cardno (**Attachment H**); and
- Acoustic and Dust Review Report prepared by Wilkinson Murray (**Attachment I**).

### 1.0 SITE DESCRIPTION & BACKGROUND

The St Marys Site was endorsed by the NSW Government for inclusion on the Urban Development Program (UDP) in 1993. The St Marys Site is located approximately 45km west of the Sydney CBD, 5km north-east of Penrith City Centre and 12km west of the Blacktown City Centre (refer to Figure 1).



Figure 1 – St Marys Site and Precincts  
Source: Central Precinct Plan and Development Control Strategy

The St Marys Site has an area of approximately 1,545ha, and stretches roughly 7 kilometres from east to west and 2 kilometres from north to south. It is bounded by Forrester Road and Palmyra Avenue in the east, The Northern Road in the west, Ninth Avenue and Palmyra Avenue in the north, and the Dunheved Industrial Area, Dunheved Golf Club and Cambridge Gardens, Werrington Gardens and Werrington County residential estates in the south.

The St Marys Site, which has been rezoned for a variety of uses, comprises 6 development “precincts”, namely the Western Precinct, Central Precinct, North and South Dunheved Precincts, Ropes Creek Precinct and Eastern Precinct. Developable areas within these Precincts are shown on Figure 2.

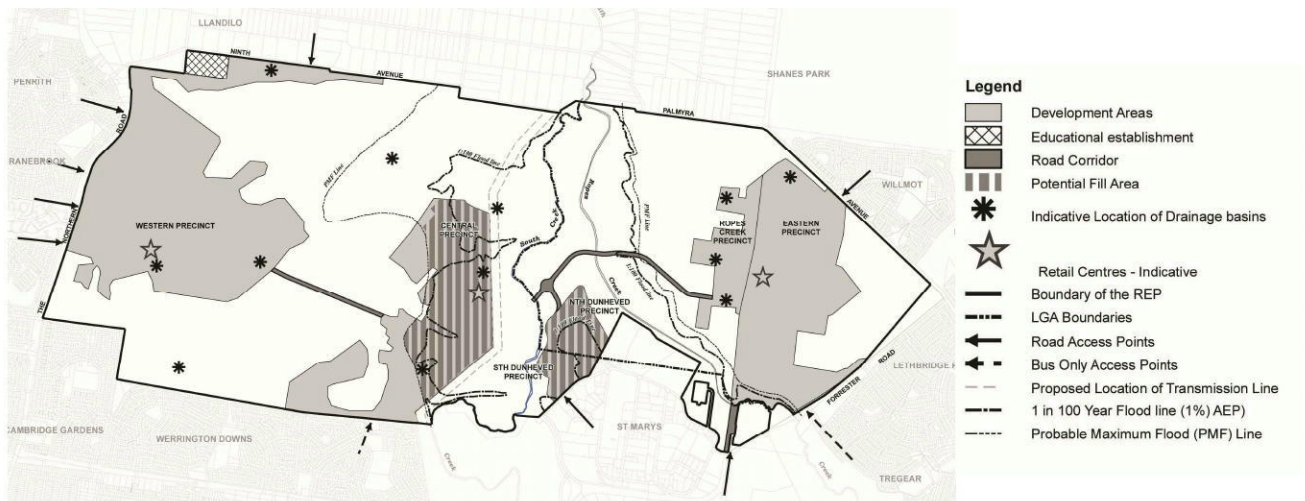


Figure 2 – Current SREP 30 Structure Plan

On 16 June 2003 the Minister for Infrastructure, Planning and Natural Resources announced the “release” of the Eastern, North Dunheved and South Dunheved Precincts (collectively known as the Dunheved Precinct). Subsequently, on 29 September 2006 the Minister released the remaining precincts including the Ropes Creek Precinct, Western Precinct and Central Precinct, paving the way for the preparation of a “Precinct Plan” for each of these areas. Precinct Plans have been prepared for the Central and Dunheved Precinct.

The Eastern (Ropes Crossing), Western (Jordan Springs) and Ropes Creek Precincts are largely developed, with Central and Dunheved Precinct remaining undeveloped. This application, whilst located within the Dunheved Precinct, is for the purpose of undertaking early works to support the future development of the Central Precinct.

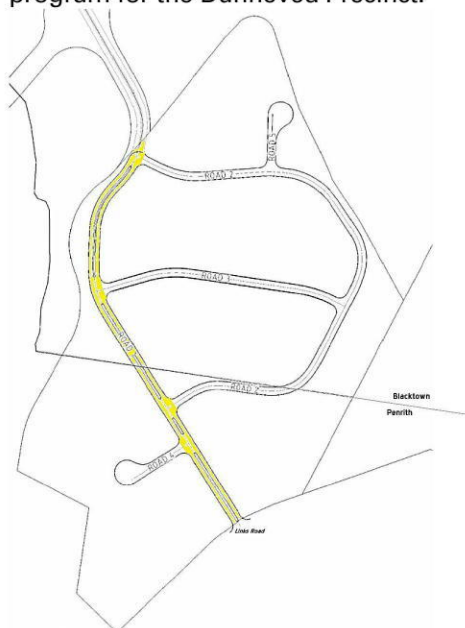
#### Prior Approval

In March 2008, both Penrith City Council (PCC) and Blacktown City Council (BCC) approved landfill and associated works within the Dunheved Precinct (PCC: DA07/0494, approved 7 March 2008 and BCC: DA07/1029 approved 9 March 2008) (herein referred to as the ‘Dunheved DA’). This application approved:

- Importation and compaction of fill, including the removal of trees over the majority of the site;
- Construction of associated stormwater engineering works;
- Construction of roads;
- Flood mitigation works;
- Environmental management works; and
- Subdivision of the site into 6 ‘super’ allotments, 1 allotment for future retail uses/outdoor eating area and 4 drainage reserve lots.

It should be noted that the portion of proposed roadway sought under this application which sits within the Dunheved Precinct, is already approved under the Dunheved Precinct DA as shown highlighted in yellow in **Figure 3** below.

The Dunheved Precinct DA within both Councils has been substantially commenced and Lend Lease plan to undertake the remainder of the approved works as part of a future development program for the Dunheved Precinct.



**Figure 3** – Roadways approved under the Dunheved Precinct DA  
Source: Parsons Brinkerhoff Civil Design Report submitted with the Dunheved Precinct DA

### **Council pre-lodgement meetings**

On 10 April 2014 a pre-lodgement meeting was held with PCC to discuss the future plans and applications for the Central Precinct. This meeting discussed three proposed applications being:

- DA01: demolition and remediation of the existing munitions factory buildings and associated hard stand areas;
- DA02: construction of a temporary haulage road between Links Road through to the existing internal link road between Ropes Crossing and the Central Precinct. This road is to provide for truck movements for DA03.
- DA03: importation and compaction of clean fill to raise the site levels of the Central Precinct above the 1:100 year flood level.

The key issue raised by PCC relating to DA02 was the provision of stormwater and erosion controls and waste management measures. This has been addressed within this application and stormwater and erosion plans are included at **Attachment A**.

On 22 May 2014 a pre-lodgement meeting was held with BCC to discuss the construction of a haul road. The key concern of BCC was the potential acoustic impacts from 24 hour construction works. These concerns have been considered as part of the application, and an Acoustic Report is included within this application to address Council's concerns.

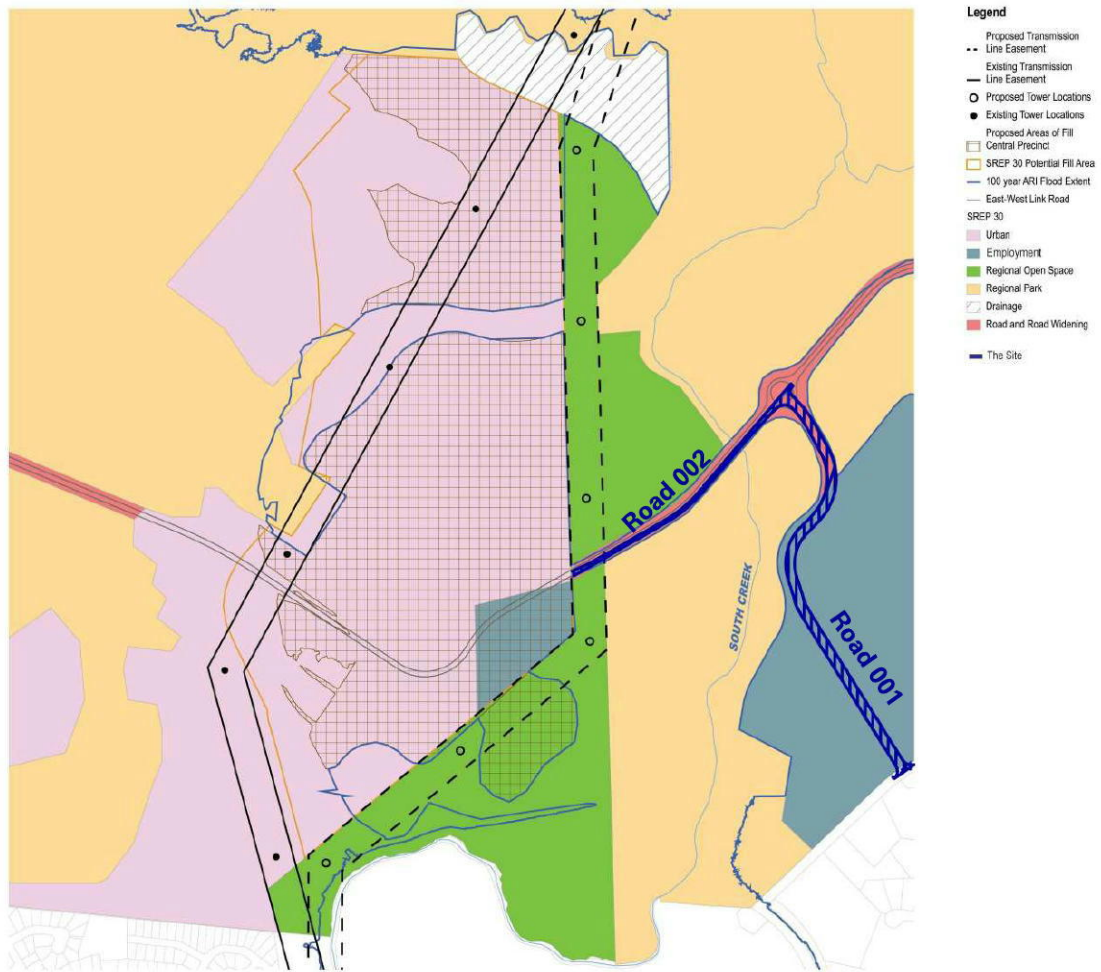
## **2.0 SITE ANALYSIS**

### **2.1 Site description**

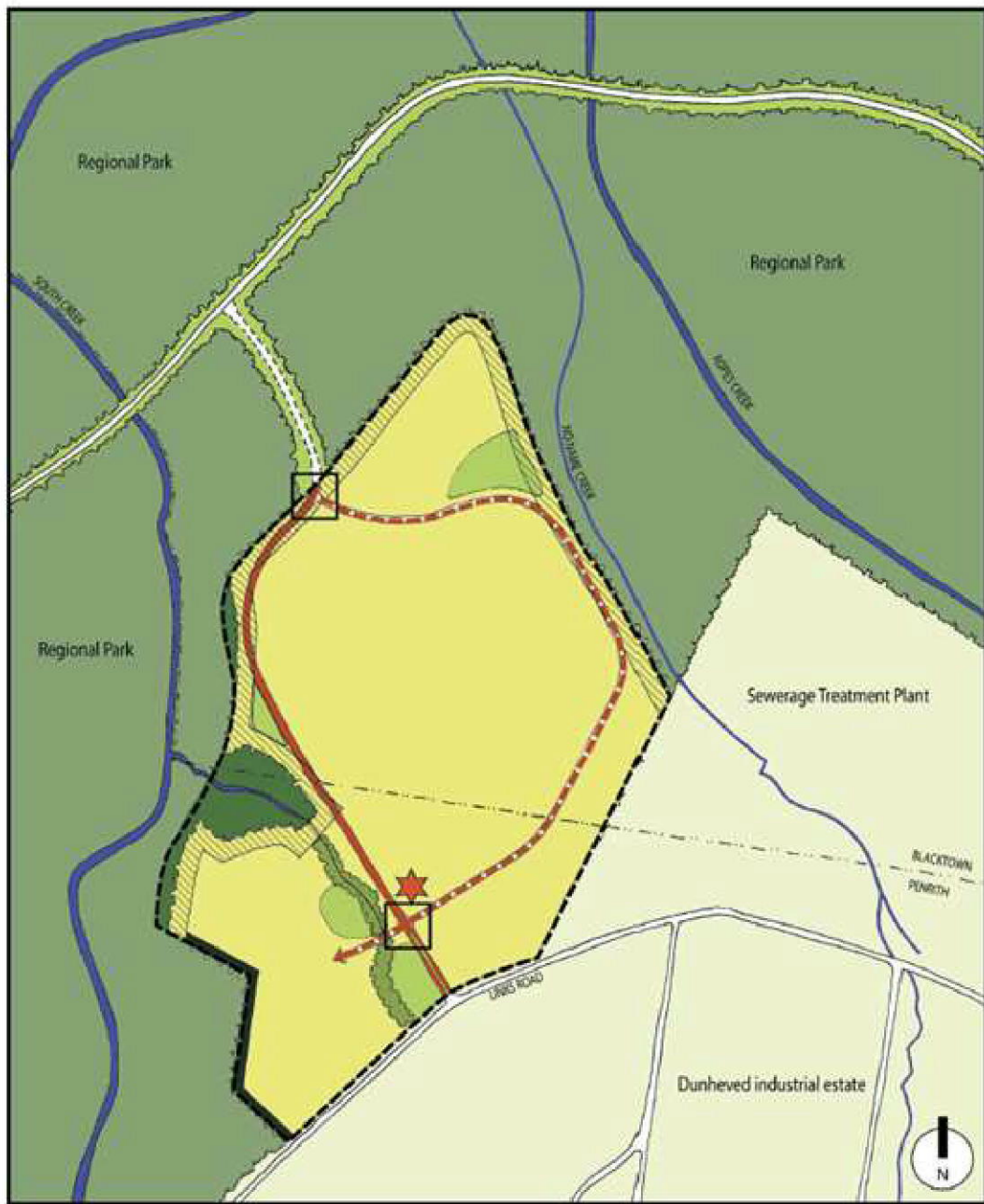
This application applies to the area of the proposed haulage road which is located within the designated road corridors zoned 'Road and Road Widening' or 'Employment' land within the North and South Dunheved Precincts and Regional Park areas as shown indicatively below in **Figure 4**. The road corridor and location of the proposed haul road, as shown in the plans at **Attachment A** is herein referred to as 'the Site'.

The Site aligns with the road design layout as designated in the Dunheved Framework Plan shown in **Figure 5**. Whilst the Site does not fall within the Central Precinct, the purpose of the development is to enable access to the Central Precinct via the Dunheved Precinct.

The Site traverses the LGA boundary of Penrith City Council (PCC) and Blacktown City Council (BCC) (see **Attachment A** for LGA boundary) and generally comprises a mix of existing roadways, cleared land and degraded regrowth forest.



**Figure 4 – The Site – indicative road alignment**  
 Source: Central Precinct Plan



### Framework Plan (indicative layout)



Figure 5 – Dunheved Precincts Framework Plan  
Source: North and South Dunheved Precinct Plan

The proposed haul road (the Site) begins in the north-west of Links Road, to the west of the intersection with Dunheved Circuit. The road heads in a north-westerly direction for around 1km, where the site follows the inside north-west boundary of the Dunheved Precinct. The north of the site intersects with the existing private east/west road (Road 002), and includes the upgrade of this roadway to the boundary with the Central Precinct boundary.

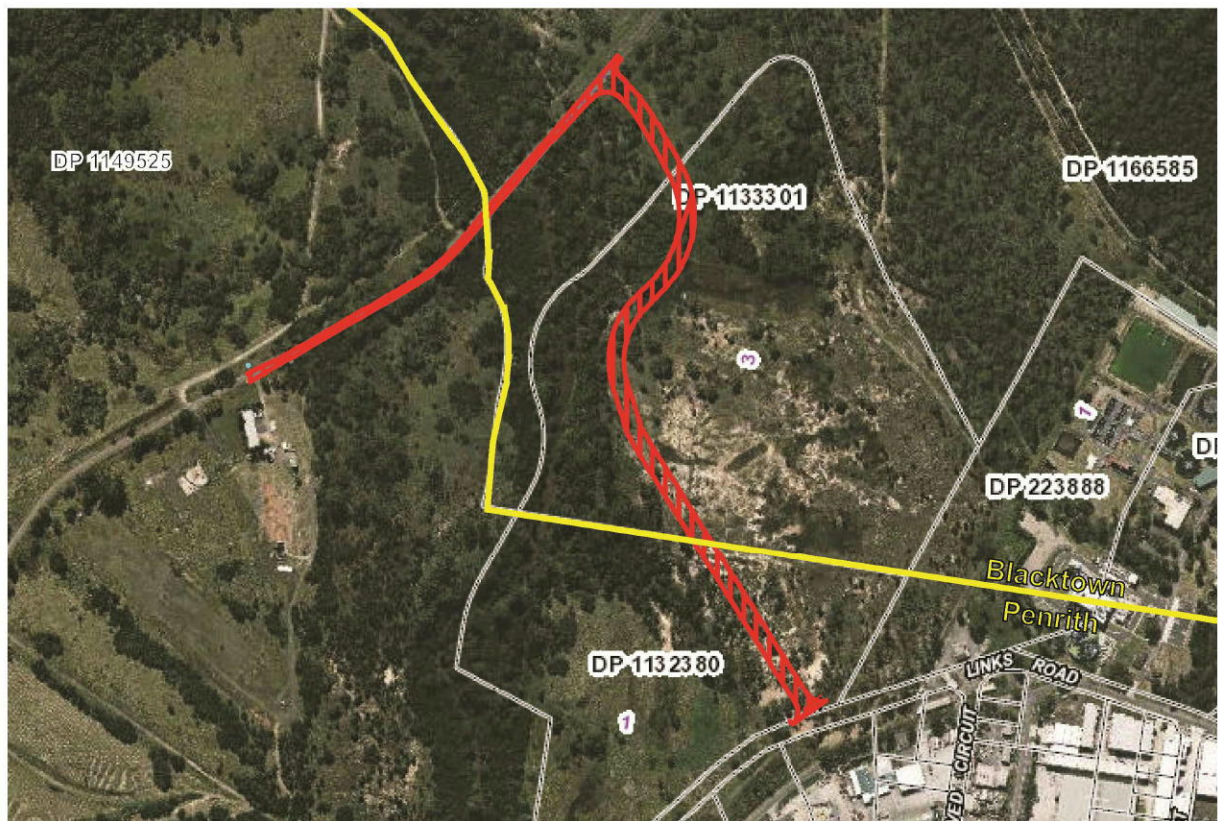
The site sits across the Blacktown and Penrith LGA boundary shown on the plans at **Attachment A**, and in **Figure 6** below.

**Ownership and legal description**

The legal description of the land this application applies is shown in **Figure 6** and described below in **Table 1**.

**Table 1** – Legal description of site

Lot & DP	Council Area
▪ Part Lot 1, DP1132380;	Penrith
▪ Part Lot 3, DP133301;	Blacktown
▪ Part Lot 2, DP1166585; and	Blacktown
▪ Part Lot 1037, DP1149525.	Penrith

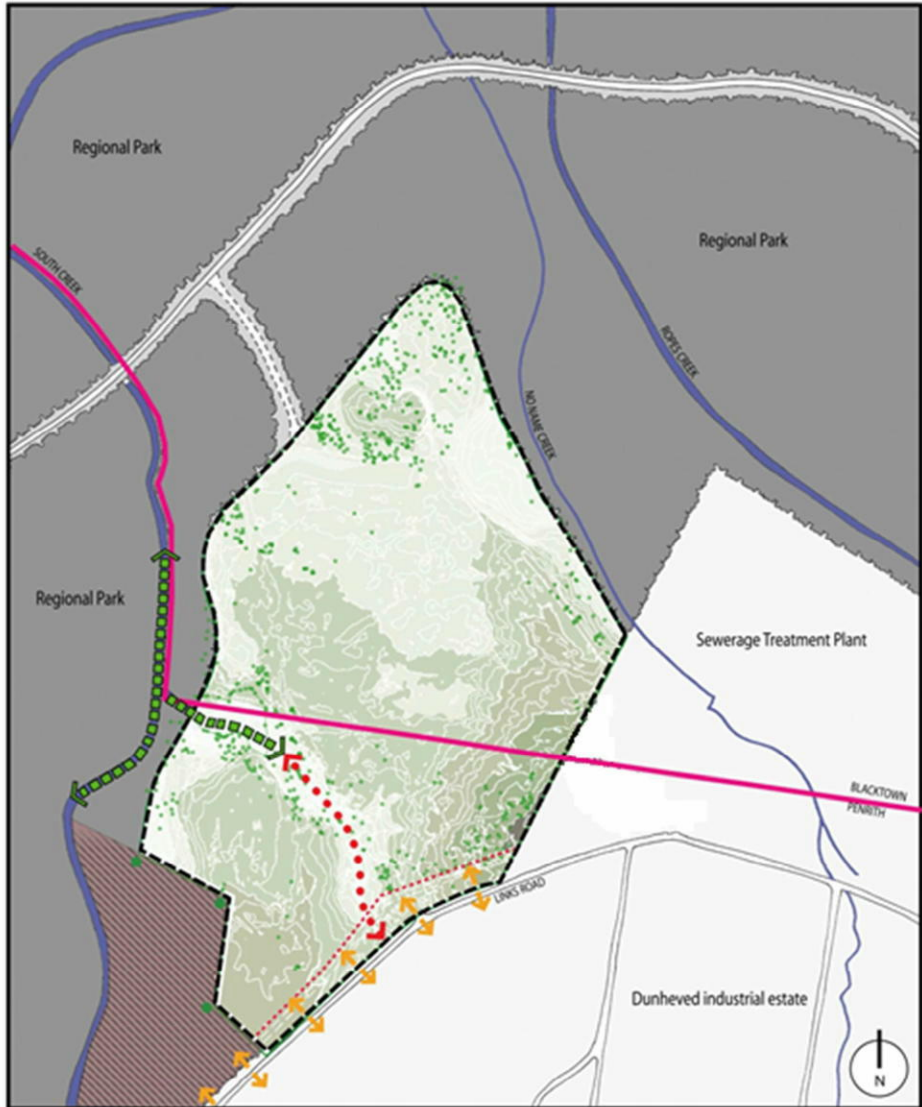


**Figure 6** – Aerial image showing lot and LGA boundaries  
 Source: [maps.six.nsw.gov.au](http://maps.six.nsw.gov.au)

St Marys Land Limited owns the Site. St Marys Land Limited is a subsidiary of ComLand Limited. Maryland Development Company is the joint venture company that was established by ComLand and Lend Lease Development to develop the larger St Marys Site.

## 2.2 Site Characteristics

General characteristics of the Site and the Dunheved Precincts are illustrated in **Figure 7**. A Site Plan is included in the Plans at **Attachment A**.



### Site Characteristics



**Figure 7** – Existing characteristics of the site  
Source: *Dunheved Precinct Plan*

## 2.3 Landform and Topography

The topography of the Site is generally flat with a minor drop in elevation from 20m AHD at the Site's intersection with Links Road, to 18m AHD at the intersection with the boundary of the Central Precinct.



## 2.4 Surrounding Development

In the north, the Site is predominantly surrounded by Regional Park and Regional Open Space.

To the west of the Site is South Creek, the existing Munitions Factories (currently under assessment for demolition by PCC under DA14/0411) and green field areas of undeveloped land which will form part of the future Central Precinct development

To the east of the Site is South Creek is the St Mary’s Sewage Treatment Plant, St Marys Water Recycling Plant and Sydney Water Maintenance Depot.

The south of the Site is the Dunheved Industrial Estate and future Dunheved Precinct development. The Dunheved Industrial Estate to the south is approximately 70ha in area and comprises a range of predominantly large scale light industrial units.

The south of the proposed haul road intersects with Links Road which is a two-way carriage way with a 60km/h speed limit. Links Road provides the main road through the adjoining Dunheved Industrial Park. It provides access from Forrester Road to the south east with Dunheved Golf Club to the south west. The road serves the Sydney Water Maintenance Depot and the St Marys Sewage Treatment Plant.

To the south west of the Site is the Dunheved Golf Club, a 55ha golf course with function and event facilities. Further to the south-west of the Site is the low density residential suburb of Werrington Downs. The nearest residential properties to the Site are 1km southwest of the site as outlined in **Table 2** below.

**Table 2** – Residential properties near the site

Residential properties	Distance from the site <sup>^</sup>	Description
Werrington County Residences	1000m	Suburban residences to the south-west of the site
Llandilo Residences	1500m	Rural residence to the north of the site.

Source: Wilkinson Murray Acoustic and Dust Report

<sup>^</sup>Measured from the nearest point of the site to the respective residential properties

## 2.5 Flora and Fauna

The Site is generally cleared with vegetation of various disturbance levels found across the Site. Detailed information relating to the Site’s vegetation and biodiversity was established in preparing Central Precinct Plan (CPP) (adopted in 2009) and Dunheved Precinct Plan (DPP) (adopted in 2007).

The CPP biodiversity documentation extends to cover much of the Site, as shown below in the vegetation map at **Figure 8**. The CPP maps also provide greater detail with regards to biodiversity than the Dunheved Precinct Plan (shown in **Figure 9**).

Further to this, the appended Flora and Fauna Assessment prepared by Cumberland Ecology was submitted with the Dunheved Precinct DA and is included at **Attachment B**. This provides an assessment of the flora and fauna on the Dunheved Precinct site.

### Flora

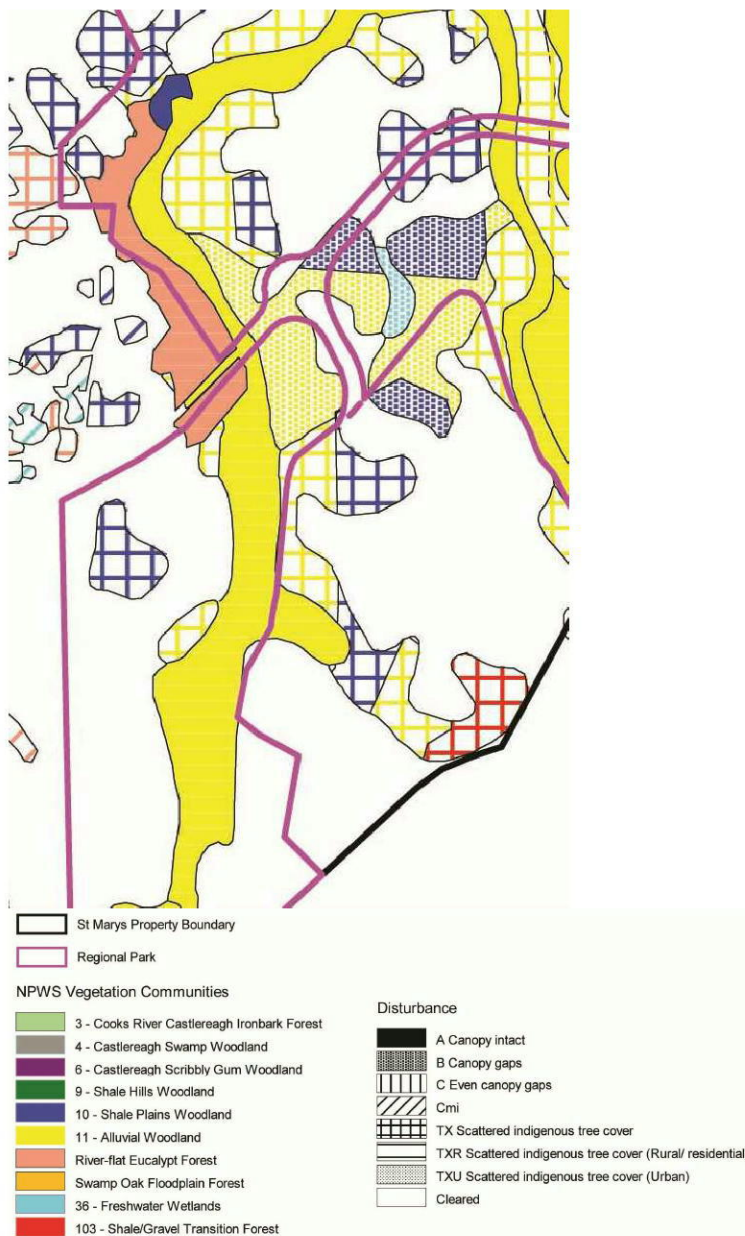
The extent of existing vegetation across the Site is mapped at **Figure 8** below. It shows that the Site comprises mainly grassland created by previous clearing of natural woodland and open forest, with a portion of River-flat Eucalyptus Forest in the west of the Site.

Pasture improvement and weed invasion has resulted in the establishment of variable amounts of introduced species across the Central and Dunheved Precincts and compromised the quality of remaining native ecological communities. Specifically there are areas of highly degraded regrowth woodland and forest with the majority of vegetation occurring in small fragments of

scattered tree cover with a high proportion of introduced species in the understorey or narrow sections of regrowth woodland or forest with a high edge to area ratio. The better quality endangered ecological communities most commonly occur along the edges of South Creek and have been protected by the extension of the Regional Park to this area.

The three main vegetation communities recorded within the Site, as shown in **Figure 8** are:

- River-flat Eucalypt Forest;
- Alluvial Woodland;
- Shale/Gravel Transition Forest; and
- Shale Plains Woodlands (Cumberland Plain Woodland).



**Figure 8** – Existing vegetation communities across the Central Precinct and North Dunheved Precinct area  
 Source: *Central Precinct Plan*



**Figure 9 – Dunheved Precincts Endangered Ecological Communities**  
 Source: *Dunheved Precinct Plan*

The attached Flora and Fauna Assessment prepared by Cumberland Ecology (**Attachment B**) was submitted with the approved Dunheved DA and identified what types of flora and fauna are present or have the potential to occur within the Dunheved Precinct. Based on this assessment three endangered ecological communities are identified to occur within the Dunheved Precinct. These include River-flat Eucalypt Forest, Shale-gravel Transition Forest and Cumberland Plain Woodland, supporting the documentation submitted with the CPP.

The patches of native woodland within the Dunheved Precinct have a high edge to area ratio and are vulnerable to edge effects such as weed invasion. The remainder of the subject site comprises exotic grassland.

Two threatened plant species, *Pultenaea parviflora* and *Grevillea juniperina* subsp. *juniperina* have been detected to occur on the site in relatively low numbers. A regionally significant flora species, Blue Box (*Eucalyptus baueriana*) has also been detected in the north of the Dunheved Precincts

Due to their highly modified condition, the conservation value of the ecological communities within the Central Precinct and Dunheved Precinct that relate to the Site have been seriously compromised and this vegetation is not considered to be significant in terms of conservation.

The remainder of the site is either within the existing east-west road way (Road 002) which is paved and has no vegetation, and the small section of land between the north-western border of the Dunheved Precinct and the roadway. This small portion of land contains only a few number of trees and grassland which will be removed. The attached letter by Cumberland Ecology (**Attachment B**) addresses the flora found within this portion of the Site which predominantly includes grassland vegetation and less than 10 young, regrowth trees that form highly fragmented, low condition variants of the EEC River-flat Eucalypt Forest. This part of the road is located within the BCC.

## Fauna

The Eastern Grey Kangaroo (*Macropus giganteus*) and the Red Kangaroo (*Macropus rufus*) are the most common mammals found across the St Marys Site. The numbers of these animals is now regulated under the Macrofauna Management Plan (Cumberland Ecology 2004) implemented and commenced in 2005. Emus are also found within both Precincts. There are no known or recorded sightings of koalas within the Dunheved Precinct.

Exotic fauna species (including either feral, pest or domestic animals) previously recorded within the Dunheved Precinct or Central Precinct include the European Fox, cats, dogs, rabbits, brown hares, black rats, and house mice. Threatened species (under either the TSC Act and/or EPBC Act) previously found and recorded on the wider St Marys and with the limited potential to be found within (or directly adjacent) Dunheved and Central Precincts include:

- Large Footed Myotis (*Myotis adversus*);
- Greater Broad-nosed Bat (*Scoteanax rueppellii*);
- Eastern Freetail Bat (*Mormopterus norfolkensis*);
- Grey-headed Flying-fox (*Pteropus poliocephalus*);
- Latham's Snipe (*Gallinago hardwickii*) – migratory bird species recorded in wetland habitat adjacent to the transmission line easement in the Central Precinct;
- Swift Parrot (*Lathamus discolor*);
- The Speckled Warbler (*Pyrrholaemus sagittata*); and
- The Black Bittern

Other bird species listed as Vulnerable under the TSC Act have been previously recorded in the locality or the wider St Marys Site, but are unlikely to be found on the Site, due to the relative immaturity of the woodlands and the lack of diversity and complexity of habitat. Similarly, listed reptiles and amphibians are unlikely to be found within the Site due to various habitat conditions. Whilst the Cumberland Land Snail, which is listed as endangered under the TSC Act, is found on the St Marys Site, it is unlikely to be found across the Site as it only supports patches of its habitat which are of a disturbed nature.

This application applies only to the area required for the construction of the temporary haul road. In this area the vegetation is generally degraded or cleared and is of a small scale that few or no fauna are likely to be found at this location, or be impacted by this development.

## 2.6 Contamination

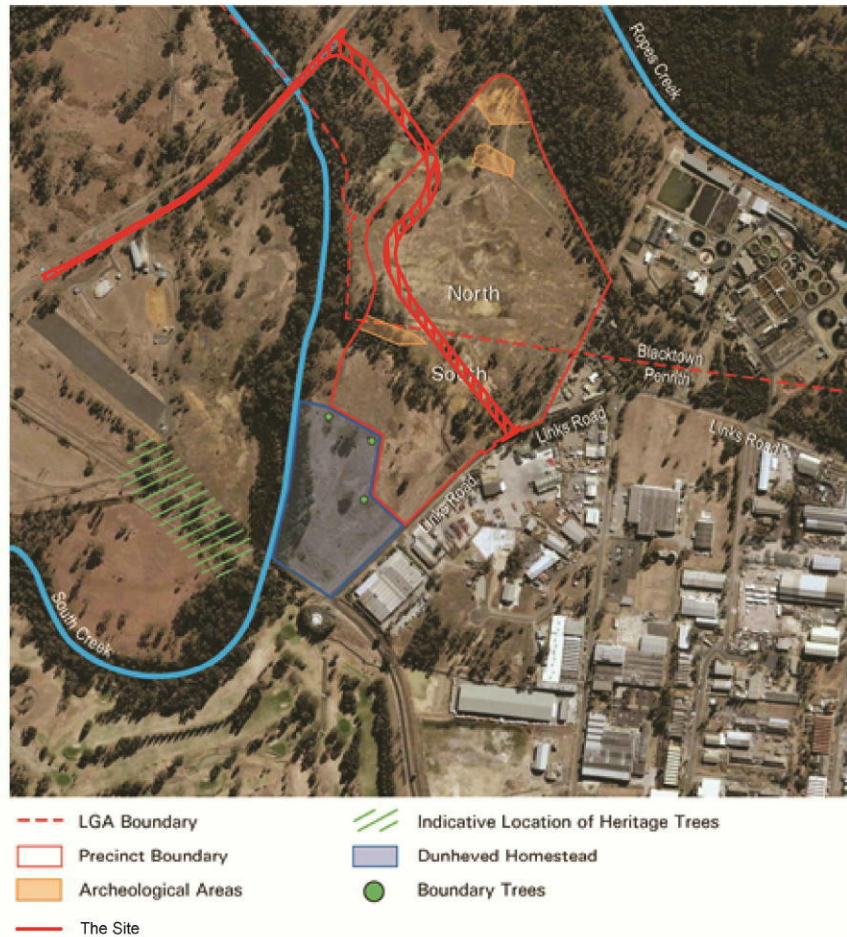
The former ADI Site was remediated over the period from 1993 to 1999, validation reports prepared and several Site Audit Statements (SAS) were issued. SAS CHK001/1 issued on 7/6/1999 covers the entire St Marys Site not covered by building footprints, roads etc. As part of the widening works proposed along Road 002 there is the potential for the existing road surface to be disturbed. Should this be the case, a suitable approach to identifying and managing contamination would be adopted.

A copy of the SAS is included at **Attachment C**. The Dunheved Precinct is included in the South Sector East (Zone D) covered by SAS CHK001/1. Thus this SAS applies to the entirety of the Site to be developed.

To this extent the Site has been remediated to a level where it is considered to pose a negligible risk to the public or the environment with regard to chemical contamination or explosive ordinance.

## 2.7 Heritage

The location of heritage items in the vicinity of the Site is shown below at **Figure 10**.



**Figure 10** – Location of Heritage Items

### European Heritage

Two sites identified in the SREP 30 as being items of heritage significance in the vicinity of the site, as shown in **Figure 10** are:

- King family Dunheved Homestead Site; and
- Group of trees across from South Creek.

The Dunheved Homestead site has historical, social, architectural and archaeological significance. The site is likely to contain extensive intact archaeological structures, features, deposits and relics that span 140 years of European settlement beginning circa 1807. The homestead site is also of State Heritage significance.

The curtilage of the Dunheved site has been defined under SREP 30 to incorporate the remains of the main homestead group including the main heritage trees and plantings that were associated with the house. It is considered that 90% to 95% of the archaeological remains, including all of the known significant remains are located within the established curtilage of the Dunheved Homestead site.

Whilst these items are in the vicinity of the proposed temporary haul road, the Site is not within the curtilage of either heritage item. Casey and Lowe Pty Ltd prepared an Assessment of European Heritage for the Dunheved Precinct in March 2005 (**Attachment D**) which formed part of the North and South Dunheved Precinct Plan. Casey and Lowe outline that there are no heritage items identified in SREP30 located within the Dunheved Precinct, nor does the Site sit within the nearby Dunheved Homestead Heritage Site (shown in **Figure 10**).

#### **Aboriginal Heritage**

Detailed work has been undertaken in relation to the archaeological resources of the overall St Marys development Site. That assessment has targeted a conservation outcome for Indigenous cultural heritage across the Site, whilst at the same time facilitating the orderly management of archaeological resources in the resultant developable land.

The St Marys Site has been assessed for archaeological sensitivity. In the past, the areas of the Precinct have suffered a variety of previous land use disturbance impacts, which have affected the ground surface and sub soil and would have resulted in the damage or destruction of potential Aboriginal Sites.

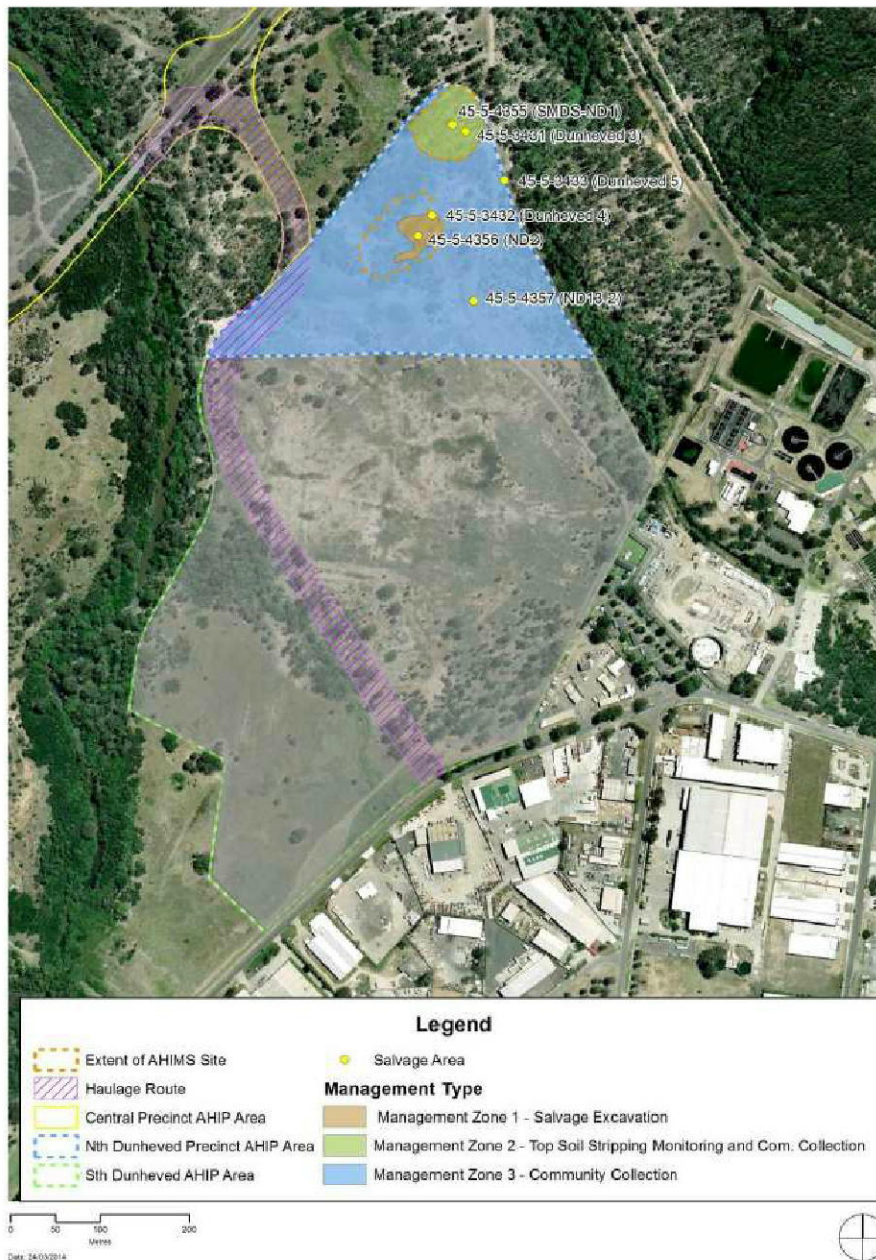
The early work undertaken on the overall St Marys Site was known as the “Strategic Management Model” (SMM), which identified previous land use disturbance and applied the use of a predictive model (SMM: McDonald and Mitchell 1994, Jo McDonald CHM 1997a). The overriding aim of the archaeological SMM was the preservation of a representative sample of intact landscapes across the overall St Marys Site. Four zones were identified, each zone having a different designated management outcome.

The identified zones are:

- Zone 1: Very high potential for intact archaeological evidence – potential conservation zone.
- Zone 2: High potential for intact archaeological evidence.
- Zone 3: Moderate potential for intact archaeological evidence.
- Zone 4: Low - no potential for archaeological evidence - no further work required.

Surveys undertaken by Jo McDonald Cultural Heritage Management Pty Ltd identified a high proportion of high conservation value and archaeological sensitivity is generally to be found outside of the Dunheved and Central Precincts and within the Regional Park near the Precinct boundary.

The attached correspondence regarding Aboriginal Heritage Impact by GML Heritage and Jo McDonald Cultural Heritage Management Pty Ltd (**Attachment E**) outlines that there are no Aboriginal Heritage salvage sites within the location of the Site. The correspondence outlines that there are three registered Aboriginal sites within Central Precinct that may be impacted through the scope of works required for the future Bulk Earthworks DA, however these are not in a location close to the Site area for the haul road. An AHIP application applies for the North Dunheved Precinct of which the Management Zone and OEH Aboriginal Heritage Information Management System (AHIMS) can be seen at **Figure 11**, which shows that no areas of Management Zones 1 or 2 occur within the proposed haul route location. An AHIP is in place for the South Dunheved and Central Precincts, and work in these Precincts may commence. Copies of all AHIPs are attached at **Attachment E**.



**Figure 11** – Archaeological management zones and AHIMS Sites Across the North Dunheved Precinct  
 Source: GML and Jo McDonald Cultural Heritage Management Pty Ltd

## 2.8 Flooding

The Site is located on the floodplain of South Creek, a tributary of the Hawkesbury Nepean River. South Creek traverses along the western boundary of the Dunheved Precincts. Due to the proximity of the Site to this creek system, flooding occurs following rainfall in the catchment of South Creek, and also by backwater flooding from major flood events in the Hawkesbury-Nepean River. A significant part of the Central Precinct is also located below the 100 year ARI flood level and hence filling on the flood plain is required to allow for future development.

The Plans at **Attachment A** include a Stormwater Layout Plan which displays the catchment areas surrounding the Site.

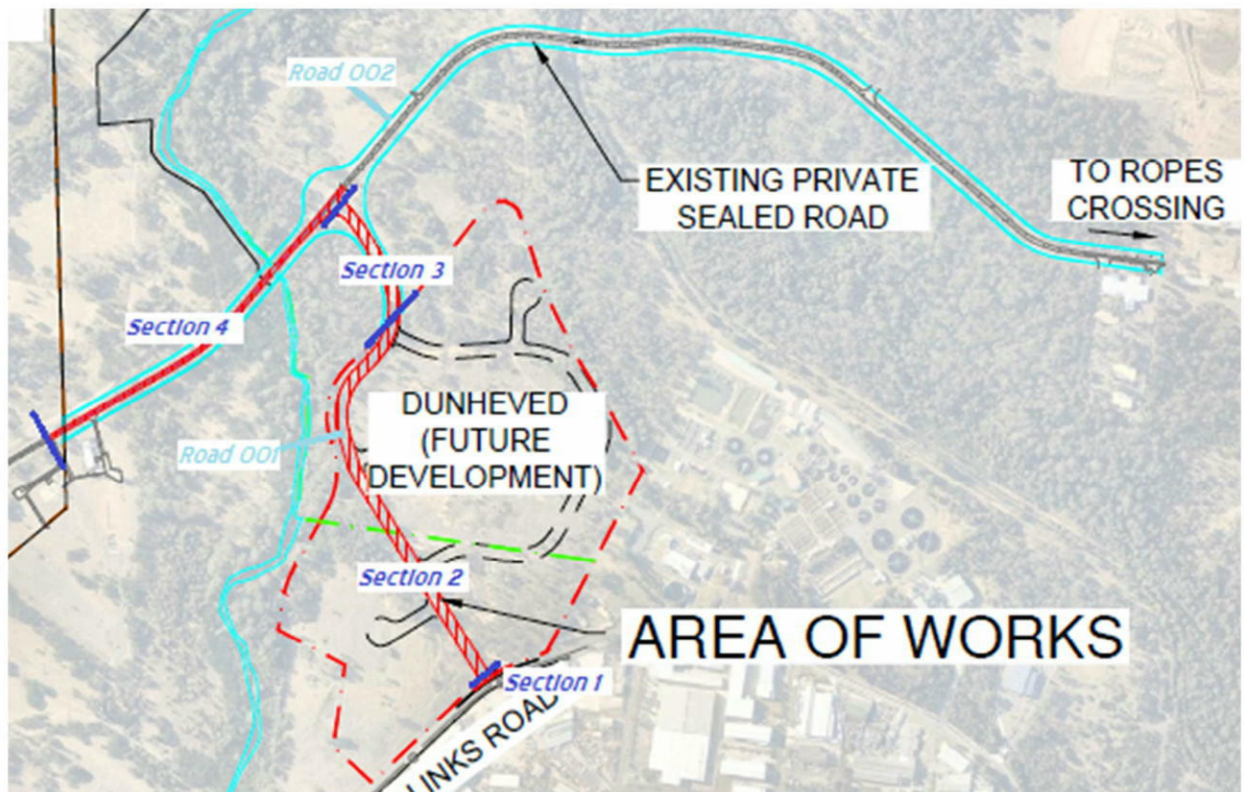
### 3.0 DESCRIPTION OF THE PROPOSED DEVELOPMENT

This proposal seeks consent for the construction of a private temporary haul road that connects Links Road with the existing east/west private road that connects Central Precinct with Ropes Crossing (referred to as Road 002, see **Figure 4**), and includes upgrades to Road 002 (see detail at **Attachment A**).

The purpose of the proposed haul road is to enable importation of fill material to the Central Precinct to facilitate the future construction of residential and employment lands within the Central Precinct, as outlined in the CCP. The proposed development consists of a number of sections as outlined in **Table 3** and **Figure 12** below.

**Table 3** – Proposed work

Section	Proposed Works	Council Area	Comment
1	Construction of a new road intersection with Links Road, including installation of temporary construction fencing at the roadway entrance from Links Road for security..	Penrith	This intersection is already approved under the Dunheved Precinct DA
2	Construction of a temporary haulage road from the Links Road intersection to the north-western border of the Dunheved Precinct (referred to as Road 001).	Penrith and Blacktown	This section is already approved under the Dunheved Precinct DA.
3	Extension of the construction of Road 001 from the north-western border of the Dunheved Precinct to the existing east/west private road (Road 002).	Blacktown	
4	Upgrade of the existing Road 002 to the border of the Central Precinct.	Penrith and Blacktown	This section is an existing roadway.



**Figure 12** – Area of Work and Sections  
Source: Cardno



Proposed Road 001 and Road 002 sit wholly within the road reserve approved under the DPP. Road 001 will be a newly constructed sealed road, whilst Road 002 is an existing road and will be upgraded as part of this application.

This DA is a further step in making the Site ready for the implementation of the works sought as part of a future subsequent DA for bulk earthworks in the Central Precinct for which Director General Requirements for an Environmental Impact Statement (EIS) have already been issued by the NSW Department of Planning and Environment (DP&E) (DGR714). This application only seeks consent for the construction of the temporary haul road. Use of the road will be subject to a future application for bulk earthworks (referred to as DA03 in the PCC pre-lodgement notes).

### 3.1 Roadway

The development consists of a private haul road to be used for the purpose of importing fill for the future bulk earthworks application for which Director General Requirements for an EIS have already been issued (DGR714).

The roadway will start and finish within the Penrith City Council LGA, however a portion of its length, part Section 2 and Section 3, will traverse Blacktown City Council LGA. The road will not be open for public use and will be gated and monitored.

Construction of the road will require the importation of 20,000m<sup>3</sup> of fill to be imported, placed and compacted along the haul road alignment to ensure the Site sits above the South Creek floodway. No material is planned to be removed from the site.

Road 002 includes an existing bridge which crosses South Creek and, subject to some general maintenance activities, would be suitable for accommodating construction traffic as outlined in the Civil Report at **Attachment F**.

### 3.2 Timeframe for works

Construction of the haul road is scheduled to commence in the final quarter of 2014 and construction will not be staged. The construction for the haul road is anticipated to last for between three to four months. The proposed hours of construction work are 24 hours a day, 7 days a week for the construction of the haul road. A detailed Construction Management Plan will be prepared and submitted with a Construction Certificate prior to the commencement of work on Site.

A site supervisor is to be appointed to ensure that any person working on Site follows all health and safety procedures, and to make daily checks of the Site. During and following the construction of the road, the Site will be fenced to ensure that only relevant staff and contractors have access to the Site and use of the road.

### 3.3 Roadway design

The following provides an outline of the design elements of the proposed road:

- The carriageway width for Road 001 is 18.5 metres and the carriageway width for Road 002 is 7 metres. Total road reserve widths are 30 metres and 26.6 metres respectively. Both Road 001 and Road 002 will be of sufficient width to accommodate two-way truck movements. Further details on the horizontal and vertical geometry of the roadway are included in the Civil Report at **Attachment F**.
- The roadway will be surfaced with asphaltic concrete to prevent dust and erosion.
- The road is designed to allow only one entry/exit point to the site at the proposed new intersection at Links Road. This will allow for the contractor to control access to the site and to take responsibility for the establishment of haulage routes within the site.
- Access from Links Road will be a simple priority control arrangement off links road as outlined in the Traffic Assessment Report (**Attachment G**).

- A waiting and turning area will be provided to accommodate 19m Truck & Dog trailer vehicles, should a situation arise where the site cannot continue accepting construction vehicles. This waiting area is located near the site entrance off Links Road, as shown on the plans at **Attachment A**.
- Vehicles will have an internal speed restriction of 20km/hr.

Additional information regarding the construction and design of the proposed road is included at the Plans (**Attachment A**), the Traffic Assessment Report both prepared by Cardno (**Attachment G**), and Civil report prepared by Cardno (**Attachment F**).

### 3.4 Environmental Site Management

#### Waste Management

As the proposed work includes the construction of a new road, there are little amounts of waste expected to be generated from the importation of fill and construction of the road. The attached Waste Management Plan details the proposed waste management methods for the road construction and operation (**Attachment H**).

#### Sediment and erosion control

The construction of the road will require around 3ha of existing surface to be stripped and reshaped. As outlined in the Civil Report prepared by Cardno (**Attachment F**), measures to prevent sediment and erosion will be implemented during the construction phase such as the asphaltic concrete surface of the roadway, installation of sediment fences, hay bale check dams in existing water courses and pit inlet protection measures.

During the operation of the road, stormwater runoff will be directed to open channels on either side of the road. A pit inlet protection in the form of a geotextile will be installed to prevent downstream migration of pollution from the roadway. The proposed sediment and erosion control measures are shown in the drawings at **Attachment A**.

### 4.0 ASSESSMENT OF ENVIRONMENTAL IMPACTS

Under Section 79C(1) of the EP&A Act, in determining a development application the consent authority has to take into account a range of matters relevant to the development including the provisions of environmental planning instruments; impacts of the built and natural environment; the social and economic impacts of the development; the suitability of the Site; and whether the public interest would be served by the development.

#### 4.1 Compliance with Relevant Planning Instruments

The following environmental planning instruments and planning documents are relevant to the proposed development:

- Sydney Regional Environmental Plan No.30- St Marys (SREP 30);
- St Marys Environmental Planning Strategy 2000 (2006 Update) (St Marys EPS);
- State Environmental Planning Policy No.55 – Remediation of Land (SEPP 55); and
- the Dunheved Precinct Plan.

## Key Planning Controls

The key relevant planning controls for the development are summarised in **Table 4** below.

**Table 4** – Key planning controls

Planning instrument/ document	Standard/Development Control
SREP 30 General Provisions	<p>Consent authority must be satisfied that development will not be inconsistent with achievement of the performance objectives, zone objectives and other requirements of SREP 30 (Clause 20).</p> <p>Consent authority must consider the relevant development control strategies contained within the St Marys EPS (Clause 20).</p> <p>For land within a Precinct, a Precinct Plan must be in place before development consent can be granted and the consent authority must take the Precinct Plan into account. (Clause 20).</p> <p>The consent authority must take into account whether the development is consistent with the terms of any relevant development agreement (Clause 20).</p>
SREP 30 Performance objectives	<p>Clauses 21 to 35 set out the performance objectives for the desired environmental, social and economic outcomes for development on the land.</p>
SREP 30 Zone Objectives	<p>The objectives of the Employment zone (Clause 39) are:</p> <ol style="list-style-type: none"> <li><i>to provide land for employment-generating land uses in locations which are compatible with surrounding development and which are accessible from within and outside the land to which this plan applies, and</i></li> <li><i>to provide for a wide range of employment development on land which will complement established employment areas and retail and commercial centres in the Blacktown City and Penrith City local government areas, and</i></li> <li><i>to accommodate uses which generate business activity and employment opportunities in the Blacktown City and Penrith City local government areas, and</i></li> <li><i>to ensure that development adjacent to the Regional Park zone does not have a negative impact on the biodiversity or conservation values of land within that zone.</i></li> </ol> <p>The objective of the Road and Road Widening zone (Clause 41) is to identify certain land that will be required for the purpose of a road.</p> <p>“Roads” are permissible with consent within both the Employment, and Road and Road Widening Zones.</p>
SREP 30 Development controls	<p>Consultation with NPWS is required for land adjoining the Regional Park zone (Clause 44)</p> <p>Interim uses are permitted with development consent (Clause 48).</p> <p>Private roads that would enable vehicular access to The Northern Road, Palmyra Avenue or Forrester Road are prohibited (Clause 57)</p> <p>Private roads that would enable vehicular access to Ninth Avenue are prohibited unless Council has assessed the associated traffic and amenity impacts of such a road (Clause 57)</p>
St Marys EPS	<p>Establishes guidelines and strategies for the future development of land under SREP 30.</p> <p>Council must consider the EPS when assessing a development application.</p> <p>The issues and strategies cover conservation, cultural heritage, watercycle and soils, transport, urban form, energy and waste, human services, employment and contamination.</p>
North and South Dunheved Precinct Plan (DPP)	<p>The North and South Dunheved Precinct Plan outlines the proposed development of the North and South Dunheved Precincts. It provides a vision and framework for the future development of the land and identifies how development can occur in a sustainable and environmentally sustainable manner. The DPP must be considered in the preparation and assessment of any applications relating to land within this precinct.</p>

The DA’s consistency and compliance with these relevant statutory plans and policies as outlined in **Table 2** is discussed below.

### **Zoning and permissibility**

The Site part zoned 'Road and Road Widening' and 'Employment' under SREP 30 (shown at **Figure 4**, under which development of a temporary haul road is permissible with consent. The construction of a temporary haul road is also permissible with consent under Clauses 20(2) (Development Consistent with a Precinct Plan and Development Agreement) of SREP 30.

### **Sydney Regional Environmental Plan No 30 – St Marys**

The proposal complies or is consistent with the objectives and controls of SREP 30 and the relevant planning instruments and controls set out in **Table 2**.

Clause 20 of SREP 30 relates to development consent restrictions for development on the ADI Site. Clause 20(1) of the SREP states:

*“(1) Development consent must not be granted with respect to any development on land to which this plan applies unless the consent authority:*

*(a) is satisfied that the proposed development will not be inconsistent with achievement of the performance objectives, and the zone objectives and other requirements prescribed by this plan, and*

*(b) has considered the development control strategies contained in the environmental planning strategy, in so far as they relate to the proposed development.”*

The proposed works are not inconsistent with the performance objectives and zone objectives on the basis that:

- it facilitates for the future development of the Central Precinct which includes employment-generating and residential land uses; and
- there will be no adverse environmental or cultural impacts on the surrounding Regional Park or Heritage items (including the Dunheved Homestead Site and heritage trees).

Additionally, Clause 20(2) of the SREP30 states that consent cannot be granted for development within a precinct unless a precinct plan applies to the precinct and the consent authority has taken the precinct plan into account, in addition to taking into account any relevant development agreements. The proposed development is consistent with the DPP in that it sits wholly within the location of the road identified in the Framework Plan for the Precinct under Section 4.1 of the DPP, and is consistent with the future Road hierarchy road location for a 'Collector Road' under Section 6.1 of the DPP. The proposal is therefore consistent with Clause 20 of the SREP.

The proposal will be referred to NPWS as part of the assessment process as the Site is on land adjoining the Regional Park zone, as required under Clause 44 of the SREP.

### **St Marys Environmental Planning Strategy 2000 (2006 Update)**

The proposal is consistent with the relevant performance objectives in the St Marys EPS in that:

- there will be no significant impacts predicted to occur to any threatened species of EEC within the land zoned Regional Park and minimal impact on significant flora and fauna on the Site;
- there is no impact on any areas of potential archaeological deposit (PAD) or another other culturally significant areas; and
- the proposed haul road construction will facilitate and prepare for the future development of the Central Precinct as part of future DAs.

### **The Dunheved Precinct Plan (DPP)**

The proposed road corridor is consistent with the road layout within the road reserve approved under the DPP including the proposed road access location, and is consistent with the roadway approved in the Dunheved Precinct DA.

Whilst no works occur within the Central Precinct, the haul road will allow for the orderly and efficient development of the St Marys Central Precinct in line with the aims and objectives of the CPP.

#### 4.2 Soil and erosion control

As detailed in Section 3.4, stormwater and erosion control measures will be implemented to prevent any adverse impacts on the downstream watercourses near the roadway. These measures are consistent with the DPP which outlines water cycle management measures for construction within the Dunheved Precincts.

Whilst the road is a temporary road, the proposed haul road construction will comply with the relevant 'run-off' and 'storm-water runoff and erosion control' measures Section 8.0 of the DPP, including:

- Utilise stormwater treatment devices to pre-treat stormwater before it enters the dry basins.
- Use bio-retention swales or alternative engineering solutions where appropriate to remove nutrients, fine sediment and heavy metals.
- Above-ground drainage lines are to be constructed and vegetated so they approximate as natural a state as possible, and are to conserve indigenous flora where possible.
- An erosion and sediment control plan is to be prepared for the construction phase (included in **Attachment A**). This plan is to be formulated in accordance with acceptable standards and is to ensure that the development does not pollute the environment.

These measures include the installation of hay bale check dams, sediment fences, and a cattle grid to prevent material being transported off site, and will minimise any impact on stormwater quality and downstream receiving waters and eco systems. Details on the specific measures to be implemented are further detailed in the Civil Report (**Attachment F**).

#### 4.3 Flora and fauna

The following **Table 5** outlines the flora and fauna impacts and respective assessment for each section of the proposed roadway.

**Table 5** – Flora and Fauna for each Section of the roadway

Section	Proposed work	Comment
1	Construction of a new road intersection with Links Road.	<ul style="list-style-type: none"> <li>▪ Land is located within existing Links Road or the Dunheved Precinct.</li> <li>▪ The area of the intersection within the Dunheved Precinct has been assessed under the Flora and Fauna Assessment at <b>Attachment B</b>.</li> </ul>
2	Construction of Road 001	<ul style="list-style-type: none"> <li>▪ The area of Road 001 has been assessed under the Flora and Fauna Assessment at <b>Attachment B</b>.</li> <li>▪ The proposed road is located within the road corridor approved for clearing under the Dunheved DA.</li> </ul>
3	Extension of the construction of Road 001 from the north-western border of the Dunheved Precinct to the existing east/west private road (Road 002).	<ul style="list-style-type: none"> <li>▪ This portion of Road 001 is within the designated roadway zoned land under the SREP 30.</li> <li>▪ The attached letter by Cumberland Ecology (<b>Attachment B</b>) has surveyed the flora and fauna in this section of road.</li> </ul>
4	Upgrade of the existing Road 002 to the border of the Central Precinct.	<ul style="list-style-type: none"> <li>▪ This section is an existing paved roadway and has no flora or fauna that will be impacted by this proposal.</li> </ul>

A Flora and Fauna Assessment was undertaken by Cumberland Ecology for the entire Dunheved Site as part of the filling and subdivision of land and construction of civil works within the North and South Dunheved Precincts (PCC: DA07/0494, approved 7 March 2008 and BCC: DA07/1029 approved 9 March 2008) and is included in **Attachment B**. The construction of a road within the alignment proposed under this application, in addition to the removal of trees over the majority of the site was approved under this application.

The Flora and Fauna Report accompanying that application outlined that the proposed works within the Dunheved Precinct (which included the proposed road alignment under this proposal) would result in the clearance of native vegetation, including some endangered ecological communities, however this clearance would not constitute a significant impact due to the conservation of the same types of vegetation within the Regional Park.

Cumberland Ecology concluded in the Fauna and Fauna Assessment (**Attachment B**) that:

*The foremost mitigation measure for the proposed development of the Dunheved Precincts and the broader St Marys REP site [including the short stretch of road to be developed within the Regional Park] is the establishment of the 900 hectare Regional Park, which will conserve extensive, viable tracts of forest and woodland. The impacts of vegetation clearance will be balanced by the creation and maintenance of the 900 ha Regional Park, in which habitats for all threatened flora and fauna are known to occur. The clearing of vegetation and associated works for the proposed development is unlikely to have a significant impact upon threatened species, communities and habitat of conservation significance.*

Only Section 3 of the Site sits outside the Dunheved Precincts area approved for clearing under the Dunheved Precinct DA. This land is located within the BCC. The proposed works in this area have been surveyed and assessed by Cumberland Ecology (**Attachment B**) as being not likely to have a significant impact on the surrounding Regional Park and EECs.

#### 4.4 Aboriginal Heritage & European Heritage

##### Aboriginal Heritage

Detailed work has been undertaken in relation to the archaeological resources of the overall St Marys development site. That assessment has targeted a conservation outcome for Indigenous cultural heritage across the site, whilst at the same time facilitating the orderly management of archaeological resources in the resultant developable land.

The early work undertaken on the overall site was known as the ‘Strategic Management Model’ which identified previous land use disturbance and applied the use of a predictive model (McDonald and Mitchell 1994, Jo McDonald CHM 1997a). The overriding aim of the Strategic Management Model was the preservation of a representative sample of intact landscapes across the overall site to ensure that a range of human responses, as represented by the archaeology, were protected. Four zones within the overall site were identified, each zone having a different designated management outcome. The DPP highlights that the portion of the proposed haul road within the Dunheved Precinct traverses land identified as Zone 3 – Moderate potential for intact archaeological evidence.

GML Heritage & Jo McDonald Cultural Heritage Management Pty Ltd have highlighted in the attached correspondence (**Attachment E**), that an Aboriginal Cultural Heritage Assessment has been undertaken for the Central and Dunheved Precincts in accordance with the NPW Act and all current OEH statutory guidelines. Further, an Aboriginal Heritage Impact Permit (AHIP) application has been approved for the Central Precinct (AHIP #C0000362) and South Dunheved Precinct (AHIP #2937) (**Attachment E**), and an AHIP application has been submitted for the North Dunheved area and was anticipated for issue early May 2014. A copy of the North Dunheved AHIP will be submitted to PCC once it has been received. **Table 6** below outlines the AHIP which applies to the various sections of the proposed haul road.

**Table 6** – AHIPs applying to the proposed works

Section of Road	AHIP
1	South Dunheved Precinct (AHIP #2937)
2	South Dunheved Precinct (AHIP #2937) and North Dunheved Precinct AHIP Application
3	Central Precinct (AHIP #C0000362)
4	Central Precinct (AHIP #C0000362)

As seen in the attached documentation (**Attachment E**), the proposed haulage road is not located within the vicinity or curtilage of any Aboriginal sites. As such, whilst AHIPs apply to the vast majority of the haul road site which permit works to occur, no Aboriginal sites are likely to be impacted through the scope of works for this DA.

#### **European Heritage**

The proposed road is not within the vicinity of the curtilage of either heritage site, as discussed in Section 2.7 and shown in **Figure 10**, and will not impact the heritage significance of either site, as outlined in attached report and letter at **Appendix D**.

The Dunheved Precinct DA was approved for land within the vicinity of the King family Dunheved Homestead Site and the group of trees across from South Creek heritage items. Considering the proposed haul road is temporary, and is located within the area approved for work in the vicinity of the heritage items, there will be no impact on the heritage significance of either item.

#### **4.5 Acoustic impacts**

The nearest residential dwellings are approximately 1km from the site (measured from nearest point of the site to the dwelling) as outlined in Section 2.4 of this report. The appended Acoustic Report (**Attachment I**) has assessed that the acoustic impacts as result of construction and operation of the road on these residential noise receivers and concluded that the proposal will comply with noise management levels for the entire 24 hour a day period for the Llandilo and Werrington County Residences, with a night time exceedance of 5dBA at Werrington County Residences. The report outlines that this exceedance of 5dBA is not uncommon and is manageable by adopting standard noise management principles.

The Acoustic Report recommends noise mitigation measures to be in place during all construction works of the road to prevent potential impact on the surrounding locality, including:

- Inform affected residents/owners of the works program and contact details for the site representative.
- Diesel powered machines such as trucks, bobcats and excavators should be switched off if not required for more than a few minutes, rather than left idling unnecessarily.
- Machines used on site should be maintained in good condition, particularly considering the exhaust system on diesel powered machines, to minimise noise emissions. Excessively loud machines should be repaired, modified or removed from the site. Sound pressure level measurements should be conducted on all plant prior to works beginning on-site.
- A representative from the construction contractor should be available to respond to questions and complaints from the community in a professional, considerate and timely manner.
- Reversing alarms should be controlled to the minimum sound level consistent with safety by replacing, shielding or relocating the alarm unit on noisy machines.
- A representative should be nominated by Lend Lease to monitor, manage and respond to complaints.

These recommendations will be included in the site Environmental Management Plan to be prepared by the Site Contractor prior to the issue of a Construction Certificate.

Due to the distance away from the Site, and the implementation of these measures, it is considered that the nearby residences will not be unreasonably or detrimentally impacted by noise generated by the carrying out of the proposed works.

Considering the above, Council should have no opposition to approving 24 hour operation for the construction of the site based on acoustic impacts.

#### 4.6 Traffic Impacts

The appended Traffic Management Plan prepared by Cardno (**Attachment G**) outlines the proposed traffic management measures to be implemented during the construction of the road. The report outlines that truck movements into and out of the Site during construction of the road will be 70 truck movements per day (over a short duration of 6 weeks), with trucks on a schedule to be arranged in the final Construction Management and Traffic Management Plans to be prepared by the project contractor. This equates to approximately 1 to 2 trucks entering and 1 to 2 trucks exiting the site each hour, every day of the week, for 6 weeks.

Trucks bringing in fill are proposed to come from either Badgerys Creek or Burwood. Trucks will follow approved routes for heavy vehicles by the Roads and Maritime Services (RMS). The proposed Haulage Route, as shown in the attached Construction Traffic Management Plan (**Attachment E**), will approach the site from the M4 Western motorway via Mamre Road, the Great Western Highway, Werrington Road, and Christie Street, and entering the site from Links Road, all of which are approved roads for heavy vehicles.

These low level movements are not considered to have any material effect on the existing road network traffic operations and as outlined in **Section 4.5** will have minimal acoustic impacts on surrounding neighbourhoods. Council should have no opposition to approving 24 hour operation for the construction of the site based on traffic impacts.

#### 4.7 Dust management

The proposed works are not expected to generate significant amounts of dust. Additionally, based on the distance to potential residential and industrial receivers, dust is not expected to be an issue for the proposed works.

The attached Dust Review prepared by Wilkinson Murray (**Attachment I**) outlines that a number of measures will be implemented as part of the construction phase to minimise and prevent dust impacts, including minimising exposed/excavation areas, wetting down and dust monitoring.

These measures will minimise adverse impacts on air quality through reducing potential airborne pollution and dust.

#### 4.8 Waste management

The proposed works include the removal of some remnant vegetation and stripping of topsoil. The proposed works site is devoid of existing assets and structures and as such, demolition work will not be required.

When preparing the waste management plan, it has been assumed that all remnant vegetation will be mulched and stockpiled on-site for reuse as part of the sediment and erosion control plan. Meanwhile, stripped topsoil will be stockpiled on-site for reuse on embankments.

Construction materials imported will be managed to limit the requirement for export off-site at the conclusion of construction works. Any surplus materials will be required to be removed by the contractor at their own cost.

The attached Waste Management Plan (**Attachment H**) outlines the method and management of the waste. All waste materials generated on the Site will be managed such that recycling can be maximised and the volume of waste transported to landfill is minimised in accordance with *The Protection of the Environment Operations Act 1997* and *The Waste Avoidance and Resource Recovery Act 2001*.



#### 4.9 Site suitability

The Site is suitable for the proposed development as:

- It is identified in the St Marys REP No.30, the DPP and CPP as being a future road corridor;
- The majority of the proposed temporary haul road is within an existing road corridors or a previously approved road corridor;
- The proposal will have little or no impact on environmental heritage or environmentally sensitive areas; and
- The road will be constructed in a relative short amount of time and have little or no acoustic impacts on surrounding residential noise receivers.

#### 4.10 The public interest

The proposal will enable development of the Central Precinct in accordance with SREP 30 and the CPP, which have been subject to public exhibition and comment and subsequently adopted. These plans therefore represent Council's planning objectives which have been subject to review by the community.

#### 5.0 CONCLUSION

The proposed temporary haul road works are to facilitate the future development of the Central Precinct in accordance with the aims and objectives of SREP 30 and the St Marys EPS.

In summary, the proposal will not have a 'significant' impact on any threatened flora or fauna species or communities beyond what is already approved within the Dunheved Precincts, and will not adversely impact on the cultural heritage of the Dunheved Homestead. Furthermore, the proposed works will have negligible impact on nearby residents and all generated waste will be appropriately be disposed of off Site.

In light of the merits of the proposal and in the absence of any significant adverse environmental impacts, we have no hesitation in recommending that the application be approved subject to standard conditions of consent.

Should you have any queries about this matter, please do not hesitate to contact Rebecca Lockart, Urban Planner, on +61 9956 6962 or rlockart@jbaurban.com.au.

Yours faithfully



Amanda Harvey  
Principal Planner