

ENVIRONMENTAL ASSESSMENT

# COBAKI LAKES DEVELOPMENT

MODIFICATION OF CONCEPT PLAN APPROVAL NO. 06\_0316 (MOD 8)

PREPARED FOR



PREPARED BY

**ae** design partnership  
architecture urban design planning

28 SEPTEMBER 2018



## Contents

Statement of Validity	6
Environmental Assessment	6
Executive Summary	7
<b>1.0 Introduction</b>	<b>9</b>
1.1 Overview of Proposed Modification	9
1.3 Approval History	10
1.4 Secretary's Environmental Assessment Requirements	12
<b>2.0 Description of Existing and Surrounding Environment</b>	<b>16</b>
2.1 Location & Context	16
2.2 Land Description and Title	17
2.3 Topography	18
2.4 Vegetation & Open Space	19
<b>3.0 A Thorough Description of the Proposed Modifications</b>	<b>20</b>
3.1 Overview	20
3.2 Comparison against Previous Approvals	21
3.3 Detailed Justification of MOD 8	25
<b>4.0 Assessment of Key Issues</b>	<b>28</b>
4.1 Relevant Environmental Planning Instruments	28
4.2 Comparison with the Concept Approval (MP 06_0316)	30
4.3 Density and Land Use Analysis	32
4.4 Built Form	34
4.5 Visual Impacts	38
4.6 Environmental and Residential Amenity	40
4.7 Public Domain/Open Space	45
4.8 Transport and Accessibility	48
4.9 Flooding and Stormwater	49
4.10 Bushfire	50
4.11 Biodiversity	50
4.12 Heritage	50
4.13 Ecological Sustainable Development	51
4.14 Socio-Economic Impacts	51
4.15 Soils and Groundwater	52
4.16 Contributions	52
4.17 Air Space Planning Impacts	52
4.18 Utilities	53
4.19 Statement of Commitments	53
<b>5.0 Consultation</b>	<b>54</b>
<b>6.0 Capital Investment Value</b>	<b>54</b>
<b>7.0 Mitigation Measures</b>	<b>55</b>
<b>8.0 Conclusion</b>	<b>57</b>

## List of Figures

<b>1.0</b>	<b>Introduction</b>	<b>9</b>
<b>2.0</b>	<b>Description of Existing and Surrounding Environment</b>	<b>16</b>
Figure 1:	Local Context	16
Figure 2:	Cadastral Plan of Site (Original Environmental Assessment MP 06_0316 prepared by JBA)	17
Figure 3:	Site Topography	18
Figure 4:	Vegetation and Open Space	19
<b>3.0</b>	<b>A Thorough Description of the Proposed Modifications</b>	<b>20</b>
Figure 5:	Precincts Subject to Modification 8 of Cobaki Concept Plan MP 06_0316.	21
Figure 6:	Cobaki Concept Plan MP 06_0316.	22
Figure 7:	Cobaki Concept Plan MP 06_0316 MOD 4.	23
Figure 8:	Cobaki Concept Plan MP 06_0316 MOD 8.	24
Figure 9:	Cobaki Concept Plan MP 06_0316 MOD 8.	25
Figure 10:	Cobaki Concept Plan MP 06_0316 MOD 8.	26
<b>4.0</b>	<b>Assessment of Key Issues</b>	<b>28</b>
Figure 11:	Precinct 5 Height Assessment	36
Figure 12:	Precinct 15 and Precinct 17 Height Assessment	37
Figure 13:	Precinct 5 Height Assessment	40
Figure 14:	Precinct 5 Height Assessment	40
Figure 15:	Prevailing Winds	41
Figure 17:	Section DD Wind Assessment - Proposed Indicative Built Form	41
Figure 16:	Section DD Wind Assessment - Existing	41
Figure 18:	Section BB	42
Figure 19:	Section DD	42
Figure 20:	Section AA View Loss Assessment	43
Figure 21:	Section BB View Loss Assessment	43
Figure 22:	Section CC View Loss Assessment	43
Figure 23:	Assessment - Section DD View Loss	43
Figure 24:	Connectivity	45
Figure 25:	Indicative Concept Plan for the Town Centre at Southern Portion of Precinct 5.	47
Figure 26:	Locations of APZ for permanent residential development	50
<b>5.0</b>	<b>Consultation</b>	<b>54</b>
<b>6.0</b>	<b>Capital Investment Value</b>	<b>54</b>
<b>7.0</b>	<b>Mitigation Measures</b>	<b>55</b>
<b>8.0</b>	<b>Conclusion</b>	<b>57</b>

## List of Tables

Table 1:	Project History of Concept Plan	10
Table 2:	Project History of Open Space Application on the Site.	11
Table 3:	Secretary's Environmental Assessment Requirements	12
Table 4:	Key Development Areas	20
Table 6:	Comparative Analysis of Original Cobaki Concept Plan Land Use Areas & Proposed MOD 8 Land Use Areas	20
Table 5:	Town Centre Land Uses	20
Table 7:	Comparative Analysis of Original Cobaki Concept Plan Land Use Areas & Proposed MOD 8 Land Use Areas	31
Table 8:	Comparative Analysis of Concept Plan Approval MOD 4 Land Use Areas & Proposed MOD 8 Land Use Areas	31
Table 9:	Estimated Number of Dwellings and Dwelling Mix within each Precinct.	32
Table 10:	Estimated Gross Floor Area for each Land Use within each Precinct.	33
Table 11:	Visual Analysis	38
Table 12:	Mitigation Measures and Foreshadowed Investigations	56



## Appendices

Appendix 1	SEARs Request (MP 06_0316 MOD 8) <i>The Department of Planning and Environment</i>
Appendix 2	Concept Plan Approval (MP_06_0316 MOD 4) <i>Department of Planning and Environment</i>
Appendix 3	Precinct Concept Plans <i>AE Design Partnership</i>
Appendix 4	Centres Catchment Analysis <i>RPS Australia East Pty Ltd</i>
Appendix 5	Urban Design Report <i>AE Design Partnership</i>
Appendix 6	Visual Impact Assessment <i>AE Design Partnership</i>
Appendix 7	Original Preliminary Site Contamination Assessment <i>Gilbert + Sutherland</i>
Appendix 8	Transport & Accessibility Report <i>Bitzios Consulting</i>
Appendix 9	Flooding, Stormwater & Utilities Letter <i>Arcadis</i>
Appendix 10	Bushfire Assessment <i>BCA Check</i>
Appendix 11	Biodiversity Assessment <i>JWA Environmental</i>
Appendix 12	Revised Aboriginal Cultural Heritage Assessment <i>Everick Heritage</i>
Appendix 13	Revised European Cultural Heritage Assessment <i>Everick Heritage</i>
Appendix 14	Socio-Economic Impact Assessment <i>RPS Group</i>
Appendix 15	Geotechnical Assessment <i>Douglas Partners</i>
Appendix 16	Acid Sulfate Soils & Groundwater Assessment <i>SMEC</i>
Appendix 17	Land Owner's Consent <i>Leda Manorstead Pty Ltd</i>

## Statement of Validity

Name	Rohan Dickson
Qualifications	Registered Architect 7061
Address	Suite 3 780 Darling Street, Rozelle SYDNEY NSW 2139
In respect of	Modification to the Cobaki Concept Plan (MP 06_0316 MOD 8)
Applicant Name	AE Design Partnership
Applicant Address	Suite 3 780 Darling Street, Rozelle SYDNEY NSW 2139
Land to be developed	Cobaki Lakes Estate, Tweed Heads. Lot 1 in DP 570076; Lot 2 in DP 566529; Lot 1 in DP 562222; Lot 1 in DP 570077; Lot 1 in DP 823679; and Lots 46, 54, 55, 199, 200, 201, 202, 205, 206, 209, 228 & 305 in DP 755740.
Proposed Development	<p>This Modification Application seeks concept approval for:</p> <ul style="list-style-type: none"><li>• Consolidation of approved location for the town centre in Precinct 5:<ul style="list-style-type: none"><li>• Northern portion of approved town centre (from connector road) replaced with residential uses;</li><li>• Retain southern portion of approved town centre (from connector road).</li></ul></li><li>• Amendments to increase building heights in Precinct 15 and Precinct 17.<ul style="list-style-type: none"><li>• Precinct 5: adjoining ridgeline/knoll in land zoned Environmental Protection Area to the north;</li><li>• Precinct 15: adjoining ridgeline/knoll in land zoned Environmental Protection Area to the west.</li><li>• Precinct 17: adjoining ridgeline/knoll in land zoned Environmental Protection Area to the west.</li></ul></li></ul>

## Environmental Assessment

Certification	<p>I certify that I have prepared the content of this Environmental Assessment to the best of my knowledge:</p> <ul style="list-style-type: none"><li>• It is in accordance with the Environmental Planning and Assessment Act and Regulation;</li><li>• All available information that is relevant to the environmental assessment of the development to which the statement relates; and</li><li>• It is true in all material particulars and does not, by its presentation or omission of information, materially mislead.</li></ul>
---------------	---

Signature



Name	Rohan Dickson
Date	28 September 2018

## Executive Summary

### Purpose of this Report

This submission to the Department of Planning and Environment (the Department) comprises an Environmental Assessment (EA) for an application for modification of Concept Plan Approval No. 06\_0316 (MOD 4), which relates to a residential subdivision at Cobaki Estate under Part 3A of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

On 23 November 2017, AE Design Partnership on behalf of Leda Manorstead Pty Ltd (owner of the subject site) requested the Secretary's Environmental Assessment Requirements for MOD 8.

A request for the issue of Secretary's Environmental Assessment Requirements (SEARs) was sought on July 2017. Accordingly, the SEARs were issued on 21 December 2017 (Refer to **Appendix 1**).

This submission is in accordance with Section 75W of the EP&A Act, and addresses the issues raised in the SEARs.

### Statutory Context

The original Concept Plan was approved under Part 3A of the *Environmental Planning and Assessment Act 1979* (the Act), introduced in 2006 to establish a framework for the assessment and approval of projects deemed to be of regional or state significant.

In 2011, Part 3A was repealed and replaced with an alternative system of assessment however certain projects which had already been approved, or that were well advanced within the Part 3A system remain within the provisions of Part 3A, including the Cobaki Estate. Modifications to projects determined under Part 3A can be made under Section 75W of the EP&A Act. This report documents a Section 75W modification to Concept Approval 06\_316.

### Overview of the Project

In 2010, a Concept Plan (See **Appendix 2**) for residential community development was approved under Part 3A of the *Environmental Planning and Assessment Act 1979* (EP&A Act). Modifications to projects determined under Part 3A can be made under Section 75W of the EP&A Act. This report documents a Section 75W modification to Concept Approval 06\_316.

The Concept Plan enabled the lodgement of Development Applications consistent with the approved Concept Plan to include across 17 Precincts for:

- Residential development for approximately 5,500 dwellings;
- Town Centre and neighbourhood centre for future retail and commercial uses;
- Community facilities and school sites;
- Open space;
- Wildlife corridors;
- Protection and rehabilitation of environmentally sensitive land;
- Road corridors and utility services infrastructure;
- Water management areas; and
- Roads and pedestrian and bicycle network.

The Concept Approval has been the subject of a number of Modifications (See **Section 1.3**).

Modifications proposed as part of this application seek concept approval for:

- Consolidation of approved location for the town centre in Precinct 5; and
- Amendments to increase building heights in Precinct 15 and Precinct 17.

Refer to **Appendix 3**.

## Rationale

This Modification Application is required to rationalise the area dedicated to the town centre and maximise opportunity to provide increased building heights proximate to the town centre. Contemporary trends analysed in the Centres Catchment Analysis reproduced in **Appendix 4**, recommends the town centre to be scaled to the needs of the primary residential catchment.

The proposed modification reduces the approved location for the town centre in Precinct 5 from 17.64 ha to 14.07 ha. The associated reduction in size of the town centre will make the excess land available for residential development north of the connector road within the subject precinct. Areas originally dedicated within the town centre in Precinct 5 have been re-allocated to the residential component of the Precinct, north of the connector road.

The request for SEARs included a proposal to increase building heights within Precinct 5, Precinct 11, Precinct 12, Precinct 15 and Precinct 17. Proposed increase to height within Precinct 11 and Precinct 12 is no longer required and does not form part of the MOD 8 application.

This application increases building heights in Precinct 5, Precinct 15 and Precinct 17 from the approved-three storey height, up to 8 and 10 storey heights. Proposed heights in this modification do not extend beyond the height of the adjoining ridge-lines. Notwithstanding increased heights, this modification does not alter development yield approved under Concept Plan Approval MP 06\_0316.

Given the extent of the proposed modifications, that is within the approved development footprint and development yield under Concept Plan Approval MP 06\_0316 and subsequent modifications, this application remains consistent with the Statement of Commitments approved by the Department of Planning for the Cobaki Estate.

## 1.0 Introduction

### 1.1 Overview of Proposed Modification

Leda Manorstead Pty Ltd has commissioned AE Design Partnership to prepare an application for modification of Concept Plan Approval No. 06\_0316 (MOD 4), which relates to a residential subdivision at Cobaki Estate.

This Modification Application seeks concept approval for:

- Consolidation of the town centre in Precinct 5:
  - Northern portion of approved town centre (from connector road) replaced with residential uses;
  - Retain southern portion of approved town centre (from connector road).
- Amendments to increase building heights in Precinct 15 and Precinct 17 from 3 storeys up to 10 storeys.
  - Precinct 5: adjoining ridge-line/knoll in land zoned Environmental Protection Area to the north;
  - Precinct 15: adjoining ridge-line/knoll in land zoned Environmental Protection Area to the west.
  - Precinct 17: adjoining ridge-line/knoll in land zoned Environmental Protection Area to the west.

This Environmental Assessment is based on the Concept Plan forming **Appendix 3** and other supporting technical information appended to the report (See **Table of Contents**).

The Environmental Assessment has been prepared in accordance with the requirements of Part 3A of the *Environmental Planning and Assessment Act 1979* (EP&A Act), Environmental Planning and Assessment Regulation 2000 (EP&A Regulation), and the SEARs for the preparation of the EIS, which are included in **Appendix 1**.

This EIS should be read in conjunction with the supporting information and plans appended to and accompanying this report.

## 1.3 Approval History

Table 1: Project History of Concept Plan

PROPOSAL		
06_0316	<b>Concept Plan - Residential Community Development</b>	Approved
	<b>Mod 1</b> <b>Changes to offset arrangements, Development Code and other minor matters</b>  Modification to the offsetting arrangements for Freshwater Wetlands and Wallum froglets, subsequent changes to relevant management plans and Statement of Commitments, minor modifications to Cobaki Development Code relating to bushfire management and other minor “housekeeping” matters.	Approved with Conditions
	<b>Mod 2</b> <b>Proposed University</b>  Concept plan modification for the Cobaki Residential Development to accommodate a university campus within the Town Centre of the Cobaki site.	Withdrawn
	<b>Mod 3</b> <b>Reclassification</b>  Seek the reclassification of the vegetation community within Precinct 6 and 7, currently classified as Swamp Sclerophyll Forest on Coastal Floodplains EEC.	SEARs Issued
	<b>Mod 4</b> <b>Various</b> <ul style="list-style-type: none"> <li>• Modification 4 to Cobaki Estate Concept Plan (MP 06_0316 MOD 4).</li> <li>• Modification request to:</li> <li>• Alter State school site locations by removing two approved locations and providing one located within Precinct 6.</li> <li>• Locate Registered Club in presently approved southern State school site and replacement of adjacent B2 zoning for Local Centre with R1 General Residential zoning.</li> <li>• Locate a neighbourhood centre on Sandy Lane on the opposite side of Central Open Space.</li> <li>• Locate Council Community Facilities in Town Centre area and provide Residential in its place in Precinct 17.</li> <li>• Alter Condition C14 Restriction on Cats to allow the keeping of cats subject to existing Council Regulations</li> </ul>	Approved
	<b>Mod 5</b> <b>Water and Sewer Utility Provider</b>  Include provision for alternative Water and Sewer utility provider requiring modification to conditions A1, A3 and Schedule 3 as attached.	Approved
	<b>Mod 6</b> <b>Heights</b>  Change of Height Limit within Part of Precincts 11, 12, 15 and 17 (to up to 15 storeys).	Withdrawn
	<b>Mod 7</b> <b>Planning</b>  Update of Cobaki Development Code to reference Standard Instrument land use definitions; Update of residential development controls within Section 3.0 of the development code; Update of subdivision development controls within Section 5.0 of the development code; Inclusion of MOD 4 Concept Plan and Development Matrix.	Approved
	<b>Mod 8</b>  Modification to the Concept Plan Approval to increase building heights by 8 to 12 storeys in Precincts 11, 12, 15 and 17 (as proposed under Modification 6) and in Precinct 5 for the Cobaki Residential Community Development.	SEARs Issued
	<b>Mod 9</b>  Modifications to biodiversity offsets for Swamp Sclerophyll Forest and Lowland Rainforest on Coastal Floodplain.	Refused

Table 2: Project History of Open Space Application on the Site.

PROPOSAL		
08_0200	<b>Project Application – Open Space</b>  Construction and subdivision of central open space area, including two lakes, rehabilitation of saltmarsh and freshwater wetlands, installation of stormwater drainage system, earthworks and construction of sports fields.	Approved
	<b>Mod 1</b> Changes to offsetting, commitments and winning of fill  Modification to proposed offsetting arrangements for Freshwater Wetlands and Wallum Froglet, including subsequent changes to relevant management plans, conditions and statements of commitment. Modification to also approve the winning of fill from Precincts 1 and 2 for the construction of the central open space area.	Approved with Conditions
	<b>Mod 2</b> Fill from Precincts 9 & 11  Modification to allow extraction of fill from Precincts 9 and 11 for the construction of the central open space area. Modifications requested to Conditions 3, 4, 21A and 41.	Approved
	<b>Mod 3</b> Filling of SSPP and extension of borrow areas  Modification to include filling of the SSPP and extension to Precinct 9 Borrow Area -Conditions 3, 4 and 41.	Approved
	<b>Mod 4</b> Water and Sewer Utility Provider  include provision / ability of an alternative water and sewer utility provider to service the proposed development. Modifications to conditions 7, 17, 58(d), Statement of Commitments are requested.	Approved
	<b>Mod 5</b> Condition 39B  Modification of Condition 39A and deletion of Condition 39B of Mod 2 to Project Approval Cobaki Estate 08_0200.	Refused

## 1.4 Secretary's Environmental Assessment Requirements

The Secretary's Environmental Assessment Requirements (SEARs) are reproduced in **Table** . The table indicates where each of the relevant matters is addressed in this Environmental Assessment. A copy of the SEARs is attached as **Appendix 1**.

Table 3: Secretary's Environmental Assessment Requirements

General Requirements	Section
The Environmental Assessment (EA) must include:	
An executive summary;	Page. 6
A site analysis of the existing and surrounding environment;	Section 2.0
A background section covering the approval history for the site;	Section 1.3
A thorough description of the proposed modifications compared with the approved Concept Plan, including a table of the key numerical changes;	Section 3.0
An assessment of the key issues and a table outlining how those key issues have been addressed. This shall include a detailed assessment of the potential impacts of the proposal, particularly any additional impacts associated with the modification beyond those already assessed and approved;	Section 4.0
A description outlining how the potential impacts associated with the modification would be mitigated and managed including any new or amended statement of commitments;	Section 7.0
The plans and documents (outlined below) clearly showing the proposed changes compared with the approved Concept Plan;	Section 3.3 Section 3.4 Section 3.5
Details of any proposed changes to the Future Environmental Assessment Requirements; and	Section 3.6
A conclusion justifying the modified Concept Plan taking into consideration the environmental impacts of the proposal, the suitability of the site and whether it is in the public interest.	Section 8.0
<b>Key Issues</b>	-
The modification request must address the following specific matters:	
<b>1. Relevant Environmental Planning Instruments (EPIs)</b>	
The EA shall address the statutory provisions applying to the site and all relevant strategic planning objectives, including: <ul style="list-style-type: none"> <li>• State Environmental Planning Policy (Infrastructure) 2007;</li> <li>• State Environmental Planning Policy (State and Regional Development) 2011;</li> <li>• State Environmental Planning Policy No.65 - Apartment Design Guide;</li> <li>• State Environmental Planning Policy No.55 (Remediation of Land);</li> <li>• State Environmental Planning Policy No.14 (Coastal Wetlands);</li> <li>• State Environmental Planning Policy No.71 (Coastal Protection);</li> <li>• Tweed Local Environmental Plan 2014;</li> <li>• Draft State Environmental Planning Policy (Coastal Management) 2016;</li> <li>• Tweed Development Control Plan 2008; and</li> <li>• Tweed Coast Comprehensive Koala Plan of Management.</li> </ul>	Section 4.1
<b>2. Comparison with the Concept Approval (MP 06_0316)</b>	
<ul style="list-style-type: none"> <li>• Demonstrate how the proposed modification can be assessed and determined within the scope of section 75W of the Environmental Planning and Assessment Act 1979, and particularly address any environmental impacts beyond those already assessed for the Concept Plan Approval; and</li> <li>• Provide a comparative assessment (qualitative and quantitative) of the proposed modification against the Concept Plan, (including MP 06_0316 MOD 4), a rationale for the proposed amendments and comparison plans clearly identifying the proposed changes.</li> </ul>	Section 4.2



Key Issues	Section
<b>3. Density and Land Use Analysis</b>	
<p>Provide a detailed analysis of the likely future development outcomes for the site, including calculations of the:</p> <ul style="list-style-type: none"> <li>• Estimated floor space area for each land use within each precinct;</li> <li>• Estimated number of dwellings and dwelling mix within each precinct; and</li> <li>• Estimated floor space and number of dwellings for the entire Concept Plan area.</li> </ul> <p>Demonstrate no additional density would be provided across the entire Concept Plan area.</p>	Section 4.3
<b>4. Built Form</b>	
<ul style="list-style-type: none"> <li>• The proposed siting, height, bulk and scale of the proposed building envelopes are to be informed by a detailed urban design analysis and include consideration of the wider Concept Plan area, the strategic planning framework for the site and the potential visual and amenity impacts associated with the proposal;</li> <li>• Consider various options for the siting, orientation and massing of the proposed building envelopes and consider alternative housing typologies (including low rise, medium density options) together with a comparative analysis demonstrating key strengths and weaknesses of each option;</li> <li>• Demonstrate the proposal would result in a high-quality urban design outcome for the site with consideration of setbacks, building articulation, building separation and any necessary amendments to the Cobaki Estate Development Code; and</li> <li>• Provide details of the proposed maximum building heights across the site in storeys and in metres measured from the lowest natural ground level and, where relevant, the adjoining ridge line.</li> </ul>	Section 4.4
<b>5. Visual Impacts</b>	
<p>Provide a visual impact assessment and view analysis of the proposal from key view points and visual catchments, including a comparative analysis of the visual impacts of the approved Concept Plan against the proposed modification.</p>	Section 4.5
<b>6. Environmental and Residential Amenity</b>	
<ul style="list-style-type: none"> <li>• Address potential solar access, wind, privacy and view loss impacts associated with the proposal; and</li> <li>• Demonstrate future residential buildings are capable of complying with SEPP 65 - Design Quality of Residential Apartment Development, and the Apartment Design Guide, including justification for any compliance/non-compliance.</li> </ul>	Section 4.6
<b>7. Public Domain/Open Space</b>	
<ul style="list-style-type: none"> <li>• Address changes to public domain improvements, pedestrian linkages, street activation and landscaping; and</li> <li>• Demonstrate the public domain and open spaces will: <ul style="list-style-type: none"> <li>• maximise permeability throughout the development;</li> <li>• maximise street activation within the town centre;</li> <li>• provide sufficient open space for the expected population;</li> <li>• ensure access for people with disabilities; and</li> <li>• minimise potential for vehicle, bicycle and pedestrian conflicts.</li> </ul> </li> </ul>	Section 4.7

Key Issues	Section
<b>8. Transport and Accessibility</b>	
<p>Include a revised traffic and transport assessment, which includes:</p> <ul style="list-style-type: none"> <li>modelling of the traffic impacts associated with the proposed modifications to the Concept Plan, including an estimate of the total daily and peak hour vehicle trips generated by the proposal;</li> <li>an assessment of the current and future performance of key intersections providing access to the site under the approved and proposed scenarios, any additional upgrades required as a consequence of the proposal and any proposed changes to the timing of upgrades;</li> <li>an assessment of any proposed changes to the approved road network and associated infrastructure;</li> <li>an assessment of the car parking requirements for the modified proposal;</li> <li>detailed plans of the proposed layout of the internal road network and on-site parking in accordance with the relevant Australian Standards;</li> <li>measures to promote travel choices that support the achievement of NSW State Government targets (in a location-specific, sustainable travel plan) and sustainable travel initiatives, including the provision of secure, convenient and accessible end-of-trip facilities for pedestrians and cyclists;</li> <li>an assessment of any proposed changes to the Access Network and Potential Bus Route Plan approved under the Concept Plan; and</li> <li>an assessment of the adequacy of public transport services to meet the likely future demand of the proposed development.</li> </ul>	Section 4.8
<b>9. Flooding and Stormwater</b>	
<ul style="list-style-type: none"> <li>Provide an assessment of any additional flood risks associated with the proposal in accordance with the NSW Floodplain Development Manual (2005), including consideration of the potential impacts of climate change;</li> <li>Provide a revised Stormwater Management Concept Plan which identifies any changes to the stormwater management concept arising from the proposed modification; and</li> <li>Consider consequences for, and incorporate actions to, complement the ongoing management of the saltmarsh rehabilitation areas located within the development precinct.</li> </ul>	Section 4.9
<b>10. Bushfire</b>	
<p>Provide a bushfire assessment report that identifies any bushfire impacts on the proposed residential building sites, including their use for residential, tourism and aged care related activities. Where the report identifies any impacts, it shall address the requirements of Planning for Bushfire Protection 2006 and Draft Planning for Bushfire Protection 2017.</p>	Section 4.10
<b>11. Biodiversity</b>	
<p>Assess any additional biodiversity impacts associated with the proposal, including any additional impacts on adjoining areas. Management and mitigation actions shall be developed to address any identified impacts of the proposal on biodiversity.</p>	Section 4.11
<b>12. Heritage</b>	
<p>Provide an updated Heritage Impact Assessment to identify and assess any additional Aboriginal Cultural Heritage and European Heritage impacts associated with the proposal.</p>	Section 4.12
<b>13. Ecologically Sustainable Development (ESD)</b>	
<p>Identify how best practice ESD principles would be incorporated into the precinct and subdivision design and the future design, construction and ongoing uses of buildings.</p>	Section 4.13
<b>14. Socio-Economic Impacts</b>	
<p>Provide an assessment of the social and economic impacts of the proposed modification, including proposed changes to retail/commercial floor space, demonstrating it would provide a net public benefit and not adversely impact upon the provision of local jobs, services and facilities in other nearby centres.</p>	Section 4.14

Key Issues	Section
<b>15. Soils and Groundwater</b>	
<ul style="list-style-type: none"> <li>• Provide an updated: <ul style="list-style-type: none"> <li>• Geotechnical Assessment;</li> <li>• Acid Sulfate Soils Assessment and Management Plan; and</li> <li>• Groundwater Assessment.</li> </ul> </li> </ul>	Section 4.15
<b>16. Contributions</b>	
Address the provision of public benefits, services and infrastructure having regard to Council's Contribution Plan, and/or provide details of any new/amended Voluntary Planning Agreement.	Section 4.16
<b>17. Air Space Planning Impacts</b>	
The modification request must consider the requirements of the Gold Coast Airport Lighting Zone Map and the Airports (Protection of Airspace) Regulations 1996 (Cth), and CASA's relevant requirements.	Section 4.17
<b>18. Utilities</b>	
In consultation with relevant agencies, address the existing capacity and requirements of the development for the provision of utilities, including the staging of infrastructure works.	Section 4.18
<b>19. Statement of Commitments</b>	
Include any new or modified Statement of Commitments detailing measures for environmental management, mitigation measures and monitoring for the project.	Section 4.19

## 2.0 Description of Existing and Surrounding Environment

### 2.1 Location & Context

This Environmental Assessment pertains to land described as the Cobaki Estate, at 73 Sandy Lane Cobaki Lakes. The subject land is located adjacent to the New South Wales/Queensland border and has a total area of approximately 600 hectares.

The Cobaki Estate is located on the western edge of the Tweed Heads urban area with access to Boyd Street to the east and Piggabeen Road to the south. Piggabeen Road connects to the Pacific Highway via Kennedy Drive.

The site is located approximately:

- 5.5 kilometres from Tweed Heads and Coolangatta town centre to the east; and
- 1.2 kilometres from Gold Coast Airport to the east.

Land on the site is predominantly cleared and has historically been used for agricultural purposes, including grazing and slashing. Various Development Consents for the purpose of residential subdivision have been commenced within the site, with bulk earthworks continuing.



#### LEGEND



Subject Site



QLD & NSW Border



Environmental Protection Area



Public Open Space



Private Open Space



Urban Structure

Figure 1: Local Context



## 2.2 Land Description and Title

As shown in the figure below, Cobaki Estate occupies a total area of approximately 600 hectares.

The land is legally identified as:

- Lot 1 in DP 570076;
- Lot 2 in DP 566529;
- Lot 1 in DP 562222;
- Lot 1 in DP 570077;
- Lot 1 in DP 823679; and
- Lots 46, 54, 55, 199, 200, 201, 202, 205, 206, 209, 228 & 305 in DP 755740.

Under current site conditions, the site is limited to two access points accessible via Boyd Street to Sandy Lane and Piggabeen Road to Sandy Lane.

Private unnamed roads exist off Sandy Lane providing access further west and north of the property.

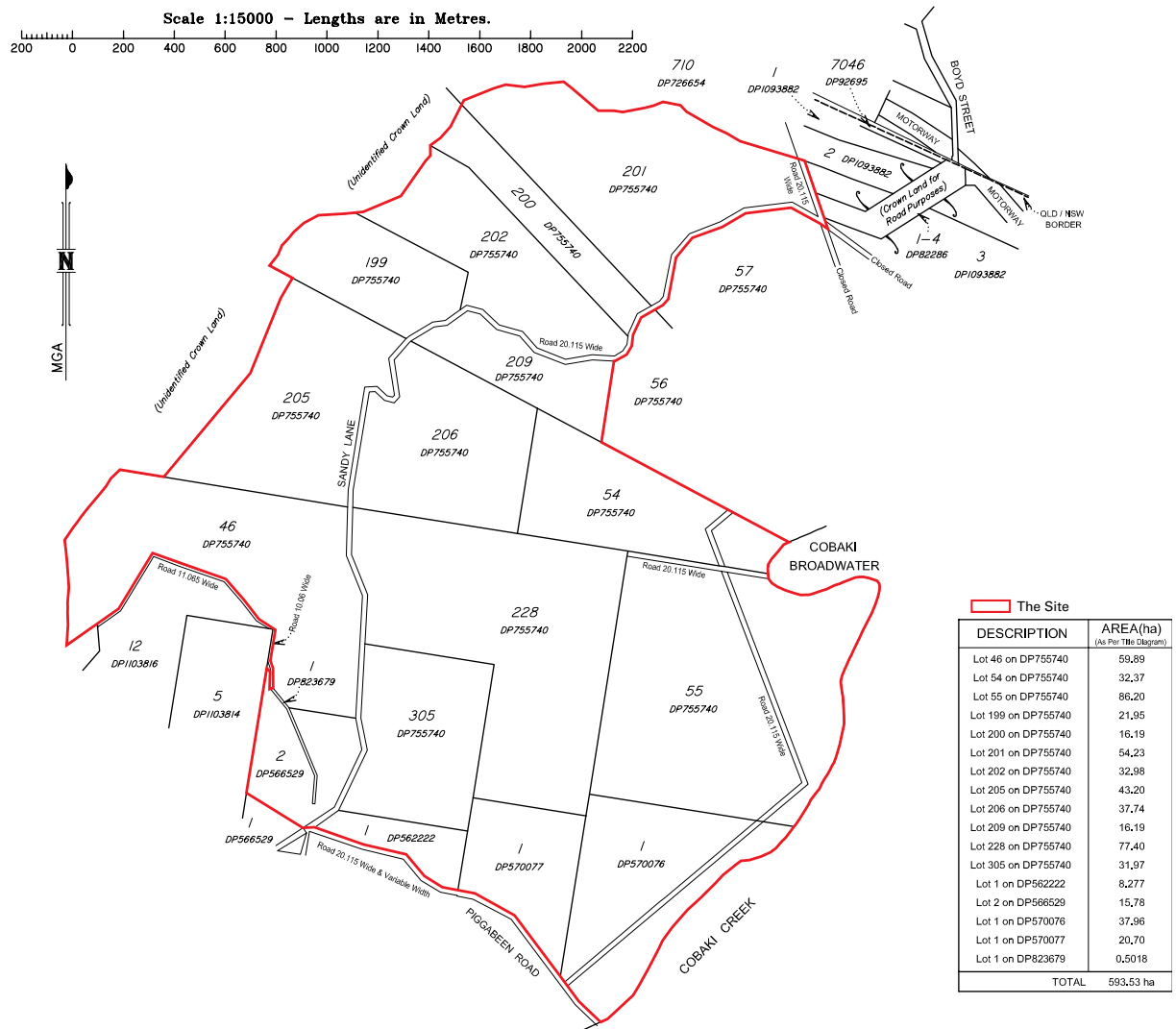


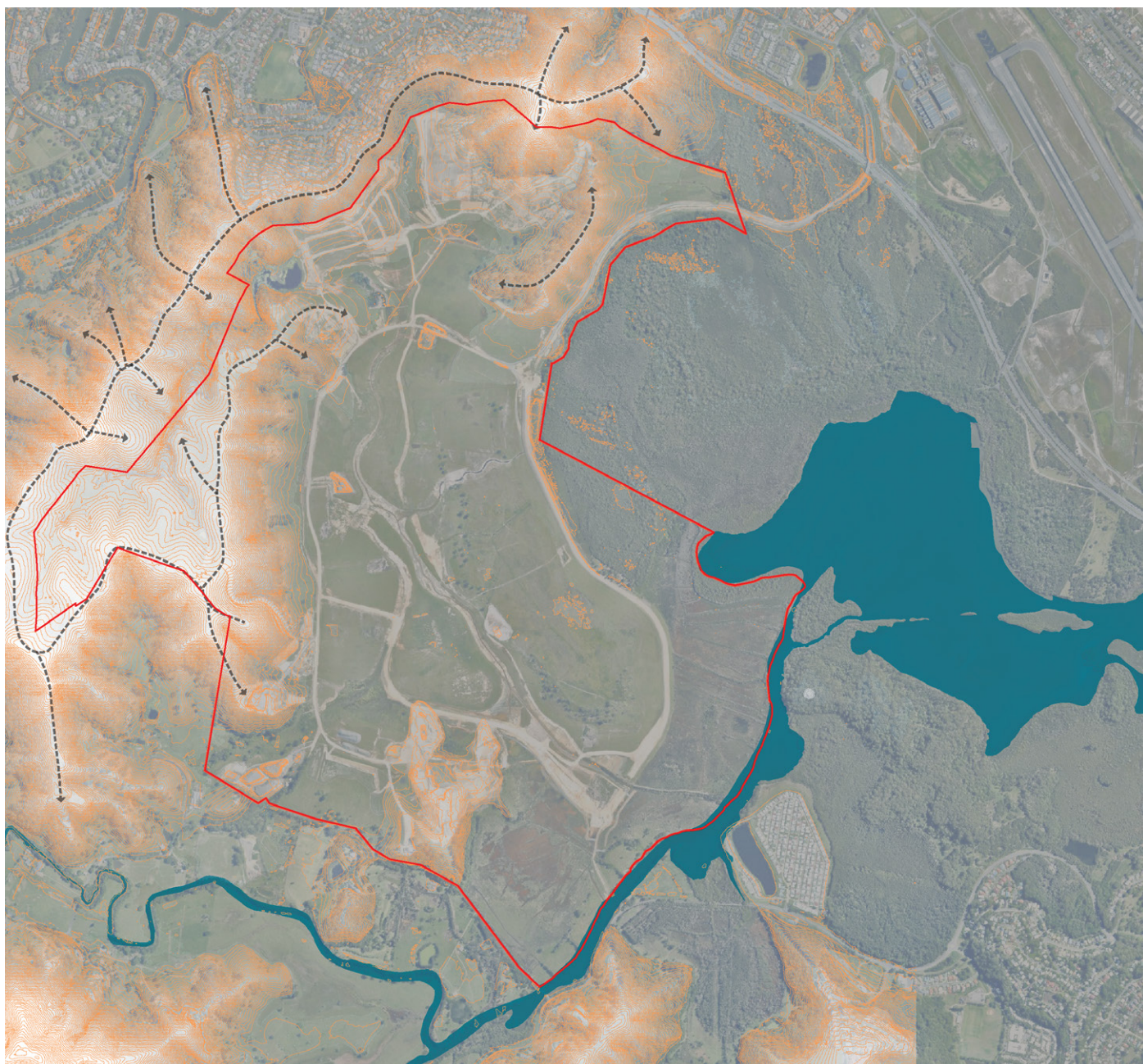
Figure 2: Cadastral Plan of Site (Original Environmental Assessment MP 06\_0316 prepared by JBA)



## 2.3 Topography

The site is characterised by modest slopes from the middle of the site to the southern and eastern boundaries. Steep slopes characterise the northern and western boundaries of the property, with the highest point being RL 96 to the south-west. and to the north. The site is predominantly flat at RL 4.

The visual topography of land as it currently exists is characterised as a topographical amphitheater, comprising a low level central plain bordered by steep rising hills to the North, South and West. To the East, the site adjoins Cobaki Creek and the Cobaki Broadwater, characterised by natural riparian landscapes with native vegetation including littoral rainforest, mangrove forest and wetlands.



### LEGEND

- Subject Site
- Contour (2.0m intervals)

Ridge-line

Figure 3: Site Topography





## 2.4 Vegetation & Open Space

The site is occupied by patches of vegetation, predominantly located along the boundaries of the site. A portion of the site is identified as an environmental protection area associated with Cobaki Creek and Broadwater. These areas are primarily along the natural ridge-lines that border the northern and western boundaries of the property.

The site is generally clear of dense vegetation. Public recreation area has been located at the centre of the site, forming the spine of the property.

Vegetation corridors connect areas identified for public recreation with vegetation conservation areas.



### LEGEND

- Subject Site
- Vegetation Conservation
- Private Recreation
- Water Bodies

<---> Ridgeline

Figure 4: Vegetation and Open Space



## 3.0 A Thorough Description of the Proposed Modifications

### 3.1 Overview

This modification application (MOD 8) seeks concept approval for:

- Reduction of approved location for the town centre in **Precinct 5**:
  - Northern portion of approved town centre (from connector road) replaced with residential uses;
  - Retain southern portion of approved town centre (from connector road).
- Amendments to increase building heights in **Precinct 15** and **Precinct 17**.
  - Precinct 5**: adjoining ridge-line/knoll in land zoned Environmental Protection Area to the north;
  - Precinct 15**: adjoining ridge-line/knoll in land zoned Environmental Protection Area to the west.
  - Precinct 17**: adjoining ridge-line/knoll in land zoned Environmental Protection Area to the west.

Key development areas proposed for this modification are detailed in **Table 4** below:

Table 4: Key Development Areas

Concept Plan Domain	Leda Owned Land	Proposed Road Closures
Town Centre/Neighbourhood Centre	14.07 ha	-
Residential	298.50 ha	4.88 ha

Proposed modifications under this application do not result in any increase in the number of dwellings approved under the original Concept Plan Approval application 06\_316 and any subsequent approved modifications (See **Section 1.3**)

The product of this modification will result in reduced land zoned for commercial uses, ensuring that the future

Town Centre is of a size and scale to create employment opportunities for, and serve the needs, of local residents without impacting the vitality and viability of existing centres in and around Tweed Shire and the Gold Coast.

#### 3.1.1 Land Uses Associated with Precincts Subject to this Modification

**Table 5** outlines *suitable* land uses that will provide:

- retail opportunities within the future Town Centre of the Cobaki community (Refer to **Appendix 4**); and
- residential opportunities within precincts subject to this modification (Precinct 5, Precinct 15 and Precinct 17).

Table 5: Town Centre Land Uses

Concept Plan Domain	Leda Owned Land	Proposed Road Closures	Typical Development Uses
Town Centre/Neighbourhood Centre	14.07 ha	-	<ul style="list-style-type: none"> <li>Supermarket;</li> <li>Tavern;</li> <li>Commercial Office and Medical;</li> <li>Fast Food;</li> <li>Service Station; and</li> <li>Child Care</li> </ul>
Residential	298.50 ha	4.88 ha	<ul style="list-style-type: none"> <li>Residential Dwellings Types in Development Code;</li> <li>Home Business;</li> <li>Neighbourhood Shop;</li> <li>Recreation Area;</li> <li>Carpark; and</li> <li>Recreation Facility.</li> </ul>

Table 6: Comparative Analysis of Original Cobaki Concept Plan Land Use Areas & Proposed MOD 8 Land Use Areas

Concept Plan Domain	Total Area Original Concept Plan		Total Area MOD 8		Net Change (+/- ha)
	Leda Owned Land	Proposed Road Closures	Leda Owned Land	Proposed Road Closures	
Town Centre/Neighbourhood Centre	17.64 ha	0.65 ha	14.07 ha	-	- 4.22 ha
Residential	290.47 ha	4.05 ha	298.50 ha	4.88 ha	+ 8.86 ha
Community Facilities/ Education/Utilities	8.04 ha	0.31 ha	4.91 ha	-	- 3.44 ha
Public Open Space	88.84 ha	1.41 ha	88.64 ha	1.55 ha	- 0.06 ha
Environmental Protection Area	188.27 ha	5.77 ha	187.14 ha	5.77 ha	- 1.13 ha
<b>Total</b>	<b>593.26 ha</b>	<b>12.19 ha</b>	<b>593.26 ha</b>	<b>12.20 ha</b>	<b>nil</b>



## 3.2 Comparison against Previous Approvals

This section details a comparison of the proposed Modification against Concept Plan Approval MP 06\_0316 and

Concept Plan Approval MP 06\_0316 MOD 4. The parts of the site affected by MOD 8 are shown in **Figure 5** below.

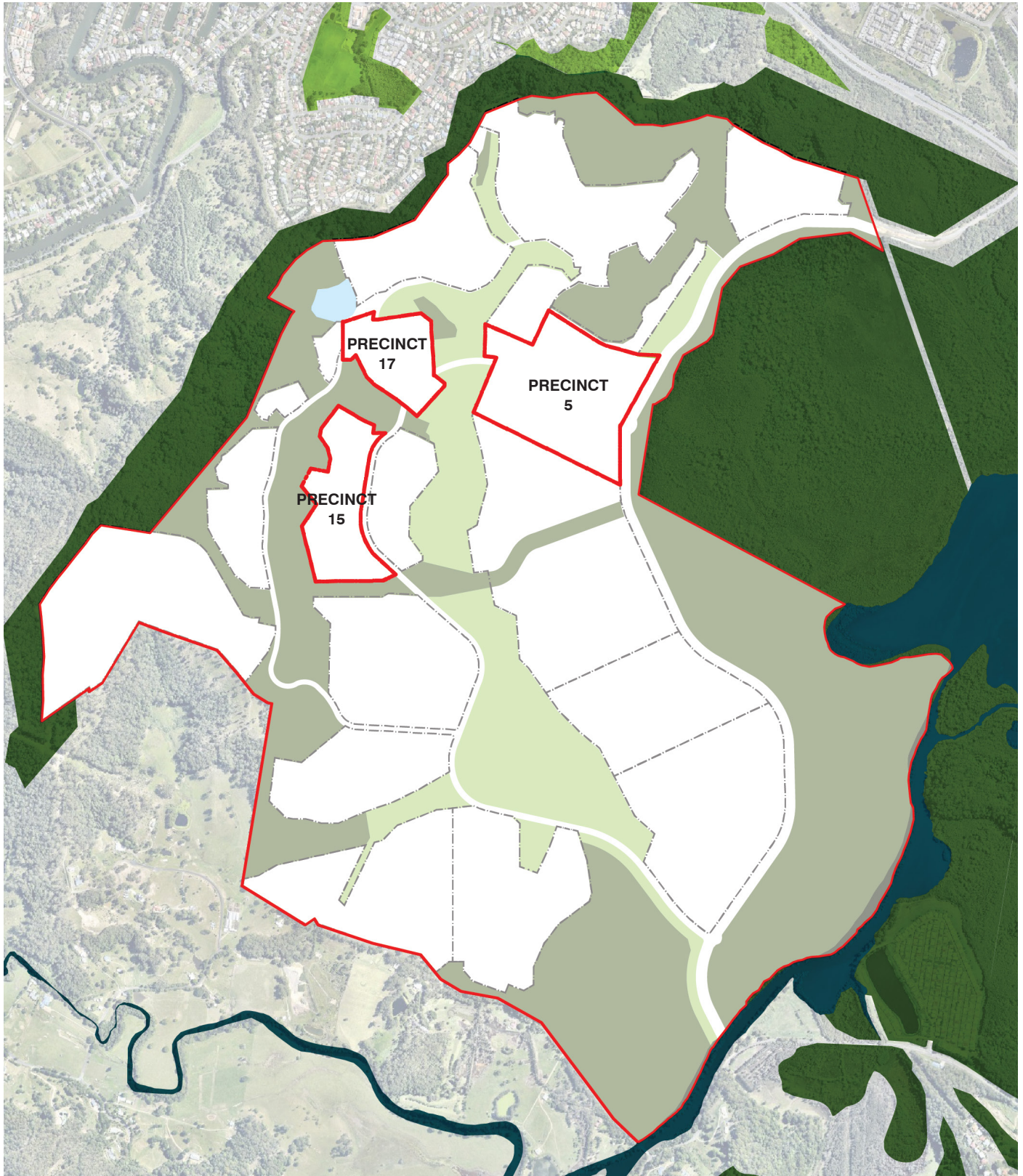


Figure 5: Precincts Subject to Modification 8 of Cobaki Concept Plan MP 06\_0316.



### 3.2.1 Concept Plan Approval MP 06\_0316

The originally approved Cobaki Concept Plan allows for town centre/neighbourhood centre, and community facilities/education facilities within the entire precinct boundaries of Precinct 5.

Residential uses were approved for Precinct 15 and Precinct 17 to the west.

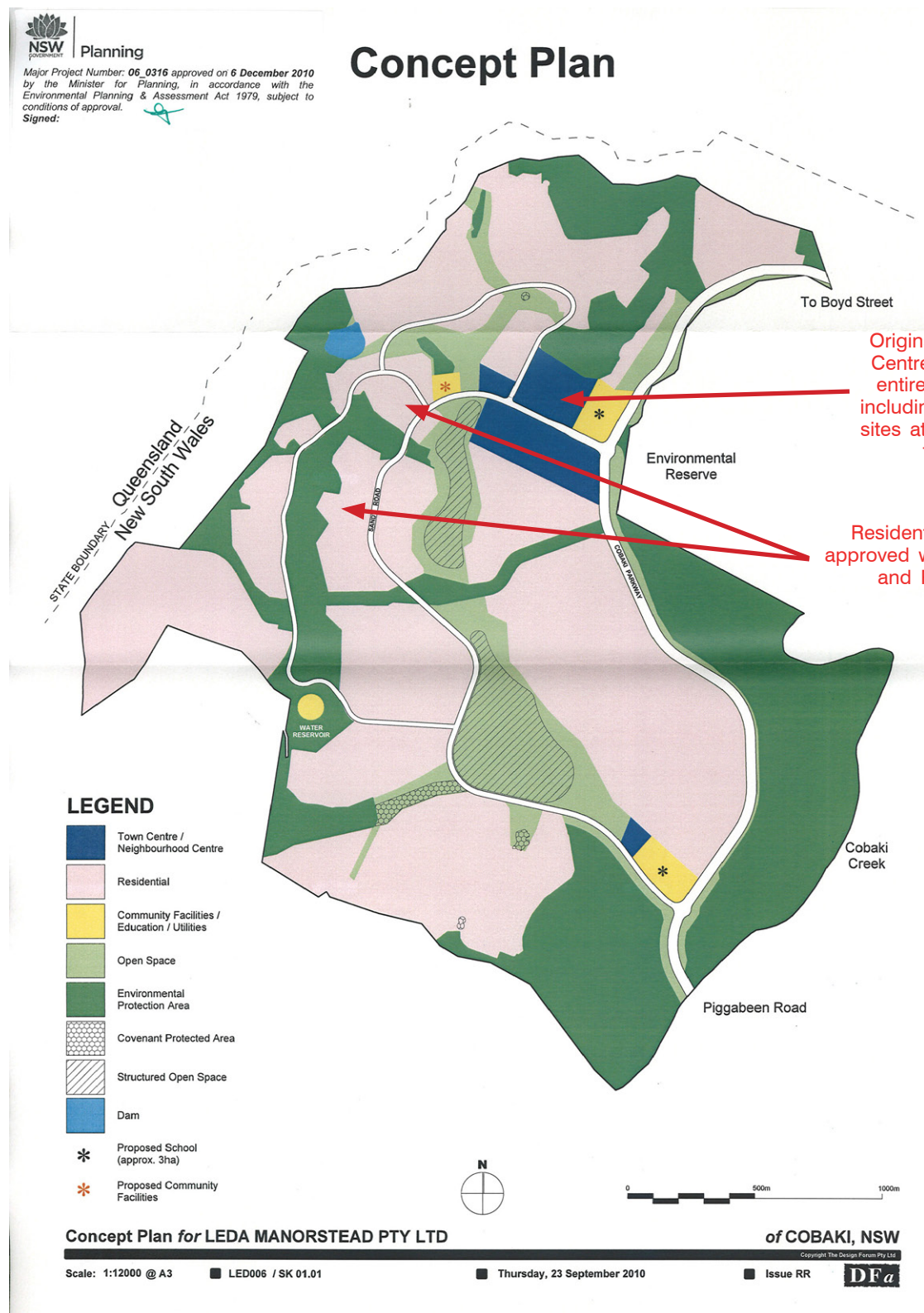


Figure 6: Cobaki Concept Plan MP 06\_0316.

### 3.2.2 Concept Plan Approval MP 06\_0316 MOD 4

Cobaki Concept Plan Approval MP 06\_0316 MOD 4 allows for town centre/neighbourhood centre within the entire precinct boundaries of Precinct 5.

No proposed changes to residential uses approved for Precinct 15 and Precinct 17 to the west.

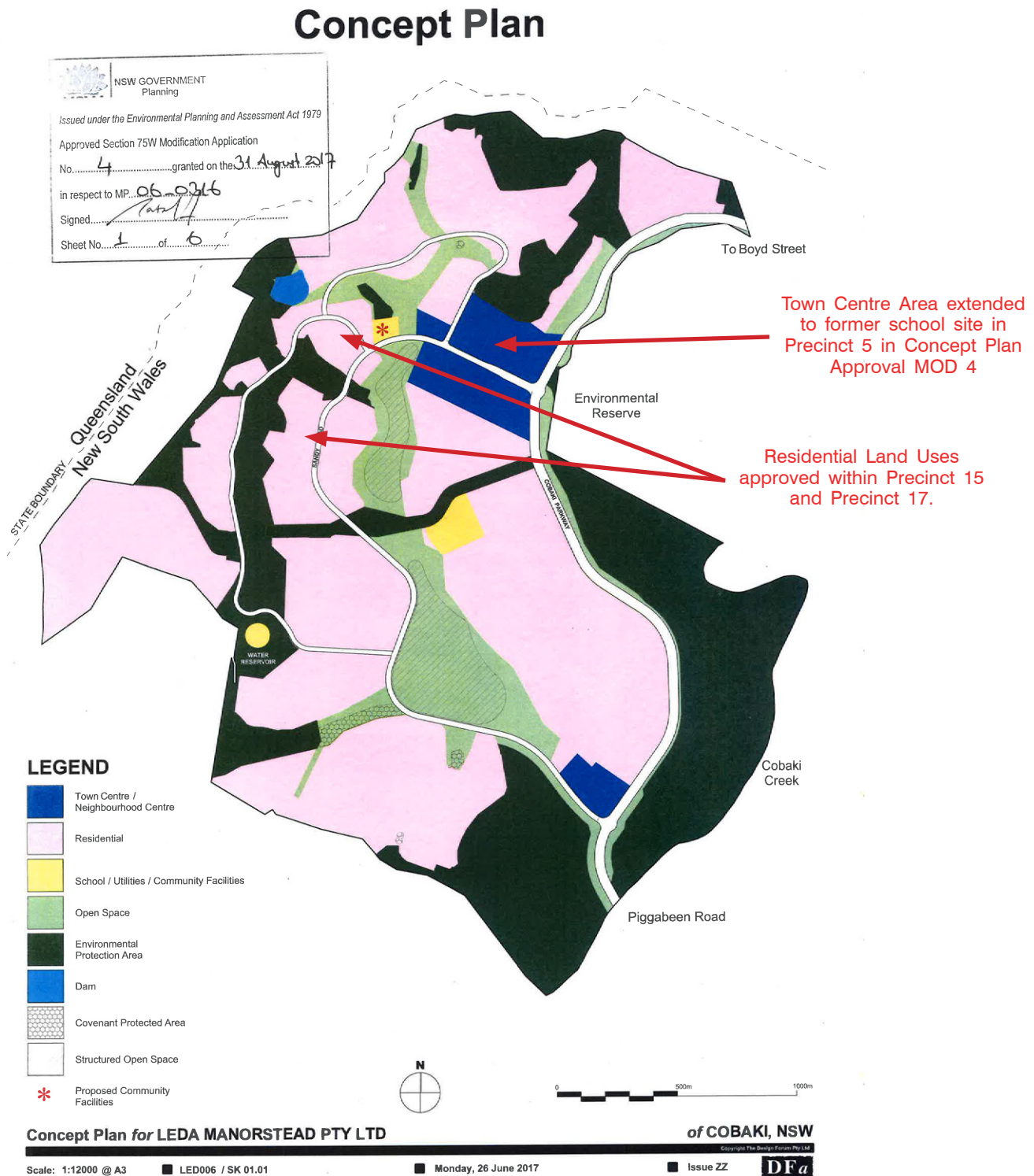


Figure 7: Cobaki Concept Plan MP 06\_0316 MOD 4.

### 3.2.3 Concept Plan MP 06\_0316 MOD 8

Cobaki Concept Plan Approval MP 06\_0316 MOD 8 proposes reduction in the town centre to be consolidated within the southern portion of precinct 5 from the connector road.

Residential uses are proposed to the northern portion of Precinct 5 from the connector road. Proposed height increase to Precinct5, precinct 15 and Precinct 17.

## CONCEPT PLAN

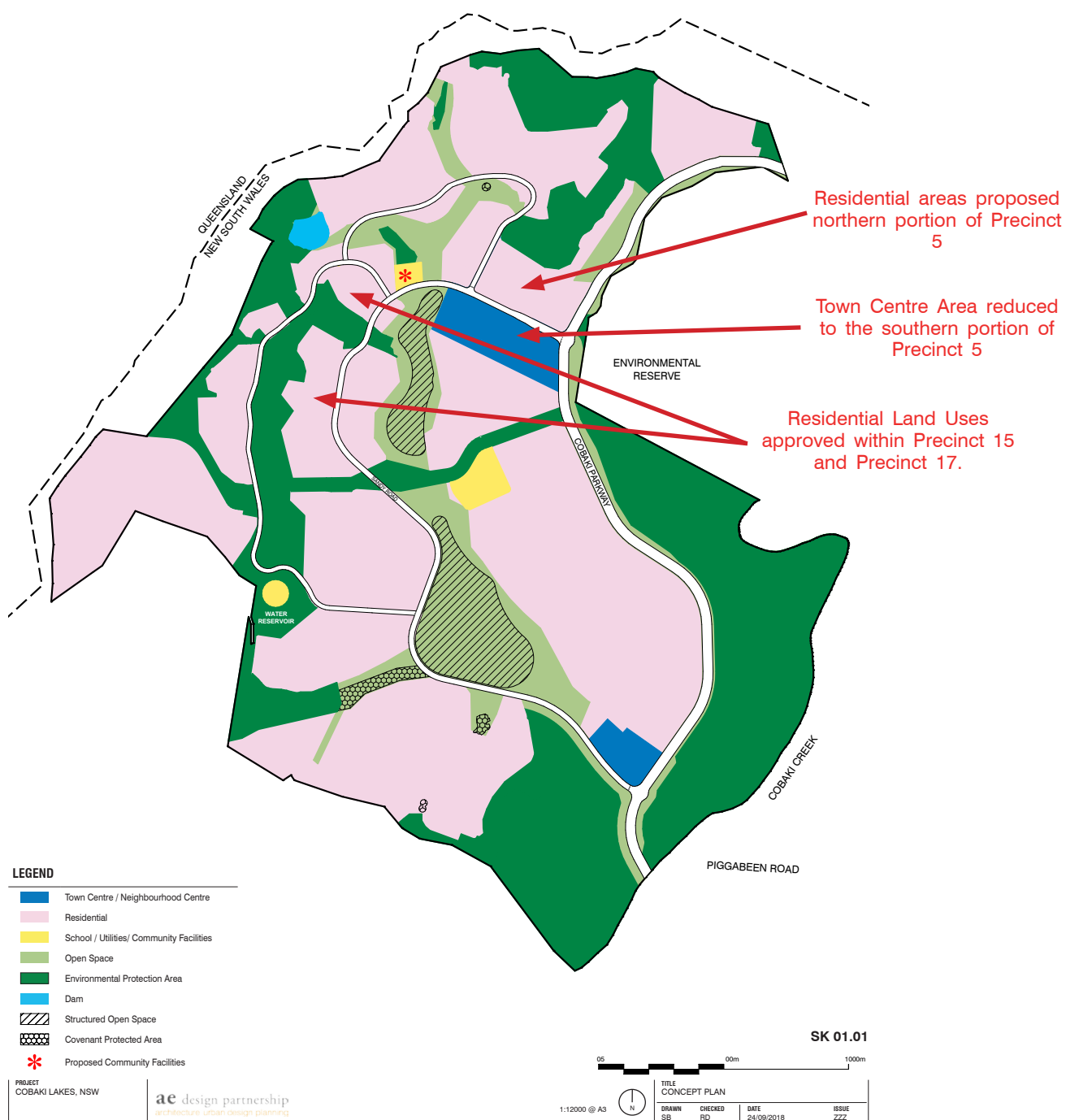


Figure 8: Cobaki Concept Plan MP 06\_0316 MOD 8.

## 3.3 Detailed Justification of MOD 8

### 3.3.1 Plan of Development

#### Precinct 5

Precinct 5 will be developed and designed as a major retail destination within the region. The core will be supported by a central Main Street to encourage a mix of land uses including retail, commercial, residential, entertainment and community uses.

The Built form of Precinct 5 will achieve a vibrant urban Town Centre. An urban outcome will be delivered through the scale of development with the potential for slab building development that defines the streets.

Building height reflects the primacy of the Town Centre and transition down towards the east and west. Development provides an active frontage to the Main Street, and Squares.

Vehicle access to the retail core is gained from the surrounding street network. Rear access is encouraged for development fronting the Main Street as well as carparking which will be screened from external streets via landscaping and built form.

#### LEGEND

- Precinct Boundary
- Town Square
- Landscape Buffer
- Indicative Carparking Area
- Local Park (Indicative Location)

#### LAND USES

- Retail/Commercial
- Low Density Residential
- Medium Density Residential
- Medium-High Density Residential

#### BUILDING HEIGHTS

- Up to 8 Storeys (28.0m)
- Up to 5 Storeys (17.5m)
- Up to 3 Storeys (13.6m)

#### INTERFACES

- Primary Building Frontage
- Secondary Building Frontage
- Key Corner Site

#### ROAD NETWORK HIERARCHY

- Main Street
- Distributor Road (Cobaki Parkway) - 40.0m
- Neighbourhood Connector Road (Sandy Lane) - 22.4m
- Low Volume Neighbourhood Connector Road - 18.5m
- Access Street - 17.0m
- Indicative Access Point

#### INTERSECTIONS

- Roundabout
- Signalised Intersection
- Left In - Left Out Access

#### STREET SCAPE

- 2.5m Wide Off-Road Shared Path
- 1.5m Wide Off-Road Pedestrian Path
- Green Link Intent

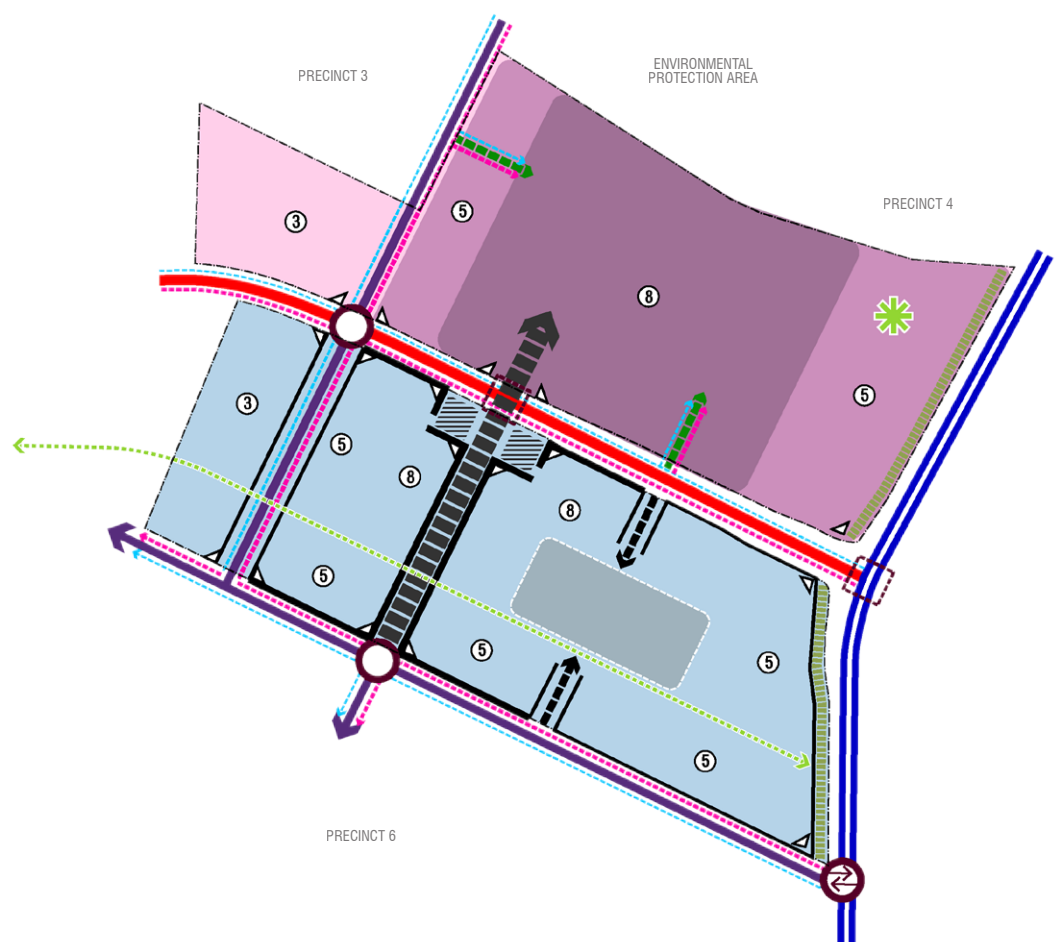


Figure 9: Cobaki Concept Plan MP 06\_0316 MOD 8.












## Precinct 15 & 17

Precinct 15 and 17 is to provide a diverse mix of housing such as semi detached housing, terrace housing and medium density residential flat buildings. The Precincts comprises medium density residential dwellings on the western edges of the precinct and




The precincts will present an 'iconic' built form outcome which will be achieved by a built form that is set within the environment and of a slim form which will aim to address the coast.

The public realm within Precinct 15 and 17 will be designed to facilitate movement of pedestrians in a comfortable environment with a focus on creating strong links to the District Park and Retail Core.


### LEGEND

-  Precinct Boundary
-  Local Park (Indicative Location)
-  APZ (20.0m)
- LAND USES**
  -  Low Density Residential
  -  Medium Density Residential
  -  Medium-High Density Residential
- BUILDING HEIGHTS**
  -  Up to 10 Storeys (35.0m)
  -  Up to 5 Storeys (18.0m)
  -  Up to 3 Storeys (13.6m)

### INTERFACES

-  Primary Building Frontage
-  Secondary Building Frontage
-  Key Corner Site




### ROAD NETWORK HIERARCHY

-  Neighbourhood Connector Road (Sandy Lane) - 22.4m
-  Low Volume Neighbourhood Connector Road - 18.5m
-  Access Street - 17.0m

### INTERSECTIONS

-  Signalised Intersection

### STREET SCAPE

-  2.5m Wide Off-Road Shared Path
-  1.5m Wide Off-Road Pedestrian Path
-  Green Link Intent

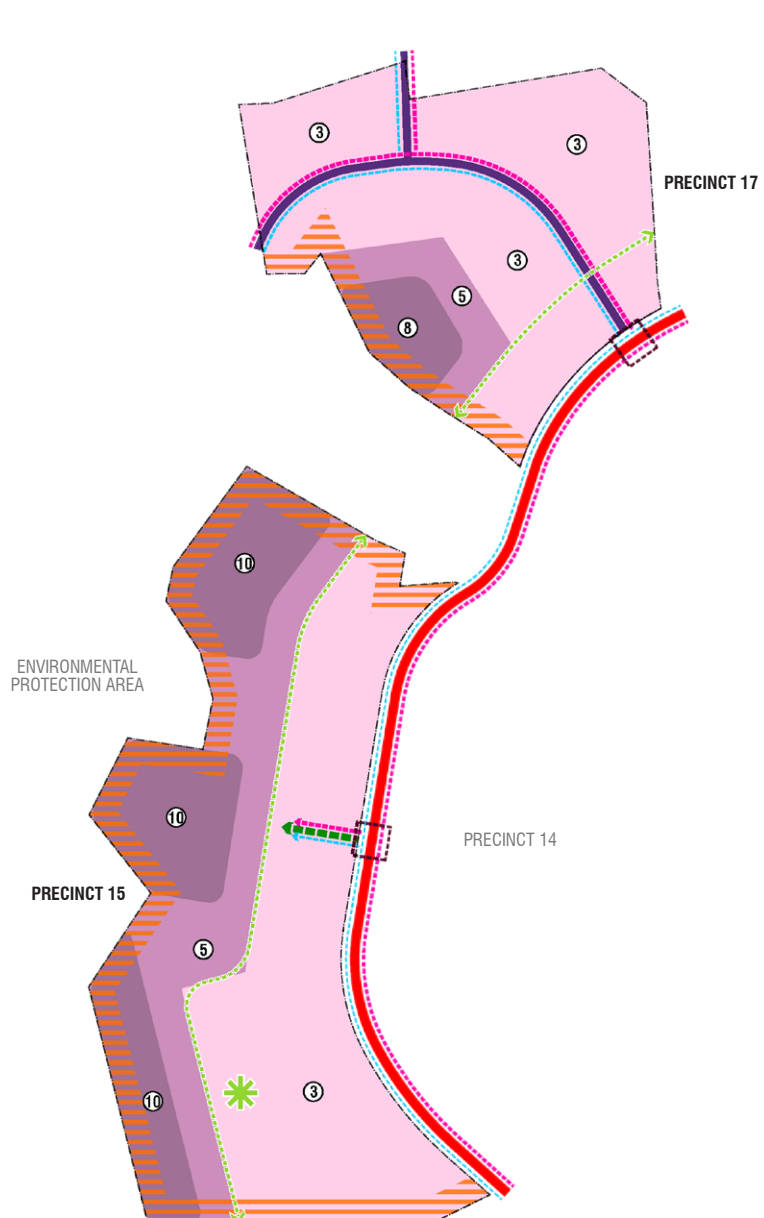


Figure 10: Cobaki Concept Plan MP 06\_0316 MOD 8.

### 3.3.2 Consolidation of the Town Centre

The original Concept Plan Approval MP 06\_0316 determined the total area dedicated to the Town Centre and Neighbourhood Centre for the Cobaki Estate, to occupy 17.64 Ha.

The current approval for the total area of town centre/ neighbourhood centre uses was determined in Concept Plan Approval MP 06\_0316 MOD 4, which increased the total area to 24.75 Ha.

A Centres Catchment Analysis (Refer to **Appendix 4**) was conducted by RPS Group Pty Ltd, which informs the rationale behind this component of MOD 8. The study identifies existing and proposed retail infrastructure within the site's immediate locality.

Consolidation of the Cobaki Town Centre within the southern portion of Precinct 5 ensures its role and function as a supermarket anchored centre will meet the needs of the primary residential catchment in consideration of contemporary retail trends.

The Centres Catchment Analysis, identifies:

*"The recommended uses will be 8,000 Sq M to 9,500 Sq M of retail and commercial floor space in addition to child care, residential and similar uses"*

*"It is assumed 500 plus units could be established at some density in the town centre...The introduction of higher density residential will have a greater qualitative impact than quantitative on the way the town centre is designed and used."*

### 3.3.3 Increased Heights in Precinct 5, 15 & 17

The original Concept Plan Approval MP 06\_0316 determined building heights across the Cobaki Estate to be a maximum of three storey built form.

The rationale behind this component of this modification leverages off the Centres Catchment Analysis (Refer to **Appendix 4**) where there is capacity to introduce higher density residential development in proximity to the town centre.

Heights are proposed up to:

- 8 storeys in Precinct 5;
- 10 storeys in Precinct 15; and
- 10 storeys in Precinct 17.

Justification for these heights are detailed in the Urban Design Assessment, reproduced in **Appendix 5**.

## 4.0 Assessment of Key Issues

### 4.1 Relevant Environmental Planning Instruments

**The EA shall address the statutory provisions applying to the site and all relevant strategic planning objectives.**

#### 4.1.1 State Environmental Planning Policy (Infrastructure) 2007

State Environmental Planning Policy (Infrastructure) 2007 applies to the site and allows for certain development to be undertaken as exempt or complying development, without consent, or with development consent.

This modification (MOD 8) does not rely upon SEPP (Infrastructure) 2007.

#### 4.1.2 State Environmental Planning Policy (State and Regional Development) 2011

This State Environmental Planning Policy nominates a range of developments for which the Minister is the consent authority or determination is to be made by Regional Panels, depending on the class of development (type of use and value) and certain developments on specified sites.

Clause 8 of the Policy identifies State Significant Development as development described in Schedules 1 or 2. The Cobaki Estate development is not State Significant Development.

Clause 20 of the Policy identifies Regional Development as development described in Schedule 4A of the Environmental Planning and Assessment Act, 1979 (as amended).

Given the scale of the Cobaki Estate development it is likely that some future Development Applications will meet the criteria set out in Schedule 4A, in which case those Development Applications would be determined by the Joint Regional Planning Panel.

#### 4.1.3 State Environmental Planning Policy No.65 - Design Quality of Residential Apartment Development

State Environmental Planning Policy No. 65 applies to all precincts subject to this development, being Precinct 5, Precinct 15 and Precinct 17.

Given the nature of the Concept Plan Approval MP 06\_0316 as a residential development subject to development applications on sites within each Precinct of the Cobaki Estate, this SEPP will apply to residential apartment development within medium-high density areas identified in the Plan of Development forming part of this modification (Refer to **Appendix 5**).

#### 4.1.4 State Environmental Planning Policy No.55 (Remediation of Land)

State Environmental Planning Policy No. 55 sets out a state-wide planning approach to remediation of contaminated land which includes ensuring that remediation work is permissible throughout the State.

A preliminary site contamination assessment was conducted under the original Concept Plan Approval MP 06\_0316 which concluded “...areas requiring Stage 2 investigation are localised and the contamination that may be present on site poses no impediment to the development of the Cobaki Lakes concept plan” (Refer to **Appendix 7**)

Works pertaining to Concept Plan Approval MP 06\_0316 have commenced on-site. Proposed modifications in this application does not rely upon SEPP No. 55 (Remediation of Land)

#### 4.1.5 State Environmental Planning Policy No.14 (Coastal Wetlands)

This Policy was repealed by Clause 9 (a) of State Environmental Planning Policy (Coastal Management) 2018 (106) with effect from 3 April 2018. No further assessment in this regard is considered necessary for this modification.

#### 4.1.6 State Environmental Planning Policy No.71 (Coastal Protection)

This Policy was repealed by Clause 9 (a) of State Environmental Planning Policy (Coastal Management) 2018 (106) with effect from 3 April 2018.

No further assessment in this regard is considered necessary for this modification.

#### 4.1.7 State Environmental Planning Policy (Coastal Management) 2018 (106)

State Environmental Planning Policy (Coastal Management) 2018 (106) consolidates into one integrated policy SEPP 14 (Coastal Wetlands), SEPP 26 (Littoral Rainforests) and SEPP 71 (Coastal Protection), including clause 5.5. of the Standard Instrument – Principal Local Environmental Plan. These policies are now repealed.

This policy gives effect to the objectives of the Coastal Management Act 2016 from a land use planning perspective, by specifying how development proposals are to be assessed if they fall within the coastal zone.



This modification (MOD 8) does not rely upon SEPP (Coastal Management) 2018, given the extent of site identified as 'coastal wetlands' and 'proximity area for coastal wetlands' are to the south-east and does not affect Precincts subject to this modification.

This application does not require any further assessment against this policy than what was assessed under Concept Plan Approval MP 06\_0316, which identifies '*proposed residential development of the Subject site is unlikely to have any significant direct impacts on the ecology of the wetland area*'.

#### 4.1.8 Tweed Local Environmental Plan 2014

The proposed modifications to the Cobaki Concept Plan relate to the reduction of Town Centre and increase in building heights within Precinct 5, Precinct 15 and Precinct 17. The proposed modifications relate to land predominantly zoned R1 General Residential and B2 Local Centre under Tweed Local Environmental Plan 2014.

The Cobaki Estate is subject to a Part 3A Concept Plan Approval and Development Code. MOD 8 is not affected by the application of controls contained in Tweed LEP 2014 where they remain consistent with the Concept Plan Approval.

This modification (MOD 8) seeks to increase building heights in Precinct 5, Precinct 15 and Precinct 17. In this regard, inconsistency has been created by the adoption of the Standard Instrument equivalent height of building controls which, in any case, is set aside by the Concept Plan.

As occurred in the adoption of Tweed LEP 2014 for consistency, Tweed Shire Council is likely to adjust the height of buildings in the LEP to reflect the intention of the Cobaki Concept Plan.

#### 4.1.9 Tweed Development Control Plan 2008

The Cobaki Estate is subject to a Part 3A Concept Plan Approval and Development Code.

Development in accordance with the approved Concept Plan is not affected by the application of policy controls contained in TDCP2008, where they are inconsistent with the Concept Plan Approval.

The Sections of Tweed DCP 2008 adopted wholly or in part by the Cobaki Development Code will continue to have effect.

#### 4.1.10 Tweed Coast Comprehensive Koala Plan of Management

The Tweed Coast Comprehensive KPOM was adopted by Tweed Shire Council on 19 February 2015 as a Strategy.

Cobaki Estate is located within the boundaries of the KPOM study area, identified as the Tweed Coast Koala Study Area and is identified within the Tweed Heads Management Area, which is located north of the Tweed River. The KPOM does not list the Cobaki Estate site as a Koala Activity Precinct (KAP) or a Koala Linkage Precinct (KLP).

Appendix C of the KPOM contains provisions for offsetting impacts on Koala habitat resulting from development activities within the Tweed Coast Koala Study Area.

Table 2 in Appendix C contains the offsetting provisions for developments which occur within the Koala Study Area but are not KAP's or KLP's and is therefore relevant to Cobaki Estate.

Any impacts to be addressed under the KPOM will be assessed at the Development Application stage. This modification does not rely upon Tweed Coast Comprehensive Koala Plan of Management.

## 4.2 Comparison with the Concept Approval (MP 06\_0316)

**Demonstrate how the proposed modification can be assessed and determined within the scope of section 75W of the Environmental Planning and Assessment Act 1979, and particularly address any environmental impacts beyond those already assessed for the Concept Plan Approval.**

Section 75W of the Act facilitates the lodgement and determination of an application to modify a Part 3A Approval. Section 75W is set out as follows:

### *Modification of Minister's approval*

#### **75W**

*(1) In this section:*

*Minister's approval means an approval to carry out a project under this Part, and includes an approval of a concept plan. Modification of approval means changing the terms of a Minister's approval, including:*

- (a) revoking or varying a condition of the approval or imposing an additional condition of the approval, and*
- (b) changing the terms of any determination made by the Minister under Division 3 in connection with the approval.*

*(2) The proponent may request the Minister to modify the Minister's approval for a project. The Minister's approval for a modification is not required if the project as modified will be consistent with the existing approval under this Part.*

*(3) The request for the Minister's approval is to be lodged with the Director-General. The Director-General may notify the proponent of environmental assessment requirements with respect to the proposed modification that the proponent must comply with before the matter will be considered by the Minister.*

*(4) The Minister may modify the approval (with or without conditions) or disapprove of the modification.*

*(5) The proponent of a project to which Section 75K applies who is dissatisfied with the determination of a request under this section with respect to the project (or with the failure of the Minister to determine the request with 40 days after it is made) may, within the time prescribed by the regulations, appeal to the Court. The Court may determine any such appeal.*

*(6) Subsection (5) does not apply to a request to modify:*

- (a) an approval granted by or as directed by the Court on appeal, or*
- (b) a determination made by the Minister under Division 3 in connection with the approval of a concept plan.*

*(7) This section does not limit the circumstances in which the Minister may modify a determination made by the Minister under Division 3 in connection with the approval of a concept plan.*

The application was originally approved under Part 3A of the EP&A Act 1979. Notwithstanding the repeal of Part 3A in October 2011, the project remains a 'transitional Part 3A project' under Schedule 6A of the EP&A Act 1979, and hence any modification to this approval must be made under the former Section 75W of the Act.

The proposed modifications detailed in Section 3.0 of this environmental assessment are within the scope of Section 75W of the EP&A Act 1979, therefore the proposal does not constitute a new application.

At present, there are no regulations applicable to a Modification Application.

This modification (MOD 8) does result in any environmental impacts than those already assessed for the Concept Plan Approval MP 06\_0316 (Refer to **Appendix 2**).

### 4.2.3 Quantitative Comparison

Provide a comparative assessment (qualitative and quantitative) of the proposed modification against the Concept Plan, (including MP 06\_0316 MOD 4), a rationale for the proposed amendments and comparison plans clearly identifying the proposed changes.

In relation to differences in areas from the original Concept Plan, MOD 4 Concept Plan and MOD 8 Concept Plan, the original Concept Plan has been overlaid over the zone plan base and the line-work correctly aligns with each other. There has been no change in the footprint of the various Concept Plan domains.

It is understood that the original Concept Plan matrix areas were intended to be conceptual only. As these areas have now been accurately calculated following approval of MOD 4 (Refer to **Appendix 2**), a comparison has been undertaken between MOD 8 against the original Concept Plan Approval and MOD 4, as detailed in **Table 7** and **Table 8** below:

Table 7: Comparative Analysis of Original Cobaki Concept Plan Land Use Areas & Proposed MOD 8 Land Use Areas

Concept Plan Domain	Total Area Original Concept Plan		Total Area MOD 8		Net Change (+/- ha)
	Leda Owned Land	Proposed Road Closures	Leda Owned Land	Proposed Road Closures	
Town Centre/Neighbourhood Centre	17.64 ha	0.65 ha	14.07 ha	-	- 4.22 ha
Residential	290.47 ha	4.05 ha	298.50 ha	4.88 ha	+ 8.86 ha
Community Facilities/ Education/Utilities	8.04 ha	0.31 ha	4.91 ha	-	- 3.44 ha
Public Open Space	88.84 ha	1.41 ha	88.64 ha	1.55 ha	- 0.06 ha
Environmental Protection Area	188.27 ha	5.77 ha	187.14 ha	5.77 ha	- 1.13 ha
<b>Total</b>	<b>593.26 ha</b>	<b>12.19 ha</b>	<b>593.26 ha</b>	<b>12.20 ha</b>	<b>nil</b>

Table 8: Comparative Analysis of Concept Plan Approval MOD 4 Land Use Areas & Proposed MOD 8 Land Use Areas

Concept Plan Domain	Total Area MOD 4		Total Area MOD 8		Net Change (+/- ha)
	Leda Owned Land	Proposed Road Closures	Leda Owned Land	Proposed Road Closures	
Town Centre/Neighbourhood Centre	24.75 ha	1.21 ha	14.07 ha	-	- 11.89 ha
Residential	287.82 ha	3.67 ha	298.50 ha	4.88 ha	+ 11.89 ha
Community Facilities/ Education/Utilities	4.91 ha	-	4.91 ha	-	0.00 ha
Public Open Space	88.64 ha	1.55 ha	88.64 ha	1.55 ha	0.00 ha
Environmental Protection Area	187.14 ha	5.77 ha	187.14 ha	5.77 ha	0.00 ha
<b>Total</b>	<b>593.26 ha</b>	<b>12.20 ha</b>	<b>593.26 ha</b>	<b>12.20 ha</b>	<b>nil</b>

## 4.3 Density and Land Use Analysis

Provide a detailed analysis of the likely future development outcomes for the site, including calculations of the:

- Estimated floor space area for each land use within each precinct;
- Estimated number of dwellings and dwelling mix within each precinct; and
- Estimated floor space and number of dwellings for the entire Concept Plan area.

Demonstrate no additional density would be provided across the entire Concept Plan area.

A detailed density and land use analysis is shown in **Table 9** and **Table 10** below.

Table 9: Estimated Number of Dwellings and Dwelling Mix within each Precinct.

Precinct Number	Estimated Indicative Dwelling Mix				Estimated Total Number of Dwellings
	Traditional Detached Dwelling	Zero-lot Dwelling	Terrace Dwelling	Multi-dwelling	
<b>Precinct 1</b>	65%	25%	10%	0%	210 Dwellings
<b>Precinct 2</b>	50%	40%	10%	0%	350 Dwellings
<b>Precinct 3</b>	10%	65%	25%	0%	200 Dwellings
<b>Precinct 4</b>	0%	0%	0%	100%	130 Dwellings
<b>Precinct 5</b>	0%	5%	25%	70%	1150 Dwellings
<b>Precinct 6</b>	30%	60%	10%	0%	400 Dwellings
<b>Precinct 7</b>	60%	40%	0%	0%	300 Dwellings
<b>Precinct 8</b>	55%	45%	0%	0%	250 Dwellings
<b>Precinct 9</b>	40%	60%	0%	0%	290 Dwellings
<b>Precinct 10</b>	70%	30%	0%	0%	300 Dwellings
<b>Precinct 11</b>	55%	45%	0%	0%	200 Dwellings
<b>Precinct 12</b>	25%	35%	10%	30%	400 Dwellings
<b>Precinct 13</b>	100%	0%	0%	0%	200 Dwellings
<b>Precinct 14</b>	20%	60%	20%	0%	160 Dwellings
<b>Precinct 15</b>	0%	10%	20%	70%	500 Dwellings
<b>Precinct 16</b>	100%	0%	0%	0%	160 Dwellings
<b>Precinct 17</b>	5%	20%	10%	65%	300 Dwellings
<b>Total</b>	-	-	-	-	<b>5,500 Dwellings</b>

Table 10: Estimated Gross Floor Area for each Land Use within each Precinct.

Precinct Number	Estimated Gross Floor Space Area			
	Town Centre/ Neighbourhood Centre	Residential	Community Facilities	Total
Precinct 1	-	12.0 ha	-	12 ha
Precinct 2	-	19.0 ha	-	19 ha
Precinct 3	-	8.0 ha	-	8 ha
Precinct 4	-	1.0 ha	-	1 ha
Precinct 5	2.0 ha	16.0 ha	-	18.0 ha
Precinct 6	-	20.0 ha	0.5 ha	20.5 ha
Precinct 7	-	16.0 ha	-	16.0 ha
Precinct 8	1.0 ha	12.0 ha	-	13.0 ha
Precinct 9	-	13.0 ha	-	13.0 ha
Precinct 10	-	17.0 ha	-	17.0 ha
Precinct 11	-	10.0 ha	-	10.0 ha
Precinct 12	-	15.0 ha	-	15.0 ha
Precinct 13	-	19.0 ha	-	19.0 ha
Precinct 14	-	17.0 ha	-	17.0 ha
Precinct 15	-	11.0 ha	-	11.0 ha
Precinct 16	-	9.0 ha	-	9.0 ha
Precinct 17	-	5.0 ha	-	5.0 ha
<b>Total</b>	<b>3.0 ha</b>	<b>220.0 ha</b>	<b>0.5 ha</b>	<b>223.5 ha</b>

## 4.4 Built Form

**The proposed siting, height, bulk and scale of the proposed building envelopes are to be informed by a detailed urban design analysis and include consideration of the wider Concept Plan area, the strategic planning framework for the site and the potential visual and amenity impacts associated with the proposal;**

Modifications pertaining to changes in height to Precinct 5, Precinct 15 and Precinct 17 were assessed in the Urban Design Assessment reproduced in **Appendix 5**.

### Precinct 5

Precinct 5 is envisioned to respond to contemporary trends identified in the Centres Catchment Analysis prepared by RPS Group, which informs this modification application to modify the approved area dedicated to the town centre.

The top of the ridge line adjacent to Precinct 5 produces a height between RL 42.0 - RL 44.0. Higher density residential development are proposed with heights up to 8 storeys (i.e. 28.0m). This height will not exceed RL 34.0m - 10.0m, which is less than the top of the ridge line.

Medium density residential development are proposed with heights up to 5 storeys and (i.e. 18.0m) and will not exceed RL 24.00 - 20.0m, which is less than the top of the ridge line immediately north of the subject Precinct.

As detailed in Section 6.5.1 of the Urban Design Report, there is capacity for built form within Precinct 5 to remain consistent with building separation requirements set out by the Apartment Design Guide under SEPP No. 65 to address visual amenity between buildings.

Indicative built form produces a transition in height from three storey building envelopes to the west, up to eight storey building envelopes to the centre of the precinct, and a transition to five storey building envelopes to the east.

### Precinct 15 & 17

Precinct 15 and Precinct 17 have been strategically chosen for increased heights due to their proximity to the town centre. Development of increased heights, in accordance with the plan of development, is appropriate as there are minimal impacts to residential amenity as assessed in **Section 4.6**, and are located within 500 metres of the town centre (as per this modification).

Precinct 15 is enveloped by environmental protection areas to the north, south and west. Immediately east of the precinct is an unnamed road adjacent to land dedicated for public open space approved under Concept Plan Approval MP 06\_0316. Precinct 17 is enclosed by environmental protection areas to the south and the west, and dedicated land for public open space to the north and east.

There is opportunity for built form within the precinct to explore increased heights for residential development proximate to the town centre without negating adjoining environmental protection areas.

The top of the ridge line adjacent to Precinct 15 is RL 48.0 - RL 74. Higher density residential development in Precinct 15 are proposed with heights up to 10 storeys (i.e. 35.0m) and will not exceed RL 52.0 - 22.0m less than the top of the ridge line. Medium density residential development (building height transition zone) are proposed with heights up to 5 storeys (up to 18.0m) and will not exceed RL 32.00.

The top of the ridge line adjacent to Precinct 17 is RL 36.0 - RL 48.0. Higher density residential development in Precinct 17 are proposed with heights up to 8 storeys (i.e. 28.0m) and will not exceed RL 42.0 - 6.0m, which is less than the top of the ridge line. Similar to Precinct 15, medium density residential development (building height transition zone) are proposed with heights up to 5 storeys (i.e. 18.0m) and will not exceed RL 32.00.

Indicative built form within Precinct 17 would produce heights similar to that of Precinct 15. The only difference would be that maximum heights would be up to 8 storeys instead of 10. Similar to indicative built forms in Precinct 5, there capacity for built form within Precinct 15 and Precinct 17 to remain consistent with building separation requirements set out by the Apartment Design Guide under SEPP No. 65, as proposed increase in heights do extend beyond the adjoining ridge-line to the west and north of the precincts.

**Consider various options for the siting, orientation and massing of the proposed building envelopes and consider alternative housing typologies (including low rise, medium density options) together with a comparative analysis demonstrating key strengths and weaknesses of each option;**

This modification application is conceptual by nature. Proposed amendments to the town centre and height increase do not require an assessment of siting, orientation and massing of potential building envelopes that would be subject to development applications at detailed design stage.

There are no changes to the housing typologies assessed under Concept Plan Approval MP 06\_0316 and subsequent modifications as the approved Cobaki Development Code does not preclude the development of residential flat building and shop top housing development within the Cobaki Estate.

This modification produces a plan of development (See **Section 3.3**) that refines the outcomes of the modified concept plan that forms MOD 8. This plan of development provides assessment criteria for development within Precinct 5, Precinct 15 and Precinct 17 that must be met during detailed design stage/reconfiguration of lots for assessment purposes.

**Demonstrate the proposal would result in a high-quality urban design outcome for the site with consideration of setbacks, building articulation, building separation and any necessary amendments to the Cobaki Estate Development Code; and**

The Cobaki Development Code approved under Concept Plan Approval MP 06\_0316 and subsequent modifications do not preclude the development of residential flat building and shop top housing development within the Cobaki Estate.

There are no amendments required to the Cobaki Development Code as a result of proposed increase to heights within Precinct 5, Precinct 15 and Precinct 17 under this modification application (MOD 8).





**Provide details of the proposed maximum building heights across the site in storeys and in metres measured from the lowest natural ground level and, where relevant, the adjoining ridge line.**





In relation to proposed height increase to Precinct 5, the top of the ridge line adjacent to Precinct 5 produces a height between RL 42.0 - RL 44.0. Higher density residential development are proposed with heights up to 8 storeys (i.e. 28.0m). This height will not exceed RL 34.0m - 10.0m, which is less than the top of the ridge line.

Medium density residential development are proposed with heights up to 5 storeys and (i.e. 18.0m) and will not exceed RL 24.00 - 20.0m, which is less than the top of the ridge line immediately north of the subject Precinct. See **Figure 11** below.




## LEGEND

-  Precinct Boundary
-  Local Park (Indicative Location)







## LAND USES

-  Retail/Commercial
-  Low Density Residential
-  Medium Density Residential
-  Medium-High Density Residential




## BUILDING HEIGHTS

-  Up to 8 Storeys (28.0m)
-  Up to 5 Storeys (18.0m)
-  Up to 3 Storeys (13.6m)

## ROAD NETWORK HIERARCHY

-  Main Street
-  Distributor Road (Cobaki Parkway) - 40.0m
-  Neighbourhood Connector Road (Sandy Lane) - 22.4m
-  Low Volume Neighbourhood Connector Road - 18.5m
-  Access Street - 17.0m
-  Indicative Access Point

## INTERSECTIONS

-  Roundabout
-  Signalised Intersection
-  Left In - Left Out Access

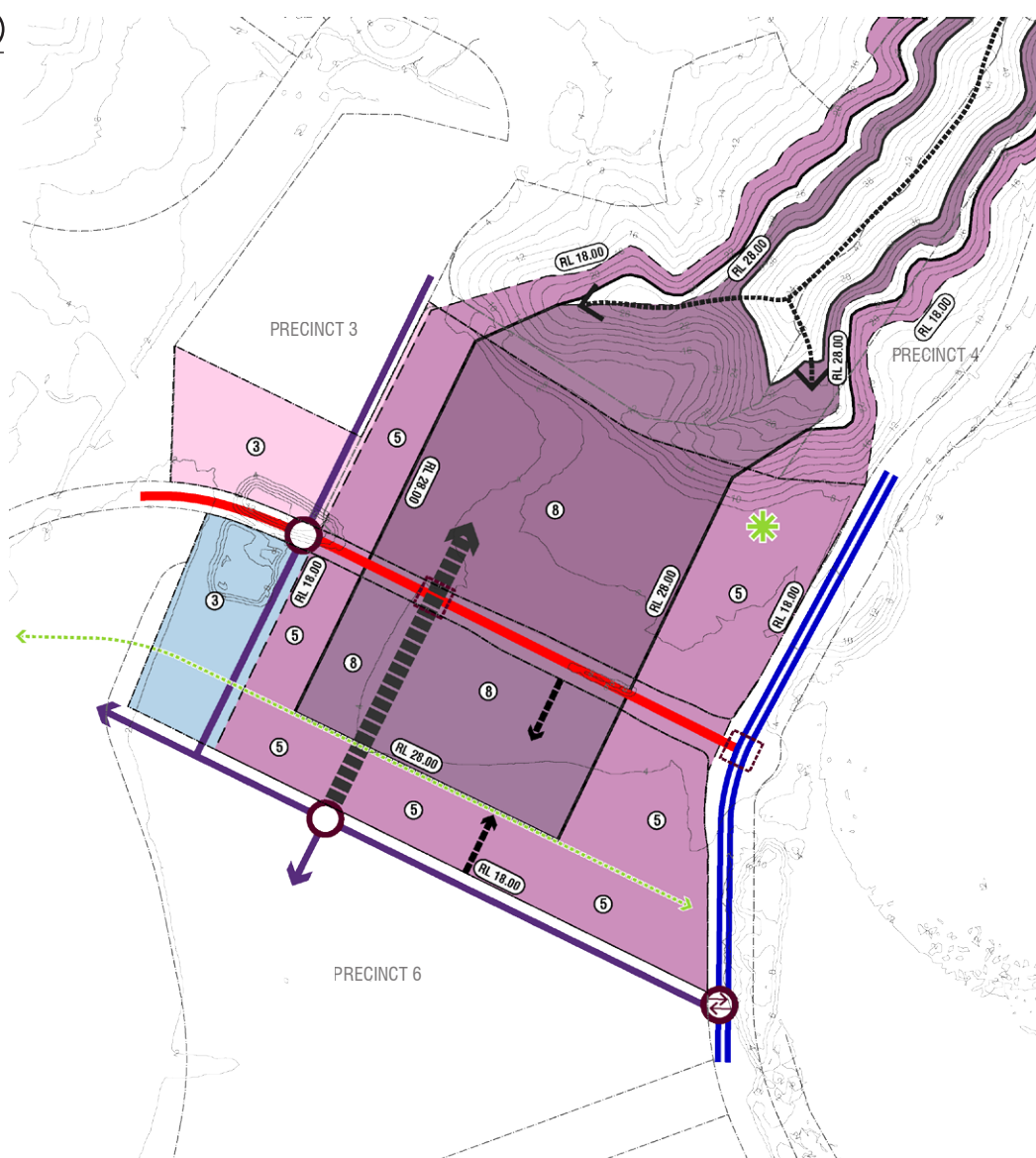


Figure 11: Precinct 5 Height Assessment





## 4.5 Visual Impacts

**Provide a visual impact assessment and view analysis of the proposal from key view points and visual catchments, including a comparative analysis of the visual impacts of the approved Concept Plan against the proposed modification.**

### 4.5.1 Visual Analysis

The Visual Impact Assessment (Refer to **Appendix 6**) identifies six vantage points for this modification application. A summary of the findings for each vantage point are detailed in Table 11 below:

Table 11: Visual Analysis

<b>View 1</b>	<b>North facing South-West</b> <ul style="list-style-type: none"> <li>The height of the proposed envelopes, representing 3 storeys height in majority of the precincts and 5-8 storeys in the town centre and foothills towards the east responds to the site's topography, the undulation of which serves to soften the impact of built form.</li> <li>The undeveloped green areas will be landscaped with trees which will further minimise the impact of final developed built form.</li> </ul>
<b>View 2</b>	<b>North-East facing South-West</b> <ul style="list-style-type: none"> <li>The proposed built form envelope for town centre varies from 10 to 28 meters (3 , 5 and 8 storeys high).</li> <li>The highest proposed development in the town centre is 26 meters (8 storeys) from the natural ground level which does not exceed the ridge-line of 42 meters RL.</li> <li>Development on upper slopes within precinct 15 and 17 does not interrupt the skyline when viewed from the valley.</li> </ul>
<b>View 3</b>	<b>Centre of the site facing West</b> <ul style="list-style-type: none"> <li>The highest proposed built form in precincts 15 and 17 is of 35 meters (8-10 storeys) from the natural ground level which does not exceed the ridge-line of 52 meters RL. The highest RL of the ridge-line is 74 meters and hence the backdrop view of the hills and the vegetation is not blocked.</li> <li>The proposed development envelope sits in harmony with the existing site topography starting with 3 storeys height at the foothills and gradually increasing to 5 storey and 8-10 storeys with increase in height of the ridge-line.</li> </ul>
<b>View 4</b>	<b>South of site facing North</b> <ul style="list-style-type: none"> <li>The visual bulk of the overall development is minimised by provision of extensive vegetation patches in between.</li> <li>Vegetation on the hilltops is retained which forms the backdrop for the development envelopes at the foothills and also ensure privacy from the surrounding sites towards north and north-east.</li> </ul>

<b>View 5</b>	<b>East of site facing West</b> <ul style="list-style-type: none"> <li>The proposed development envelope for the town centre in precinct 5 compliments the residential envelope of precinct 6 and 7 due to change in height and also sits in context with the site topography.</li> <li>The proposed built form on lower slopes of significant ridges and hills does not obstruct views of mountain tops or ridgelines from the surrounding roads, neighbourhoods and significant viewpoints.</li> </ul>
<b>View 6</b>	<b>South-East facing North-West</b> <ul style="list-style-type: none"> <li>The proposed development envelope for the town centre in precinct 5 compliments the residential envelope of precinct 6 and 7 due to change in height and also sits in context with the site topography.</li> <li>The proposed built form on lower slopes of significant ridges and hills does not obstruct views of mountain tops or ridgelines from the surrounding roads, neighbourhoods and significant viewpoints.</li> </ul>

Proposed development envelopes within the precincts subject to the modification has urban design merit on the following grounds:

#### Precinct 5

- Development envelopes up to 8 storeys (28m) does not extend beyond the adjoining ridge-line, which produces an RL 42 m. This ensures the mountain views are retained from a distance, ultimately reducing any visual bulk and scale of the development;
- It compliments the existing topography of the site, enabled by a transition between built and natural forms; and
- Land immediately adjacent the site dedicated for public open space and environmental protection areas minimises potential visual bulk.

#### Precinct 15 & 17

- The highest potential development envelope does not exceed the adjoining ridge-line which has a height of RL 52.00. Built form results in minor obstructions to views of natural vegetation along the hills. There are no obstructions to the horizon;
- The proposed development envelope sits in harmony with the existing topography of the site allowing a transition from approved 3 storey heights up to 10 storeys;
- The overall visual impact is minimised by the backdrop of the hills. It does not obstruct views of any mountain tops or ridgelines from the surrounding roads, neighbourhoods and significant viewpoints.

### 4.5.1 Comparative Analysis of Visual Impacts

A Visual Analysis was conducted by *Design Forum Architects* for the original Concept Plan Approval MP 06\_0316.

It is important to highlight that this visual analysis was conducted for the entirety of the Cobaki Estate, and therefore assesses vantage points outside the boundaries of the site.

By comparison of the visual analysis undertaken for the original Concept Plan Approval, no visual assessments were conducted for Precinct 5 and Precinct 15.

This section details a comparative analysis of the methodologies used in the original visual analysis assessment and the proposed modification (MOD 8).

#### Methodology Comparison

##### Original Visual Analysis

The process and methodology employed to stimulate the visual impact of development from selected vantage points is done only through 3D mapping and image analysis.

##### Modification 8 Visual Analysis

The process and methodology employed to stimulate the visual impact of development from selected viewpoints is done through 3D mapping and further analysing the images based on the levels of sensitivity and magnitude of change caused due to the development through impact assessment matrix.

#### Comparative Visual Analysis of Precinct 17

##### Original Visual Analysis

- All the selected vantage points are studied from human eye level with the development envelope representing contiguous three storey product.
- The development envelopes have been devised to depict a view that exceeds all actual potential development scenarios considering full extreme of the development envelope.

##### Modification 8 Visual Analysis

- View points for the assessment are chosen to analyse and assess the impacts due to changes in height controls proposed for Precincts 5, 15 and 17 in particular.
- Although increase in height of the buildings is proposed in Precincts 15 and 17, it is ensured that the highest proposed built form in Precincts 15 and 17 is of 35 meters (8-10 storeys) from the natural ground level which does not exceed the ridge-line of 52 meters RL. The highest RL of the ridge-line is 74 meters and hence the backdrop view of the hills and the vegetation is not blocked.
- The development envelope for precinct 5 varies from 3 to 8 storeys height (13m to 28m) not exceeding the ridge-line of RL 42 m. This ensures that the views to the mountains behind are not blocked.

## 4.6 Environmental and Residential Amenity

Address potential solar access, wind, privacy and view loss impacts associated with the proposal; and

### 4.6.1 Solar Access

Proposed amendments to increase height within Precinct 5 does not adversely impact built form in terms of overshadowing. As illustrated in **Figure 13**, residential development up to 8 storeys south of the ridge lines would still achieve minimum solar access requirements between 12pm and 3pm, consistent with Apartment Design Guide objectives under SEPP No. 65. Future subdivision design should consider generally blocks with:

- North-west to south-east orientation should have north-east facing single aspect or dual aspect apartments;
- North-east to south west orientation should also have dual aspect units with attention to solar control.

Given this modification does not amend the entirety of Precinct 15 and Precinct 17 for increased heights, any solar impacts to areas approved for 3 storey residential development would still receive adequate sunlight to maintain residential amenity.

As illustrated in **Figure 14**, residential development of increased heights would achieve adequate sunlight during the morning. Any concern for residential flat building development between 5 and 10 storeys in height at the western and southern edges of Precinct 15 and Precinct 17 are addressed in the Urban Design Assessment (Refer to **Appendix 5**). A mid-winter solar access analysis was conducted for Precinct 15 and Precinct 17 with indicative built form and layouts.

The study concluded that residential dwellings at the western aspect achieve 2 hrs solar access between 1pm and 3pm. This is considered an acceptable design outcome as it results in compliance with Objective 4A-1 Design Criteria 1 of the ADG under SEPP No. 65.

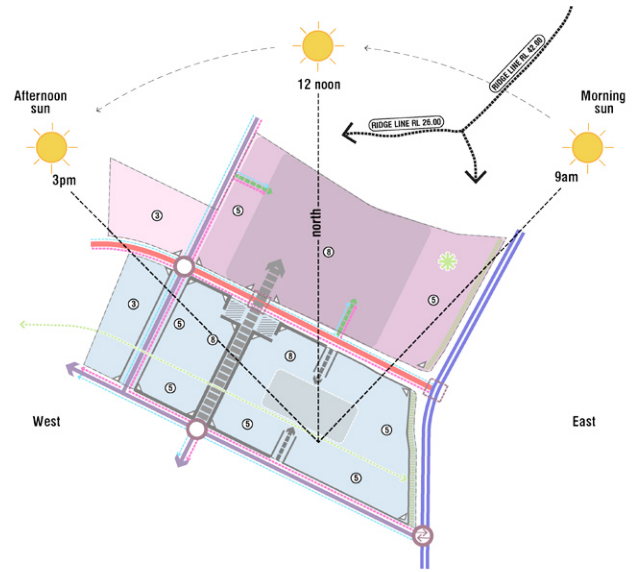


Figure 13: Precinct 5 Height Assessment

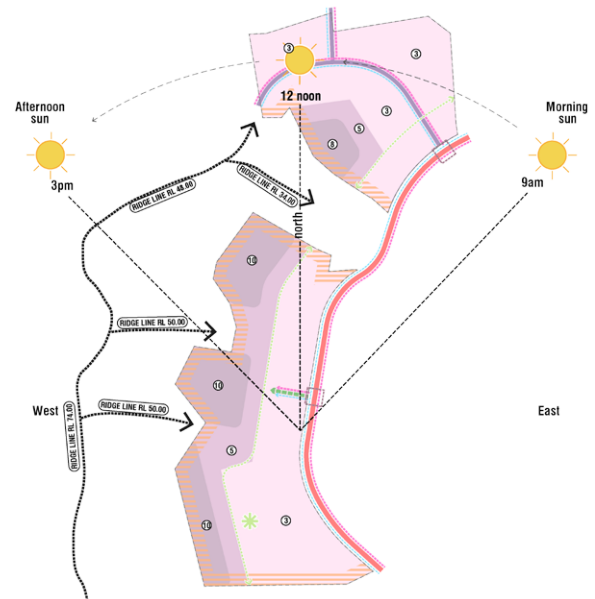


Figure 14: Precinct 5 Height Assessment



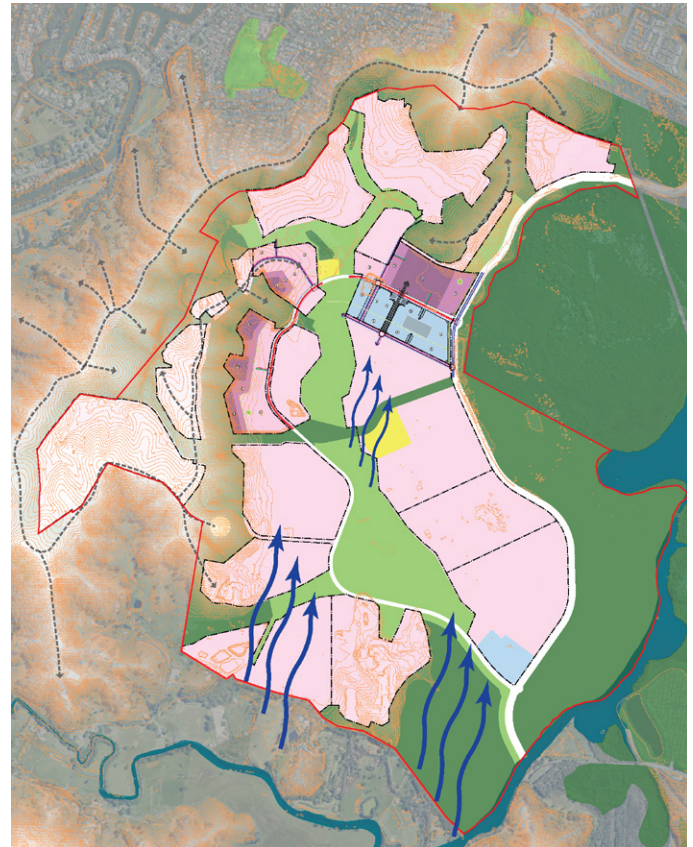
## 4.6.2 Wind

Urban Design Assessment reproduced in (Appendix 5) identified the prevailing wind direction from Cobaki Estate comes from the south-south-west. East-facing slopes have greater potential for natural ventilation, particularly if the north to north-eastern aspect can be maximised for buildings. The eastern slope is protected from westerly winds.

### LEGEND

	Site Boundary
	Precinct Boundary
	Contours (2.0m Intervals)
	Ridge Line
	Prevailing Wind Direction - South South West
<b>LAND USES</b>	
	Retail/Commercial
	School/Utilities/Community Facilities
	Low Density Residential
	Medium Density Residential
	Medium-High Density Residential
	Open Space
	Environmental Protection Area

Figure 15: Prevailing Winds



An assessment of wind impacts was assessed against Precinct 15 due to its location within a wind shadow:

- Hillsides which give access to breezes are desirable locations for residential development in humid subtropical places.
- Higher rates of air movement occur near the hilltop on the windward side.
- Winds are strongest at the top and sides of the crest

of the hill, and wind speeds are lowest near the bottom of the hill.

- The leeward side of hill is generally in a 'wind shadow' where there is no breeze.
- Providing higher density residential at the base of the adjacent knoll gives the opportunity of capturing the southern prevailing winds and circulating those winds throughout Precinct 15 & 17 to assist in ventilation.

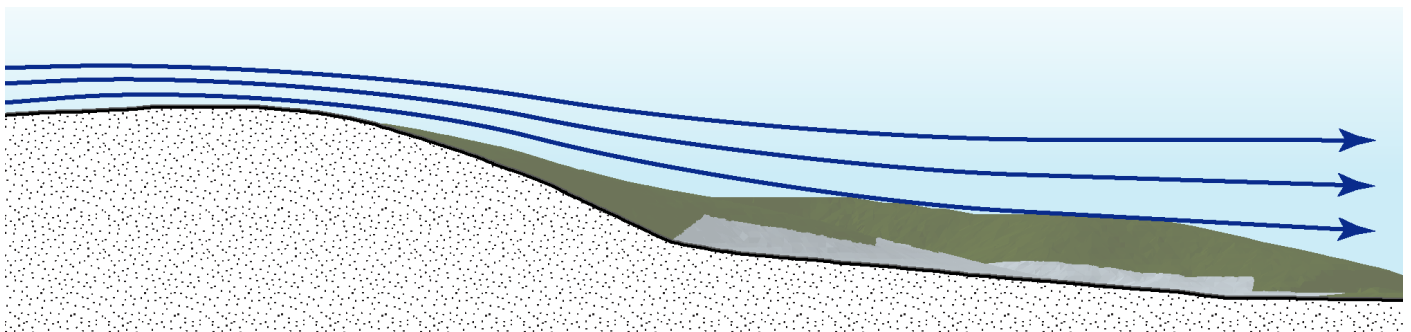


Figure 16: Section DD Wind Assessment - Existing

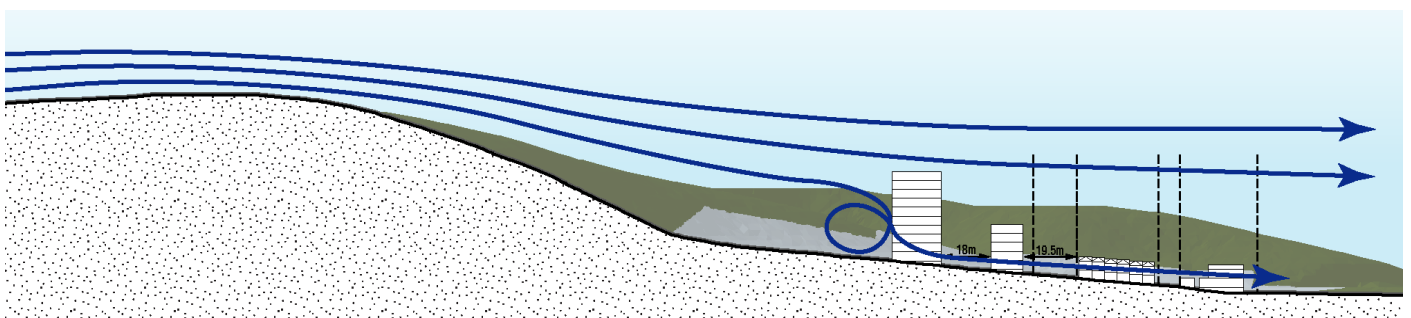


Figure 17: Section DD Wind Assessment - Proposed Indicative Built Form

### 4.6.3 Privacy

The Urban Design Assessment (Refer to **Appendix 5**) undertakes an assessment of building envelopes against residential amenity in terms of visual privacy. Objective 3F-1 Design Criteria 1 of the ADG under SEPP No. 65 is in the following terms:

1. Separation between windows and balconies is provided to ensure visual privacy is achieved. Minimum required separation distances from buildings to the side and rear boundaries are as follows:

Building height	habitable rooms and balconies	non-habitable rooms
up to 12m (4 storeys)	6m	3m
up to 25m (5-8 storeys)	9m	4.5m
over 25m (9+ storeys)	12m	6m

As illustrated in Section BB below, there is capacity for built form within Precinct 5 to remain consistent with building separation requirements set out by the Apartment Design Guide under SEPP No. 65.

Indicative built form in Precinct 5 produces a transition in height from three storey building envelopes to the west, up to eight storey building envelopes to the centre of the precinct, and a transition to five storey building envelopes to the east. Proposed increase in heights within Precinct 5 do not extend beyond the adjoining ridge-line to the north of the precinct.

Section DD illustrates indicative built forms for Precinct 15. It is important to highlight that indicative built form within Precinct 17 would produce heights similar to that of Precinct 15, as illustrated in Section DD. The only difference would be that maximum heights would be up to 8 storeys instead of 10.

Similar to indicative built forms in Precinct 5, proposed increase in heights within Precinct 15 and Precinct 17 do not extend beyond the adjoining ridge-line to the north of the precinct.

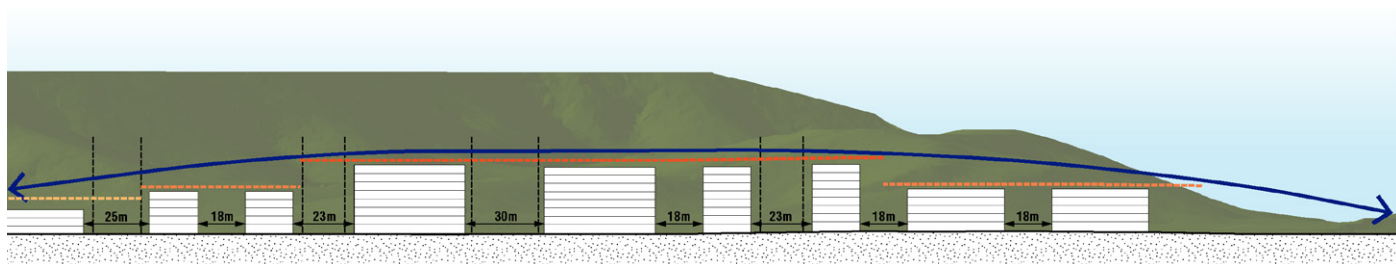


Figure 18: Section BB

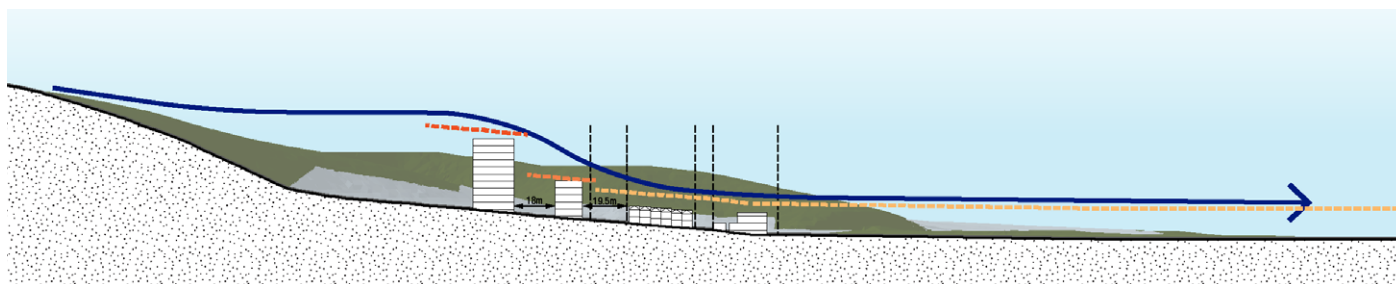


Figure 19: Section DD

DIAGRAMS NOT TO SCALE

### 4.6.3 View Loss

The Urban Design Report (Refer to **Appendix 5**) undertakes a view loss assessment to assess any visual loss to environmental natural features within the environment.

In Section AA:

- Views to the western horizon are affected by potential built form within Precinct 5;
- Views to the sky are affected by potential built form within Precinct 5;
- Landscape views are lost to built form within a 15.0m and 13.6m height blanket within Precinct 17 to the south.

In Section BB:

- No views to the western horizon are affected by potential built form within Precinct 5;
- Landscape views are lost to built form within a 28.0m, 15.0m and 13.6m height blanket within Precinct 5, facing north; and
- No built form extends beyond a height of the adjacent ridge-line.

In Section CC:

- Views to the western horizon are not affected by potential built form within Precinct 15;
- Views to the sky are not affected by potential built form within Precinct 15;
- Landscape views are lost to built form within a 35.0m, 15.0m and 13.6m height blanket within Precinct 15 and Precinct 17.

In Section DD:

- Views to the northern horizon are affected by potential built form within Precinct 15 and Precinct 17, as potential view loss extends beyond the ridge-lines further north, past Precinct 17;
- Landscape views are lost to built form within a 35.0m, 15.0m and 13.6m height blanket within Precinct 15 and Precinct 17; and
- No built form extends beyond a height of the adjacent ridge-line.

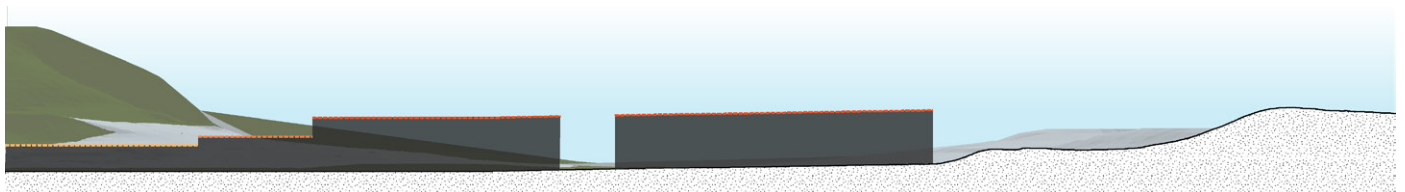


Figure 20: Section AA View Loss Assessment

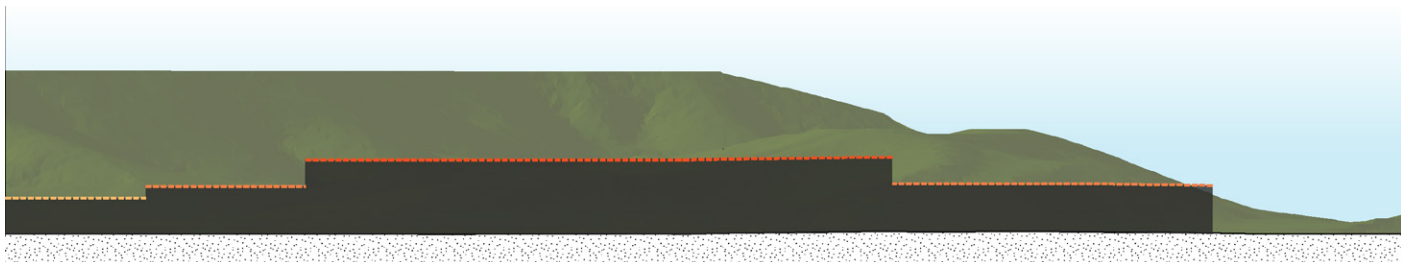


Figure 21: Section BB View Loss Assessment

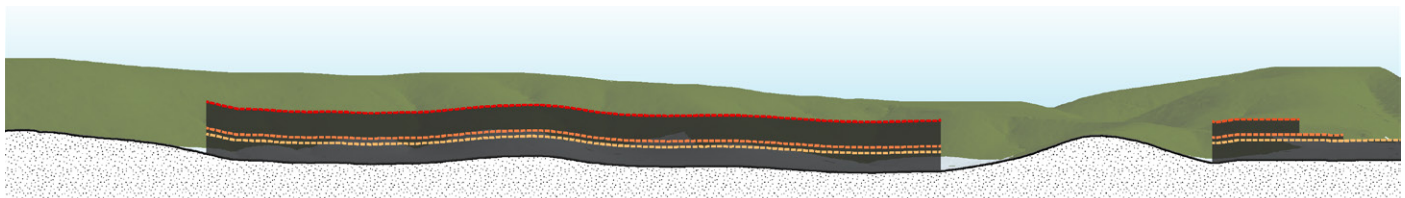


Figure 22: Section CC View Loss Assessment

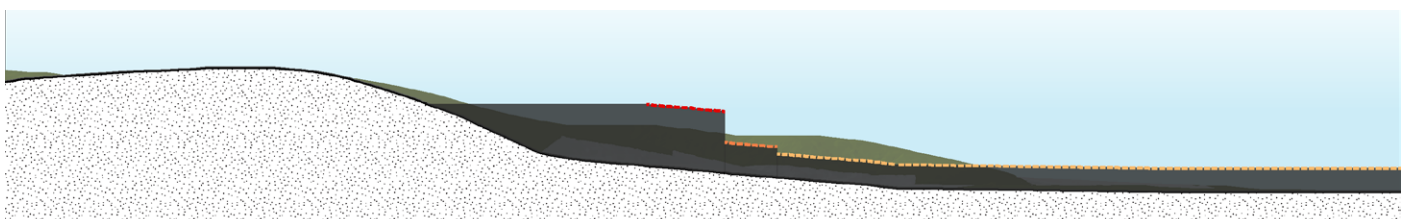


Figure 23: Assessment - Section DD View Loss

#### LEGEND

- |                          |                          |                       |
|--------------------------|--------------------------|-----------------------|
| --- 35.0m Height Blanket | --- 15.0m Height Blanket | ■ Potential View Loss |
| --- 28.0m Height Blanket | --- 13.6m Height Blanket |                       |

DIAGRAMS NOT TO SCALE

Cobaki Lakes  
Environmental Assessment

**Demonstrate future residential buildings are capable of complying with SEPP 65 - Design Quality of Residential Apartment Development, and the Apartment Design Guide, including justification for any compliance/non-compliance.**

Given the nature of the Concept Plan Approval MP 06\_0316 as a residential development subject to development applications on sites within each Precinct of the Cobaki Estate, this SEPP will apply to residential apartment development within medium-high density areas identified in the Plan of Development forming part of the Urban Design Report prepared for this application (Refer to **Appendix 5**).



## 4.7 Public Domain/Open Space

### Address changes to public domain improvements, pedestrian linkages, street activation and landscaping.

An assessment of public domain improvements is detailed in the Urban Design Report, reproduced in **Appendix 5**.

As illustrated in Figure 15, the proposed modification encourages connectivity between adjoining precincts via vehicular and bicycle movements.

It is important to highlight that a detailed assessment of public domain improvements, pedestrian linkages, street activation and landscaping would be subject to development applications at detailed design stage, and therefore would not be required in the assessment of this modification.

Notwithstanding the above, proposed modifications does not adversely impact the accessibility and movement between precincts.


Key features of the road layout include:


- The Distributor Road (Cobaki Parkway) distributes traffic from the two access points to the first intersections internal to the subject site.
- Neighbourhood Connector Road (Sandy Lane) provides a primary and secondary circuit throughout the site and distributes traffic to Low Volume Neighbourhood Connector Roads.
- Tertiary level Access Streets are indicatively positioned where potential intersections may be located along Connector Roads.
- The indicative location for the Main Street runs North - South to provide a ideal orientation for pedestrian movement as one side of the street will always receive solar access

#### LEGEND

 Precinct Boundaries in Subject

#### LAND USES

 400m Walkable Catchment (5 minute walk)

 Structured Open Space & District Park


 Environmental Protection

 Education & Community Facilities

#### ROAD NETWORK HIERARCHY

 Main Street

 Distributor Road (Cobaki Parkway) - 40.0m

 Neighbourhood Connector Road (Sandy Lane) - 22.4m

 Low Volume Neighbourhood Connector Road - 18.5m


 Access Street - 17.0m

 Indicative Access Point

#### STREET SCAPE

 2.5m Wide Off-Road Shared Path

 1.5m Wide Off-Road Pedestrian Path

 Green Link Intent / 3.0m Recreational Trail/Path

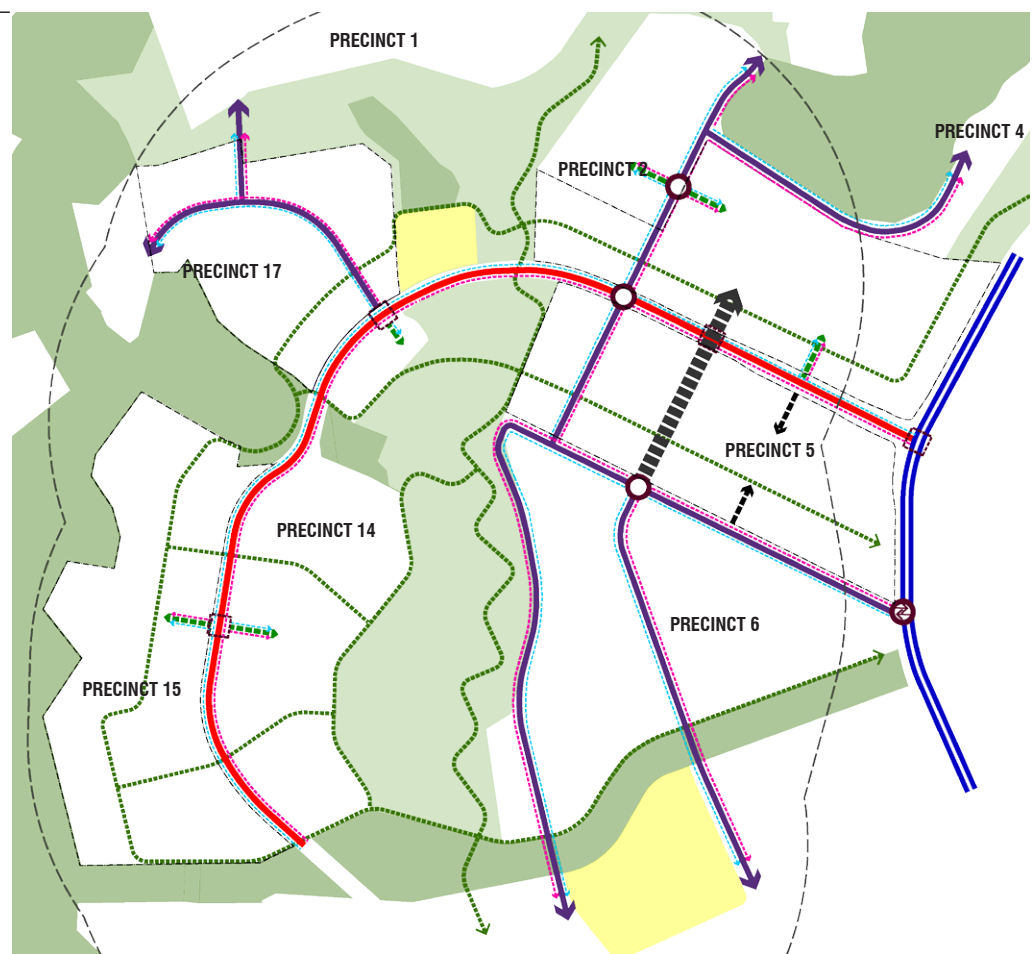
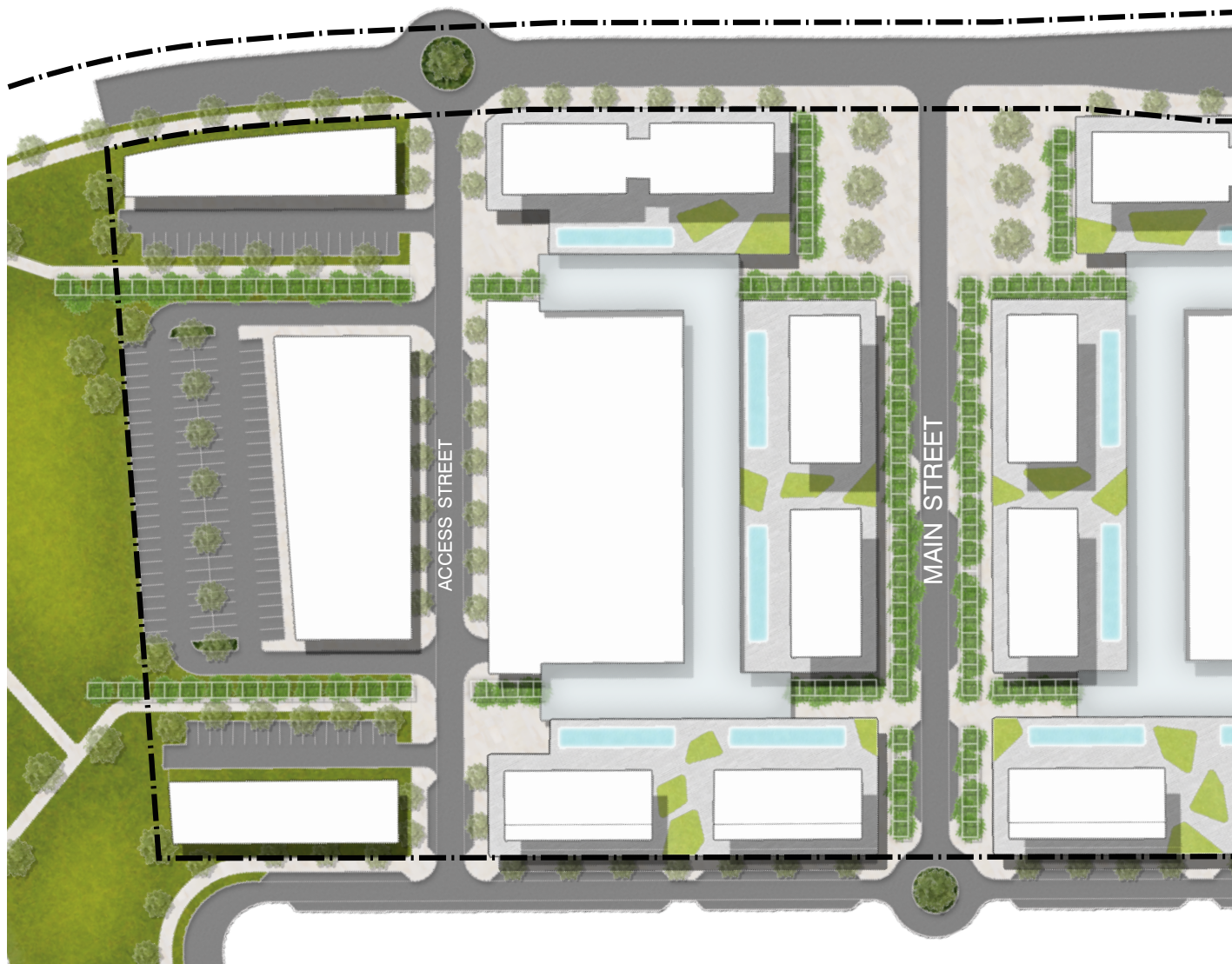


Figure 24: Connectivity

Demonstrate the public domain and open spaces will:

- maximise permeability throughout the development;
- maximise street activation within the town centre;
- provide sufficient open space for the expected population;
- ensure access for people with disabilities; and
- minimise potential for vehicle, bicycle and pedestrian conflicts.



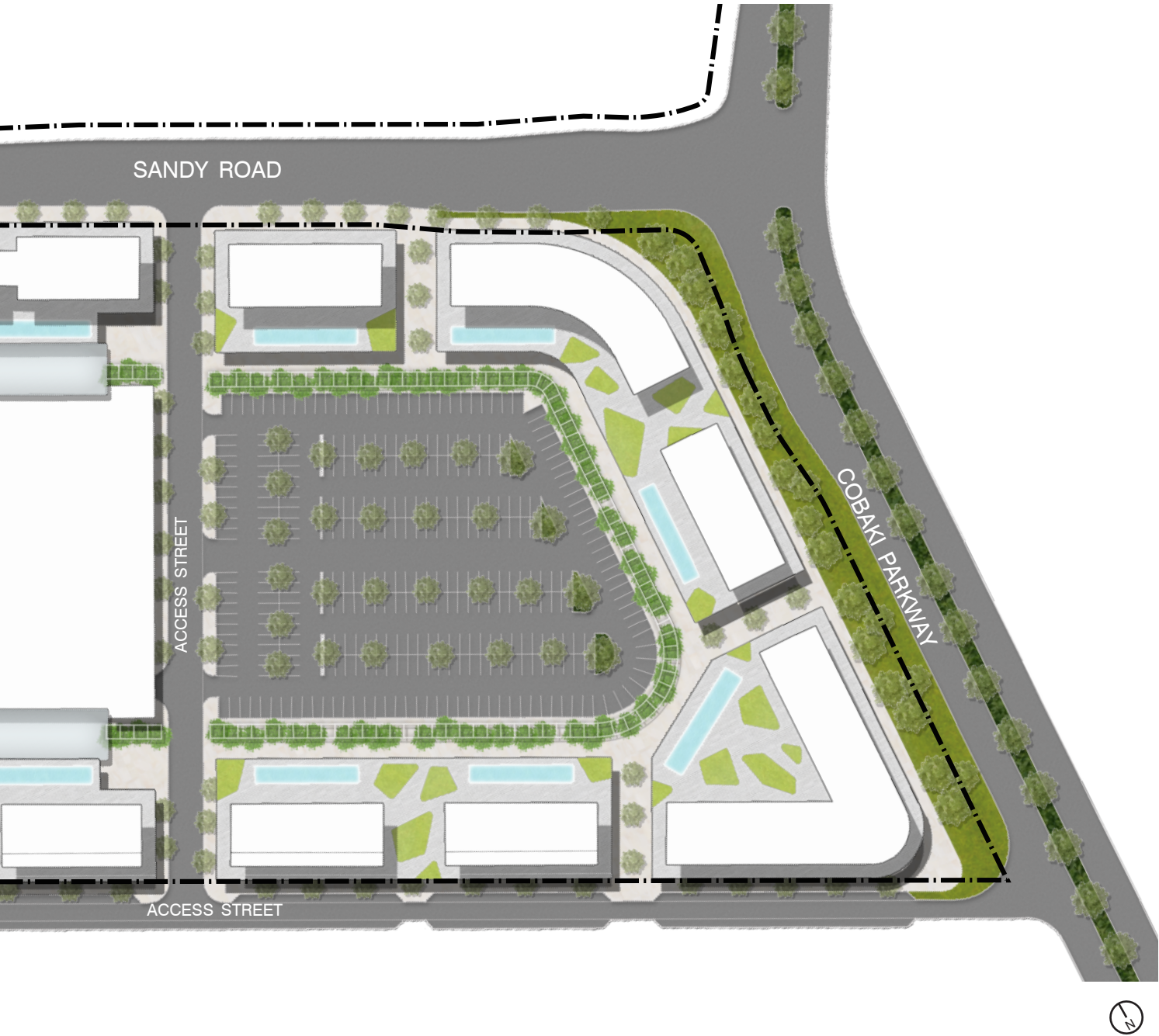


Figure 25: Indicative Concept Plan for the Town Centre at Southern Portion of Precinct 5.



## 4.8 Transport and Accessibility

**Include a revised traffic and transport assessment, which includes:**

- **modelling of the traffic impacts associated with the proposed modifications to the Concept Plan, including an estimate of the total daily and peak hour vehicle trips generated by the proposal;**

An assessment of the proposed modification of the proposed modification was undertaken by Bitzios in **Appendix 8**. It was concluded that the total daily and peak hour vehicle trips generated by the proposal results in a reduction of 12 peak hour trips and 142 daily trips overall.

Bitzios acknowledged that the SEARs has requested modeling of the impacts of the proposed modification and state:

*“Given that MOD 8 results in a net reduction in peak and daily traffic, detailed modeling of traffic impacts - beyond that which has previously been completed - is not considered warranted. Furthermore such proposed changes are unlikely to have any significant impact on the road network overall, as the road network and intersection planning has sufficient capacity to accommodate these minor internal modifications.”*

(Bitzios 2018)

- **an assessment of the current and future performance of key intersections providing access to the site under the approved and proposed scenarios, any additional upgrades required as a consequence of the proposal and any proposed changes to the timing of upgrades;**

Based on the trip generation assessment:

*“The proposed modification results in a net reduction in overall traffic generation. Therefore, the performance of key intersections is not expected to change significantly, and any previous proposed upgrades and their respective timing is not expected to change”*

(Bitzios 2018)

- **an assessment of any proposed changes to the approved road network and associated infrastructure;**

The proposed modification has no proposed changes to the approved road network as the proposed modification has a net reduction in daily traffic generation of 142 veh/day.

- **an assessment of the car parking requirements for the modified proposal;**

Detailed car parking requirements are not expected to change significantly and shall be as per the previously accepted development applications and shall be further assessed with any formal development application submissions to council.

- **detailed plans of the proposed layout of the internal road network and on-site parking in accordance with the relevant Australian Standards;**

Any detailed plans are to be submitted with any formal development application submission to Council.

- **measures to promote travel choices that support the achievement of NSW State Government targets (in a location-specific, sustainable travel plan) and sustainable travel initiatives, including the provision of secure, convenient and accessible end-of-trip facilities for pedestrians and cyclists;**

Active transport, a sustainable travel plan and public transport infrastructure requirements are not intended to change with MOD 8 and shall be as per the previously accepted development applications and refined through development and construction.

- **an assessment of any proposed changes to the Access Network and Potential Bus Route Plan approved under the Concept Plan; and**

There are no expected change to the Access Network Plan and Potential Bus Route associated with the proposed Concept Plan modification.

- **an assessment of the adequacy of public transport services to meet the likely future demand of the proposed development.**

The overall yield is not expected to change maintaining 5,500 dwellings as per the previous approval therefore the public transport services are expected to be consistent with the previous approval, and adequate to meet the likely future demand of the site

## 4.9 Flooding and Stormwater

**Provide an assessment of any additional flood risks associated with the proposal in accordance with the NSW Floodplain Development Manual (2005), including consideration of the potential impacts of climate change.**

An assessment of the proposed modification against any additional flood risks was undertaken by Arcadis in **Appendix 9**. It was concluded that the proposed amendments will not create any additional Flood Risks on the Cobaki Development due to the following considerations:

- The existing Flood Management Plan details the extent of the Flood impacts and Flood Risks for the Cobaki development. The flood Management Plan, provides for the approved Designated Flood Levels, and minimum building floor heights, flood free access and exit routes, and is based on, and inclusive of climate change impacts.
- The additional Building heights and reduced Town Centre location proposed under the above modifications will not necessitate any revisions to Flood Management as the precincts are above the Designated Flood Level and will have no impact on the Hydraulic modelling of flood impacts and or flow-paths.

**Provide a revised Stormwater Management Concept Plan which identifies any changes to the stormwater management concept arising from the proposed modification; and**

An assessment of the proposed modification against the Stormwater Management plan approved under Concept Plan Approval MP 06\_0316 was undertaken by Arcadis in **Appendix 9**.

The above modifications will have no impacts on stormwater and drainage management. The reduced layout of the Town Centre, and increased heights in the respective Precincts 5, 15 & 17 and the retention of the Central Open Space area that functions as a drainage reserve, all have not changed in shape, area or levels from that approved under the current Development Stormwater Management Concept Plan.

The localities related to the above modifications are all consistent with Stormwater quantity and quality requirements currently identified in the Stormwater Management Concept Plan.

As such, there are no changes required to the Stormwater Management Concept under the amendments proposed to the Concept Plan, so that a revised Stormwater Management Concept Plan is not necessary.

**Consider consequences for, and incorporate actions to, complement the ongoing management of the saltmarsh rehabilitation areas located within the development precinct.**

The proposed modifications within Precinct 5, Precinct 15 and Precinct 17 are not located within the saltmarsh rehabilitation areas identified under Concept Plan Approval MP 06\_0316.

No further assessment is required in relation to the ongoing management of the saltmarsh rehabilitation areas located within the development precinct.

The proposed modification are unlikely to result in a net increase in the amount of impervious surface in the Subject Site and correspondingly any changes in stormwater runoff are considered likely to be minor. Any potential increase in stormwater volumes would be managed through adjustment to the design of the stormwater treatment chain (Refer to **Appendix 11 & 16**).



## 4.10 Bushfire

**Provide a bushfire assessment report that identifies any bushfire impacts on the proposed residential building sites, including their use for residential, tourism and aged care related activities. Where the report identifies any impacts, it shall address the requirements of Planning for Bushfire Protection 2006 and Draft Planning for Bushfire Protection 2017.**

The Bushfire Threat Assessment prepared by Bushfire Certifiers (refer to **Appendix 10**) which provides APZ advice. The advice is specifically for Precinct 5, 15 and 17.

It establishes that a 21m asset protection zone (APZ) is required to forest vegetation located on an upslope, and a 9m APZ to remnant vegetation on flat ground having a direct fire run no greater than 50m in width for permanent residential development, see below figure.

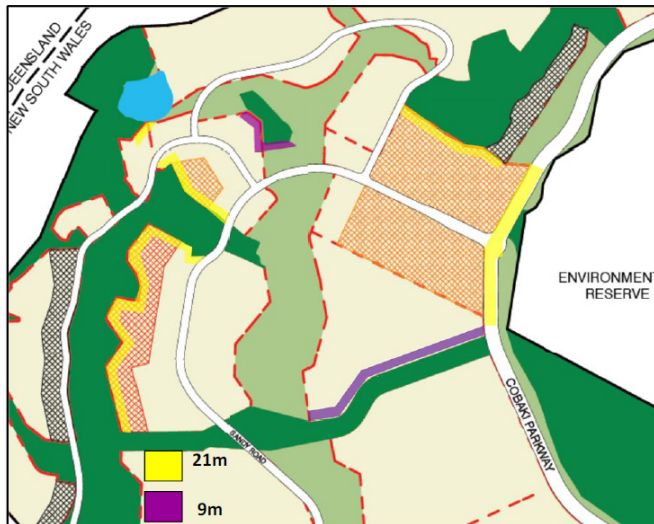


Figure 26: Locations of APZ for permanent residential development

Subject to future land use allocation and design if Future Special Fire Protection Purpose (SFPP) developments including aged care facilities, some tourist facilities and schools etc were to be positioned within precinct 5, 15, 17 larger asset protection zones are required which are 67m from forest vegetation on an upslope and 38m from the remnant vegetation located on flat ground. These asset protection zones are based on Draft PBP2018.

It is understood future subdivision design and development application submissions to council note that water supply will be provided in the form of compliant street hydrants and public roads will comply with s4.1.3 PBP2006.

The assessment demonstrates that the proposed Plan of Development and modification to the Height Control Plan will be compliant with all aspects of *Planning for Bushfire 2006*.

## 4.11 Biodiversity

**Assess any additional biodiversity impacts associated with the proposal, including any additional impacts on adjoining areas. Management and mitigation actions shall be developed to address any identified impacts of the proposal on biodiversity.**

An assessment of the proposed modification against any additional biodiversity impacts was undertaken by JWA Ecological Consultants in **Appendix 11**. It was concluded that:

*"The proposed amendments will not propose any additional impacts outside of the approved development footprint, any changes to the development footprint or yield, or any changes to the retention and management of vegetation and habitat areas within designated Environmental Protection Zones, it is not considered that the proposal will result in any additional impacts on the biodiversity values of the site."*

(JWA Ecological Consultants 2018)

## 4.12 Heritage

**Provide an updated Heritage Impact Assessment to identify and assess any additional Aboriginal Cultural Heritage and European Heritage impacts associated with the proposal.**

Recommendations set out in the original Aboriginal Cultural Heritage Assessment under Concept Plan Approval MP 06\_0316 do not change as a result of modifications pertaining to this application as identified in the revised Aboriginal Cultural Heritage Assessment, reproduced in **Appendix 12**.

*"It must be noted that there will not be any additional Aboriginal or Historic Cultural Heritage impacts associated with the proposal. The recommendations outlined below are not affected by the proposed modifications."*

(ACHA, Everick Heritage 2018)

The European Cultural Heritage Assessment (Refer to **Appendix 13**) revealed no items or places of potential historic cultural heritage significance following a search of the relevant cultural heritage databases and a site survey.

*"It must be noted that there will not be any additional Historic Cultural Heritage impacts associated with the proposal."*

(ECHA, Everick Heritage 2018)

## 4.13 Ecological Sustainable Development

**Identify how best practice ESD principles would be incorporated into the precinct and subdivision design and the future design, construction and ongoing uses of buildings.**

Subclause 4 of Clause 7 in Schedule 2 of the Environmental Planning and Assessment Regulation 2000 is outlined as follows:

- (4) *The principles of ecologically sustainable development are as follows:*
- (a) *the precautionary principle, namely, that if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation. In the application of the precautionary principle, public and private decisions should be guided by:*
    - (i) *careful evaluation to avoid, wherever practicable, serious or irreversible damage to the environment, and*
    - (ii) *an assessment of the risk-weighted consequences of various options,*
  - (b) *inter-generational equity, namely, that the present generation should ensure that the health, diversity and productivity of the environment are maintained or enhanced for the benefit of future generations,*
  - (c) *conservation of biological diversity and ecological integrity, namely, that conservation of biological diversity and ecological integrity should be a fundamental consideration,*
  - (d) *improved valuation, pricing and incentive mechanisms, namely, that environmental factors should be included in the valuation of assets and services, such as:*
    - (i) *polluter pays, that is, those who generate pollution and waste should bear the cost of containment, avoidance or abatement,*
    - (ii) *the users of goods and services should pay prices based on the full life cycle of costs of providing goods and services, including the use of natural resources and assets and the ultimate disposal of any waste,*
    - (iii) *environmental goals, having been established, should be pursued in the most cost effective way, by establishing incentive structures, including market mechanisms, that enable those best placed to maximise benefits or minimise costs to develop their own solutions and responses to environmental problems.*

The parts of the site affected by this modification (MOD 8) are within the development footprint of the Cobaki Concept Approval. The various conditions of the Concept Approval have addressed the ecological impacts of the urban development to be implemented under the Concept Plan.

The MOD 8 proposal will not raise any additional issues associated with precautionary principle, inter-generational equity, conservation of biological diversity and ecological integrity, or improved valuation, pricing and incentive mechanisms.

Accordingly, the MOD 8 proposal will remain consistent with the ESD principles applied in the approval of the original Cobaki Estate Concept Plan.

## 4.14 Socio-Economic Impacts

**Provide an assessment of the social and economic impacts of the proposed modification, including proposed changes to retail/commercial floor space, demonstrating it would provide a net public benefit and not adversely impact upon the provision of local jobs, services and facilities in other nearby centres.**

RPS Group was commissioned by Leda Manorstead Pty Ltd to assess any socio-economic impacts associated with this modification to Concept Plan Approval MP 06\_0316 and subsequent approved modifications (Refer to **Appendix 14**).

The socio-economic assessment is summarised below:

### Work Completed to Date

RPS has completed a market opportunity assessment for the Cobaki Town Centre (dated August 2017). This assessment utilised the demographics from the 2016 census and considered current retail trends and development patterns in nearby established retail centres (in both NSW and Queensland). A key finding from the market opportunity report is that the local catchment will support (at most) a retail footprint that is anchored by a full line supermarket, a limited line (discount) supermarket, complementary retail, food and beverage services and personal/professional services. This mix of uses can be delivered within the current GFA limit of 12,000 Sq M and is in keeping with the overall objective of providing services for residents of the community.

### Initial Assessment

Based on RPS Group's work undertaken for the Cobaki Estate, and a review of the MOD 8 plans it was concluded that the proposed changes will not adversely impact the provision of local jobs, services and facilities in other nearby centres. This opinion is primarily shaped by the retained residential development capacity of the community (5,500 dwellings) and the consistent scale of the proposed retail/commercial GFA in the town centre.

## 4.15 Soils and Groundwater

### 4.15.1 Geotechnical Assessment

#### **Provide an updated Geotechnical Assessment.**

Geotechnical Assessment reports completed across the sites for Concept Plan Approval MP 06\_0316 were preliminary and as such were not specific to any building type.

As identified in **Appendix 15**, Geotechnical Assessment reports completed under Concept Plan Approval MP 06\_0316 are not affected by design.

It is expected that further assessment is required at site specific building footprints, the timing of which would require confirmation on building locations and likely loads during development application stage.

### 4.15.2 Acid Sulfate Soils Assessment and Management Plan & Groundwater Assessment

#### **Provide an updated Acid Sulfate Soils Assessment and Management Plan, and Groundwater Assessment.**

There are existing approved Acid Sulfate Soils Assessments and Groundwater Plans for the area subject to this modification. Elevated areas of the site covered by this modification application are unlikely to have any acid sulfate soils and/or groundwater issues purely on the basis of their topographic locations.

As this modification application is largely about changes in cadastral boundaries of the town centre, and changes to building heights within Precinct 5, Precinct 15 and Precinct 17, and does not involve any detailed design, it is not considered practical to propose specific areas for various management treatments within these precincts.

As identified in **Appendix 16** most of the areas proposed for modification are outside areas which contain ASS or are likely to have groundwater flows close to the surface which could be influenced by construction. The proposed modification application does not propose changes which would introduce new impacts that have not been previously addressed.

## 4.16 Contributions

#### **Address the provision of public benefits, services and infrastructure having regard to Council's Contribution Plan, and/or provide details of any new/amended Voluntary Planning Agreement.**

Tweed Shire Council Section 94 Contribution Plans are in effect and will, where relevant, apply to the future development within the Cobaki Estate. No amendments are required to the Contribution Plans to address matters included in this modification (MOD 8).

## 4.17 Air Space Planning Impacts

#### **The modification request must consider the requirements of the Gold Coast Airport Lighting Zone Map and the Airports (Protection of Airspace) Regulations 1996 (Cth), and CASA's relevant requirements.**

The site is located in the outer lighting zone in the *Gold Coast Airport - Lighting Zone - Overlay Map - OM8d (Ver. 1.0)*. Future development pertaining to proposed illumination of features, discernible from air-crafts are subject to further assessment during development application stage.

Precincts subject to this modification (Precinct 5, precinct 15 and Precinct 17) are not identified in a zone within the Airport Lighting Zone map. Precincts subject to this modification (Precinct 5, precinct 15 and Precinct 17) are not located within an ANEF contour associated with Gold Coast Airport. Precincts subject to this modification (Precinct 5, precinct 15 and Precinct 17) are not located under flight paths associated with Gold Coast Airport.

The Cobaki Estate is located within the inner horizontal surface of the Obstacle Limitation Surface map. Proposed increase to building heights within Precinct 5, Precinct 15 and Precinct 17 do not extend beyond the height of adjoining ridge-lines to the north and west of the site, which produce a height up to RL 96.

## 4.18 Utilities

**In consultation with relevant agencies, address the existing capacity and requirements of the development for the provision of utilities, including the staging of infrastructure works.**

As identified in **Appendix 9**, the existing demands of servicing the Development have not changed as there are no changes proposed to the Development yield under the proposed modifications.

No further augmentation of the Utilities is necessary as a result of the proposed Concept Plan modifications. Staging and servicing of the Development will remain as identified in the current Development Concept Plan servicing strategy.

## 4.19 Statement of Commitments

**Include any new or modified Statement of Commitments detailing measures for environmental management, mitigation measures and monitoring for the project.**

This modification does not propose any new or modify the Statement of Commitments approved under the original Concept Plan Approval MP 06\_0316 and any subsequent modifications.

## 5.0 Consultation

**During the preparation of the EA, you are required to consult with the relevant local, State or Commonwealth Government Authorities.**

It is anticipated that consultation with relevant agencies will be conducted once the intent of the application is set in accordance with the proposed modifications within MOD 8.

Leda Manorstead Pty Ltd is to undertake consultation with the listed agencies:

- Tweed Shire Council;
- Gold Coast City Council;
- NSW Office of Environment and Heritage;
- NSW Environment Protection Authority;
- NSW Department of Education
- Transport for NSW;
- NSW Roads and Maritime Services;
- NSW Rural Fire Service;
- Civil Aviation Safety Authority;
- Queensland Airports Limited - Gold Coast Airport; and
- Queensland Department of Transport and Main Roads.

Consultation to be undertaken between October and November 2018, following the Department of Planning and Environment's response.

## 6.0 Capital Investment Value

**A report from a qualified quantity surveyor providing a detailed calculation of the revised capital investment value (as defined at Clause 3 of the Environmental Planning Assessment Regulation 2000) of the proposal, and certification that the information provided is accurate at the date of preparation.**

The estimated capital investment value under the original Concept Plan Approval MP 06\_0316 was identified for \$2 billion.

A capital investment value report is not warranted for this modification on the grounds that:

- there are no proposed changes to road lengths approved under Concept Plan Approval MP 06\_0316 and subsequent modifications;
- there are no proposed changes to increase infrastructure approved under Concept Plan Approval MP 06\_0316 and subsequent modifications; and
- there are no proposed changes to the development yield approved under Concept Plan Approval MP 06\_0316 and subsequent modifications.



## 7.0 Mitigation Measures

A series of mitigation measures are detailed in the environmental assessment at **Section 4.0** of this document and the appended supporting specialist consultant reports. Further, a range of foreshadowed investigations pertaining to the proposed modification were also cited.

The collective measures required to mitigate the potential impacts identified and foreshadowed are detailed in **Table 12** below.

Table 12: Mitigation Measures and Foreshadowed Investigations

<b>Built Form</b>	<ul style="list-style-type: none"> <li>This modification produces a plan of development (See <b>Section 3.3</b>) that refines the outcomes of the modified concept plan that forms MOD 8. This plan of development provides assessment criteria for development within Precinct 5, Precinct 15 and Precinct 17 that must be met during detailed design stage/reconfiguration of lots for assessment purposes.</li> <li>No amendments are required to the Cobaki Development Code as a result of proposed increase to heights within Precinct 5, Precinct 15 and Precinct 17 under this modification application (MOD 8).</li> </ul>
<b>Visual Impacts</b>	<ul style="list-style-type: none"> <li>The Visual Impacts for proposed modifications in this application has been assessed.</li> <li>Visual Analysis is to be conducted during detailed design at development application stage.</li> </ul>
<b>Environmental and Residential Amenity</b>	<ul style="list-style-type: none"> <li>Detailed assessment of residential flat building developments is to be conducted in accordance with State Environmental Planning Policy during detailed design at development application stage.</li> </ul>
<b>Public Domain/Open Space</b>	<ul style="list-style-type: none"> <li>Public domain and open space plans are to be assessed during detailed design at development application stage.</li> </ul>
<b>Transport and Accessibility</b>	<ul style="list-style-type: none"> <li>The additional Building heights and reduced Town Centre location proposed under the above modifications will not necessitate any revisions to traffic impacts and modelling as the yield and town centre GFA are unchanged.</li> <li>No changes required to the Access Network and Potential Bus Route Plan approved under the Concept Plan</li> <li>Detailed traffic modelling are to be provided and assessed during detailed design at development application stage.</li> </ul>

<b>Flooding and Stormwater</b>	<ul style="list-style-type: none"> <li>The additional Building heights and reduced Town Centre location proposed under the above modifications will not necessitate any revisions to Flood Management as the precincts are above the Designated Flood Level and will have no impact on the Hydraulic modelling of flood impacts and or flow paths.</li> <li>No changes required to the Stormwater Management Concept under the amendments proposed to the Concept Plan, so that a revised Stormwater Management Concept Plan is not necessary.</li> </ul>
<b>Bushfire</b>	<ul style="list-style-type: none"> <li>APZ's have been determined for permanent residential development although there is considered merit for future performance solution to reduce the asset protection zone widths in consultation with the NSW RFS if needed during detailed design at development application stage.</li> </ul>
<b>Biodiversity</b>	<ul style="list-style-type: none"> <li>No further changes are required to: <ul style="list-style-type: none"> <li>The Site Regeneration &amp; Revegetation Plan</li> <li>Overview Buffer Management Plan</li> </ul> </li> <li>Future updates will be provided to the Flora and Fauna Monitoring Report.</li> </ul>
<b>Heritage</b>	<ul style="list-style-type: none"> <li>Recommendations set out in the original Aboriginal Cultural Heritage Assessment under Concept Plan Approval MP 06_0316 do not change as a result of modifications pertaining to this application.</li> <li>No items or places of potential historic cultural heritage significance following a search of the relevant cultural heritage databases and a site survey.</li> </ul>
<b>Ecological Sustainable Development</b>	<ul style="list-style-type: none"> <li>MOD 8 proposal will remain consistent with the ESD principles applied in the approval of the original Cobaki Estate Concept Plan.</li> </ul>
<b>Soils and Groundwater</b>	<ul style="list-style-type: none"> <li>Further Geotechnical assessments are required at site specific building footprints, the timing of which would require confirmation on building locations and likely loads during development application stage.</li> </ul>
<b>Air Space Planning</b>	<ul style="list-style-type: none"> <li>The site is located in the outer lighting zone in the <i>Gold Coast Airport - Lighting Zone - Overlay Map - OM8d (Ver. 1.0)</i>. Future development pertaining to proposed illumination of features, discernible from aircrafts are subject to further assessment during development application stage.</li> <li>Precincts subject to this modification (Precinct 5, precinct 15 and Precinct 17) are not identified in a zone within the Airport Lighting Zone map. Precincts subject to this modification (Precinct 5, precinct 15 and Precinct 17) are not located within an ANEF contour associated with Gold Coast Airport. Precincts subject to this modification (Precinct 5, precinct 15 and Precinct 17) are not located under flight paths associated with Gold Coast Airport.</li> </ul>

<b>Utilities</b>	<ul style="list-style-type: none"> <li>No further augmentation of the Utilities is necessary as a result of the proposed Concept Plan modifications. Staging and servicing of the Development will remain as identified in the current Development Concept Plan servicing strategy.</li> </ul>
<b>Consultation</b>	<ul style="list-style-type: none"> <li>Consultation to be undertaken between October and November 2018, following the Department of Planning and Environment's response.</li> </ul>

## 8.0 Conclusion

The Cobaki Estate is a major Urban Release Area which will deliver up to 5,500 dwellings and a range of associated commercial services and facilities.

The Cobaki Estate Concept Plan approved under MP 06\_0316 and subsequent modifications, will facilitate development of the site in an orderly, co-ordinated and economic manner.

This Modification Application is required to rationalise the area dedicated to the town centre and maximise opportunity to provide increased building heights proximate to the town centre. Contemporary trends analysed in the Centres Catchment Analysis reproduced in **Appendix 4**, recommends the town centre to be scaled to the needs of the primary residential catchment.

The proposed modification reduces the approved location for the town centre in Precinct 5 from 17.64 ha to 14.07 ha. The associated reduction in size of the town centre will make the excess land available for residential development north of the connector road within the subject precinct. Areas originally dedicated within the town centre in Precinct 5 have been re-allocated to the residential component of the Precinct, north of the connector road.

The request for SEARs included a proposal to increase building heights within Precinct 5, Precinct 11, Precinct 12, Precinct 15 and Precinct 17. Proposed increase to height within Precinct 11 and Precinct 12 is no longer required and does not form part of the MOD 8 application.

This application increases building heights in Precinct 5, Precinct 15 and Precinct 17 from the approved-three storey height, up to 8 and 10 storey heights. Proposed heights in this modification do not extend beyond the height of the adjoining ridge-lines. Notwithstanding increased heights, this modification does not alter development yield approved under Concept Plan Approval MP 06\_0316.

This modification does not result in any changes to the Future Environmental Assessment Requirements.

It is therefore concluded, having regard to the foregoing Environmental Assessment, that the project is generally consistent with relevant statutory planning controls and compliant with contemporary urban design standards and ESD principles. Approval of MOD 8 would therefore be sustainable and in the public interest.

