

Sydney  
 Level 35 One International Towers  
 100 Barangaroo Avenue  
 Sydney NSW 2000  
 02 8046 7411  
 sydney@adwjohnson.com.au

Central Coast  
 5 Pioneer Avenue  
 Tuggerah NSW 2259  
 02 4305 4300

coast@adwjohnson.com.au

Hunter Region  
 7/335 Hillsborough Road  
 Warners Bay NSW 2282  
 02 4978 5100

hunter@adwjohnson.com.au

## Statement of Environmental Effects

### Eight (8) Water Reservoirs and Associated Works

**Property:**

Lot 471 DP 1201681 and Adjoining Crown Road Land

CESSNOCK CITY COUNCIL  
 Approved plans for  
 Development Consent No. 8/2018/853/1  
 Date of Approval: 05/07/2019  
 General Manager Per: ap

**Applicant:**

Huntlee Pty Ltd

**Date:**

November 2018



# Document Control Sheet

---

Issue No.	Amendment	Date	Prepared By	Checked By
A	Draft	19/11/2018	Alex Salani	Mat Radnidge
B	Preliminary Final	20/11/2018	Alex Salani	Mat Radnidge
C	Final	20/11/2018	Alex Salani	Mat Radnidge

## Limitations Statement

This report has been prepared in accordance with and for the purposes outlined in the scope of services agreed between ADW Johnson Pty Ltd and the Client. It has been prepared based on the information supplied by the Client, as well as investigation undertaken by ADW Johnson and the sub-consultants engaged by the Client for the project.

Unless otherwise specified in this report, information and advice received from external parties during the course of this project was not independently verified. However, any such information was, in our opinion, deemed to be current and relevant prior to its use. Whilst all reasonable skill, diligence and care have been taken to provide accurate information and appropriate recommendations, it is not warranted or guaranteed and no responsibility or liability for any information, opinion or commentary contained herein or for any consequences of its use will be accepted by ADW Johnson or by any person involved in the preparation of this assessment and report.

This document is solely for the use of the authorised recipient. It is not to be used or copied (either in whole or in part) for any other purpose other than that for which it has been prepared. ADW Johnson accepts no responsibility to any third party who may use or rely on this document or the information contained herein.

The Client should be aware that this report does not guarantee the approval of any application by any Council, Government agency or any other regulatory authority.

# Table of Contents

---

<b>1.0</b>	<b>INTRODUCTION .....</b>	<b>4</b>
1.1	INTRODUCTION .....	4
1.2	DEVELOPMENT APPLICATION DETAILS .....	4
1.3	BACKGROUND & BRIEF OVERVIEW OF THE PROPOSAL.....	4
1.3.1	<i>Background and Planning Approval History.....</i>	<i>4</i>
1.3.2	<i>Overview of Proposal.....</i>	<i>8</i>
<b>2.0</b>	<b>PROPOSED DEVELOPMENT.....</b>	<b>9</b>
2.1	OBJECTIVES OF THE PROPOSAL .....	9
2.2	DESCRIPTION OF PROPOSED DEVELOPMENT.....	9
2.3	DOCUMENTATION .....	12
<b>3.0</b>	<b>SITE ANALYSIS .....</b>	<b>13</b>
3.1	SITE.....	13
3.2	LOCATION CONTEXT.....	13
3.3	LAND USES LOCALLY AND CURRENT USE OF THE SITE .....	14
3.4	TOPOGRAPHY & HYDROLOGY .....	16
3.5	CONTAMINATION & GEOTECHNICAL MATTERS.....	16
3.6	VEGETATION.....	17
3.7	BUSHFIRE .....	17
3.8	HERITAGE & ARCHAEOLOGY.....	18
3.9	OTHER MATTERS FOR CONSIDERATION.....	18
<b>4.0</b>	<b>PLANNING CONTROLS.....</b>	<b>19</b>
4.1	STATE PLANNING CONTROLS .....	19
4.1.1	<i>Environmental Planning &amp; Assessment Act 1979 .....</i>	<i>19</i>
4.1.2	<i>Crown Land Management Act 2016 No 58.....</i>	<i>19</i>
4.1.3	<i>State Environmental Planning Policy (Infrastructure) 2007.....</i>	<i>20</i>
4.1.4	<i>State Environmental Planning Policy No 44 – Koala Habitat Protection.....</i>	<i>21</i>
4.2	REGIONAL PLANNING CONTROLS .....	21
4.2.1	<i>Hunter Regional Plan 2036.....</i>	<i>21</i>
4.2.2	<i>Greater Newcastle Metropolitan Plan 2036.....</i>	<i>22</i>
4.3	LOCAL PLANNING CONTROLS.....	24
4.3.1	<i>Cessnock Local Environmental Plan 2011 .....</i>	<i>24</i>
4.3.2	<i>Land Use Definitions &amp; Permissibility .....</i>	<i>26</i>
4.3.3	<i>Specific Cessnock LEP 2011 Clauses.....</i>	<i>26</i>
4.3.4	<i>Cessnock Development Control Plan 2010.....</i>	<i>27</i>
4.3.5	<i>City Wide Settlement Strategy .....</i>	<i>27</i>
4.4	SECTION 4.46 OF THE EP&A ACT 1979.....	27
<b>5.0</b>	<b>ENVIRONMENTAL IMPACT ASSESSMENT .....</b>	<b>28</b>
5.1	ZONE OBJECTIVES & PERMISSIBILITY.....	28
5.2	PROPOSED DEVELOPMENT.....	28
5.3	STORMWATER.....	28
5.4	ACCESS, TRAFFIC & PARKING .....	29
5.5	ABORIGINAL CULTURAL HERITAGE .....	29
5.6	ACOUSTICS.....	30
5.7	BUSHFIRE .....	32
5.8	HERITAGE .....	32
5.9	ECOLOGY.....	32

5.10	VISUAL IMPACT .....	34
5.11	SOCIAL & ECONOMIC IMPACTS .....	35
5.12	CRIME PREVENTION.....	35
5.13	WASTE MANAGEMENT .....	36
<b>6.0</b>	<b>CONCLUSION.....</b>	<b>37</b>

## **APPENDIX A**

CERTIFICATE OF TITLE AND DEPOSITED PLAN

## **APPENDIX B**

SITE PLAN AND RESERVOIR PLANS (ADW JOHNSON)

## **APPENDIX C**

ECOLOGICAL ASSESSMENT (MJD ENVIRONMENTAL)

## **APPENDIX D**

BUSHFIRE THREAT ASSESSMENT (MJD ENVIRONMENTAL)

## **APPENDIX E**

ABORIGINAL ARCHAEOLOGY DUE DILIGENCE ASSESSMENT (RPS)

## **APPENDIX F**

VISUAL IMPACT ASSESSMENT (TERRAS LANDSCAPE ARCHITECTS)

## **APPENDIX G**

CONSTRUCTION NOISE AND VIBRATION ASSESSMENT (REVERB ACOUSTICS)

## **APPENDIX H**

CESSNOCK DEVELOPMENT CONTROL PLAN CHECKLIST

## **APPENDIX I**

WASTE MANAGEMENT PLAN

## **LIST OF FIGURES**

Figure 1 – Site Location.

Figure 2 – Approved Huntlee Subdivision Plan.

Figure 3 – Extract from the Physical Infrastructure Report lodged with EA for Project Approval MP10\_0137.

Figure 4 – Extract from Huntlee DCP Figure 5 showing overall road network and hierarchy.

Figure 5 – Site Plan.

Figure 6 – Extract from SIX viewer maps.

Figure 7 – Aerial Image of the subject site.

Figure 8 – Land Ownership of Site and Surrounding Land.

Figure 9 – Extract from NSW Planning Portal Mine Subsidence District layer.

Figure 10 – Extract Cessnock City Council Bushfire Prone Land Map.

Figure 11 – Extract from the Hunter Regional Plan 2036.

Figure 12 – Vision for Greater Newcastle.

Figure 13 – Zoning map extract from CLEP.

# 1.0 Introduction

## 1.1 INTRODUCTION

ADW Johnson Pty Ltd has been commissioned by Huntlee Pty Ltd to prepare a Statement of Environmental Effects (SOEE) to accompany a Development Application (DA) for the construction of eight (8) water reservoirs and associated works at Lot 471 DP 1201681 and adjoining Crown Road Land, adjacent to Huntlee.

The water reservoirs are essential infrastructure for the provision of water servicing to allotments within the high-level topography areas of Huntlee and will allow the continued delivery of Huntlee in accordance with MP 10\_0137.

## 1.2 DEVELOPMENT APPLICATION DETAILS

### *Statement of Environmental Effects Prepared by*

**Name:** ADW Johnson Pty Ltd  
Unit 7, 335 Hillsborough Road  
WARNERS BAY NSW 2282

**Contact:** Alex Salani  
Town Planner  
Ph: (02) 4978 5100  
Fax: (02) 4978 5199  
Email: [alexs@adwjohnson.com.au](mailto:alexs@adwjohnson.com.au)  
Website: [www.adwjohnson.com.au](http://www.adwjohnson.com.au)

### *Development Application*

**Applicant Name:** Huntlee Pty Ltd

**Applicant Address:** Huntlee Pty Ltd  
C/- ADW Johnson Pty Ltd  
Unit 7, 335 Hillsborough Road  
WARNERS BAY NSW 2282

**Property Description:** Lot 471 DP 1201681 and adjoining Crown Road land

**Project Description:** Eight (8) Water Reservoirs and Associated Works

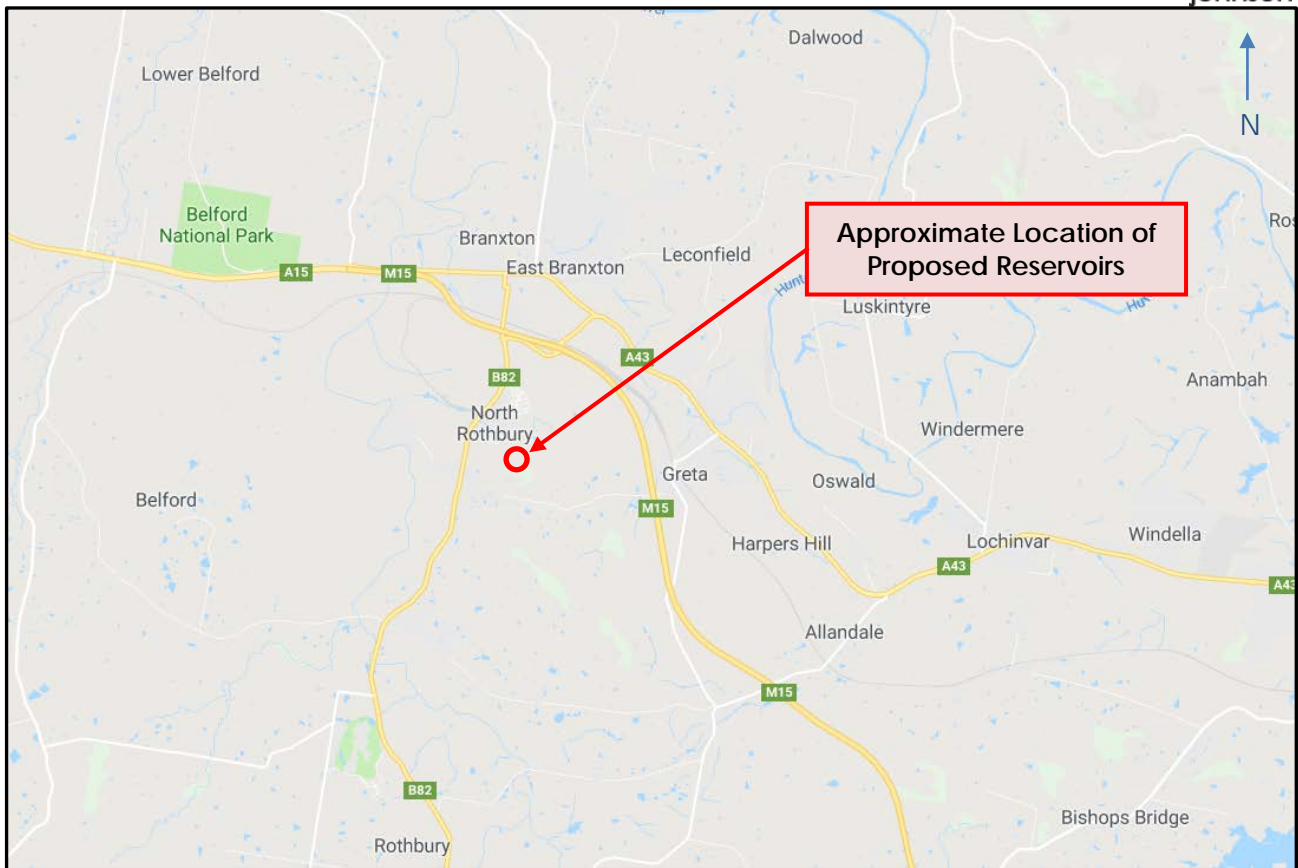
## 1.3 BACKGROUND & BRIEF OVERVIEW OF THE PROPOSAL

### 1.3.1 Background and Planning Approval History

The subject site is located within Lot 471 DP 1201681, with a physical address of 57 Washery Road North Rothbury and the adjoining Crown Road land. The subject site sits adjacent to land within the approved Stage 1 of Huntlee.

Copies of the Certificate of Title and Deposited Plan for Lot 471 DP 1201681 are included as **Appendix A** of this report.

The following map shows the site location within the local context of north Rothbury:

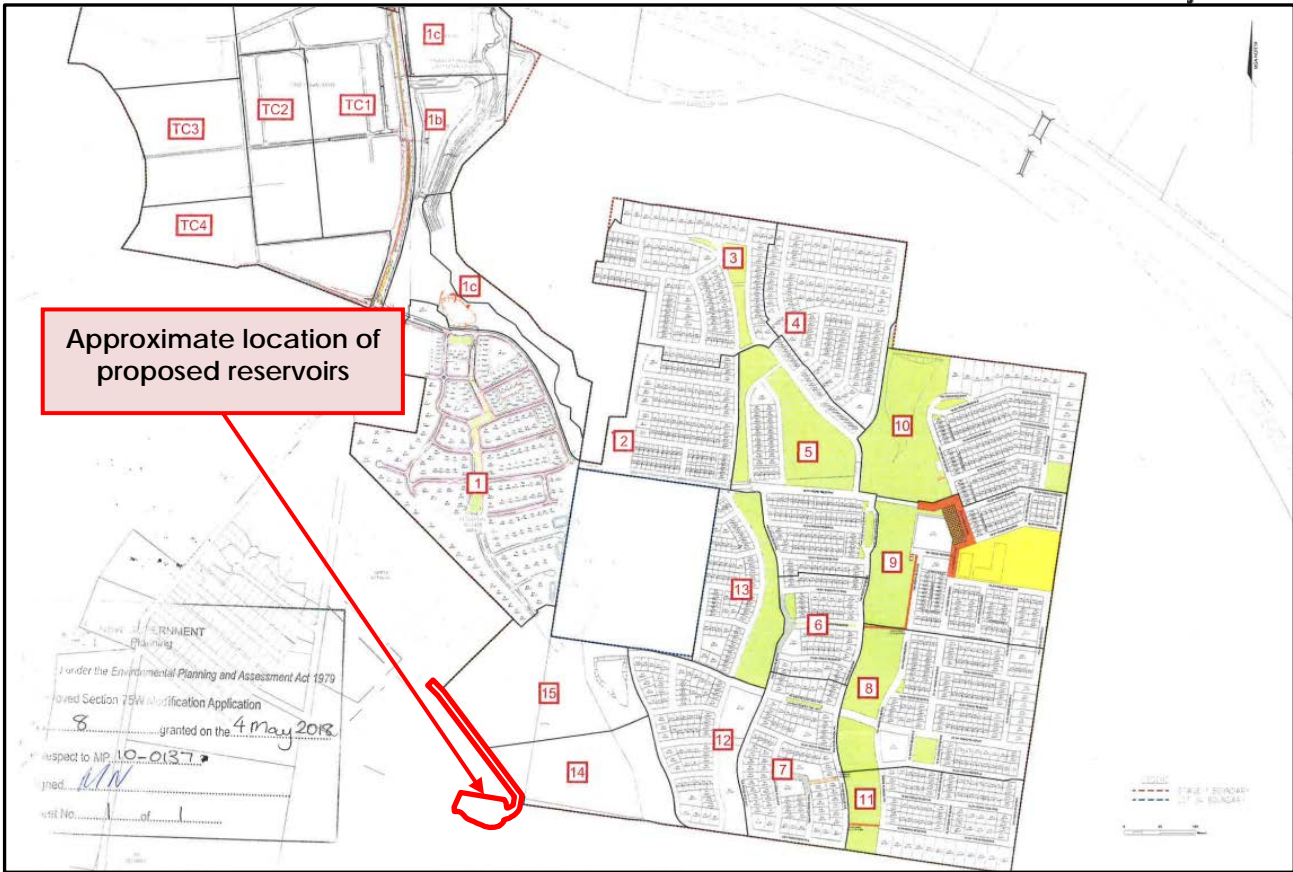


**Figure 1 – Site Location.**

The Huntlee development was Gazetted as a State Significant Site with an amendment to Schedule 3 of *State Environmental Planning Policy (Major Development) 2005* on 31 December 2010.

In April 2013, the NSW Planning Assessment Commission granted project approval to Stage 1 of Huntlee (MP 10\_0137), including site preparation works, internal and external roadworks, subdivision to create 1,473 residential allotments, 14 super lots, one (1) allotment for a primary school, drainage, servicing and open space reserves. Since project approval was granted, a number of modifications have been made to the project, with the most recent modification (Mod 8) being approved on 4 May 2018. The stage 1 works have substantially commenced and accommodate approximately 300 finished dwellings, 90 under construction and 543 registered lots.

The site subject of the proposed Reservoir development is located adjacent to the south-western corner of stage 1. The location of the proposed reservoirs in the context of Stage 1 of Huntlee, as approved under Mod 8 is shown as **Figure 2** below.



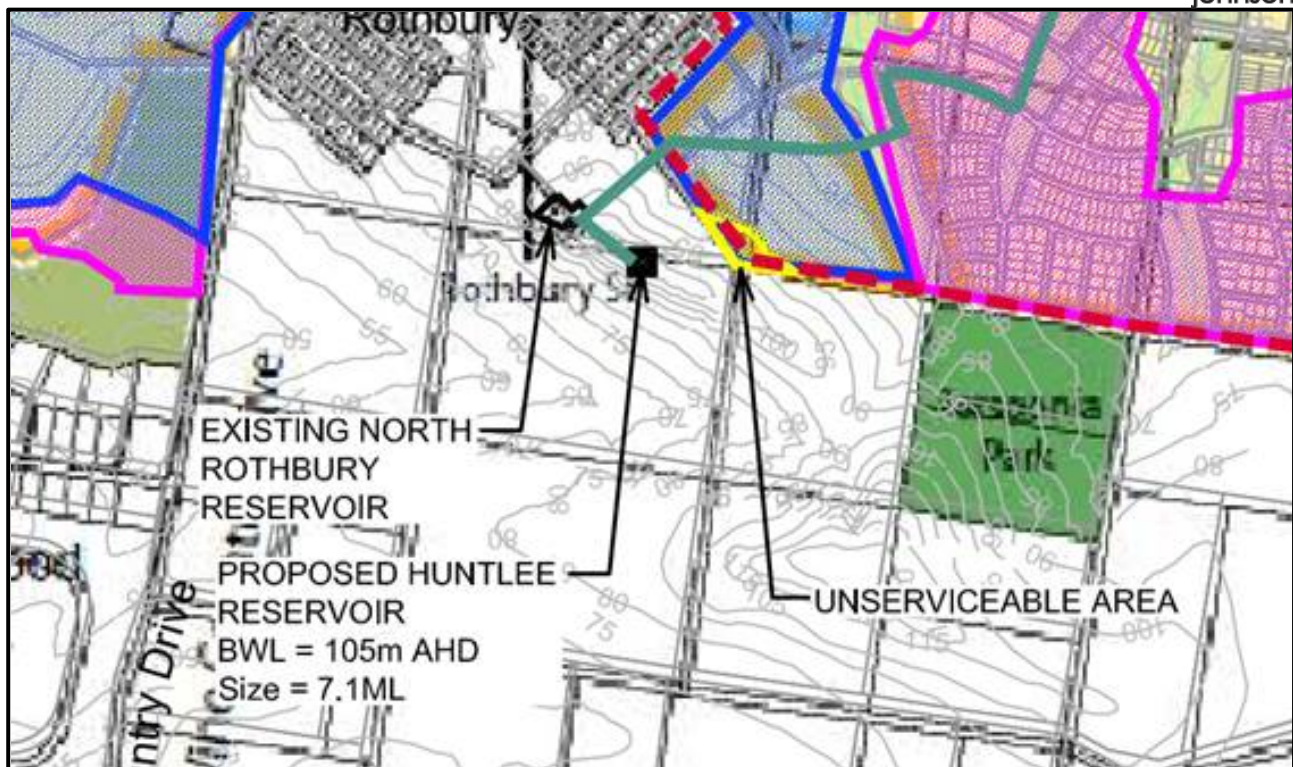
**Figure 2 – Approved Huntlee Subdivision Plan.**

The proposed eight (8) water reservoirs remain consistent with the Stage 1 Project Approval, particularly noting that they will provide essential water supply to a number of approved allotments within Stage 1.

A Physical Infrastructure Report prepared by Worley Parsons was lodged as an appendix to the Environmental Assessment Report for the Stage 1 Project Approval and updated as part of the applicant’s response to submissions. The Environmental Assessment Report for the Stage 1 approval confirms:

*“A reservoir is proposed to service the high-level zone, and will be sited on the ridge line adjacent to the existing North Rothbury Reservoir”*

The figure below is an extract from the Physical Infrastructure Report. The Figure shows a reservoir located generally in the location of the currently proposed reservoirs, at 105m AHD:



**Figure 3 – Extract from the Physical Infrastructure Report lodged with EA for Project Approval MP10\_0137.**

An update on infrastructure planning for Huntlee was prepared by SMEC Australia as part of the Preferred Project Report for the Stage 1 Project Approval. The SMEC report outlines the following:

*“A reservoir is proposed to service the high-level zone, and will be sited on the ridge line adjacent to the proposed Persoonia Park”.*

The Director General’s Assessment Report for the Stage 1 approval acknowledges the proposed location of the reservoirs, stating the following:

*“A reservoir is proposed to service the high-level zone and is expected to be sited on the ridge line adjacent to the proposed Persoonia Park. The timing of the provision of this reservoir is likely to be after the first 1000 dwellings have been built and will be confirmed by the proponent with Hunter Water”*

Condition A2 of the initial Stage 1 Project Approval states:

*The development will be undertaken in accordance with the following documentation:*

- *Project Application – Environmental Assessment Report – Huntlee Stage 1 Subdivision and Infrastructure Works (by JBA March 2011) and associated appendices as amended by:*
  - *Project Application – Preferred Project Report – Huntlee Stage 1 Subdivision and Works (by JBA September 2012) and its associated appendices*
  - *Statement of Commitments in aforementioned Preferred Project Report (by JBA Planning 2012)*



- Amended subdivision plan "121129 Overall Lot Plan\_1 to 3000" (Roberts Day Dec 2012) as to be amended in line with the additional amended subdivision concept plan "Huntlee – Stage 1 Concept Master Plan dwg UD4- 401 01.02.13" (Roberts Day Feb 2013) Except as modified by the conditions of this approval

Based on the above, construction of reservoirs in the location currently proposed was considered as part of the Stage 1 approval and deemed appropriate to support the Project Approval for Stage 1 of Huntlee. In particular, consistent with the Director General's Assessment Report, this application is being made to formalise the location, design and operation of the water reservoirs now that development associated with the Stage 1 Project Approval is well advanced.

### 1.3.2 Overview of Proposal

The proposed development seeks to construct eight (8) water reservoirs, including four (4) potable water reservoirs and four (4) recycled water reservoirs. The proposed water reservoirs are located adjacent to the south-western corner of approved Stage 1 of Huntlee. The proposed reservoirs will provide water services to allotments within high-level topographical areas of the estate. A detailed description of the proposed development is provided in **Section 2** below.

The proposed development will support the ongoing delivery of residential allotments within Huntlee.

The application for development consent is made pursuant to the provisions of the *Environmental Planning and Assessment Act 1979* (EP&A Act), State government policies and the statutory and non-statutory planning guidelines of Cessnock City Council.

The proposed development is permissible with consent in accordance with Clause 126A(1) of *State Environmental Planning Policy (Infrastructure) 2007*.

## 2.0 Proposed Development

### 2.1 OBJECTIVES OF THE PROPOSAL

The proposal is for the construction of potable and recycled water reservoirs and associated works to service allotments in higher-level topographical areas in approved Stage 1 of Huntlee.

The proposed development is essential to support the ongoing development of Huntlee in accordance with the Major Project approval granted for the site.

### 2.2 DESCRIPTION OF PROPOSED DEVELOPMENT

The proposed development seeks consent for the construction of eight (8) water reservoirs to service high-level topographical areas within Huntlee as well as associated preparatory works. The proposed reservoirs will be located within Lot 471 DP 1201681.

Once constructed, the proposed reservoir tanks will be owned and operated by Flow Systems.

#### *Water Reservoirs*

The proposed development involves the construction of eight (8) water reservoirs, including four (4) potable water reservoirs and four (4) recycled water reservoirs.

The proposed reservoirs have a diameter of 18.2m and a height of 8.8m. Each of the proposed water reservoirs has a capacity to hold up to 1,847m<sup>3</sup> of water. The proposed reservoir structures are to be constructed of galvanised sheeting, with zincalume roofing. The reservoirs will be coloured in a natural shade of green.

The proposed water reservoirs will be constructed across two (2) level building pads. The four (4) recycled water reservoirs are proposed to be positioned on a level pad at R.L 100m, positioned adjacent to the northern boundary. A level building pad constructed to RL 105m is proposed adjacent to the south of the recycled water reservoirs, to accommodate the potable water reservoirs.

The proposed reservoirs and associated building pads have been designed and sited in accordance with the Physical Infrastructure Report for Huntlee and will provide suitable elevation to meet water pressure requirements.

#### *Service Roads and Manoeuvring Areas*

Access to the proposed water reservoirs will be via future Huntlee internal roads or a proposed 7.2m wide all weather access road extending from the existing termination point of Rothbury Street (to the north-west of the proposed reservoirs) and along the Crown Road Land which extends from Rothbury Street towards the proposed reservoirs and the Crown Road Land adjoining Lot 471 DP 1201681 to the east. The proposed access road will extend between the proposed reservoirs, terminating with a turning head on the western side of the reservoirs. **Figure 5** below highlights the proposed service location. **Figure 8** below shows an ownership plan of the site and surrounding area.

The extension of Rothbury Street has been included in the proposal as Cessnock City Council's Huntlee DCP includes this road extension within the overall local road network for Huntlee to provide a linkage back into North Rothbury (refer **Figure 4** below).



**Figure 4 – Extract from Huntlee DCP Figure 5 showing overall road network and hierarchy.**

Given that the extension of Rothbury Street has been included within Council's Huntlee DCP, the applicant proposes that Council consider undertaking the transfer of this road to Council ownership as part of the DA process or upon issue of the Development Consent.

The proposed portion of the access road within Lot 471 DP 1201681 are proposed to be private road. It is proposed that the remaining portions of the proposed access road (ie the portion within Crown Road Land) are public roads.

The proposed access road and turning head will provide suitable access and manoeuvring areas for service vehicles and will allow all vehicles to enter and exit the site in a forward direction. The proposed development will not generate the need for permanent parking spaces as it is envisioned that service vehicles will be the only vehicles accessing the site and will do so in a coordinated manner arranged by Flow Systems. There is sufficient area within the proposed access road for service vehicles to temporarily park while servicing the reservoirs.

## **Access Control and Crime Prevention**

The proposed reservoir site will be fully fenced to restrict public access. Security cameras and motion activated security lighting will also be installed within the subject site to ensure that unauthorised access to the site is restricted.

Access to the reservoirs will be controlled via a gate at the eastern boundary of Lot 471 DP1901681. Flow Systems will regulate access through the gate.

The service ladders on each reservoir will contain a lockable gate to ensure that no unauthorised access onto the reservoirs occurs.

## **Earthworks and Retaining**

Earthworks are proposed as part of the development to create level building pads suitable for the construction of the proposed reservoirs. The proposed development has been designed to accommodate the natural topography of the site and minimise the volumes of earthworks required.

Plans of the proposed earthworks are included as **Appendix B**.

In order to establish level building pads suitable to accommodate the proposed reservoirs, retaining walls to a maximum height of 4.3m are proposed adjacent to the northern side of the reservoir building pads.

## **Stormwater drainage**

Stormwater drainage is incorporated into the proposed service road to ensure that the proposed development can convey stormwater without resulting in adverse impacts on adjoining properties. The access road drainage management systems incorporates 'v' drains, stormwater pipes and pits and headwall outlets. The proposed stormwater drainage system will transport water to the adjoining lots to the north-east – Lots 143 DP 1231921 and Lot 33 DP 755211, which are vacant allotments within Huntlee that are owned by Huntlee Pty Ltd, where it will drain via overland flow.

Stormwater details for the proposed development are shown on the plans of the proposed development enclosed as **Appendix B**.

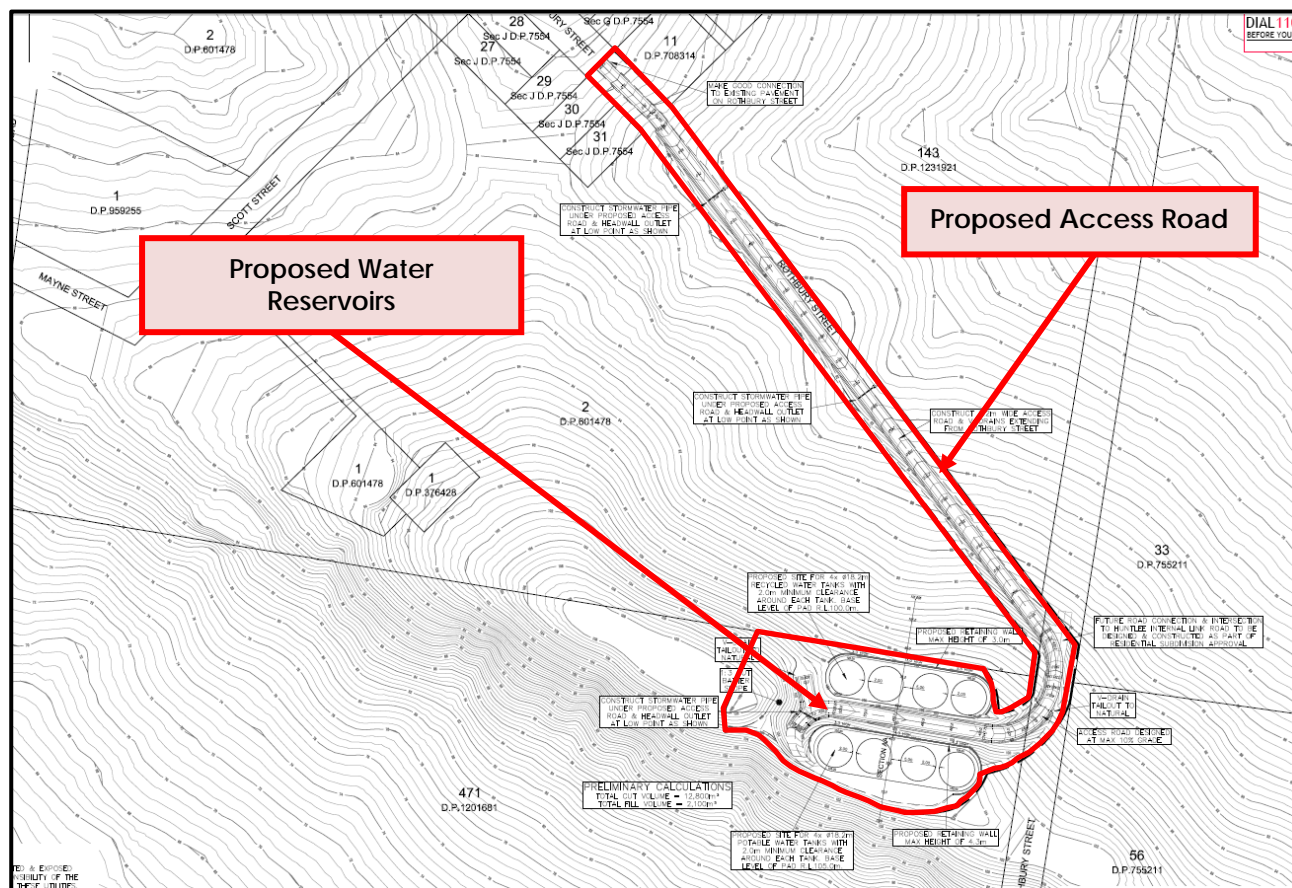
## **Construction Staging**

Construction of the proposed development is likely to occur in two (2) stages as follows:

- Construction Stage 1 – earthworks and installation of two (2) potable water reservoirs and two (2) reticulated water reservoirs. Construction access for Stage 1 works would be via Huntlee Land to the north to avoid construction traffic travelling through the existing North Rothbury residential area during this stage; and
- Construction Stage 2 – Installation of two (2) potable water reservoirs and two (2) reticulated water reservoirs and the extension of access roads within the Rothbury Street Crown Road Land.

Staging of construction will be confirmed during the detailed design of the proposed development.

Plans of the proposed development are included as **Appendix B** and reproduced below:



**Figure 5 – Site Plan.**

This application does not seek consent for the construction of pipes connecting the water reservoirs to Huntlee. This arrangement will be formalised under separate approval by Flow Systems.

## 2.3 DOCUMENTATION

The following documents are included as appendices to this Report:

- Certificate of Title and Deposited Plans – **Appendix A**;
- Site Plan and Reservoir Plans (ADW Johnson) – **Appendix B**;
- Ecological Assessment (MJD Environmental) – **Appendix C**;
- Bushfire Threat Assessment (MJD Environmental) – **Appendix D**;
- Aboriginal Archaeology Due Diligence Assessment (RPS) – **Appendix E**;
- Visual Impact Assessment (Terras Landscape Architects) – **Appendix F**;
- Construction Noise and Vibration Assessment (Reverb Acoustics) – **Appendix G**;
- Cessnock Development Control Plan Checklist – **Appendix H**; and
- Waste Management Plan – **Appendix I**.

## 3.0 Site Analysis

### 3.1 SITE

The subject site sits within Lot 471 DP 1201681, with a physical address of 57 Washery Road North Rothbury and adjoining Crown Roads Land. Lot 471 DP1201681 is owned by Huntlee Pty Ltd. Copies of the Certificate of Title and Deposited Plan for Lot 471 DP 1201681 are included as **Appendix A** of this report.

Discussions have been held between the applicant and the Crown Lands Department. During discussions, it was advised that a full copy of the DA package is required for Crown Lands to issue Land Owners Consent for the works within the Crown Road Reserves. Accordingly, land owner's consent from the NSW Department of Industry Crown Land for the portion of the proposed development located within Crown Road Lands will be supplied to Council under a separate cover. This matter has been discussed between the proponent and Council staff. Council have confirmed that this arrangement is acceptable.

Crown Lands advised during discussions that it would be preferred that Council request the transfer of the subject roads from Crown Land to Council. This would enable the road to be constructed and transferred to Council control at completion. As previously discussed, noting that the extension of Rothbury Street is included within the Huntlee DCP, the applicant proposes that Council consider undertaking the transfer of the portion of the proposed access road which is currently Crown Road Land to Council ownership as part of this DA or upon issue of the Development Consent.

The site is adjacent to land within the Stage 1 Project Approval area for Huntlee. The proposal will provide essential water infrastructure to allow for Stage 1 of Huntlee to progress.

### 3.2 LOCATION CONTEXT

The proposed development is located on land immediately to the south-west of Stage 1 of Huntlee, as approved under MP10\_0137. Huntlee is located directly adjacent to the Village of North Rothbury, located approximately 3km west of Greta and 16km north of Cessnock.

**Figure 6** below shows the location of the subject site in the context of North Rothbury.

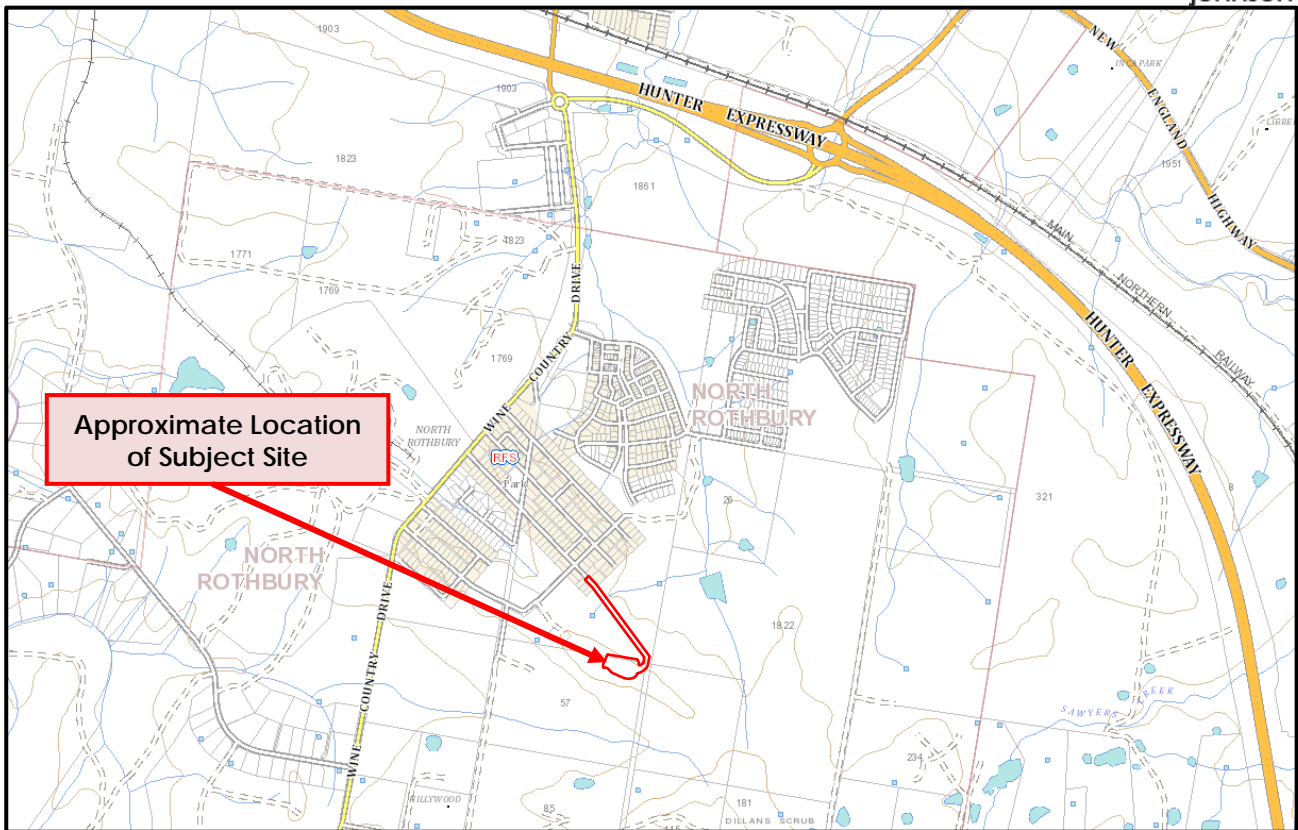


Figure 6 – Extract from SIX viewer maps.

### 3.3 LAND USES LOCALLY AND CURRENT USE OF THE SITE

The subject site is largely vacant. A dwelling is positioned within Lot 471 DP 1201681, adjacent to the western side boundary. The remaining area of the site consists largely of scattered and unmanaged vegetation. **Figure 7** below shows an aerial photograph of the subject site.



**Figure 7 – Aerial Image of the subject site.**

The North Rothbury residential area is located approximately 350m north-west of the subject site. An existing water reservoir is constructed on Lot 1 DP 601478, approximately 200m north-west of the proposed reservoirs.

Land also owned by Huntlee Pty Ltd which forms part of approved Stage 1 of the Huntlee development sits to the east and north-east of the site. Stage 1 of Huntlee is currently being developed in accordance with MP10\_0137. Land immediately north-west of the proposed reservoirs is a privately owned rural residential allotment which contains a dwelling in its western portion.

**Figure 8** below shows the current ownership of the land within and adjacent to the subject site.



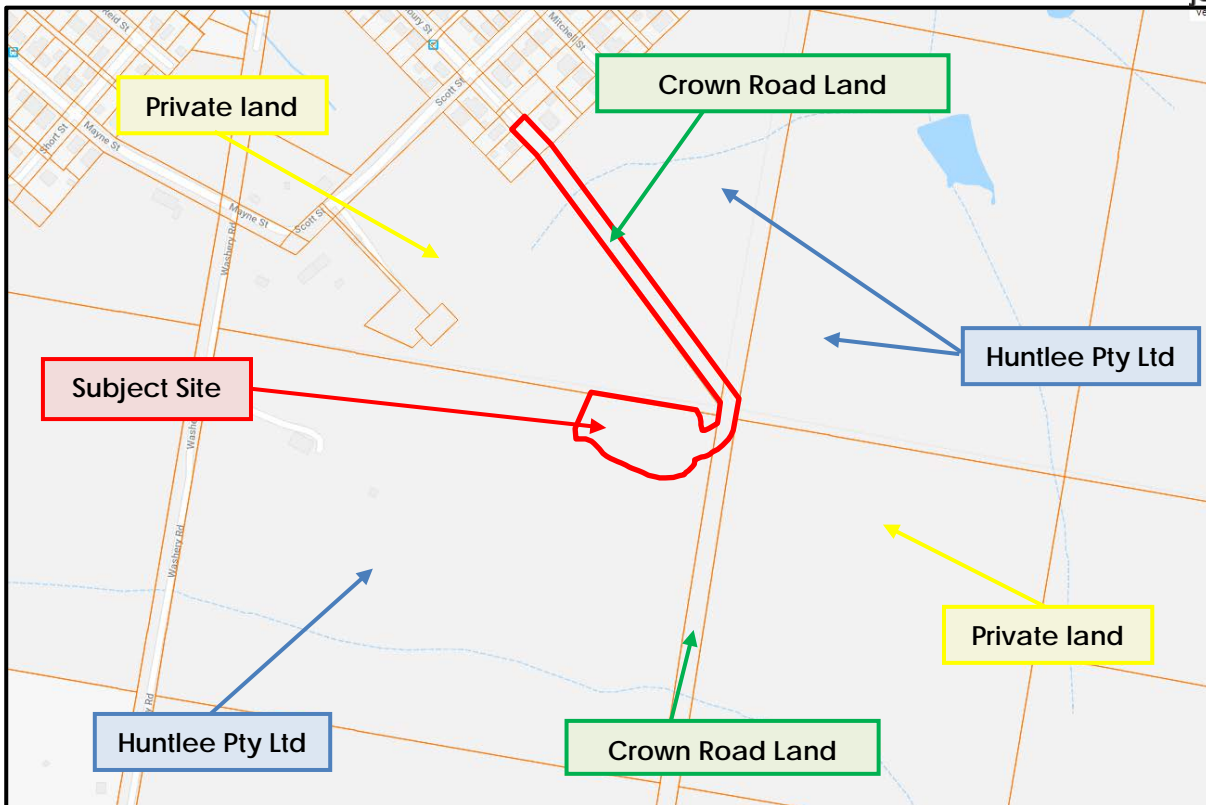


Figure 8 – Land Ownership of Site and Surrounding Land.

### 3.4 TOPOGRAPHY & HYDROLOGY

The topography within the area is of undulating to rolling hills with elevations ranging from 60m to 140m. The proposed reservoirs are positioned on a ridge which runs in a north-west to south-easterly direction and forms a local topographic highpoint. The land slopes downwards to the north-east and steeply downwards to the south-west from the portion of the site in which the proposed reservoirs are located. The proposed reservoirs have pad levels of 105m AHD and 100m AHD. Site topography is shown on the site plans attached as **Appendix B**.

A mapped stream, which runs in a north-easterly direction towards approved Huntlee land is positioned in the north-eastern portion of the Rothbury Street Crown Road extension. The proposed access road (refer **Figure 8** above) will cross this mapped water way.

The site is not affected by flooding.

### 3.5 CONTAMINATION & GEOTECHNICAL MATTERS

There is no known contamination and/or geotechnical issues that would impact on the proposed development.

The subject site does not contain acid sulfate soils.

The subject site is not located within a proclaimed mine subsidence district (refer **Figure 9**).

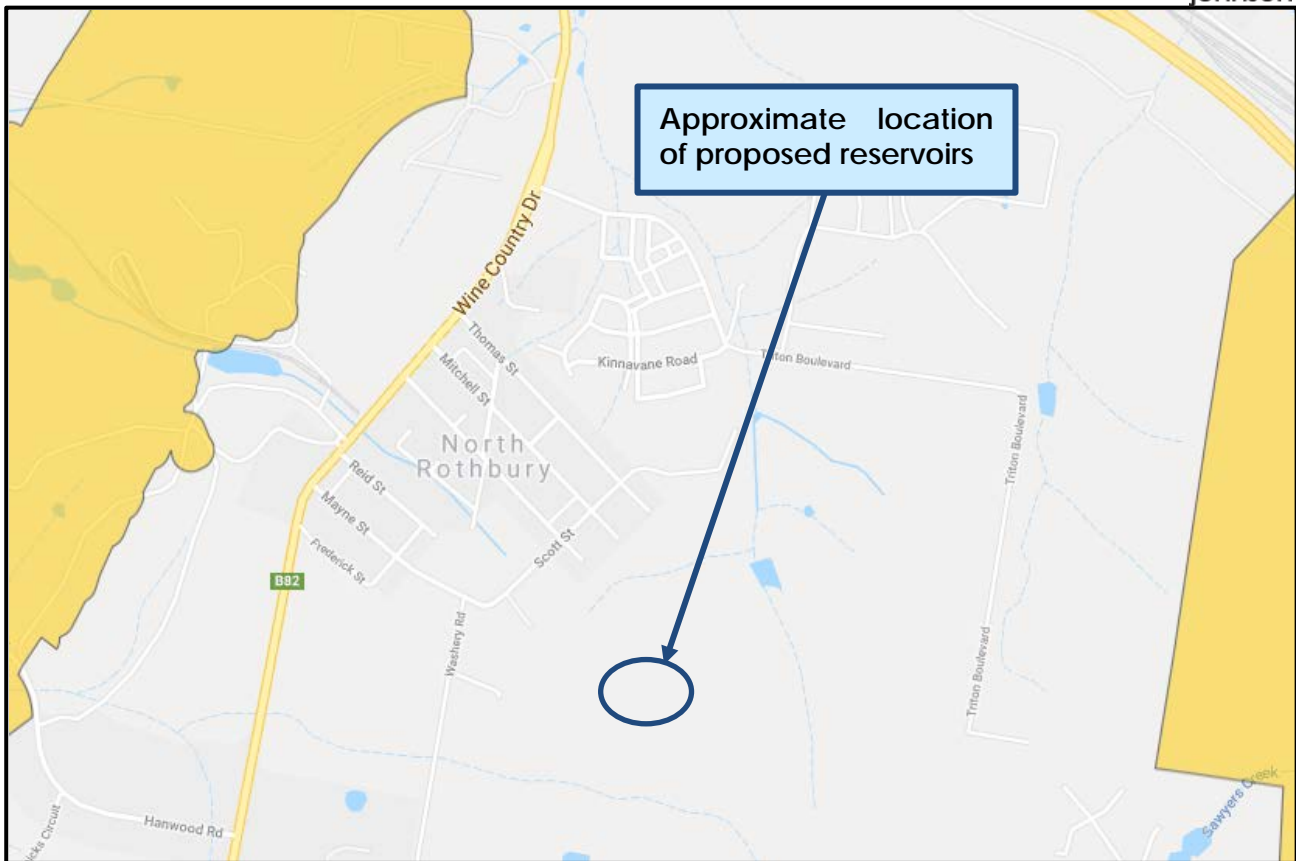


Figure 9 – Extract from NSW Planning Portal Mine Subsidence District layer.

### 3.6 VEGETATION

The subject site has previously been subject to ground surface disturbances including vegetation clearing and agricultural activities. The site is currently vegetated with scattered regrowth remnant forest vegetation (refer **Figure 7**). Vegetation removal will be required to accommodate the proposed development.

The impact of vegetation removal required for the proposed development is discussed in detail in **Section 5** below and in the Ecological Assessment prepared for the proposed development and attached as **Appendix C**.

### 3.7 BUSHFIRE

The site is identified on bushfire mapping as containing both Category 1 and Category 3 bushfire prone vegetation (refer to **Figure 10** below).

Bushfire is discussed further in **Section 5** of this report.

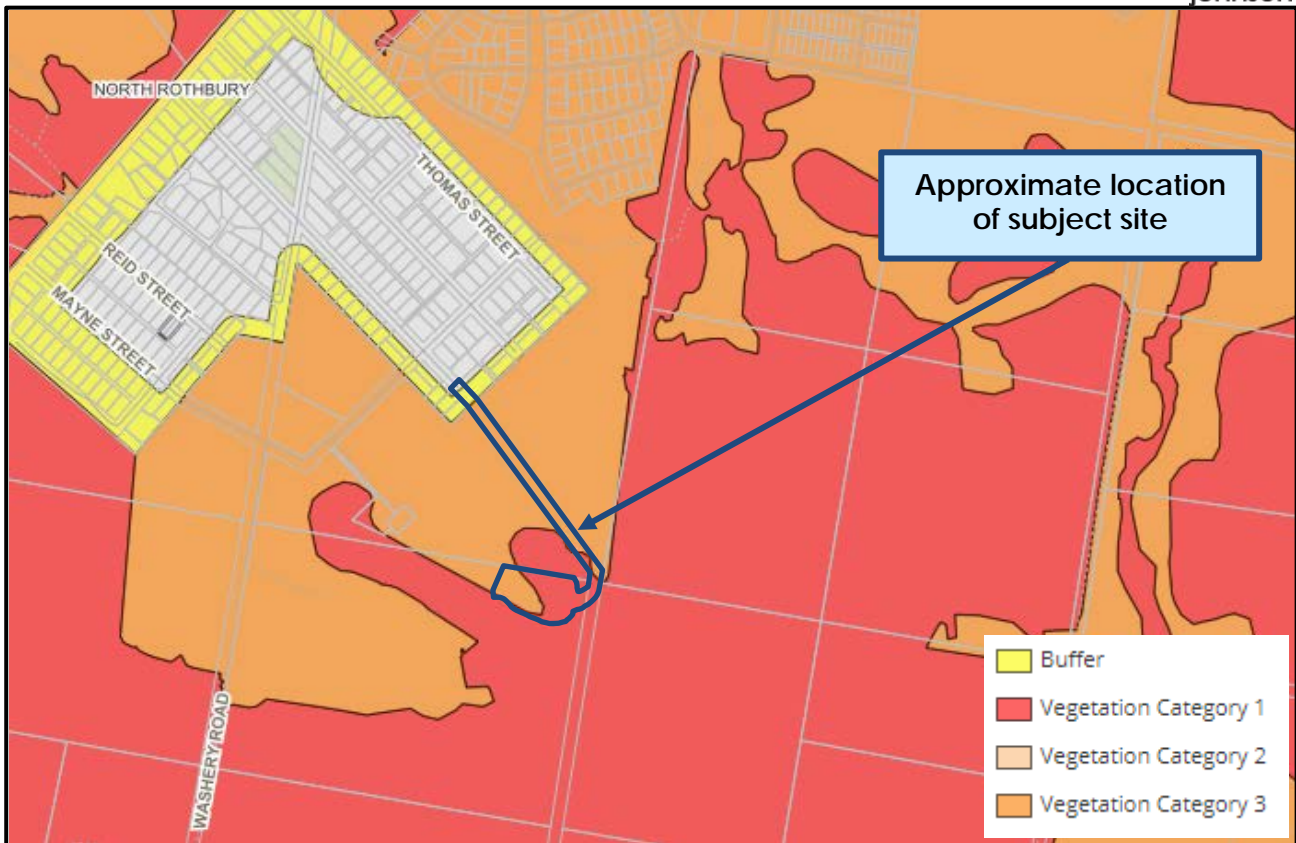


Figure 10 – Extract Cessnock City Council Bushfire Prone Land Map.

### 3.8 HERITAGE & ARCHAEOLOGY

The subject site is not identified on Cessnock Local Environmental Plan 2011 heritage mapping as containing any items of heritage significance, nor are any items of heritage significance mapped on adjoining properties within the proximity of the site.

An Aboriginal Heritage Due Diligence Assessment carried out for the subject site indicates that there are no identified impacts to Aboriginal heritage as a result of the proposal. Aboriginal heritage cultural heritage is discussed in further detail in **Section 5** and the Aboriginal Heritage Due Diligence Assessment enclosed as **Appendix E**.

### 3.9 OTHER MATTERS FOR CONSIDERATION

The proposed water reservoirs are essential to provide reticulated water supply to high level topographical areas within Huntlee and allow the continued delivery of residential allotments in Huntlee in accordance with MP10\_0137.

The subject site has been identified in infrastructure servicing investigations prepared as part of the Huntlee Stage 1 Project Approval as being the most appropriate location for the reservoirs. This was identified in the Director General's Assessment Report and consistent with the report, this application will formalise the location, design and operation of the water reservoirs, which will support the continued development of Huntlee. The proposed reservoirs are required to be constructed at an elevation which allows for suitable water pressure to be achieved and the subject site is the most appropriate location within the vicinity of Stage 1 of which provides appropriate levels to attain this pressure.

## 4.0 Planning Controls

### 4.1 STATE PLANNING CONTROLS

#### 4.1.1 Environmental Planning & Assessment Act 1979

In determining a development application, a consent authority is to take into consideration the matters specified in Section 4.15 of the EP&A Act, including:

- (a) *the provisions of:*
  - (i) *any environmental planning instrument, and*
  - (ii) *any proposed instrument that is or has been the subject of public consultation under this Act and that has been notified to the consent authority (unless the Secretary has notified the consent authority that the making of the proposed instrument has been deferred indefinitely or has not been approved), and*
  - (iii) *any development control plan, and*
  - (iiia) *any planning agreement that has been entered into under section 7.4, or any draft planning agreement that a developer has offered to enter into under section 7.4, and*
  - (iv) *the regulations (to the extent that they prescribe matters for the purposes of this paragraph),*
  - (v) *(Repealed)*

*that apply to the land to which the development application relates,*
- (b) *the likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality,*
- (c) *the suitability of the site for the development,*
- (d) *any submissions made in accordance with this Act or the regulations,*
- (e) *the public interest.*

This SOEE satisfies the relevant heads of consideration given in Section 4.15 of the EP&A Act.

#### 4.1.2 Crown Land Management Act 2016 No 58

The objectives of the *Crown Land Management Act 2016* (Crown Land Management Act) are:

- (a) *to provide for the ownership, use and management of the Crown land of New*

*South Wales, and*

- (b) to provide clarity concerning the law applicable to Crown land, and*
- (c) to require environmental, social, cultural heritage and economic considerations to be taken into account in decision-making about Crown land, and*
- (d) to provide for the consistent, efficient, fair and transparent management of Crown land for the benefit of the people of New South Wales, and*
- (e) to facilitate the use of Crown land by the Aboriginal people of New South Wales because of the spiritual, social, cultural and economic importance of land to Aboriginal people and, where appropriate, to enable the co-management of dedicated or reserved Crown land, and*
- (f) to provide for the management of Crown land having regard to the principles of Crown land management.*

The principles of crown land management, as set out in Section 1.4 of the Crown Land Management Act, are as follows:

- (a) that environmental protection principles be observed in relation to the management and administration of Crown land, and*
- (b) that the natural resources of Crown land (including water, soil, flora, fauna and scenic quality) be conserved wherever possible, and*
- (c) that public use and enjoyment of appropriate Crown land be encouraged, and*
- (d) that, where appropriate, multiple use of Crown land be encouraged, and*
- (e) that, where appropriate, Crown land should be used and managed in such a way that both the land and its resources are sustained in perpetuity, and*
- (f) that Crown land be occupied, used, sold, leased, licensed or otherwise dealt with in the best interests of the State consistent with the above principles.*

The proposed development remains consistent with the objectives and principles of the Crown Lands Management Act. The matters described in **Section 5** of this statement of Environmental Effects confirm that all important environmental considerations can be managed as part of the proposed development. The proposed development seeks consent for the construction of an access road through a portion of Crown Road Land (refer **Figure 8**) associated with a proposed development of water reservoirs to service parts of Huntlee. The access road is the only component of the proposal that extends through Crown Roads Land.

In accordance with clause 2.12, dedicated or reserved crown land may only be used for the purposes for which it is dedicated or reserved, any purpose incidental or ancillary to a purpose for which it is dedicated or reserved or any other purposes authorised by or under this Act or another Act. The proposed development is consistent with this clause, seeking consent to construct an access road within land identified as Crown Road.

As previously discussed, as the extension of Rothbury Street is included within the Huntlee DCP, the applicant proposes that Council consider undertaking the transfer of this road to Council ownership as part of this DA or upon issue of the Development Consent.

#### **4.1.3 State Environmental Planning Policy (Infrastructure) 2007**

*State Environmental Planning Policy (Infrastructure) 2007* (SEPP Infrastructure) aims to facilitate the effective delivery of infrastructure across the State of NSW.

Part 3, Division 24 of SEPP Infrastructure relates to water supply systems (including water reticulation systems). In accordance with Clause 124 of SEPP Infrastructure, the definition of water reticulation systems is the same as the Standard Instrument. The Standard Instrument provides the following definition:

***water reticulation system** means a building or place used for the transport of water, including pipes, tunnels, canals, pumping stations, related electricity infrastructure, dosing facilities and water supply reservoirs.*

***Note.** Water reticulation systems are a type of water supply system—see the definition of that term in this Dictionary*

The proposed development meets the definition of a water reticulation system.

Clause 126A sets out development which is permitted with consent. In accordance with Clause 126A(1):

*(1) Development for the purpose of water reticulation systems may be carried out by any person with consent on any land.*

The proposed development is therefore permissible with Council's consent in accordance with Clause 126A(1) of SEPP Infrastructure.

#### 4.1.4 State Environmental Planning Policy No 44 – Koala Habitat Protection

State Environmental Planning Policy No 44 – Koala Habitat Protection (SEPP 44) aims to encourage the proper conservation and management of areas of natural vegetation that provide habitat for koalas to ensure a permanent free-living population over their present range and reverse the current trend of koala population decline.

An assessment under SEPP 44 undertaken as part of the Ecological Assessment included as **Appendix C** found that no 'Potential Koala Habitat' occurs within the site and that no further assessment under SEPP 44 was required.

## 4.2 REGIONAL PLANNING CONTROLS

### 4.2.1 Hunter Regional Plan 2036

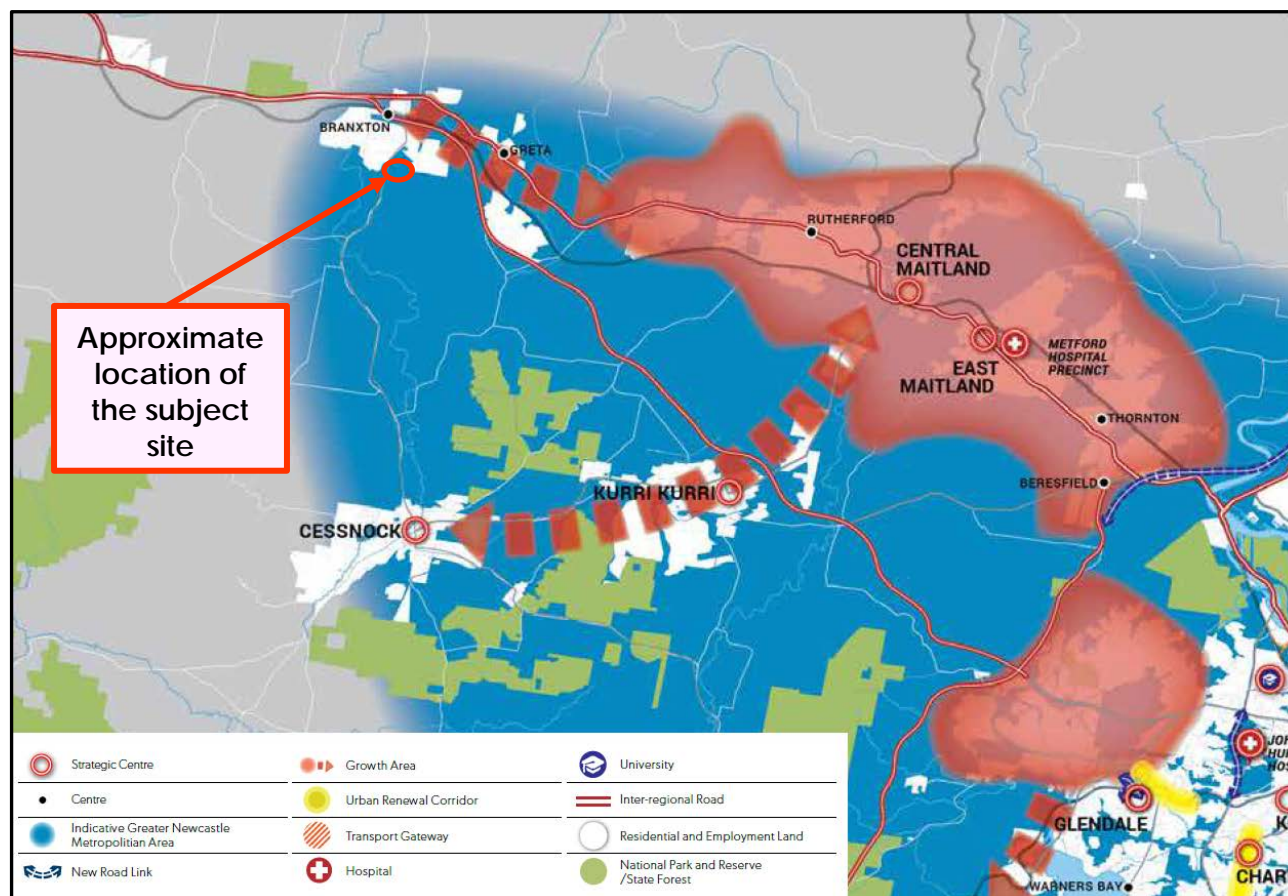
The NSW Government has developed the Hunter Regional Plan 2036 as an overarching framework to guide land use planning priorities and infrastructure funding decisions in the Hunter region over the next 20 years.

The Plan sets priorities and provides a direction for regional planning decisions. It focuses on new housing and jobs, and targets growth in strategic centres and renewal corridors close to transport to deliver social and economic benefits. It sets in place line-of-sight land use planning for the region, regional districts like the Greater Newcastle metropolitan area and each council area.

The vision of the Hunter Regional Plan 2036 is for the Hunter to be the leading regional economy in Australia with a vibrant new metropolitan city at its heart. To achieve this vision, the NSW Government has acknowledged the growing importance of Greater Newcastle and set the following regionally focused goals:

- The leading regional economy in Australia;
- A biodiversity-rich natural environment;
- Thriving communities; and
- Greater housing choice and jobs.

Huntlee is identified in the Hunter Regional Plan as located within the indicative Greater Newcastle Metropolitan area (refer **Figure 11** below).



**Figure 11 – Extract from the Hunter Regional Plan 2036.**

The plan sets out that an additional 70,000 dwellings will be needed in the region by 2036. Providing the land and the infrastructure to meet this demand is central to the Plan. The continued delivery of the Branxton Subregional Plan is set out as a regional priority for the Cessnock LGA. Huntlee forms an integral part of the Branxton subregional plan.

The proposed development will assist in recognising both the overarching aims of the plan and the specific regional goals set out for the Cessnock LGA through facilitating the continued development of Huntlee through the provision of reticulated water services to allotments in high level topographical locations within Huntlee.

#### 4.2.2 Greater Newcastle Metropolitan Plan 2036

The Greater Newcastle Metropolitan Plan 2036 (GNMP) sets out strategies and actions that will drive sustainable growth across Cessnock City, Lake Macquarie City, Maitland City,

Newcastle City and Port Stephens communities, which together make up Greater Newcastle.

The Plan helps to achieve the vision set in the Hunter Regional Plan 2036 - for the Hunter to be the leading regional economy in Australia with a vibrant new metropolitan city at its heart.

The vision established in the plan for Greater Newcastle is:

- *Australia's newest and emerging economic and lifestyle city, connected with northern NSW and acknowledged globally as:*
- *dynamic and entrepreneurial, with a globally competitive economy and the excitement of the inner city and green suburban communities*
- *offering great lifestyles minutes from beaches or bushland, the airport or universities, and from the port to the lake*
- *a national leader in the new economy, with smarter cities and carbon neutral initiatives, and with collaborative governance that makes it a model to others in creating and adapting to change.*

Huntlee is identified in the plan as a Housing release area (refer **Figure 12**). Outcome 3 of the GNMP seeks to deliver new housing to meet the demands of the growing population within the Newcastle metropolitan area. The proposed development will support the continued delivery of housing within Huntlee, through the provision of essential water services to service allotments within the high-level topographical areas of Huntlee.

The proposed development is entirely consistent with the vision established for the Newcastle Metropolitan area in the GNMP.



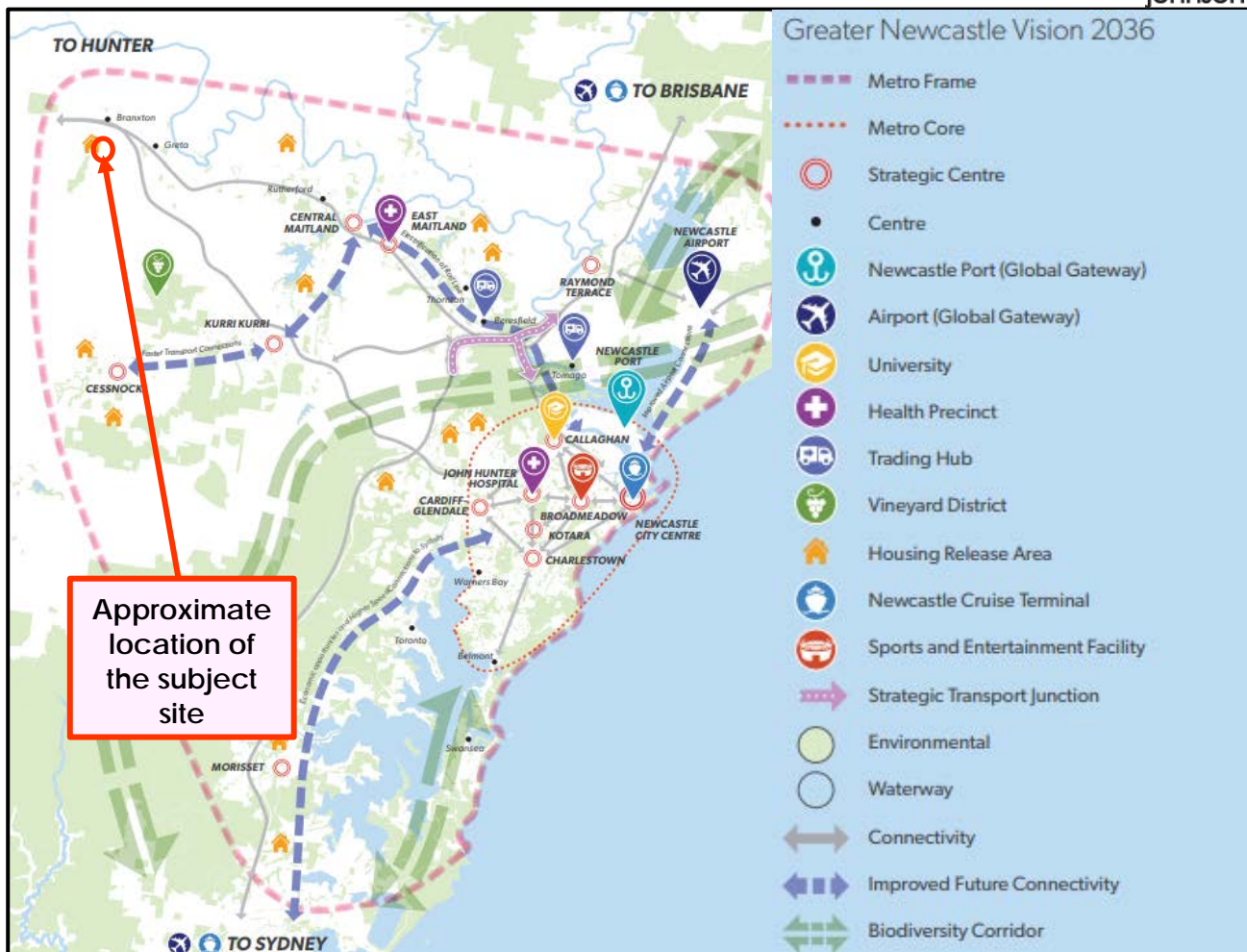


Figure 12 – Vision for Greater Newcastle.

### 4.3 LOCAL PLANNING CONTROLS

#### 4.3.1 Cessnock Local Environmental Plan 2011

The proposed development is subject to the provisions of the Cessnock Local Environmental Plan 2011 (CLEP).

The proposed development is located on land zoned RU2 Rural Landscape under the CLEP, with a small portion of the proposed access road being located within the RU5 Village zone. Reference is made to **Figure 13** below:

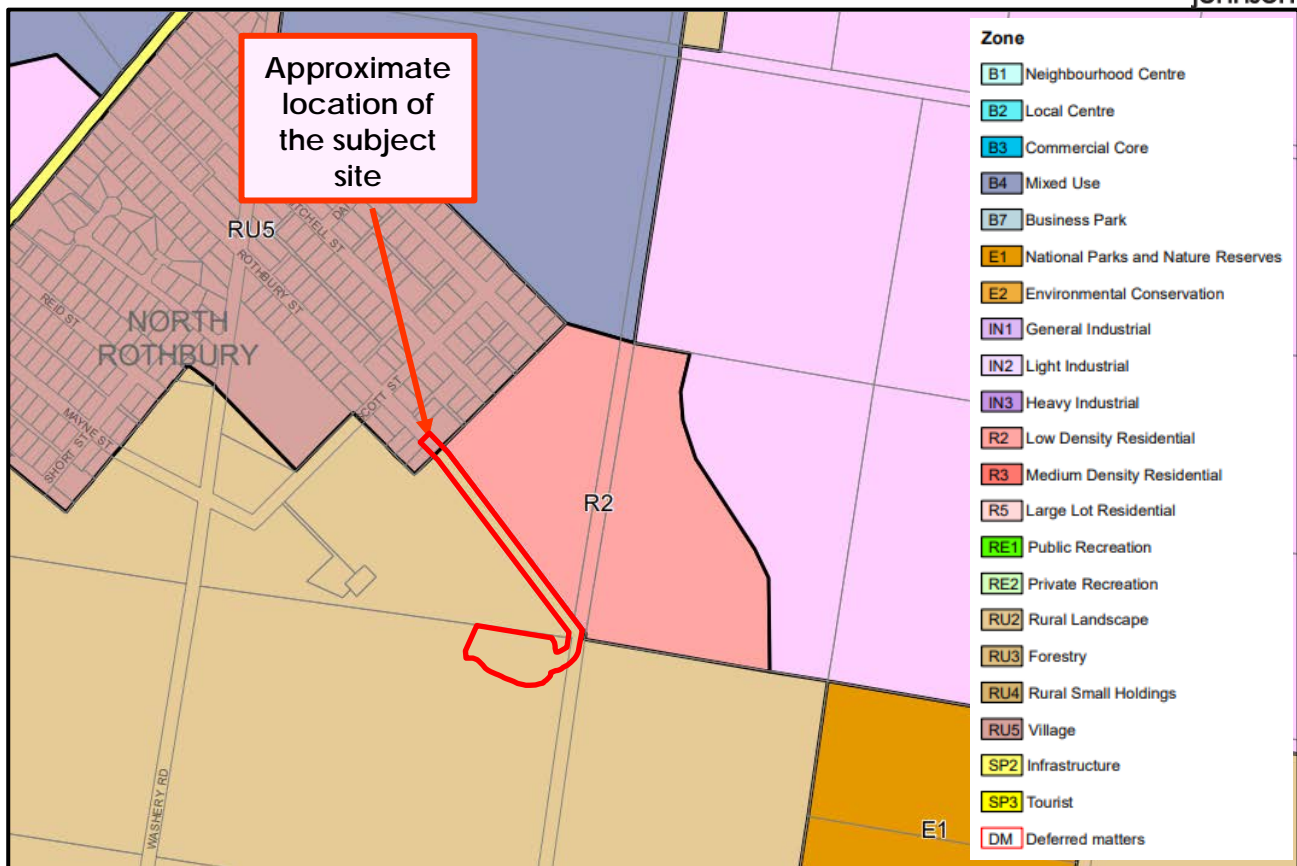


Figure 13 – Zoning map extract from CLEP.

The objectives of the RU2 zone are:

- To encourage sustainable primary industry production by maintaining and enhancing the natural resource base.
- To maintain the rural landscape character of the land.
- To provide for a range of compatible land uses, including extensive agriculture.
- To enable other forms of development that are associated with rural activity and require an isolated location or support tourism and recreation.
- To ensure that the type and intensity of development is appropriate in relation to the rural capability and suitability of the land, the preservation of the agricultural, mineral and extractive production potential of the land, the rural environment (including scenic resources) and the costs of providing services and amenities.
- To maintain and enhance the scenic character of the land.
- To ensure that development does not create unreasonable or uneconomic demands for the provision or extension of services.
- To minimise the visual impact of vegetation clearing in order to be consistent with the rural character of the locality.
- To minimise disturbance to the landscape from development through clearing, earthworks, access roads and construction of buildings.
- To ensure development does not intrude into the skyline when viewed from a road or other public place.

The objectives of the RU5 zone are:

- To provide for a range of land uses, services and facilities that are associated

- with a rural village.
- To ensure that development is compatible with the amenity, functioning and scale of a rural village.

The proposed reservoirs are located with respect to the Project Approval for Stage 1 of Huntlee and is the most suitable location in the area that provides an appropriate elevation to achieve pressure requirements for the reservoirs. The proposed development will support the continued development of Huntlee in accordance with MP10\_0137 and will not compromise the objectives of the RU2 or RU5 zone.

#### 4.3.2 Land Use Definitions & Permissibility

The applicable land use definition for the proposed development based on definitions from the CLEP, is:

**water reticulation system** means a building or place used for the transport of water, including pipes, tunnels, canals, pumping stations, related electricity infrastructure, dosing facilities and water supply reservoirs.

**Note.** Water reticulation systems are a type of water supply system—see the definition of that term in this Dictionary.

As discussed in Section 4.1.3 above, the proposed development is permissible with consent in accordance with Clause 126A(1) of SEPP Infrastructure.

Notwithstanding, development for the purpose of water reticulation systems is permissible in the RU2 zone with the consent of Council. Proposed development within the R5 zone is limited to the proposed access road for the reservoirs. Roads are permissible with consent in the RU5 zone.

#### 4.3.3 Specific Cessnock LEP 2011 Clauses

##### 4.3 Height of Buildings

This clause aims to ensure that taller buildings are appropriately located and consistent with the environmental setting and landform. In accordance with Clause 4.3, the height of a building on any land is not to exceed the maximum height shown for the land on the Height of Buildings Map. The subject site is not mapped in the LMLEP Height of Buildings Map as having a maximum building height.

##### 7.2 Earthworks

This clause aims to ensure that earthworks will not have a detrimental impact on environmental functions and processes, neighbouring uses, cultural or heritage items or features of the surrounding land.

The proposed development seeks consent for earthworks ancillary to the construction of the proposed reservoirs (required for the establishment of level building pads) and access and manoeuvring areas. Plans of the proposed earthworks are included within **Appendix B**. The proposed development has been designed and located to minimise the need for earthworks where possible.

Stormwater management details for the proposed development are shown on the development plans included as **Appendix B**. The plans demonstrate that the proposed development can accommodate and convey stormwater without resulting in detrimental impacts to adjoining properties. An Erosion and Sediment Control Plan which demonstrates how erosion will be managed on the site is included as **Appendix B**.

Earthworks and associated batters do not encroach adjoining privately owned land.

Cultural heritage is discussed further in **Section 5** below. An Aboriginal Heritage Due Diligence Assessment carried out for the subject site indicates that the proposed development will not result in impacts to Aboriginal heritage.

The proposed development, inclusive of associated earthworks will not result in any adverse environmental impacts, impacts on neighbouring properties or cultural heritage impacts.

#### 4.3.4 Cessnock Development Control Plan 2010

The Cessnock Development Control Plan 2010 (CDCP) provides detailed planning and design guidelines that support the planning controls in the CLEP, including a specific chapter for Huntlee.

The CDCP does not include any controls specific to development for the purpose of reservoirs.

A checklist addressing those relevant parts of the CDCP is included as **Appendix H** of this report. The proposed development is generally consistent with the requirements of the CDCP.

#### 4.3.5 City Wide Settlement Strategy

The *City Wide Settlement Strategy 2010* (CWSS) was prepared in Stages over the period 2003 - 2010 as a strategic direction to guide the preparation of the *Cessnock Local Environmental Plan 2011* and implement a number of outcomes and actions arising from the former *Lower Hunter Regional Strategy 2006*.

Whilst the CWSS is somewhat outdated now, with more up-to-date and relevant strategic plans currently in operation. The proposed development is generally consistent with the objectives and directions outlined in the CWSS, in that it will support the continued delivery of Huntlee which is identified as an urban release area in the CWSS.

### 4.4 SECTION 4.46 OF THE EP&A ACT 1979

The proposed development is integrated development under Section 4.46 of the EP&A Act as follows:

- for the purposes of water under Part 3 of Chapter 3 of the *Water Management Act 2000*.

## 5.0 Environmental Impact Assessment

### 5.1 ZONE OBJECTIVES & PERMISSIBILITY

As described in **Section 4** of this report, the proposed development is permissible with consent on the subject site in accordance with Clause 126A(1) of SEPP Infrastructure.

The proposed water reservoirs will support the continued development of Huntlee in accordance with the Stage 1 Project Approval, through the provision of essential water services to allotments within high level topographical areas of Huntlee. The proposed reservoirs are located with respect to the project approval for Stage 1 of Huntlee. The ridge on which the proposed reservoirs are located was identified as the most suitable location in the area that provides an appropriate elevation to achieve pressure requirements for the reservoirs.

### 5.2 PROPOSED DEVELOPMENT

The proposal seeks development consent for the construction of eight (8) water reservoirs and associated works (earthworks and retaining, construction of an all weather access road and maneuvering areas, and stormwater management works).

Plans of the proposed development are included as **Appendix B**.

The suitability of the subject site for the proposed development is demonstrated by the Huntlee Stage 1 Project Approval. As previously discussed (refer **Section 1.3.1**), the approved Environmental Assessment Report, Physical Infrastructure Report and Director General's Assessment Report for the Stage 1 Project Approval indicates that a reservoir, proposed to service the high-level topographical areas of the estate is expected to be located on the ridgeline adjacent to Persoonia Park. The proposal seeks to formalise this arrangement as foreshadowed in the Stage 1 Project Approval.

### 5.3 STORMWATER

Engineering plans for the proposed development prepared by ADW Johnson (refer to **Appendix B**) include stormwater drainage and erosion and sediment control details.

Stormwater drainage is incorporated into the proposed access road to ensure that the proposed development can convey stormwater without resulting in adverse impacts on adjoining properties. The proposed access road incorporates 'v' drains, stormwater pipes and pits and headwall outlets. The proposed stormwater drainage system will transport water to the adjoining lots to the north-east – Lots 143 DP 1231921 and Lot 33 DP 755211 which are vacant allotments within Huntlee that are owned by Huntlee Pty Ltd, where it will drain via overland flow.

During construction erosion and sediment control measures including silt fences, haybale barriers and geotextile and mesh and gravel inlet filters will be incorporated to ensure that runoff generated by the proposed development is appropriately treated prior to leaving the site.

## 5.4 ACCESS, TRAFFIC & PARKING

### *Access and Manoeuvring:*

It is proposed to access the reservoirs via future internal roads within Huntlee to the north or an all weather access road to extending off Rothbury Street. The proposed access road is 7.2m wide and will extend through the Crown Road Reserve and lead into Lot 471 DP 1201681. During the operation of the proposed development, the need to access the site will be limited to service vehicles. The volume of service vehicles accessing the site during the operation of the reservoirs is expected be very low and the proposed access road is considered suitable to accommodate the vehicular movements generated by the proposal. A turning area is provided on the western side of the proposed reservoirs, to allow vehicles to enter and exit the site in a forward direction.

The portion of the access road within Lot 471 DP 1201681 is proposed to private road. It is proposed that the remaining portions of the proposed access road is public road.

The extension of Rothbury Street has been included in the proposal as Cessnock City Council's Huntlee DCP includes this road extension within the overall local road network for Huntlee, to provide a linkage back into North Rothbury (refer **Figure 4**). The applicant proposes that Council consider undertaking the transfer of the portion this road located with Crown Road Land to Council ownership as part of this DA or upon issue of the Development Consent. It is noted that a small number of houses may be placed directly off the Rothbury Street road extension in the future.

As discussed previously, for construction, access can be obtained through Huntlee land to the north rather than via Rothbury Street. Access to the north through Huntlee land may also be utilised during operation of the reservoirs. It is therefore likely that during the first stage of construction works, access to the site would be via internal Huntlee roads, and the extension of Rothbury Street may only occur in the second stage of construction works.

### *Traffic:*

The proposed reservoirs are expected to have a minimal impact on traffic generation within the area surrounding the subject site.

### *Parking:*

The proposed development will not generate the need for parking on the site. The proposed access road provides sufficient areas for service vehicles to temporarily park while undertaking service and maintenance of the proposed reservoirs. Vehicles accessing the site are expected to be limited to service vehicles and will be coordinated by the operator (Flow Systems).

## 5.5 ABORIGINAL CULTURAL HERITAGE

RPS were engaged to undertake an Aboriginal Heritage Due Diligence Assessment for the proposed development (refer **Appendix E**). The assessment was prepared in accordance with the Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales.

Investigations included a review of contextual information relating to cultural heritage resources, database searches, reviews of previous studies undertaken in the area and a visual inspection of the site.

A search of the Aboriginal Heritage Information Management System (AHIMS) was undertaken across the site. No previously registered AHIMS sites are located within the area affected by the proposed development.

A visual inspection of the project area was conducted on 2 November 2018. No Aboriginal objects were identified during the survey of the site and it was assessed that there was no potential for subsurface archaeological deposits due to the near-absence of topsoils. No trees of an age to obtain Aboriginal cultural scarring were identified and no Aboriginal objects were found during the visual inspection of the site.

The assessment concluded that there are no identified impacts to Aboriginal heritage as a result of the proposal.

The due diligence assessment makes the following recommendations:

- All staff and contractors on site must be made aware of their statutory obligations with regard to Aboriginal cultural heritage under the *NSW National Parks and Wildlife Act 1974*. This may be implemented as part of an on-site induction or tool box talk;
- This due diligence assessment should be kept so that it can be presented if needed as a defence from prosecution under Section 86 of the *NSW National Parks and Wildlife Act 1974*;
- If an Aboriginal object is identified, all activity within the immediate area must cease and the area must be cordoned off. The OEH must be notified by calling the Environment Line 131 555 so that the Aboriginal object can be assessed and managed; and
- In the unlikely event that human remains are identified, all activity within that area must cease and the area must be cordoned off. The proponent must contact the local NSW Police who will make an initial assessment as to whether the remains are part of crime scene or possible Aboriginal remains. If the remains are thought to be Aboriginal and not part of a crime scene, the OEH must be contacted via the Environment Line 131 555. A management plan must be developed in consultation with OEH and the Aboriginal community.

## 5.6 ACOUSTICS

The operation of the proposed water reservoirs is unlikely to result in any adverse acoustic impacts.

A Construction Noise and Vibration Management Plan has been prepared by Reverb Acoustics for the proposed development and is enclosed as **Appendix G**. The assessment considers the noise and vibration impacts associated with construction activities, any potential impacts upon nearby sensitive receivers, and offers recommended controls to mitigate potential impacts.

The assessment indicates that during construction, noise will generally comply with relevant noise criteria, however during major construction activities, some exceedances of noise criteria may occur. The assessment indicates that nearby neighbours should accept some periods of short-term high noise during construction, in particular considering the short-term nature of the louder construction activities. The report recommends the following:

- To reduce the impact in the area during construction, louder activities should be completed with the minimum of undue delay. All reasonable attempts should be made to complete significant noisy activities within as short a time as possible;
- Construction activities that produce higher noise for a shorter period are more desirable than alternate construction techniques that produce lower noise for a much longer period; and
- Construction activities should generally be restricted to the nominated hours. If construction does occur outside of standard hours, it is essential that the local community be informed of the construction timetable with letter drops, meetings, etc.

Significant variation in measured vibration levels may occur due to site specific conditions such as the ground resonant frequency, driving frequency of equipment and energy of the associated process. To minimise the chances of disruption to neighbours from excessive vibration (i.e. during site preparation, pile boring, etc) the report makes a number of recommendations including:

- activities should not occur within specified distances for certain receivers as nominated in Table 9 of the Noise and Vibration Management Plan unless simultaneous vibration and noise monitoring is carried out;
- two (2) compactors should not be operated in tandem over any part of the site, unless simultaneous attended vibration monitoring is conducted at the nearest receiver(s); and
- where practicable, required compaction should be achieved by heavy non-vibrating equipment.

The assessment concludes that vibration levels at the predicted magnitudes will not cause direct structural damage to any building.

The Construction Noise and Vibration Management Plan recommends the following strategies to minimise the impacts of construction noise and vibration:

- A noise and vibration monitoring program is undertaken;
- Vibration management strategies are undertaken;
- Equipment and plant is selected, managed and maintained to ensure that they minimal noise;
- In the event that noise complaints arise during early work, acoustic barriers or screening could be implemented;
- A consultation and complaints handling procedure is established for the proposed works; and
- A risk assessment is undertaken for all noisy activities.



Subject to the implementation of the noise control recommendations detailed in the report, the Construction and Vibration Management Plan concludes that construction of the development should result in only short-term periods of noise for nearby neighbours, and it is therefore recommended that works should proceed.

## 5.7 BUSHFIRE

MJD Environmental was engaged to prepare a Bushfire Assessment Report for the proposed development. The Bushfire Threat Assessment is enclosed as **Appendix D**.

The assessment aims to consider and assess the bushfire hazard and associated potential threats relevant to the proposed development and outline mitigative measures in accordance with Planning for Bush Fire Protection (2006) (PBP).

The assessment found that vegetation types consistent with grassland, grassland with scattered trees, regenerating forest and forest based on the criteria set out within in PBP (2006) occurred within 140m of the site. Slopes under the hazards were identified as ranging from 5.14 degrees to 23.32 degrees Downslope.

In summary, the following key recommendations have been generated to enable the proposal to comply with PBP and AS3959-2009:

- The proposal does not strictly trigger the criteria outlined within PBP for residential and/or special fire protection purposes. In these instances, section 1.3(b) of PBP states that the provisions under the BCA for fire safety will be accepted for bushfire purposes where the aims and objectives outlined in section 1.1 of PBP (2006) can be met. Assessment made in this BRA has determined the proposal can meet these objectives;
- Access is to comply with PBP. The proposed site access is considered to comply with PBP (2006);
- Water supply for fire fighting purposes will be made available at the Reservoir site with appropriate fittings;
- Where required power connections will be underground and in accordance with PBP; and
- Careful consideration of future site landscaping and ongoing fuel management must occur to maintain fuel free zones comprising hardstand and circulation around the tanks.

## 5.8 HERITAGE

No known items or places of heritage significance will be affected by the proposed development. The site is not located within a Conservation Area, thus no heritage conservation restrictions apply to the proposal.

## 5.9 ECOLOGY

MJD Environmental were engaged to prepare an ecological assessment for the proposed development (refer **Appendix D**).

The assessment was prepared with regard to the transitional arrangements set out in the *Biodiversity Conservation (Savings and Transitional) Regulation 2017* (Transitional Regulations). Under Part 7 clause 27 of the Transitional Regulations, the proposal is categorised as a *pending or interim planning application* pursuant to subclause (f) as the development application will be lodged with the consent authority within an Interim Designated Area within the stipulated transition period from commencement of the NSW Biodiversity Reforms, being before 24<sup>th</sup> November 2018. On this basis, the assessment aims to examine the likelihood of the proposal having a significant effect on any threatened species, populations or ecological communities listed under the *NSW Threatened Species Conservation Act 1995* (TSC Act). The assessment recognises the relevant requirements of the EP&A Act (as amended by the *NSW Environmental Planning and Assessment Amendment Act 1997*). The Ecology Assessment was prepared with respect to the Threatened Biodiversity Survey and Assessment Guidelines (DEC 2004) and the Flora and Fauna Survey Guidelines in Appendix A of the Cessnock Development Control Plan 2010.

The assessment involved desktop assessment of available ecological information to provide context and understanding of ecological values within the study area and field surveys including surveys of vegetation and significant flora, fauna and habitat.

The ecological assessment found:

- One vegetation community has been identified within the site being MU18 Central Hunter Ironbark – Spotted Gum – Grey Box Forest (3.23 ha). This community is commensurate with (Central Hunter Ironbark – Spotted Gum – Grey Box Forest in the NSW North Coast and Sydney Basin Bioregions Endangered Ecological Community (EEC) as listed under the BC Act and Central Hunter Valley Eucalypt Forest and Woodland Critically Endangered Ecological Community (CEEC) as listed under the EPBC Act;
- One threatened flora species was recorded in previous ecological assessments by RPS (2015) within the south-eastern corner of the site, being *Persoonia pauciflora* which is listed as Critically Endangered under the BC Act 2016 and EPBC Act. This individual was reported being in poor condition due to grazing when observed in 2015. Systematic targeted survey techniques during the current survey did not detect this individual;
- The Squirrel Glider (*Petaurus norfolcensis*) and Grey-crowned Babbler (*Pomatostomus temporalis temporalis*), both of which are listed as Vulnerable under the BC Act 2016, were recorded within the site;
- Six microchiropteran bats listed as Vulnerable under the BC Act were detected during surveys; Eastern Bent-winged Bat (*Miniopterus schreibersii oceanensis*), Little Bent-wing Bat (*Miniopterus australis*), Eastern Free tailed Bat (*Mormopterus norfolkensis*), Yellow-bellied Sheath-tailed Bat (*Saccolaimus flaviventris*), Greater Broad-nosed Bat (*Scoteanax rueppellii*) and Large-eared Pied Bat (*Chalinolobus dwyeri*) which is also listed as Vulnerable under the EPBC Act;
- In addition, potential habitat for 11 threatened species listed under the BC Act and/or EPBC Act; and
- Assessment under SEPP 44 found that no 'Potential Koala Habitat' occurs within the site and that no further assessment under SEPP 44 was required.

Direct impacts associated with the proposal have been assessed as follows:

Removal of 1.9ha of Central Hunter Ironbark - Spotted Gum - Grey Box Forest.

The Huntlee Major Project Approval has provided local and regional conservation offsets. Conservation offsets delivered by the project were set out under a VPA executed by the NSW Government (Minister for Planning and Minister for Climate change and the Environment) and Huntlee and included the following:

- Dedication of 780 hectares of conservation land within Huntlee;
- Dedication of Persoonia Park (17 hectares);
- Dedication of up to 4988 hectares of conservation land elsewhere within the Lower Hunter Region; and
- Funding for the conservation offset management.

Separately, in addition to the NSW approval for the broader Huntlee Development, a Commonwealth approval was issued by the Minister for the Environment under the EPBC Act. This approval recognises the abovementioned conservation offsets and delivered additional land offsets in the locality and funding contributions for the Persoonia pauciflora National Recovery Plan. The proponent and its ecologist are of the position that given the nature of the proposal and the findings of the Ecological Assessment, that a referral to the NSW Commonwealth Department of Environment and Energy is not necessary in this instance.

The approval was delivered following detailed consideration on a merits basis by the determining authorities and took into account the strategic location of conservation offsets, protection for threatened species, populations and ecological communities through preservation of habitat, establishment and conservation of corridors and habitat linkages within the local offset areas and regional offsets across the Hunter Valley.

The ecological impact assessment, 7-Part Test and EPBC Assessment of Significance considered whether the removal of vegetation and cleared areas on the site would constitute a significant impact on known threatened species, populations and ecological communities from the locality such that a local extinction may occur. The assessment has considered the site on merits in isolation from the major project approval and secondly with the benefit of the major project approval including the offset arrangements forming part of this approval. In both instances, the assessment concluded that the proposal was unlikely to have a significant impact on the threatened entities assessed.

The Ecological Assessment includes a number of recommendations relating to Pre-clearance surveys, clearing procedures, construction procedures and erosion and sediment control to minimise the impacts of clearing and potential for any indirect impacts to occur.

## 5.10 VISUAL IMPACT

A Visual Impact Assessment of the proposed development was undertaken by Terras and is included as **Appendix F**. The assessment included a desktop analysis of the existing visual environment of the site and surrounds, viewpoint analysis to identify the sites likely to be affected by the proposed development, an inspection of the subject site and key viewpoints and an assessment of the potential visual impacts.

The assessment considers that the proposed development will not have a detrimental impact on the visual quality of the area which is a mixture of road networks, commercial and residential land use and remnant bush land, if appropriately integrated into the surroundings.

Due to the contained nature of the proposed development site and the surrounding vegetation and topography, only limited viewer access of the proposed development is available.

To ensure that the proposal is adequately integrated into the landscape, the visual impact assessment recommends that the proposed reservoirs be coloured to match the existing tank on the ridge line to blend in with the surrounding environment. Additionally, the colour and material selected for the proposed retaining walls should be selected to blend in with the surrounding environment.

The assessment concludes that visual access to the site is low. The proposed development will require the removal of vegetation on the ridge line and will contrast with its viewed landscape however with appropriate integration measures the visual effect will be low.

It is noted that the proposed development has been located in accordance with the servicing strategy for Huntlee and the development of reservoirs in the location proposed was acknowledged in the initial project approval for Stage 1 of Huntlee. The location of the reservoirs was determined based on topography, with the proposed location being the most appropriate location which provides suitable elevations for the pressure requirements of the proposed reservoirs to be realised. The proposed reservoirs are important to allow the continued development of Huntlee in accordance with MP10\_0137. It is considered that any visual impacts associated with the proposed development are balanced and outweighed by the social and economic impacts associated with the continued development of Huntlee.

## 5.11 SOCIAL & ECONOMIC IMPACTS

The proposed reservoirs will result in a number of social and economic impacts, in particular through the provision of water infrastructure facilities to support the ongoing development of Huntlee.

The proposed reservoirs will provide essential water services to the high-level topographical areas of Huntlee and will allow the continued development of the estate. Through facilitating the continued development of Huntlee, the proposed development will assist in achieving the expectations established by the Hunter Regional plan 2036 and Greater Newcastle Metropolitan Plan 2036.

The proposed development will generate minor economic benefits by creating employment opportunities during the construction and maintenance of the reservoirs.

## 5.12 CRIME PREVENTION

The proposed development incorporates controls to restrict access to the proposed reservoirs and restrict anti-social behaviour, including:

- The proposed reservoir site will be fully fenced to restrict public access;

- Security cameras and motion activated security lighting will also be installed within the subject site to ensure that unauthorised access to the site is restricted;
- Access to the reservoirs will be controlled via a gate at the eastern boundary of Lot 471 DP1901681. Flow Systems will regulate access through the gate;
- The service ladders on each reservoir will contain a lockable gate to ensure that no unauthorised access onto the reservoirs occurs; and
- Regular monitoring of the reservoirs will be undertaken to detect and deter vandalism.

### 5.13 WASTE MANAGEMENT

The proposed development seeks consent for the construction of eight (8) reservoirs and associated works including earthworks and retaining walls and construction of an access road and associated turning areas. The proposed reservoirs are pre-fabricated and their construction will generate very little construction waste. While all attempts will be made to ensure that correct amounts of materials are ordered during construction to minimise waste, any excess material will be reused where possible off site. Any waste materials from construction will be transported off site to an appropriately licensed recycling or waste facility.

The operation of the proposed development will generate nominal amounts of waste.

A Waste Management Plan has been prepared in accordance with the requirements of the CDCP and is included as **Appendix I** of this report.

## 6.0 Conclusion

---

This Statement of Environmental Effects and supporting documentation comprehensively demonstrates that the proposed construction of eight (8) water reservoirs and associated works to service the high-level topographic areas of Huntlee is an appropriate and suitable development within the subject site when tested against the relevant heads of consideration detailed within Section 4.15 of the EP&A Act.

The proposed reservoir development was acknowledged within the Environmental Assessment Report and Director General's Assessment Report prepared for the Huntlee Stage 1 Project Approval. This application will formalise the location, design and operation of the reservoirs.

The proposal can be supported on the following basis:

- Development consent for the purpose of water reticulation systems may be carried out on any land in accordance with Clause 126A of SEPP infrastructure; and
- The proposed development will allow for the ongoing delivery of residential allotments within Approved Stage 1 of Huntlee through the provision of supporting reticulated water infrastructure.

The proposed development is essential to support the overall delivery of the approved residential land subdivision and will assist with achieving the social and economic benefits to the community associated with the development of Huntlee. It is recommended that the application be supported.

# Appendix A

---

## CERTIFICATE OF TITLE AND DEPOSITED PLAN

## Appendix B

---

SITE PLAN AND RESERVOIR PLANS (ADW JOHNSON)



## Appendix C

---

ECOLOGICAL ASSESSMENT (MJD ENVIRONMENTAL)

## Appendix D

---

BUSHFIRE THREAT ASSESSMENT (MJD ENVIRONMENTAL)

## Appendix E

---

### ABORIGINAL ARCHAEOLOGY DUE DILIGENCE ASSESSMENT (RPS)

## Appendix F

---

VISUAL IMPACT ASSESSMENT (TERRAS LANDSCAPE ARCHITECTS)

## Appendix G

---

### CONSTRUCTION NOISE AND VIBRATION ASSESSMENT (REVERB ACOUSTICS)

## Appendix H

---

### CESSNOCK DEVELOPMENT CONTROL PLAN CHECKLIST

# Appendix I

---

## WASTE MANAGEMENT PLAN