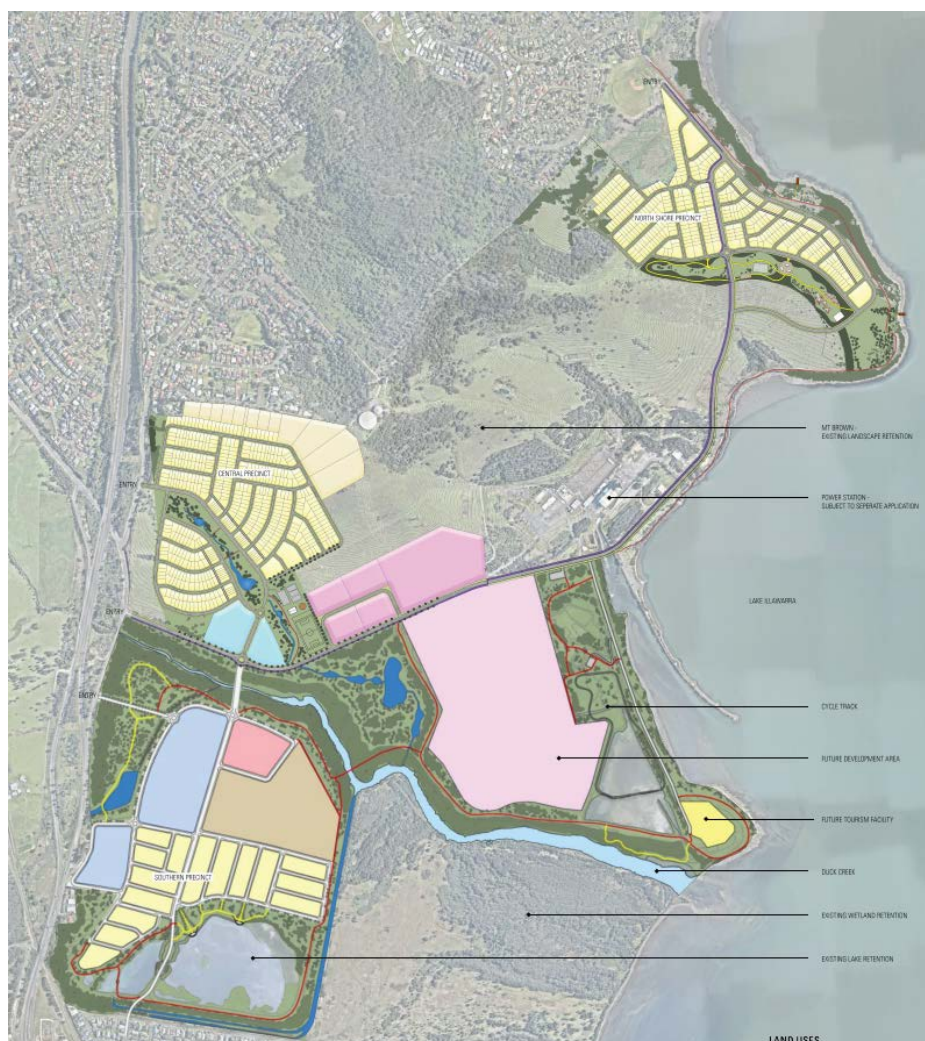


Tallawarra Lands Concept Plan Modification 1

Modifications to Concept Approval for Development of
Tallawarra Lands (MP09_0131 MOD 1)

November 2020



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Cover image: Aerial view of the site (Source: Google Earth)

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Glossary

Abbreviation	Definition
ACHAR	Aboriginal Cultural Heritage Assessment Report
ACHMP	Aboriginal Cultural Heritage Management Plan
AHD	Australian Height Datum
APRB	Albion Park Rail Bypass
ARtS	Addendum Response to Submissions
BAR	Biodiversity Assessment Report
CIV	Capital Investment Value
Council	Wollongong City Council
Crown Lands	Crown Lands, DPIE
Department	Department of Planning, Industry and Environment
DPI	Department of Primary Industries, DPIE
EEC	Endangered Ecological Community
EESG	Environment, Energy and Science Group, DPIE
EIS	Environmental Impact Statement
EPA	Environment Protection Authority
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	Environmental Planning and Assessment Regulation 2000
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
EPI	Environmental Planning Instrument
EPL	Environment Protection Licence
ESD	Ecologically Sustainable Development
FEAR	Future Environmental Assessment Requirement
Heritage	Heritage NSW, Department of Premier and Cabinet
HIS	Heritage Impact Assessment

LEP	Local Environmental Plan
LOS	Level of Service
Minister	Minister for Planning and Public Spaces
NRAR	Natural Resources Access Regulator, DPIE
RBF	Risk-based Framework for Considering Waterway Health Outcomes in Strategic Landuse Planning decisions
RtS	Response to Submissions
RFS	Rural Fire Service
SEARs	Planning Secretary's Environmental Assessment Requirements
PBP	Planning for Bushfire Protection
Planning Secretary	Secretary of the Department of Planning, Industry and Environment
SEPP	State Environmental Planning Policy
SSD	State Significant Development
SSI	State Significant Infrastructure
TIA	Traffic Impact Assessment
TfNSW	Transport for NSW
VIA	Visual Impact Assessment
VMP	Vegetation Management Plan
VPA	Voluntary Planning Agreement
WDCP 2009	Wollongong Development Control Plan 2009
WLEP 2009	Wollongong Local Environmental Plan 2009

Executive Summary

This report is an assessment of a request to modify the Concept Plan Approval (MP09_0131) for the mixed-use development at the Tallawarra Lands, Yallah, in the Wollongong Local Government Area.

The request seeks to modify the approval to increase the residential capacity within the Northern and Central Precincts on the site by reducing lot sizes and expanding the urban footprint. It also seeks to make changes to conditions to enable the Northern and Central Precincts to be developed independently and in advance of the Southern Precinct. The request has been lodged by Bridgehill (Tallawarra) Pty Ltd (the Proponent) pursuant to section 75W of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

The modification request was publicly exhibited and notifications were sent to adjoining landholders and residents, previous submitters, Wollongong City Council and relevant State agencies. The Department received a total of 33 submissions, comprising eight submissions from government agencies, one from Council and 24 submissions from the general public, of which 18 objected to the proposal. The key issues raised in submissions include density, character and visual impacts, traffic and roads, environmental impacts including ecological impacts and water quality impacts, Aboriginal heritage, provision of open space, acoustic issues, contamination and issues relating to dividing landownership arrangements and associated responsibilities.

In response, the Proponent submitted a Response to Submissions (RtS) and then an Addendum Response to Submissions (ARtS). Key amendments made in this process included a reduction in the extent of the increase in the residential footprints, reduction in the total number of residential lots (from 1480 initially proposed to 1257 now proposed), improvements to the provision of open space in the Northern Precinct, removal of proposed changes to the layout of open space and industrial lands in the Central Precinct and relocating proposed residential flat building sites from the Northern Precinct to the Central Precinct.

The Department has assessed the proposed modification in accordance with the relevant requirements of the EP&A Act and has carefully considered the issues raised in public submissions and the Proponent's RtS and Addendum RtS.

The Department supports the proposal as it would provide additional housing, including housing variety, to meet growing demands consistent with strategic objectives and would ensure that delivery of housing and employment lands in the northern part of the site is not delayed or constrained by unrelated environmental issues elsewhere on the site. The Department considers that as a greenfield site approved for urban development, but yet to be developed, there is scope to design future stages to include appropriate infrastructure and mitigation measures to accommodate the additional density without unacceptable adverse amenity or environmental outcomes.

The Department has therefore made recommendations to further refine the proposal and address adverse impacts, including:

- improved road reserve widths to adequately cater for the additional traffic, pedestrian and cycle movements associated with the modification and enable street tree provision and canopy cover to offset reduced onsite plantings due to the reduction in lot sizes.

- confirmation that the subdivision and road layout shown on the plans is indicative only and is to be revised as necessary to:
 - remove encroachments on and reduce impacts to a riparian zone, wetland and endangered ecological community
 - respond to bushfire planning considerations
 - where necessary, provide noise mitigation measures in a landscaped setting to ensure mitigation of noise associated with the motorway without adverse visual or streetscape impacts
 - respond to heritage values as appropriate following additional archaeological investigations and consultation
 - respond to the required changes in road reserve widths
- additional requirements for the future Design Guidelines to ensure appropriate built form outcomes will be achieved on future lots despite the reduction in lot size, and to set height and building envelope limits for lots in one part of the site to minimise visual impacts and view loss impacts
- provide a pedestrian link to Hector Harvey Park
- ensure slope stability and geotechnical issues are addressed as part of future applications
- ensure requirements for infrastructure delivery and environmental mitigation measures on land retained by Energy Australia but necessary to support development of the Northern and Central Precincts will still be met

Based on the above, the Department is satisfied that the proposed development can be approved subject to the recommendations of this report.

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1 Introduction

This report provides the NSW Department of Planning, Industry and Environment's (the Department's) assessment of a request to modify the Major Project Concept Approval (MP09_0131) for a mixed-use development at the Tallawarra Lands, Yallah, in the Wollongong Local Government Area

The modification request seeks approval to amend the Concept Approval by modifying the boundaries, design and controls for the Northern and Central Precincts on the site to enable an increase in dwelling yield and to enable the Northern and Central Precincts to be developed independently, and in advance of the Southern Precinct. It also seeks to make changes to open space provision, road layouts and design and transmission lines in the Northern Precinct.

The request has been lodged by Bridgehill (Tallawarra) Pty Ltd (the Proponent) pursuant to section 75W of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

1.1 The Subject Site

The Tallawarra Lands Concept Approval site is located on the western foreshore of Lake Illawarra in the suburb of Yallah, approximately 13 kilometres (km) south-west of Wollongong. The site is commonly known as the Tallawarra Lands and comprises approximately 536 hectares of land that was previously used as a buffer zone to the former Tallawarra coal-fired power station (refer to **Figures 1 and 2**).



Figure 1 | Regional context map (Source: Proponent's EIS)

The topography of the site comprises a mixture of steep ridges, undulating to flat land and low-lying flood affected wetland areas. The site includes Duck Creek and critical habitat for threatened species and endangered ecological communities.

The western boundary of the site adjoins the Princes Highway / Princes Motorway and the southern rail corridor. The eastern boundary adjoins the new Tallawarra Gas Turbine Power Station and Lake Illawarra. To the north of the site are the residential areas of Dapto and Koonawarra and to the south is Haywards Bay. The residential development in those suburbs is characterised by low density detached housing with building heights up to two storeys. It is noted the Tallawarra Gas Turbine Power Station was approved in 2010 on land previously used for a coal-fired power station which was decommissioned in 1989.



Figure 2 | Aerial view of site (Source: Proponent's EIS)

This modification request primarily relates to two parts of the site known as the Northern Precinct (previously the North Shore Precinct) and the Central Precinct (**Figure 3**).

The Northern Precinct is located to the south of the suburb of Koonawarra. The site is elevated on the eastern slopes of Mount Brown and has frontage to Lake Illawarra. It is approximately 110ha in size.

The modification request also applies to the Central Precinct located to the south of the residential development in Dapto and to the east of the Princes Motorway. Northern parts of the precinct are elevated and the land slopes steeply down to the southern boundary of Yallah Bay Road. The land is approximately 210 ha in size.

Figures 4 and 5 depict the existing site.

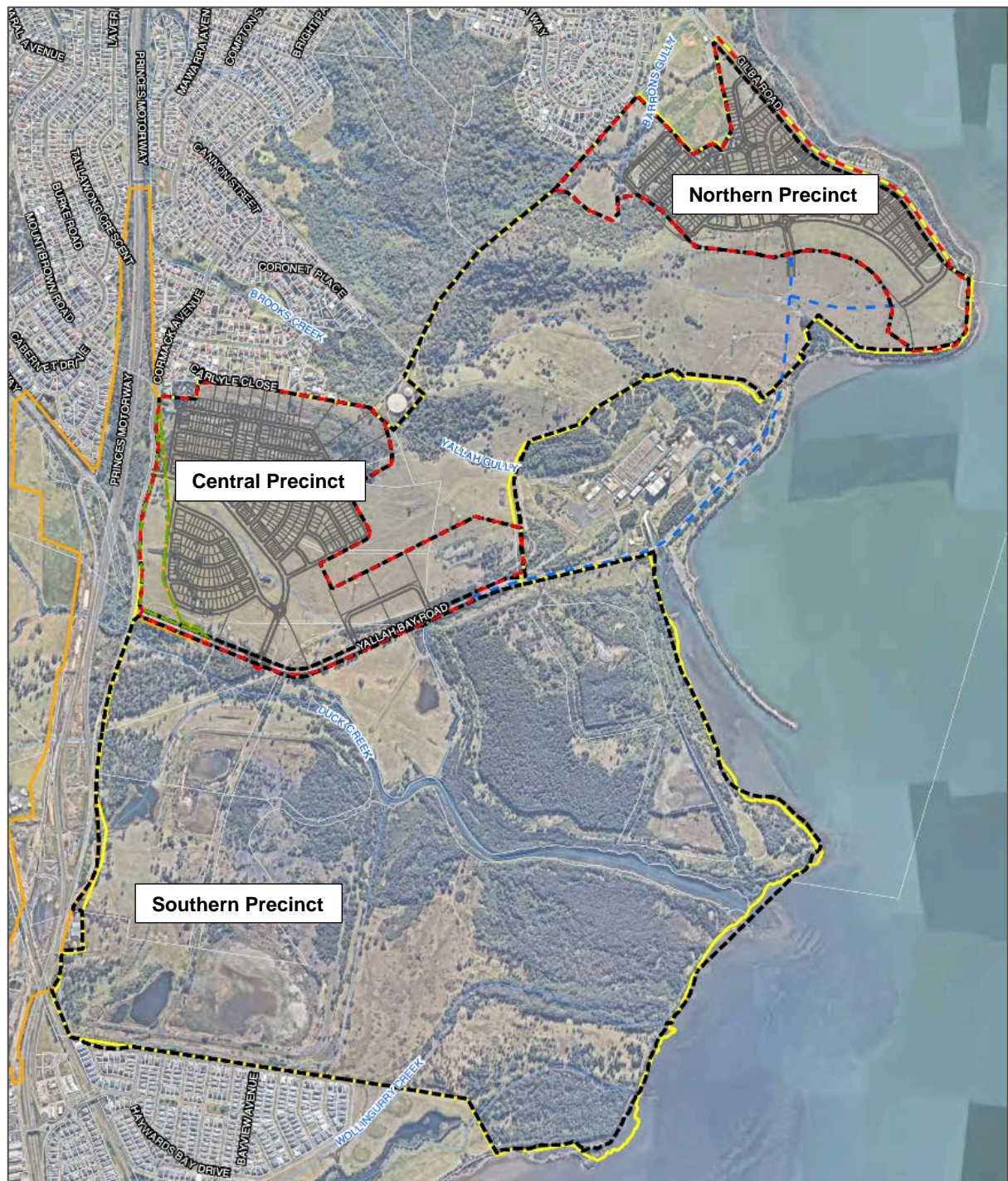


Figure 3 | Aerial view of site showing the location of the Northern Precinct and part of the Central Precinct as proposed to be modified (Source: Proponent's Addendum RTS)



Figure 4 | The Central Precinct as viewed from Carlyle Close (source: Site Inspection)



Figure 5 | The Northern Precinct as viewed from Gilba Road (Source: Google Earth)

1.2 Approval history

Concept Approval

On 23 May 2013, the Planning Assessment Commission, as delegate of the then Minister for Planning, approved Concept Plan MP 09_0131 for a mixed-use development (the Concept Approval), including:

- residential, commercial, industrial and retail development
- public open space areas
- new recreational facilities
- environmental management
- conservation areas
- riparian corridors.

The Concept Plan has been modified on one occasion. On 1 August 2017, MP 06_0131 MOD 2 was approved to extend the lapse date of the approval by three years to 23 May 2021.

The approved Concept Plan layout is shown at **Figure 6**.



Figure 6 | Approved Concept Plan layout (Source: MP09_0131 approved plans)

2 Proposed modification

This section 75W modification request (MP09_0131 MOD 1) seeks approval to increase the residential capacity within the Tallawarra Lands site by expanding the footprint of the residential precincts and increasing the density within the precincts through a reduction in lot sizes. The proposal also incorporates changes to provision of open space, changes road layouts and design, undergrounding of transmission lines in the Northern Precinct and seeks changes to facilitate the development of the Northern and Central Precincts in advance of and independently of the Southern Precinct.

The Proponent requested the modification on the basis that the market for housing within the area has changed since the Concept Plan was first approved in 2013, including a higher demand for small lot housing, medium and higher density development.

The application as initially lodged sought to increase the residential yield on the site from 1010 lots as originally approved to 1480 lots.

Following the exhibition of the request, the Proponent submitted a Response to Submissions (RtS), and a further Addendum Response to Submissions (ARtS) and subsequent further information which amended the proposal (refer to **Section 5**). Key amendments included:

- reduction in the extent of the increase in the residential footprint in both precincts
- reduction in the total number of residential lots (from 1480 initially proposed to 1257 now proposed)
- improvements to the provision of open space in the Northern Precinct
- removal of proposed changes to the layout of open space and industrial lands in the Central Precinct and re-instating a buffer between the industrial uses and residential area
- relocating proposed residential flat building sites from the Northern Precinct to the Central Precinct

Key changes between the modification as initially lodged and the current request are depicted in **Figure 7**.

The key components and features of the modification request (as refined through the Addendum Response to Submissions and additional information) are provided in **Table 1** and are shown in **Figures 8 to 18**.

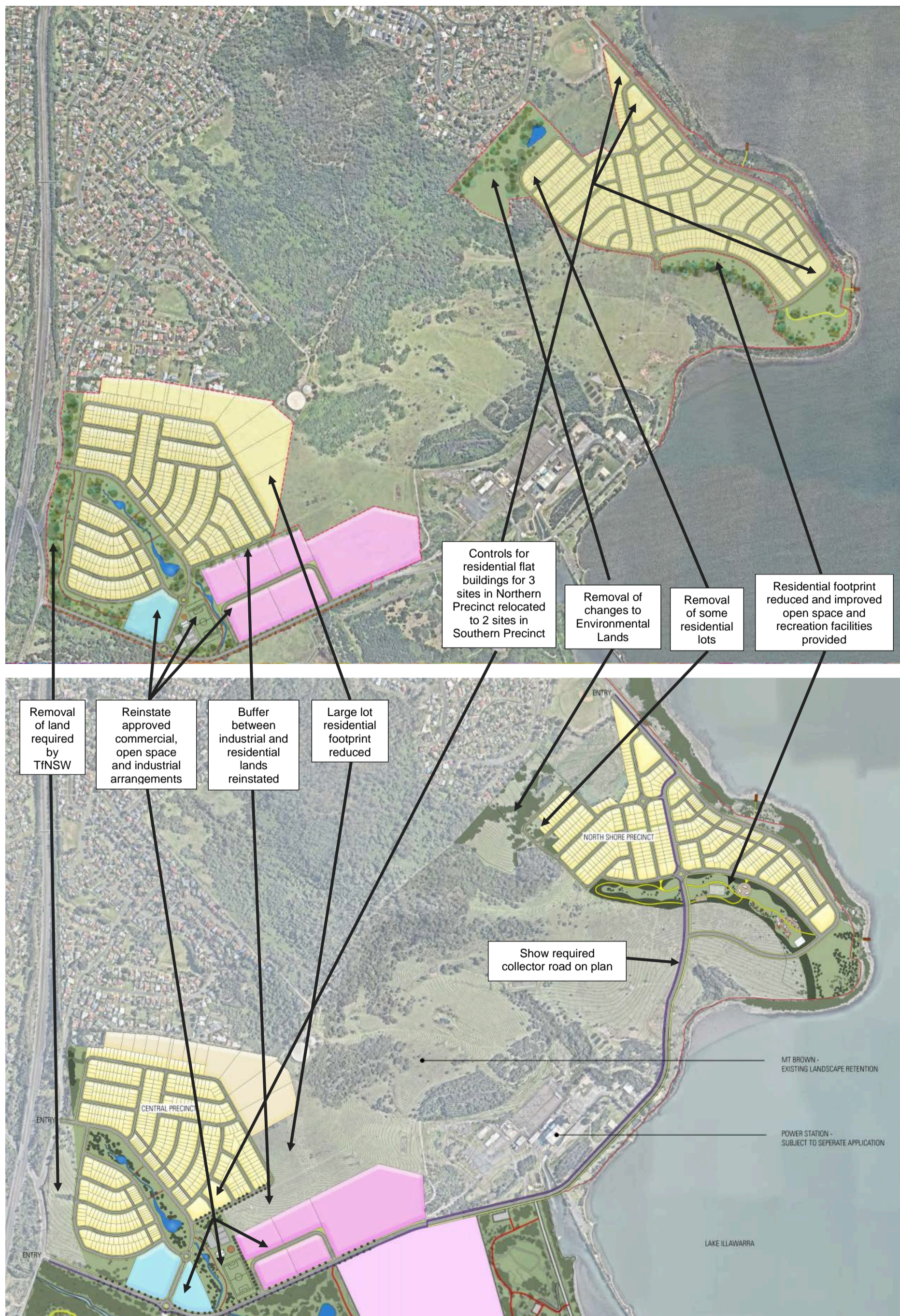


Figure 7 | Comparison of modification request as lodged (top) and as now proposed (below) (Source: Modification Request and ARTS)

Table 1 | Main components of the modification request

Aspect	Proposed modification
Summary of Modification	<ul style="list-style-type: none"> Modifications to the Northern and Central Precinct to increase the number of residential lots, achieved by: <ul style="list-style-type: none"> Changes to minimum lot size, height, FSR controls Changes to the boundaries of the precincts and the boundaries / size of the land uses within the precincts. Change conditions and requirements of the Concept Plan Approval to enable the Northern and Central Precincts to be developed independently and in advance of the Southern Precinct including: <ul style="list-style-type: none"> change to Superlot Subdivision Plan change requirements and timing in relation to land contamination, road upgrades, state public infrastructure arrangements, heritage assessments and management plans and vegetation management
Residential Lots	<ul style="list-style-type: none"> Increase residential lots from 1,010 to 1,257, comprising <ul style="list-style-type: none"> Northern Precinct: an increase from 310 to 393 lots Central Precinct: an increase from 350 to 514 lots Lakeside (Southern) Precinct: no change, remains at 350 lots
Changes to density and built form controls	<p>Specify density and built form controls to override current applicable LEP controls:</p> <ul style="list-style-type: none"> Reduction in the minimum lot sizes for R2 Low Density Residential zoned land from 449m² under WLEP 2009 to: <ul style="list-style-type: none"> 200m² along the foreshore of Lake Illawarra and some lots fronting the open space in the Central Precinct (to facilitate terrace style housing development) 299m² on all other R2 or equivalent land Reduction in the minimum lot sizes for R5 Large Lot Residential land from 3,999m² under WLEP 2009 to: <ul style="list-style-type: none"> 299m² on land adjacent to the R2 zone 1,999m² on land to the south of Carlyle Close Increase the maximum building height for two residential sites from 9m to 15m (to enable provision of apartment buildings) Increase in the FSR from 0.5:1 under WLEP 2009 for R2 zoned land to: <ul style="list-style-type: none"> 1.5:1 for the two apartment building sites 0.75:1 for terrace style housing sites
Changes to Land Uses – Northern Precinct	<ul style="list-style-type: none"> Increase residential footprint by: <ul style="list-style-type: none"> undergrounding powerlines and extending footprint into the current transmission line easement extending residential footprint to the south into areas previously approved for open space and environmental management Extend the boundary of the Precinct to the south, into areas previously approved for environmental management and use of these areas for open space purposes.
Changes to Land Uses – Central Precinct	<ul style="list-style-type: none"> Increase residential footprint by: <ul style="list-style-type: none"> extending boundary of the Precinct to the north-east minor extension of residential footprint to the west and south into area previously approved for open space and environmental management Reduce extent of large lot residential area and replace with small lot residential. Exclude land along the western boundary (previously approved for open space and environmental management) to be transferred to TFNSW for roadworks buffer Minor adjustment / reduction in size of neighbourhood centre
Changes to Super lot Subdivision	<ul style="list-style-type: none"> Change the first Superlot Subdivision Plan from a plan which would create approximately 30 lots to a plan which would create 4 lots

Other changes
to conditions
and
commitments

- Conditions and commitments changed to reflect separate ownership and separate development of the Precincts
 - Change to timing for provision of further contamination assessments, remediation and certification
 - Change to site auditor verification requirements in relation to land contamination
 - Change to timing for agreement on future for delivery of roadworks
 - Change the timing for satisfactory arrangements for provision of designated State Public Infrastructure.
 - Change to timing for provision of Cultural Heritage Management Plan.
 - Change to timing for provision of Vegetation Management Plan.
 - Change to bushfire assessment requirements to reflect updated assessment
-

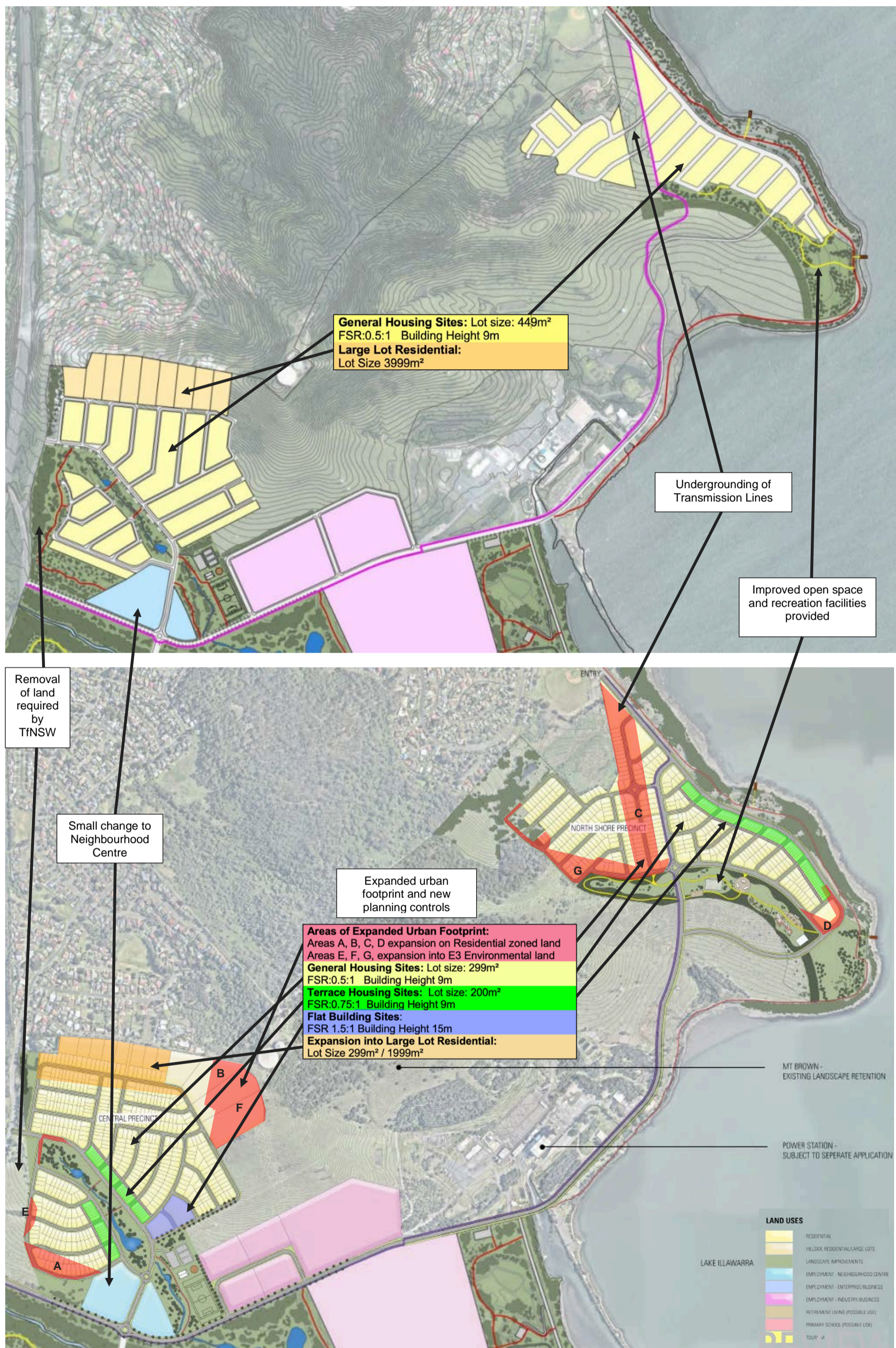


Figure 8 | Comparison of approved layout (top) and as proposed modified layout (below) (Source: MP09_0131 Landscape Plan and ARTS)

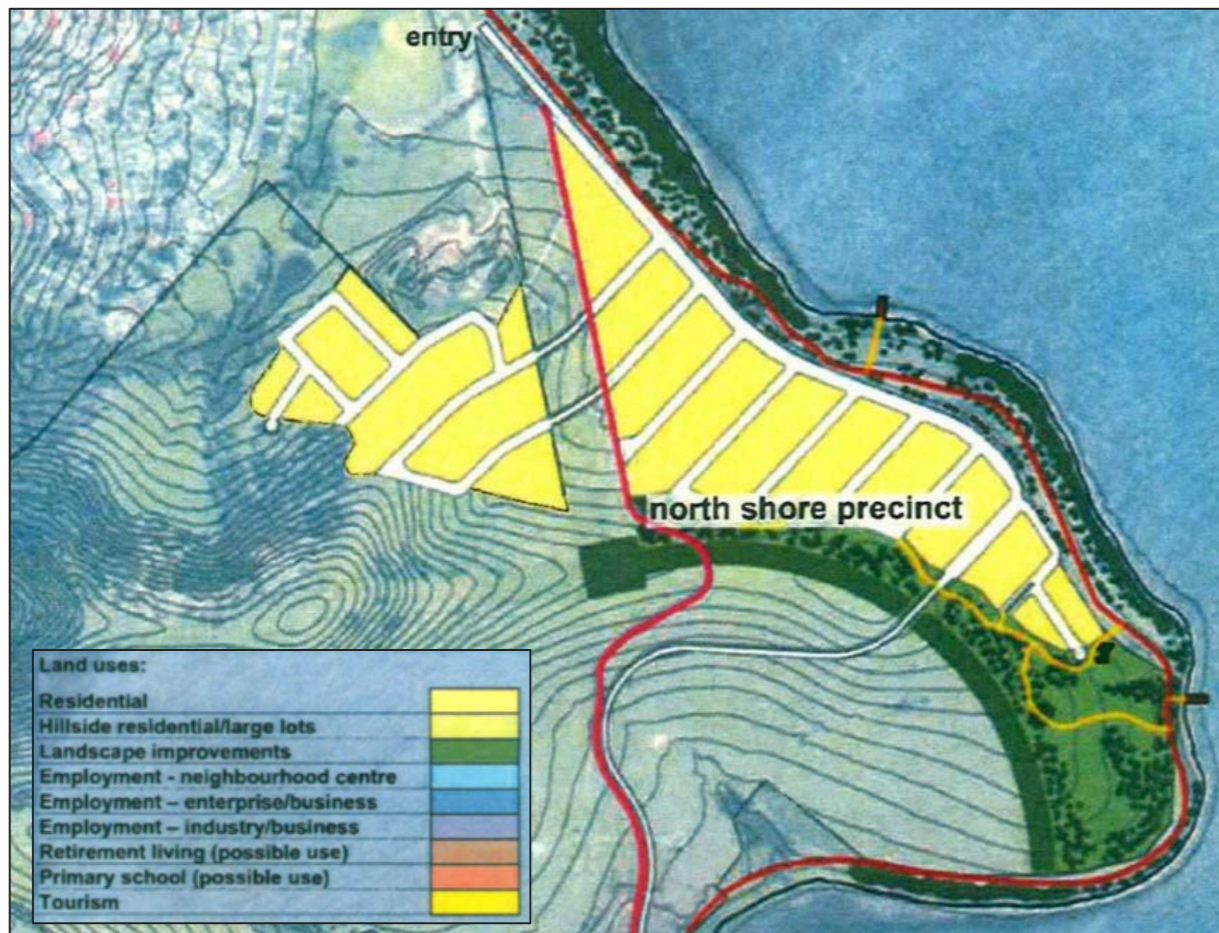


Figure 9 | Approved layout of Northern Precinct (Source: MP09_0131 approved plans)

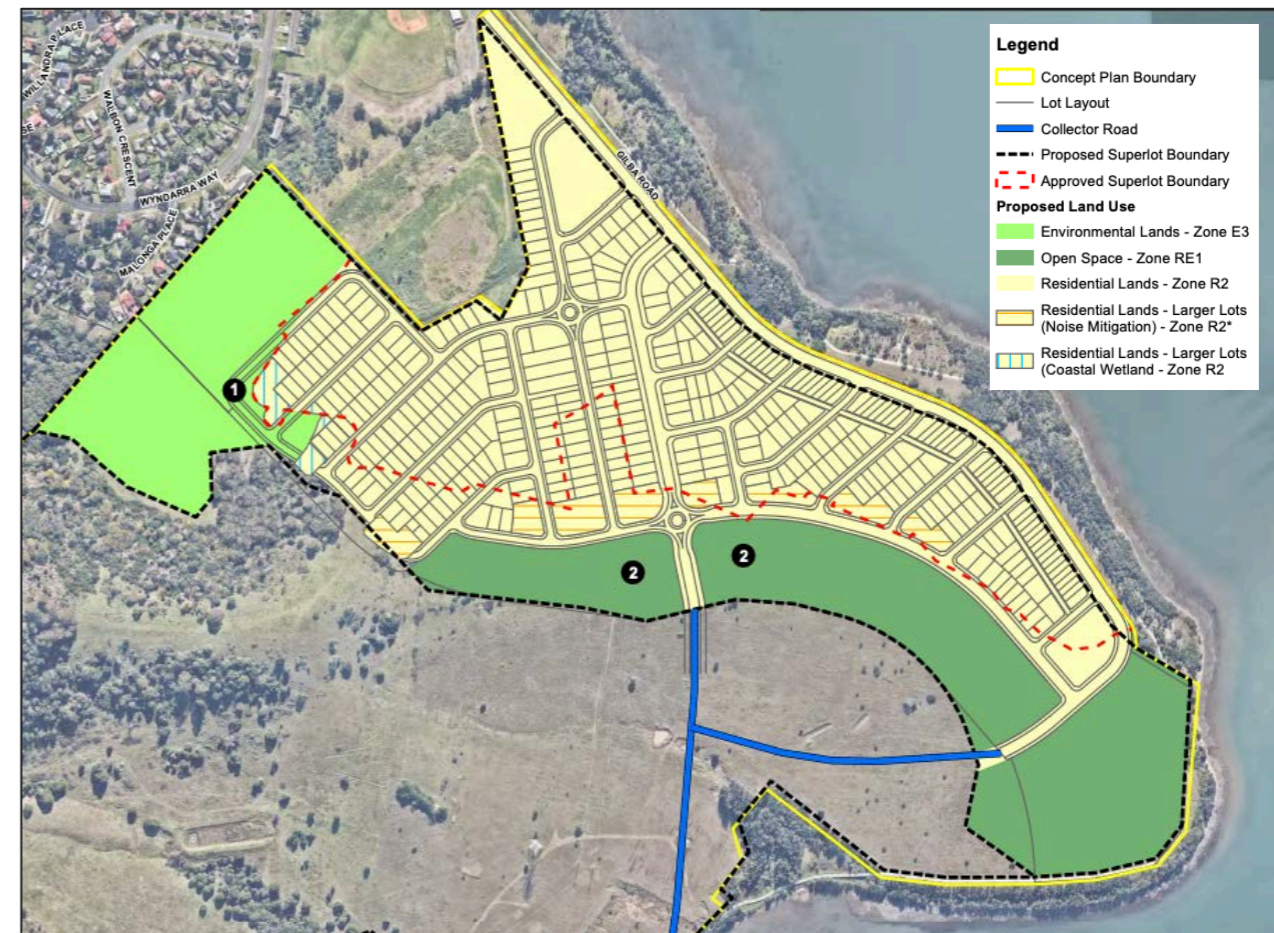


Figure 10 | Proposed layout of Northern Precinct (Source: Addendum RTS)

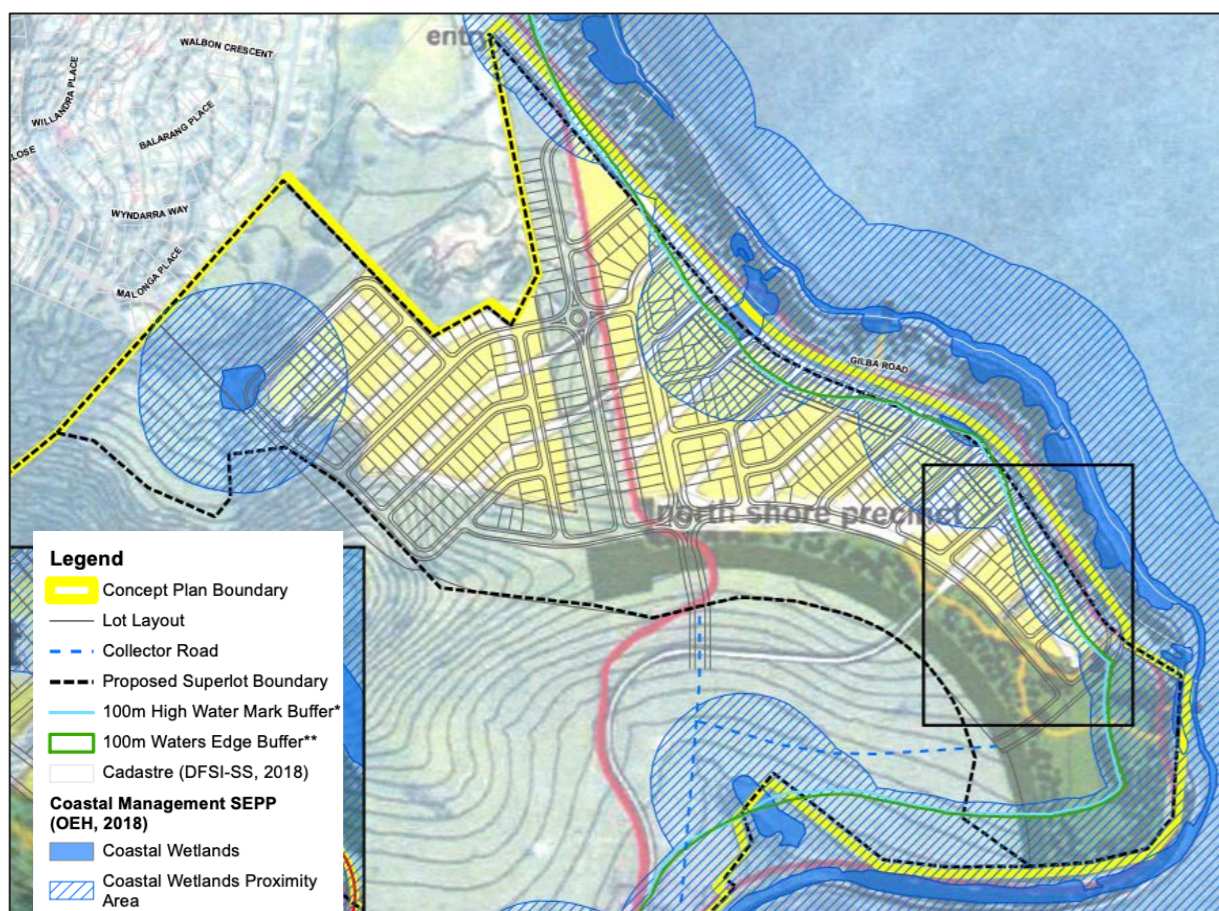


Figure 11 | Proposed layout over approved layout and coastal wetlands maps (Source: Addendum RTS)

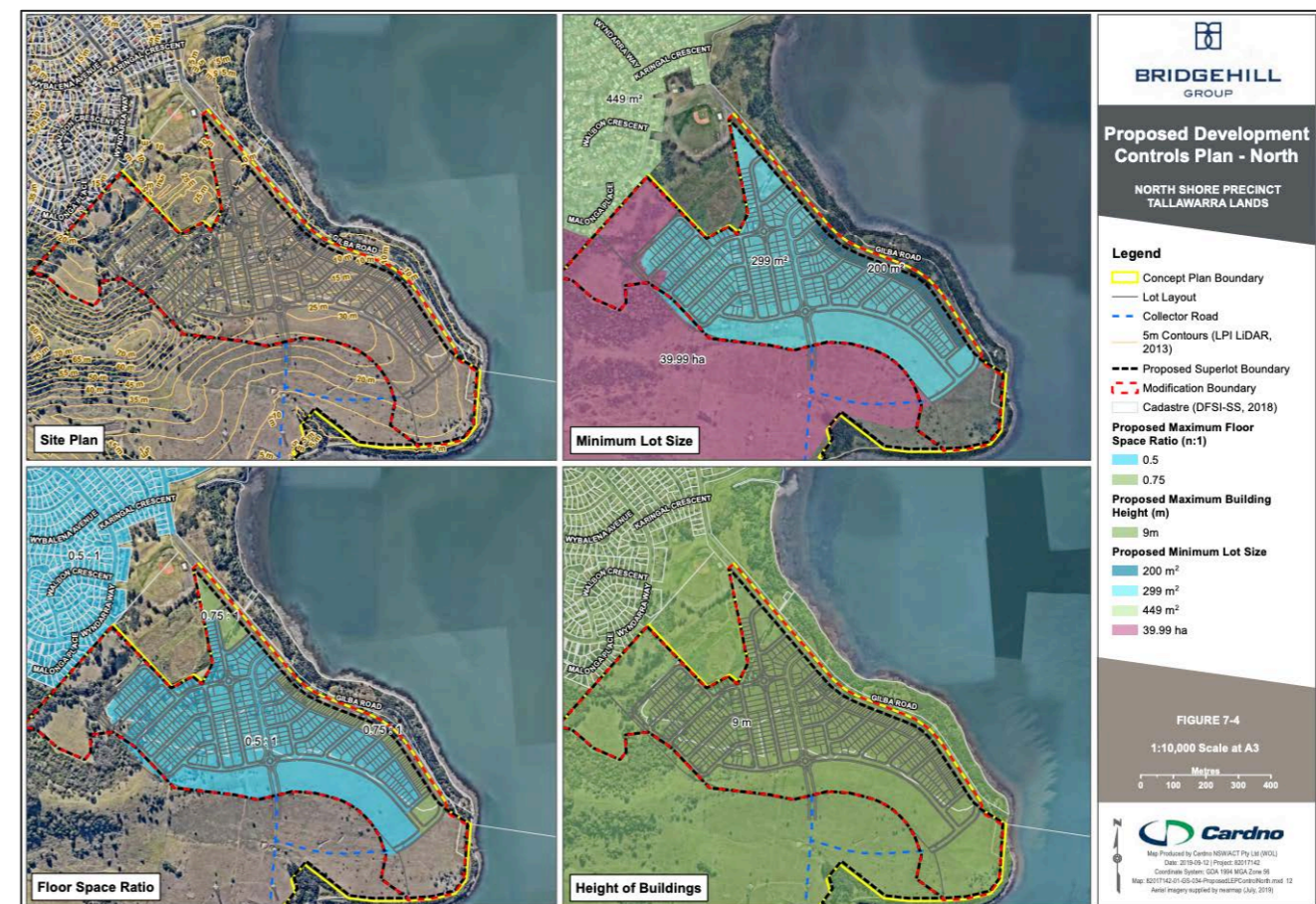


Figure 12 | Proposed lot size, FSR and height controls (Source: Addendum RTS)



Figure 13 | Approved layout of Central Precinct (Source: MP09_0131 approved plans)

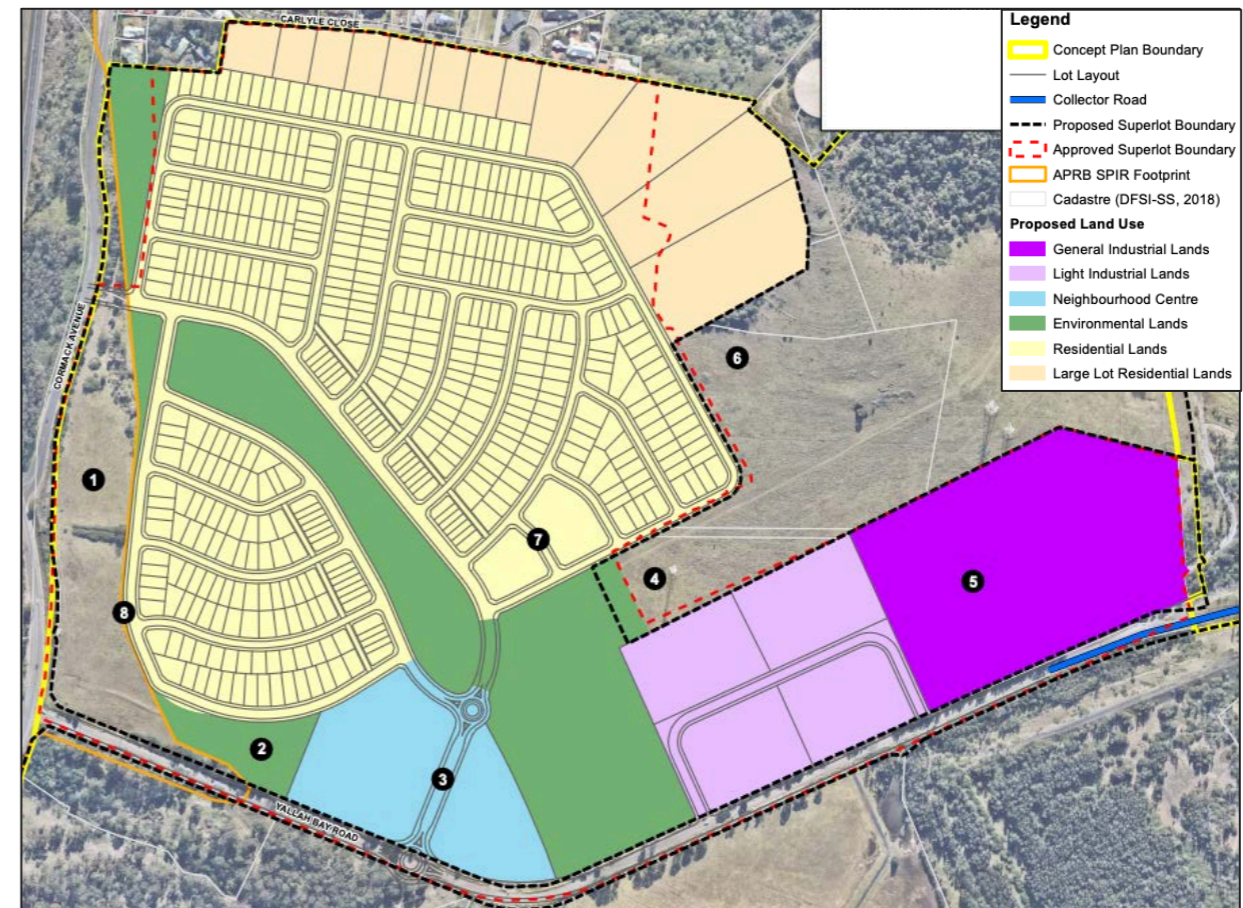


Figure 14 | Proposed layout of Central Precinct (Source: Addendum RTS)

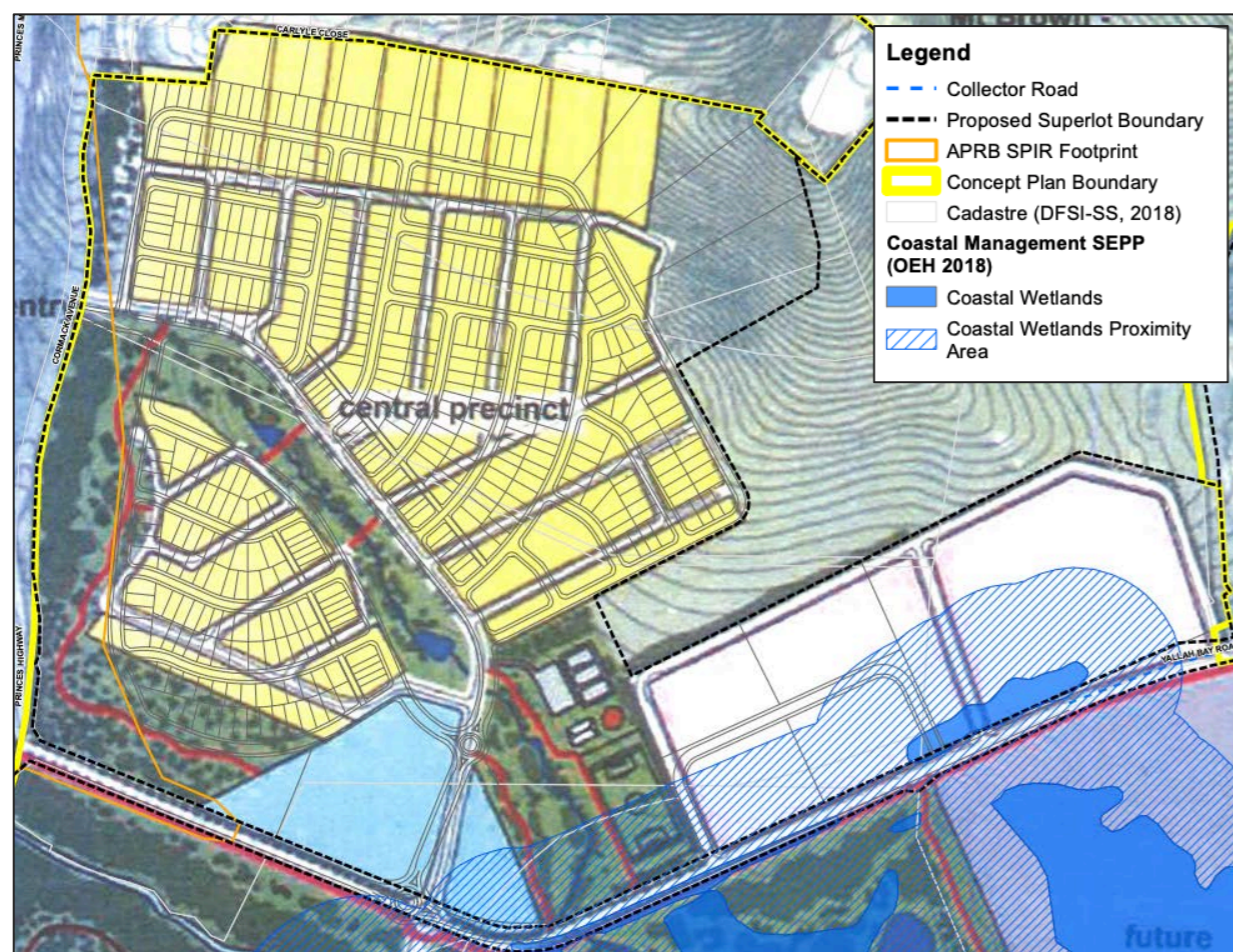


Figure 15 | Proposed layout over approved layout and coastal wetlands maps (Source: Addendum RTS)

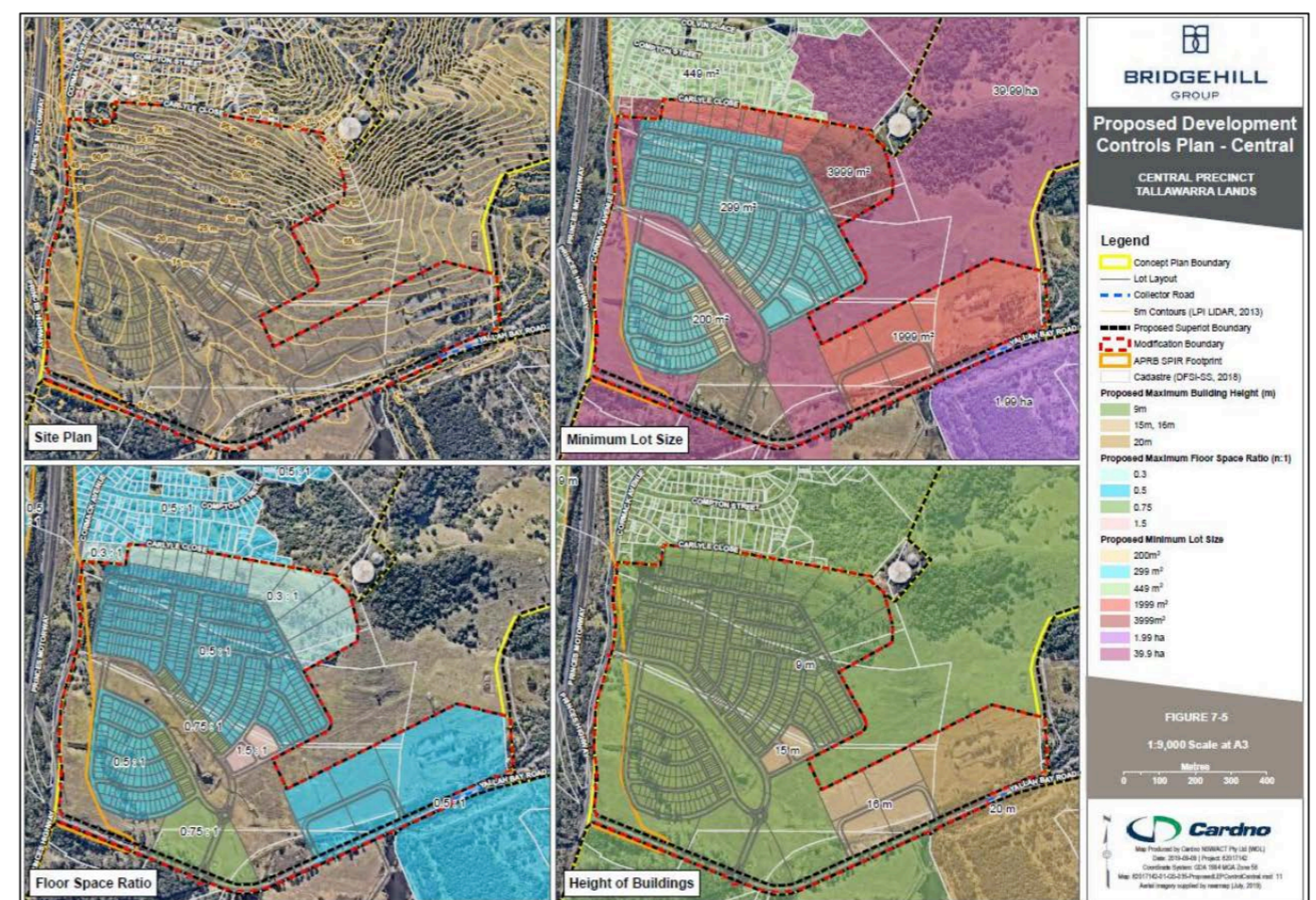


Figure 16 | Proposed lot size, FSR and height controls (Source: Addendum RTS)

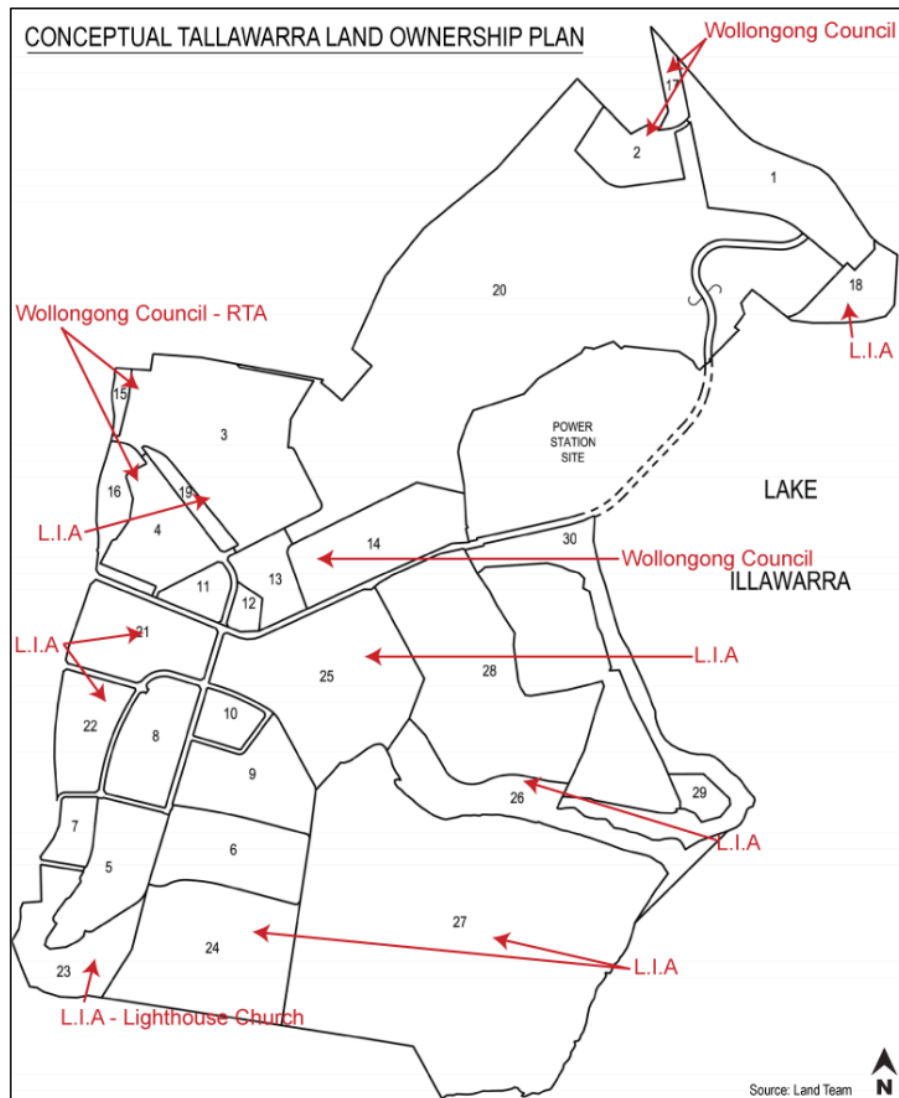


Figure 17 | Super lot subdivision under existing approval
(Source: MP09_0131EA)

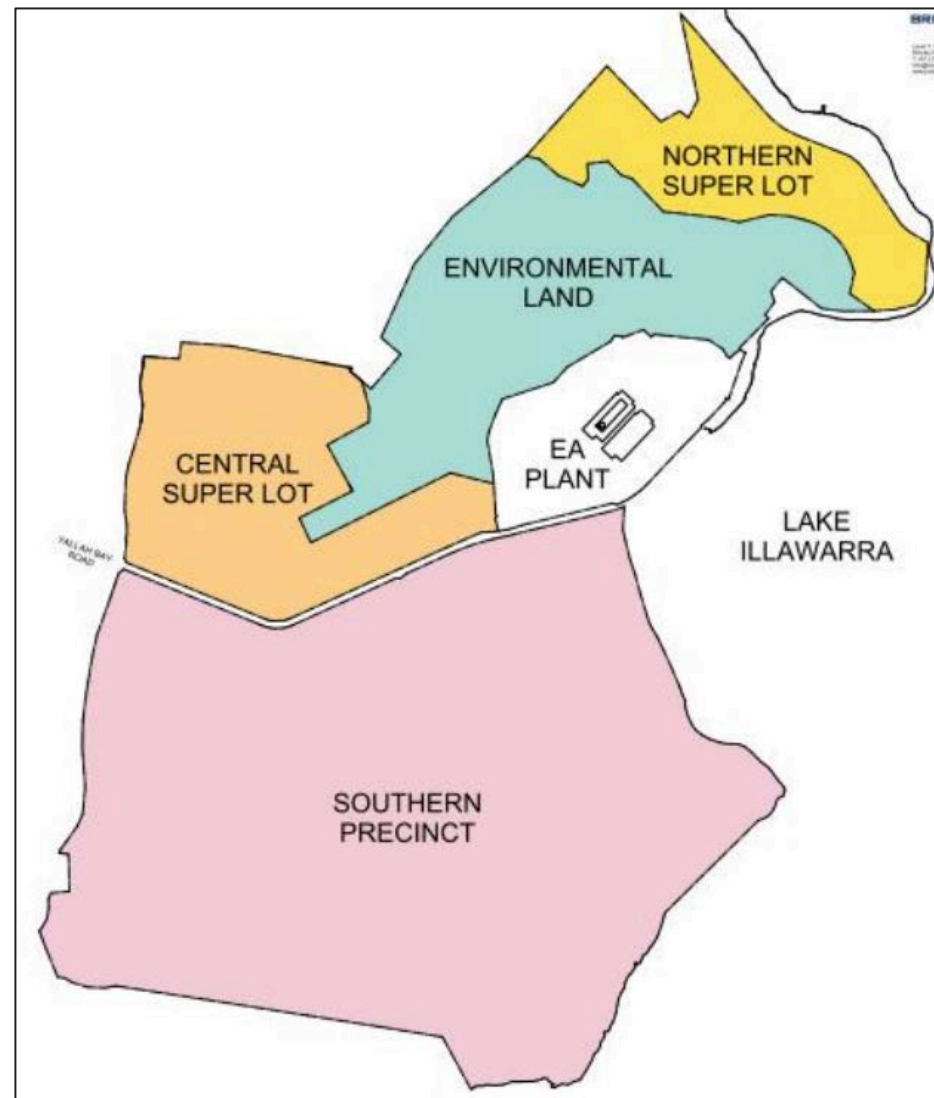


Figure 18 | Proposed super lot subdivision
(Source: Addendum RTS)

3 Strategic context

3.1 The Illawarra Shoalhaven Regional Plan 2036

The Illawarra Shoalhaven Regional Plan 2036 (Regional Plan) sets the planning priorities for the Kiama, Shellharbour, Shoalhaven and Wollongong LGAs and provides guidance for regional and local planning decisions. The Regional Plan seeks to drive economic growth in the region, focusing on the growth of a sustainable built environment, maximising development in both existing urban areas with access to jobs, services and transport and new urban areas designed to support sustainable and healthy communities.

The Regional Plan recognises the Tallawarra site as forming one of the major regional release areas essential for the delivery of long-term housing growth in the region.

The modification would enable the provision of additional dwellings to meet growing demand, deliver more diverse housing types and houses on a greater range of lot sizes and responds to changing homebuyer preferences. Future dwellings would be located in close proximity to a new neighbourhood centre be close to other centres and be consistent with the directions for housing supply outlined in the Regional Plan including:

- provide sufficient housing supply to suit the changing demands of the region (Direction 2.1)
- support housing opportunities close to existing services, jobs and infrastructure in the region's centres (Direction 2.2)
- deliver housing in new release areas best suited to build new communities, provide housing choice and avoid environmental impact (Direction 2.3)
- match the supply of housing with demand (Direction 2.5).

At the same time, the Regional Plan seeks to protect and enhance the natural environment by:

- focusing development in locations with capacity to absorb development (Direction 5.1)
- securing the health of coastal landscapes by managing land uses and water quality (Direction 5.2).

In this regard the Department considers the site is well suited to the provision of additional density. Being a greenfield site approved for urban development, but yet to be developed, there is considerable scope to design future stages to include appropriate infrastructure and mitigation measures to accommodate the additional density without unacceptable adverse amenity or environmental outcomes, including appropriate water quality outcomes to ensure the health of the coastal waterways including Lake Illawarra.

3.2 Draft Illawarra Shoalhaven Regional Plan 2041

The Draft Illawarra Shoalhaven Regional Plan 2041 (Draft Regional Plan) was exhibited in November 2020. The Draft Regional Plan continues to recognise the Tallawarra site as a major regional release area for housing. For the same reasons outlined in Section 3.1, the modification would be consistent with the draft objectives for the region, including:

- protect important environmental assets (Objective 11)
- provide housing supply in the right locations (Objective 18)

- deliver housing that is more diverse and affordable (Objective 19)
- respond to the changing needs of local neighbourhoods (Objective 21)
- embrace and respect the region's local character (Objective 22)

The Draft Regional Plan also identifies the Tallawarra Employment Lands as regional significant. The Department notes the proposal would not diminish employment generating uses on the site.

3.3 Wollongong Local Strategic Planning Statement (LSPS)

The Wollongong LSPS was finalised in June 2020. The LSPS indicates that over the next 20 years, the Wollongong population is estimated to grow by 47,000 persons, who will require an additional 23,800 dwellings.

The LSPS recognises Tallawarra as one of the key urban release areas that will contribute to the provision of housing stock in the LGA, estimated to provide 1000 dwellings towards the required 23,800. The modification would increase the number of dwellings provided in the Wollongong LGA, making a positive contribution to housing for the expected additional population growth.

The LSPS also recognises the importance of the site for the provision of employment generating uses. The Department notes the proposal would not diminish employment generating uses on the site.

4 Statutory context

4.1 Modification of the Minister's Approval

The concept plan was originally approved under Part 3A of the EP&A Act. This means the project satisfied the definition of a 'transitional Part 3A project' under clause 2(1) Schedule 2 to the Environmental Planning and Assessment (Savings, Transitional and Other Provisions) Regulation 2017 (STOP Regulation), which came into effect on 1 March 2018.

Under the ST&OP Regulation, the power to modify transitional Part 3A projects under section 75W of the Act, as in force immediately before its repeal on 1 October 2011 is being wound up. However, as the request for this modification (in the form for Secretary's Environmental Assessment Requirements (SEARs)) was made before the 'cut-off date' of 1 March 2018, the Part 3A provisions and specifically the power under section 75W to modify the approval continue to apply to the concept plan.

Consequently, this report has been prepared in accordance with the requirements of Part 3A and associated regulations, and the Minister (or his delegate) may approve or disapprove the carrying out of the project.

The Department is satisfied the proposed changes are within the scope of section 75W of the EP&A Act, and do not constitute a new application.

4.2 Secretary's Environmental Assessment Requirements

On 23 January 2017, the Secretary notified the Proponent of the SEARs for the section 75W modification request. The Department has reviewed the modification request against the SEARs and is satisfied that it adequately provides the information required in the SEARs to enable the assessment and determination of the request.

4.3 Approval authority

The Minister for Planning and Public Spaces is the consent authority for the modification request. However, the Executive Director, Regions, Industry and Key Sites, may determine the request, under delegation dated 9 March 2020, as:

- a political disclosure statement has not been received
- less than 50 submissions were received from the public objecting to the proposal.

4.4 Relevant matters for consideration

The following matters are relevant to the consideration of the modification request:

- relevant environmental planning instruments (EPIs)
- objects of the EP&A Act
- Ecologically Sustainable Development
- Environmental Planning and Assessment Regulation 2000.

Environmental Planning Instruments (EPIs)

The Department conducted a comprehensive assessment of the project against the relevant EPIs in its original assessment of MP09_0131. The Department has considered the modification request against the relevant EPIs that currently apply to the proposal (**Appendix E**), including:

- State Environmental Planning Policy (Infrastructure) 2007 (Infrastructure SEPP)
- State Environmental Planning Policy No. 55 - Remediation of Land
- Draft State Environmental Planning Policy (Remediation of Land)
- State Environmental Planning Policy No 14 – Wetlands
- State Environmental Planning Policy No 70 – Coastal Management
- Wollongong Local Environmental Plan (WLEP) 2009 (with regard to permissibility)

The proposal complies with the EPIs that apply to the assessment of the modification. However, the proposed modified Concept Approval would override some of the WLEP 2009 planning controls that would otherwise have applied to the assessment of future applications on the site including minimum lot size controls, building height and floor space ratio (FSR). This is discussed further in **Section 6.1**.

Objects of the EP&A Act

The objects of the EP&A Act are the underpinning principles upon which the assessment is conducted. The statutory powers in the EP&A Act (such as the power to grant approval) are to be understood as powers to advance the objects of the legislation, and limits on those powers are set by reference to those objects. Therefore, in making an assessment the objects should be considered to the extent they are relevant.

Consideration of the Objects of the EP&A Act, as they relate to the proposed modification, is provided at **Table 2**.

Table 2 | Response to the objects of section 1.3 of the EP&A Act

Objects of the EP&A Act	Consideration
(a) to promote the social and economic welfare of the community and a better environment by the proper management, development and conservation of the State's natural and other resources	The proposal seeks to maximise the use of the site and provides social and economic benefits by the delivery of increased housing supply and improvements to housing diversity and affordability. Appropriate future assessment requirements are recommended to ensure the proposal would not adversely impact on the State's natural or other resources.
(b) to facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment	The Precautionary and Inter-generational Equity Principles have been applied in the decision-making process by a thorough assessment of the environmental impacts of the project. Overall, the proposal is generally consistent with ESD principles noting the modification does not seek to change ESD initiatives and sustainability measures which will primarily be addressed as part of future development applications in accordance with the Sustainability Report approved by the Concept Plan. Ecological Impacts of the proposed modification have been considered in detail in Section 6.5 and subject to appropriate future assessment requirements, the Department is satisfied

	ecological impacts would be appropriately mitigated and offset as part of future Development Applications.
(c) to promote the orderly and economic use and development of land	The proposal involves the orderly and economic use of land through the utilisation of land already approved for urban development adjacent to a new local centre for the delivery of additional dwellings with good access to services and public transport.
(d) to promote the delivery and maintenance of affordable housing	Although the proposal doesn't specifically deliver affordable housing, the provision of additional dwellings on smaller lots will make a positive contribution to housing supply and affordability in the area.
(e) to protect the environment, including the conservation of threatened and other species of native animals and plants, ecological communities and their habitats	Environmental impacts are discussed in Section 6.5 . Subject to a recommended FEAR to ensure the modification does not result in unacceptable impacts to ecological communities, the Department is satisfied the proposal would not result in significant additional impacts and that ecological impacts would be appropriately mitigated and offset as part of future Development Applications
(f) to promote the sustainable management of built and cultural heritage (including Aboriginal cultural heritage)	Heritage Impacts are discussed in detail in Section 6.8 and 6.13 . The modification is considered unlikely to materially affect heritage values on the site, and subject to recommended FEARs, the Department is satisfied impacts to both Aboriginal heritage and European heritage would be appropriately assessed, minimised and mitigated as part of future applications.
(g) to promote good design and amenity of the built environment	The Department considers the proposal would not result in unacceptable built form impacts. The impact of the proposal with respect to design and built environment is discussed in Section 6.3 .
(h) to promote the proper construction and maintenance of buildings, including the protection of the health and safety of their occupants	N/A. No construction approved by the Concept Plan. Construction matters would be assessed as part of future development applications.
(i) to promote the sharing of the responsibility for environmental planning and assessment between the different levels of government in the State	The Department publicly exhibited the modification request, which included consultation with Council, State agencies and the public (Section 5) and consideration of their responses (Section 6).
(j) to provide increased opportunity for community participation in environmental planning and assessment.	The Department publicly exhibited the application as outlined in Section 5 .

Environmental Planning and Assessment Regulation 2000

Subject to any other references to compliance with the EP&A Regulation cited in this report, the relevant requirements for Notification and Fees have been complied with.

5 Engagement

5.1 Department's engagement

The Department publicly exhibited the modification request for 29 days between 26 June 2018 and 24 July 2018. The Department placed a public exhibition notice in the Illawarra Mercury on 25 June 2018. The request was made publicly available on the Department's website and exhibited at the Department's Sydney office, at Service NSW Centres and at Councils offices. The Department also provided written notice to the Councils, relevant State agencies, surrounding landholders and residents and previous submitters, inviting submissions in response to the modification request.

5.2 Summary of submissions

During the exhibition period, the Department received 33 submissions on the proposal. Of the submissions received, one was from the local council, eight were from Government agencies and 24 were members of the community (including five special interest groups). Of the public submissions received, 18 objected to the proposal, four provided comments and two supported the proposal.

A summary of the submissions is provided at **Table 3** below, and a link to all the submissions is provided in **Appendix A**.

Table 3 | Summary of Council, Agency, Special Interest Group and Community Submissions

Submitter	Number	Position
Council and Agencies		
Wollongong City Council	1	Initially Comment, then changed to Objection at RTS
Environment, Energy and Science Group (EESG) (former Office of Environment and Heritage)	1	Comment
Transport for NSW (including the former Roads and Maritime Services)	1	Comment
Crown Lands and Water, DPIE (former Department of Industry, Crown Lands and Water)	1	Comment
Heritage NSW, DPC	1	Comment
NSW Environment Protection Authority	1	Comment
Rural Fire Service	1	Comment
Sydney Water	1	Comment

Transgrid	1	No Comment
Special Interest Groups		
Lake Illawarra Estuary Management Committee	1	Object
Save Lake Illawarra Action Group	1	Object
National Parks Association of NSW	1	Comment
Illawarra Birders, Inc	1	Object
Housing Trust	1	Support
Community Members		
< 5 km	15	Object
	3	Comment
	1	Support
5–100 km	2	Object
> 100 km	0	
Total submissions	33	

5.3 Key issues raised in Council and Agency Submissions

Key issues raised by Council and Government Agencies are summarised in **Table 4**.

Table 4 | Summary of Council and Government Agency submissions on the EIS exhibition

Wollongong City Council (Council)

Council did not object to the proposal but raised the following issues and recommendations:

Planning

- the increased residential density and footprint is inconsistent with the strategic land use strategy for the site, which is to enable delivery of current and future power generation needs and employment generation. Residential development should not be permitted where it may impact on the ability of these land uses to operate
- proposed building heights of 15m are inconsistent with the surrounding strategic planning setting and could result in adverse visual impacts
- the reduced buffer between the residential and industrial areas is too small.

Traffic

- updated details are required to demonstrate that road connections between the northern and central precinct are retained and included in the early delivery of infrastructure

Environment

- the additional clearing of native vegetation is not supported and is inconsistent with the original strategy for the site. Clarification as to whether the proposed clearing of Critically Endangered Ecological Communities needs to be referred to the Commonwealth Department of

Environment for potential significant impacts on a Matter of National Environmental Significance is required

- concerns with acoustic impacts to dwellings in the Northern Precinct, as they would experience noise levels of 45-50 dB(A).
- Council advised it does not have concerns in relation to the proposed change from IN1 to IN2 land uses of the proposed changes to contamination management.

Landscaping

- improvements to landscaping details are required, including additional open space / facilities in the Northern Precinct, provision of street trees, inclusion of existing retained vegetation shown on the plans, space for tree protection and asset protection zones, equitable access in the landscaping design, improvements to site linkages, improvements to sports field / activity space and improvements to roundabout design, street furniture and lighting

Open space and recreational and community facilities

- additional information is required as to whether additional open space and recreation and community facilities are required due to additional residential density
- the proposed sports field is considered too small and may not work in its location given the context of the creek line and adjacent industrial uses
- Multi-use courts may be more appropriate than the proposed netball courts

Visual impacts

- an updated Visual Assessment prepared by a suitably qualified professional should be provided.

Social impacts

- a Social Impact Assessment prepared by a suitably qualified professional should be provided

Flooding and stormwater

- the modification locates the roadway and industrial lots within areas of high flood risk and high hydraulic risk. These roads should be redesigned to be located outside of these areas
- more information is required in relation to overland flow paths in the northern precinct, the design of paths in watercourse areas, and PMF flood modelling

Heritage

- the modification results in an expansion of potential heritage impacts. Amendments and further information are required to ensure protection of various heritage items and Aboriginal sites.
- comments from OEH should be sought in relation to Aboriginal Heritage Impacts
- Council questions the assumptions and conclusions of the Heritage Impact Assessment Report and considers the report should be amended to reflect the historical records to ensure matters are properly considered.

Affordable housing

- the residential component should have a suitable percentage of affordable housing.

Environment, Energy and Science Group, DPIE (EESG) (then NSW Office of Environment and Heritage)

EESG (formerly NSW Office of Environment and Heritage) does not object to the proposal but provided the following comments and recommendations:

- additional archaeological test excavation and Aboriginal community consultation is required to better inform the impact of the development on Aboriginal heritage. An Aboriginal heritage

impact permit (AHIP) will be required for both the archaeological test excavation and the proposed development works

- the rationale for reducing the quantum of E3 zoned lands should be provided and mechanisms for future management and ownership of public open space and environmental lands should be provided
- the potential for environmental lands not already secured to be managed as a Biodiversity Stewardship Agreement (BSA) site should be considered
- the extent of additional clearing proposed by the modification, particularly in areas affecting threatened ecological communities, should be quantified to determine the full extent of impacts above and beyond the approved Concept Plan layout. An indication of the likely staging and therefore the estimated offsets required for each development application stage would also be beneficial
- the Commonwealth Government should be consulted regarding impacts upon Illawarra Lowlands Grassy Woodland and Swamp Oak Floodplain Forest threatened ecological communities, which were recently listed as critically endangered and endangered respectively under the Environment Protection and Biodiversity Conservation (EPBC) Act 1999
- further assessment of water quality impacts should be undertaken to determine how the proposed development densities and boundaries, as modified, will influence the water quality of receiving waters and estuary health of Lake Illawarra.
- further information on flood plain risk management is required to demonstrate the impact of flooding on safety including issues linked with isolation and access up to the PMF and impacts of increased peak flows on flooding, erosion and sedimentation and mitigation measures.

Transport for NSW (TfNSW) (including the former Roads and Maritime Services)

TfNSW does not object to the proposal and provided the following comments and recommendations:

- The increased residential yield may generate additional demand for public transport and further planning work needs to be undertaken with public transport providers to maximise public transport uptake. Options for extending existing routes to nearby centres requires further investigation and TfNSW recommends the north-south link to Howards Bay should be retained.
- A cycleway should also be included on the north-south and east-west collector roads.
- Satisfactory arrangements for contributions to the provision of state infrastructure must be achieved prior to determination
- The street network layout needs to be designed to have adequate reservation space to accommodate potential bus services and infrastructure

The former Road and Maritime Services (now TfNSW) does not object to the proposal and provided the following comments and recommendations:

- it is unclear if the proposed road and lot layout has been designed having regard to the required road boundaries for the adjoining Albion Park Rail Bypass project (APRB). Plans should be updated to clearly show the new boundary with the Albion Park rail bypass project.
 - concerns are raised with the traffic impact assessment, particularly with regard to:
 - documentation of predicted traffic volume changes
 - assessment of traffic impacts from indirect employment generated by the development
 - calculation of employment numbers
-

- adverse impacts to the functioning of the intersection of the M1 off ramp with the Princess Highway and therefore details of upgrades to the intersection to mitigate these impacts should be provided as part of the modification.
- impacts to other intersections (Princess Highway / Yallah Bay Road and Princess Highway / Cormack Avenue) and details of any improvements required as part of this modification to address impacts.
- Further details are required to demonstrate how the proposal will meet noise mitigation requirements for development adjacent to busy roads, as required by State Environmental Planning Policy (Infrastructure) 2007.
- Open Space / Landscape Plans need to be amended to delete the land at the western edge of the site which is road reserve for the adjoining bypass and should not be shown as open space.
- It is vital to retain connectivity within the development and to Haywards Bay as approved to minimise local trips on the state road network and maximise alternative transport options. RMS does not accept the Proponent's position that the road corridor to Haywards Bay would not be feasible until such time as the Lakeside precinct is developed.
- No objection is raised to the proposed modifications to conditions 15 and 16 to amend the timing for the design of a roundabout at Princess Highway / Yallah Bay Road and the design of the Cormack Avenue Road closure.
- No objection is raised to the proposed modification to Condition 25 modifying the timing for satisfactory arrangements for the provision of state public infrastructure, subject to the land required for the Albion Park Rail Bypass project being identified as a separate lot on any super lot subdivision.

Crown Lands and Water, DPIE (former Department of Industry including Crown Lands and Water)

Crown Lands and Water (former Department of Industry – Crown Lands and Water) does not object to the proposal and provided the following comments and recommendations:

- any approval should include clear stormwater quality targets to ensure the water quality of Lake Illawarra and include requirements for auditing during construction and long term stormwater quality monitoring.
- the development must not impose a liability on the Crown through the use of Crown Land to meet requirements for open space, conservation areas, foreshore access. In this regard the landscape drawing shows jetties fronting crown land with pedestrian footpaths leading to the jetties is not supported.
- use of Crown land for stormwater management is also not supported and this aspect should be removed from the drainage assessment.
- further evidence should be provided of the source of heavy metals found in the soil on the site and the impact on groundwater.
- recommends conditions in relation to groundwater intercepted during construction and changes to the agency title in the approval instrument.

Heritage NSW, DPC (former Office of Environment and Heritage)

Heritage NSW confirmed the site is not affected by any State Heritage listings, and while it supports the conclusions of the Heritage Impact Assessment with regard to European Heritage, close consultation with the local Council is recommended to mitigate impacts to local heritage items.

NSW Environment Protection Authority (EPA)

The EPA advised:

- it did not support the proposed modification of Condition 12, relating to timing of verification of site suitability based on contamination assessments, as the existing timing requirements are appropriate and there is no benefit to delaying the requirements.
- it did not support the proposed residential encroachments into the buffer zones around the Tallawarra Power Stations due to the noise impacts.
- the Noise Impact Assessment should address low frequency noise from the Power Station and include clarification of the required buffer zones and mitigation measures.

Rural Fire Service (RFS)

- RFS does not object to the proposal subject to the design being amended to provide a perimeter road around all residential lots. In the northern precinct, a perimeter road between the residential lots and adjoining land is only required if there is no plan of management for the adjacent land.
- Future DAs will also need to demonstrate compliance with relevant bush fire safety requirements which may require further amendment to the Concept Plan.

Sydney Water

- Sydney Water advises development will require additional trunk infrastructure including a wastewater pumping station and the developer should contact Sydney Water to discuss provision of servicing to the site. The applicant is advised to make an early application for a Section 73 compliance certificate as construction of water pipes may take some time.

Transgrid

Transgrid does not object to the proposal as it does not affect their infrastructure.

5.4 Key issues raised in Public Submissions

A total of 24 public submissions were received, of which 18 objected to the proposal, 4 provided comments and 2 support the proposal. The key issues raised in submissions are summarised in **Table 5**.

Table 5 | Issues raised in Public Submissions

Issue	% of Submissions
Biodiversity and Environment	63
Traffic and Access	54
Reduction in green space	38
Stormwater impacts	38
Density and small lot size	38
Visual and view impacts	25
Road design / footpaths	16
Noise exposure	16
Impacts to birds	16

Other issues raised related to geotechnical impacts, affordable housing provision, aboriginal heritage impacts and impacts to existing infrastructure.

5.5 Response to Submissions

Following exhibition, the Department placed all submissions on its website and requested the Proponent provide a response to the issues raised in submissions.

On 27 October 2018, the Proponent provided a Response to Submissions (RtS) which was updated on 29 March and 14 May 2019 (**Appendix A**). The RtS provided additional information and justification for the proposal and made the following changes to the exhibited project:

- reduction in the extent of the proposed increase in residential footprints in both the Northern and Central Precincts and reduction in the total number of residential lots from 1480 originally proposed to 1310.
- provision of additional open space within the Northern Precinct for both passive and active recreational use
- other changes to land uses in the Central Precinct including:
 - reinstatement of an open space buffer between residential and industrial lands
 - removal of land allocated for road reserve associated with the Princes Highway upgrade
 - a reduction in the size of the proposed Neighbourhood centre
 - retention of general industrial lands

rather than conversion to light industrial as originally proposed

- modifications to the indicative layout of the open space and community facilities.

The RtS also provided additional information in relation to traffic impacts, noise impacts, flood impacts, stormwater management, biodiversity, heritage, and visual impacts

The Department made the RtS publicly available on the website and notified the Councils and relevant Government agencies of the RtS. An additional seven submissions were received from public authorities. Copies of the submissions may be viewed at **Appendix A**

A summary of the issues raised in the submissions on the RtS is provided in **Table 6** below.

Table 6 | Summary of Council, Government Agency and Public Submissions to the RtS.

Council
<p>Council advised it does not support the modification request and made the following comments:</p> <ul style="list-style-type: none"> whilst the number of additional lots has dropped, the proposal still results in an almost 30% increase in residential development which is inconsistent with the strategic land use strategy for the site where the primary focus was on employment lands. Residential development should not be permitted where it may impact on the ability to provide industrial or employment lands. In this regard the buffer between the residential and industrial areas should be located in the residential zone so as not to reduce the provision of industrial land Council does not support proposed changes to conditions 11 and 12 relating to contamination investigations and suggests alternative timings for the satisfaction of the condition requirements the Haywards Bay road link should be provided, as the increased traffic yield scenarios have been modelled with the link in place RMS will need to monitor development progress to ensure adequate capacity on the main road network, with regard to the M1 Dapto off-ramp and Stage 3 (Northern Interchange) of the Albion Park Rail Bypass the Heritage Assessment should be amended to reflect additional historical records available to ensure the conclusions made about potential archaeological sites are properly considered the proposal results in an expansion of potential heritage impacts inconsistent with the aims of earlier considerations and therefore is not supported on heritage grounds further archaeological testing is required to consider the impacts of the proposal before finalisation of the Concept Plan modification A Fig Tree recognised as having Aboriginal heritage significance should be retained and protected under the approval, and separate approval under the <i>National Parks and Wildlife Act 1974</i> should be sought for impacts to other known Aboriginal Sites A Heritage Management Plan and Heritage Interpretation Plan should be developed for the site the modification locates the roadway and industrial lots within the location of the existing watercourse and should be redesigned so that roads and lots are located outside of these areas adequate justification has not been provided for the proposed reduction in open space and environmental lands in the central precinct. Given the significant increase in lot yield, open space should not be decreased without a proper social impact assessment. The modification now proposes to remove the sports field, and this is not supported recommendations for improvements to the open space areas in both precincts were provided updated photomontages illustrate that roofs of dwellings in the northern precinct would be visible over the ridgeline and maximum roof heights should be amended so that they do not exceed the ridgeline.

EESG

EESG raised the following concerns:

- the RtS does not address concerns in relation to flood management, particularly in relation to access for emergency services or potential impacts of increased flows arising from the modification
- the RtS does not address how the proposal would impact the water quality of receiving waters and estuary health of Lake Illawarra
- the RtS has not provided the additional archaeological test excavation as previously recommended and therefore the full impact of the proposal on Aboriginal heritage can't be properly assessed
- the Proponent should respond to comments regarding open space conservation and associated Aboriginal Heritage Values, address conservation of a culturally significant Fig Tree and provide an Aboriginal Heritage Management Plan
- biodiversity issues raised in OEH's original submission have not been addressed in the RtS

Crown Lands and Water, DPIE

Crown Lands and Water (former Department of Industry – Crown Lands, Water and Fisheries) provided the following comments and recommendations:

- conditions in relation to groundwater management and contamination are recommended
- the water quality analysis needs to be updated to compare the approved development against the existing site and provide an analysis of the likely impacts for the health of Lake Illawarra.
- water quality targets should be adjusted to ensure a neutral or beneficial effect on water quality
- long term stormwater quality monitoring is supported and the monitoring program should be developed prior to commencement of any on-ground works, should include comparison sites upstream / outside the area and include independent auditing
- reiterates that foreshore land is not public open space and all references to this area as being for open space or recreational purposes should be removed. Jetties, paths and tree planting shown on the plans in this area should be removed.

Transport for NSW (TfNSW) (including the former Roads and Maritime Services)

TfNSW provided the following comments and recommendations:

- address bus servicing, in consultation with the local bus operator
- demonstrate that road reserve widths allow for adequate provision for foot, shared paths and cycleways (including cycleways on the north-south and east-west collector roads)
- demonstrate road designs are consistent with the 'Guidelines for Public Transport Capable Infrastructure in Greenfield Sites'.

TfNSW (RMS) advises it still has concerns with the proposal:

- some of the previous concerns raised about traffic modelling have not been addressed
- there are outstanding concerns with the intersection performance on the Princes Highway and the new roundabout is required to be signalised in order to achieve satisfactory levels of service

- the Hayward Bay link should not be deferred until the Southern Precinct is developed and should be provided prior to completion of the neighborhood center land and industrial land in the Central Precinct
- consideration should be given to provision of noise walls to mitigate noise impacts from the motorway (which is superior to individual treatments to dwellings)
- notes the land required for the APRB is now shown separately on the plans and recommends conditions clarifying that a separate lot is to be created as part of the super lot subdivision application and that no works associated with the development may occur within the APRB land

EPA

- the EPA advises the RtS addresses its previous concerns with respect to noise and has recommended approaches to better promote noise outcomes as part of future applications
- with respect to contamination, the EPA set out the outstanding contamination assessment requirements and has requested that any rewording of conditions 11 or 12 reflect the process as set out by the EPA.

Sydney Water

- Sydney Water advises 475 lots or dwellings in the Northern Precinct could be serviced by the existing wastewater system, with a local pipe extension provided by the developer. Delivery of infrastructure to the Southern and Central Precincts has been postponed and will require additional trunk infrastructure.

RFS

- RFS advised its previous comments remain applicable.

5.6 Addendum Response to Submissions & Further Information

On 12 November 2019, the Proponent provided an Addendum Response to Submissions (Addendum RTS) (**Appendix A**). The Addendum RtS provided additional information and justification for the proposal and made the following changes to the project:

- further reduction in the total number of residential lots from 1310 proposed in the RtS to 1257
- minor adjustments to the boundaries of the Central and Northern Precincts, including exclusion of an Aboriginal site from the Central Precinct
- reinstatement of approved commercial, open space and industrial lands layout in the southern part of the Central Precinct.
- changes to proposed FSR and height controls to remove potential large residential flat buildings from the northern precinct and enable provision of residential flat buildings on two sites in the Central Precinct
- inclusion of a new super-lot subdivision plan to create four lots (replacing approved plan for 30+ lots)

- modifications to other future assessment requirements and statements of commitments to facilitate separate development of the precincts.

The Addendum RtS also provided additional information in relation to heritage, water quality, traffic and road upgrades and bushfire.

On 25 June 2020 the Proponent provided a completed Archaeological Assessment and Aboriginal Cultural Heritage Management Plan for the Northern Precinct. On 31 July 2020, the Proponent provided a further response to outstanding concerns from Heritage NSW. On 31 August 2020, the Proponent requested a further change to the contamination conditions.

The Department made the Addendum RtS publicly available on the website and notified the Councils and relevant Government agencies of the RtS. The Archaeological Assessment and Aboriginal Cultural Heritage Management Plan were also referred to Heritage NSW. The requested change to contamination conditions was referred to the EPA. Council and agency submissions may be viewed at **Appendix A**. A summary of the relevant responses is provided in **Table 7**.

Table 7 | Summary of Council, Government Agency and Public Submissions to the Addendum RtS and Additional Information.

Council

Council provided the following comments:

- reiterated the modification would result in residential development becoming the primary focus, in place of infrastructure and the delivery of employment lands
- the modification would delay addressing significant environmental issues that exist in the Southern Precinct for an indeterminate period of time, if at all
- Council does not support changes to conditions in relation to the first future application and contamination and considers matters should be considered holistically and without delay to the Southern Precinct. Similarly, while it may be possible to split the cultural heritage management plan, a holistic approach to management of cultural heritage across the site should be taken
- future applications should address PMF flood modelling, overland flows in the northern precinct to ensure discharge replicates predevelopment outcome and appropriate design of shared paths in watercourses
- the modification should include a requirement for the provision of the Haywards Bay link road
- Council does not support the relocation of the culturally significant Fig Tree and is concerned the modification results in an expansion of potential heritage impacts into areas higher on the development site. Any works should be undertaken in accordance with the recommendations of the Archaeological Reports prepared in 2017 and a heritage interpretation plan should be required.
- the provision of open space should be based on a needs assessment, well distributed and split between active and passive recreation areas and reflect Council's urban Greening Strategy. Facilities are absent from the Northern Precinct and pocket parks are to be developed within the residential subdivisions
- Open space facilities should be designed to meet recreational needs and stormwater management requirements.
- suggested improvements include a link to Hector Harvey Park, habitat development on land off Malonga Place, design of sports fields to consider solar orientation and wind impacts, further

consideration given to street design and provision of trees and pathways and retention of existing vegetation and equality of access in landscape design

- previous concerns in relation to the visual impact of the development remain outstanding.

EESG

EESG raised the following concerns:

- archaeological test excavations are still outstanding and should be provided for consideration prior to determination of the modification
- the proposal to provide the Cultural Heritage Management Plan in two parts is acceptable subject to flexibility to adjust the final design to avoid harm to Aboriginal heritage and possibly include the Fig Tree and other sites
- previous matters raised in relation to biodiversity and offsets have still not been addressed
- previous matters raised in relation to isolation and accessibility during major flood events have still not been addressed. The Department should therefore liaise with Council, SES and consider Council's Flood Access Strategy to ensure that risks to public safety have been considered.
- while the Water Quality Assessment has not been prepared strictly in accordance with the Risk Based Framework as previously requested, it has demonstrated that Council's DCP water quality targets are able to be met.

Following submission of the additional information in relation to Aboriginal heritage, EESG advised that responsibility for Aboriginal Heritage has been transferred to Heritage NSW.

Crown Lands, DPIE

- Crown Lands reiterated earlier advice that upgrades to the foreshore lands, such as for open space to support private developments will not be supported and advised that references in the documentation to the 'Lake Illawarra Authority' or 'Lake Illawarra Foreshore Authority' should be replaced with 'DPIE – Crown Lands'.

TfNSW

TfNSW provided the following comments:

- the approval must reference the RTS and Addendum RTS with associated documentation
 - the super lot subdivision plan does not show the creation of the separate lot for the APRB and this should be included as a requirement on the approval
 - the proposed super lot subdivision has the potential to complicate State Infrastructure Contribution negotiations and DPIE should ensure that no additional subdivision or development beyond the first subdivision can occur until satisfactory arrangements have been made
 - no objection is raised to defer timing of the design of the closure of Cormack Avenue subject to works being completed prior to issue of the first subdivision certificate for creation of residential lots.
 - reiterated the developer will be responsible for noise mitigation measures on its site and no other works (other than intersection works required under the approval) may encroach onto APRB land.
-

-
- the approval must ensure the Haywards Bay link Road is retained and the modification must not result in preclusion of the delivery of the link road in accordance with existing conditions and commitments under the Concept Plan Approval.
 - the design of the Yallah Bay Road / Princes Highway intersection must align with the approved design of the ARPB
 - Haywards Bay link should not be deferred until the Southern Precinct is developed, but provided prior to completion of the neighbourhood centre land and industrial land in the Central Precinct
 - consideration should be given to provision of noise walls to mitigate noise impacts from the motorway (which is superior to individual treatments to dwellings).
 - notes the land required for the APRB is now shown separately on the plans and recommends conditions clarifying that a separate lot is to be created as part of the super lot subdivision application and that no works associated with the development may occur within the APRB land

NSW Environment Protection Authority (EPA)

The EPA initially advised that in relation to contamination conditions, it does not object to the revised proposed wording of condition 11 and accepts the wording of condition 12, subject to a minor amendment.

The EPA subsequently advised it has no concerns with some further requested amendments from the Proponent to clarify the type of works that would be affected by the conditions.

Fisheries, DPI

Fisheries advise that final stormwater treatment measures must be designed to 'improve' targets for the risk-based framework for waterway health outcomes and must be improved when measured against existing discharges from the site (not discharges of the proposed development without water treatment measures).

6 Assessment

The Department has considered the modification request, issues raised in submissions and the Proponent's RtS, Addendum RtS and further information in its assessment of the application. The Department considers the key issues associated with the proposal are:

- density
- separate owners and development
- precinct character, built form and visual impacts
- traffic and roads
- natural environment and biodiversity
- water impacts and stormwater management
- flooding
- Aboriginal heritage impacts
- open space
- acoustic impacts
- State public infrastructure
- contamination.

Each of these issues is discussed in the following sections of the report. Other issues considered in the assessment of the application are discussed at **Section 6.13**.

6.1 Density

The proposal, as amended by the Addendum RtS, seeks to increase the number of residential lots that can be developed on the site from 1010 to 1257. The proposed additional 247 lots include approximately 83 additional lots in the Northern Precinct and 164 additional lots in the Central Precinct (with final lot distribution to be determined as part of future DAs).

This is to be achieved by a combination of an expansion of the urban residential footprints and an increase in density of development within those footprints by introducing new controls into the Concept Approval which would override otherwise applicable WLEP 2009 controls. This would have the effect of reducing minimum lot sizes and in some locations, increasing the applicable FSR and building heights.

Proposed changes to the residential densities are set out in **Table 2** and proposed changes to the residential footprints are shown in **Figure 8**.

The Proponent advises the additional density and expansion of the urban footprint is sought to enable the developer to respond to the change in housing trends and increased demand in the urban housing market since the original Concept Plan approval in 2013, noting there is now a greater demand for a range of housing types and sizes, including a higher demand for small lot housing, medium and higher density development.

Concerns were raised in submissions about the potential impact of additional lots and increased density on streetscapes, traffic, parking, noise exposure, demand for open space, stormwater runoff

and water quality impacts to Lake Illawarra, geotechnical impacts on steep sloping parts of the site, adverse visual impacts, potential heritage impacts and loss of E3 Environment Management Land.

However, since the modification was first advertised, the extent of the proposed increase to residential densities has been reduced from 470 additional lots originally proposed (47% increase across the entire Concept Plan site) to 247 additional lots now sought (24% increase). The extent of the associated impacts would therefore be less significant than impacts identified at the time of the submissions.

Council also advised that it considers the proposed increased residential density and footprint would be inconsistent with the strategic land use strategy for the site which is to enable delivery of power generation needs and employment generation, as the proposed modification may result in residential development becoming the primary focus of the site, rather than employment generation.

In considering the proposed changes to density, the Department notes that although the planning controls under WLEP 2009 envisage a less dense form of development on the site, the LEP controls do not apply to the assessment of applications under the former Part 3A of the EP&A Act. Therefore, the proposed modifications, which vary from the LEP, are required to be assessed on merit.

The Department has considered the proposed modification against current regional and local strategic planning objectives (**Section 3**). The Department is satisfied that the proposal aligns with current applicable strategic planning objectives, which seek to promote delivery of housing, particularly in new release areas or close to new local centres, to ensure a greater diversity of housing types and to match housing supply with growing population demand and changing market demands. The Department also considers the site is well suited to the provision of additional density. Being a greenfield site approved for urban development, but yet to be developed, there is considerable scope to design future stages to include appropriate infrastructure and mitigation measures to accommodate the additional density without unacceptable adverse amenity or environmental outcomes.

With regard to Council concerns on the strategic land use strategy for the site, the Department notes that the proposed modification does not seek to reduce the provision of land for employment generating purposes and would not affect the operations of the adjoining Tallawarra Power Station and therefore would not affect delivery of power generation needs or employment generation.

The Department has considered the concerns associated with the increased density raised in the submissions, including subdivision character, built form outcomes and visual impacts (**Section 6.3**), traffic impacts (**Section 6.4**), environmental impacts and loss of environmental management land (**Section 6.5**), water management impacts (**section 6.6**), open space provision (**Section 6.9**), heritage impacts (**Section 6.8 and Section 6.13**) and geotechnical impacts (**Section 6.13**). The Department's assessment has found that each issue is able to be satisfactorily addressed subject to some modifications and appropriate future environmental assessment requirements (FEARs) and conditions so that no unacceptable impacts are likely to arise. On this basis the Department considers the site can support the proposed density.

Finally, the Department also notes that a number of recommendations within this report and associated recommended changes to conditions and FEARs could result in changes to the final subdivision layout that may reduce the number of lots able to be delivered to less than 1257. These include widening of road reserves and realignment of the subdivision layout to address environmental constraints and possible noise mitigation and bushfire safety requirements as part of future applications (refer to discussions in **Sections 6.4, 6.5, 6.10 and 6.13** respectively). However subject

to these changes, given the significant strategic benefits of the proposal, the proposed increase in density is supported and is considered to be in the public interest.

6.2 Separate ownership and development

The Concept Plan as approved envisaged the development of the site to be carried out by one developer, with major environmental works and the delivery of infrastructure to be resolved prior to subdivision or any development on the site.

The proposed modifications seek to change the super lot subdivision arrangements (see **Figures 17** and **18**) and the timing and responsibility for various requirements under the approval. The modification seeks to enable the Northern and Central Precincts to be developed in advance of and independently of the Southern Precinct, noting the Southern Precinct will be under separate ownership, has more significant contamination issues and a delayed development timeframe.

There would be two landowners on the site following the first super lot subdivision application (**Figure 19**) each with different responsibilities and timing requirements for resolution of outstanding matters in the approval.

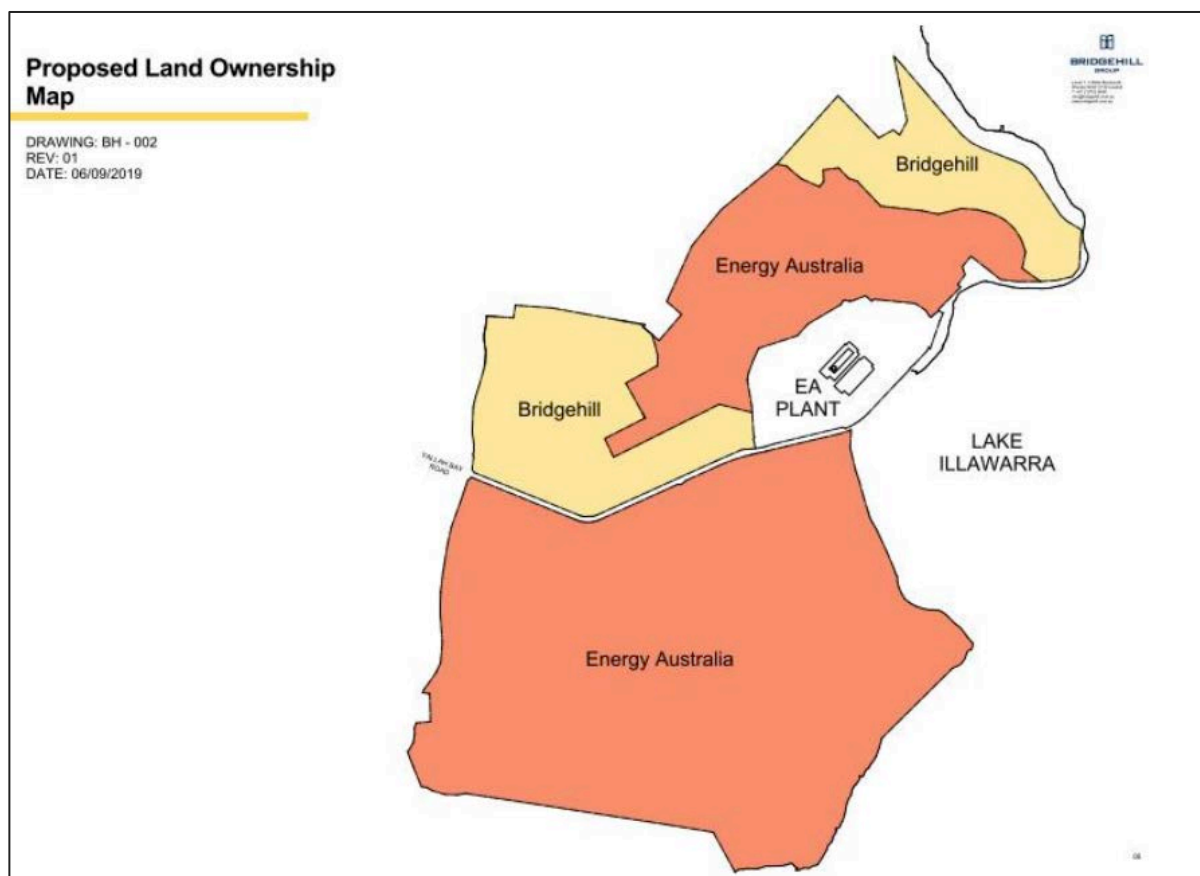


Figure 19 | Proposed land ownership arrangements following super lot subdivision. (Source: Addendum RtS)

Council has advised it does not support the proposed modifications as it removes surety that the desired environmental outcomes for the overall site will be achieved and enables delay in addressing the significant environmental issues in the Southern Precinct indefinitely, if at all.

The Department considers that the outstanding contamination and environmental issues within the Southern Precinct, which is a distinct separate area of land physically separated from the remainder of the site by Yallah Bay Road and located below the other areas of the site, generally do not require resolution to enable the development of the Northern and Central Precincts to proceed. Rather, there is merit in enabling the Northern and Central Precincts to progress in a timely manner to provide important residential and employment generating land consistent with regional and local strategic planning objectives and the intention of the Concept Approval, rather than being delayed indefinitely or potentially never being developed.

However, the Department notes there are some interrelationships between development and mitigation measures on each site. These mostly affect the remaining Energy Australia site north of Yallah Bay Road but may potentially also affect provision of a connecting road through the Southern Precinct. The modification is therefore supported, subject to appropriate mechanisms to ensure separation of the sites would not result in adverse consequences due to the interrelationships between development and mitigation measures on each site. These measures have been considered throughout the report including:

- the interrelationships of required road infrastructure to support development (**Section 6.4**)
- the interrelationships of vegetation management and offset requirements to support development (**Section 6.5**)
- satisfactory arrangements for the provision of State public infrastructure (**Section 6.11**)
- resolution of contamination issues (**Section 6.12**)

In each case the Department has recommended FEARs that would allow development of the Northern and Central Precincts to progress without compromising the requirements for infrastructure delivery and environmental mitigation measures required to support development of those precincts.

6.3 Precinct Character, Built Forms and Visual Impacts

Precinct character and small lot housing

Concerns were raised in public submissions that the proposed changes, particularly the reduction in lot sizes, would result in adverse outcomes for the character of the development. Key concerns related to:

- that smaller / higher density lots are inappropriate for the area
- a lack of urban greening due to reduced outdoor space in lots and areas available for tree planting
- less room for parking on sites resulting in more vehicles on the street
- proposed narrow streets, resulting in conflict in provision of adequate space for street trees, footpaths, on-street parking and water sensitive urban design stormwater measures

Council advised a diversity in lot sizes to facilitate a mix of housing sites across the development can be considered, but raised concerns with the proposed increase in height of some residential flat building lots in the Northern Precinct, that street trees were not indicated on the plans and the need to ensure roads are of sufficient width to accommodate street trees in conjunction with utilities and pathways.

The Department considers that given there is no established character as the site is yet to be developed, the site can support the proposed change to smaller lots, including the smaller terrace style housing lots. The Department considers smaller lot style housing could be provided without unacceptable outcomes, subject to controls to ensure future development on these small sites would achieve good levels of internal amenity, good streetscape and good environmental outcomes, and subject to appropriate future road design, including street trees.

With regard to future dwelling design, the Department notes that for many lots within the precincts, future built forms are likely to be guided by the Greenfield Housing Code under *State Environmental Planning Policy (Exempt and Complying Development Codes) 2008* which applies to the R2 Low Density Residential zoned land on the site and provides guidance for development on lots as small as 200m². The Department considers this will result in appropriate built form outcomes, consistent with planning policy for those parts of the site.

However, for a number of other parts of the site, including areas identified as being in a sensitive coastal location (affected by the Coastal Management SEPP (**Figure 11**)), small lots on areas that are currently zoned as R5 Large Lot Residential or E3 Environmental Management (**Figure 8**), the Greenfield Housing Code will not apply and DAs will be required. It is therefore necessary that the Design Guidelines required by Term of Approval A5 include appropriate guidance for the development of these small lots, noting Councils existing DCP does not provide guidance for development of terrace style housing on 200m² lots.

The Department recommends Term of Approval A5 be updated to include additional requirements to ensure good design outcomes for development to be assessed under the Guidelines. In particular, it is recommended that the Guidelines demonstrate that the objectives of WDCP 2009 controls with respect to residential development and ecologically sustainable development would be achieved. These additional requirements are recommended as:

- the achievement of appropriate streetscape and amenity outcomes requires more careful design consideration on the proposed lots, which are more constrained given they are significantly smaller than the lots envisaged by the original concept plan
- under the existing approval, the required Design Guidelines were to be based on details submitted with the original application for lot design and layout, however additional similar details for development on small lot sites were not provided with the current modification request
- the Design Guidelines will primarily be applied to small lots on land zoned as environmental land or land identified as having environmental values (such as coastal wetland proximity area) and therefore future design will need to respect the environmental values of the land.

The Department also acknowledges that more dense development would result in a reduction in on-site landscaping and increases the role of the road reserve to provide street trees to ensure good levels of canopy cover and amenity to offset reduced on-site plantings, as well as provide for footpaths, on-street parking, and utilities to service the additional population of a more dense urban environment. The provision of street trees would be a matter for consideration as part of future applications. However, the Department has considered the proposed widths of the road reserves in **Section 6.4** to ensure roads would be adequate to cater for the needs of the proposed additional population density as well as the need to provide appropriate street tree plantings and canopy cover. The Department has recommended the road reserves be increased in width to reflect local planning requirements and ensure appropriate future outcomes.

Subject to this recommendation, and the additional requirements for the Design Guidelines, the Department considers development can be delivered on the proposed small lots and within the road reserve to ensure appropriate outcomes for built form, amenity and subdivision character.

Residential Flat Buildings

Residential flat buildings are permitted on the site however, the current height and floor space ratio controls would make it unlikely that flat buildings would be developed.

The modification request initially sought to amend the planning controls to enable the provision of residential flat buildings to a height of 15m and FSR of 1.5:1 on three prominent foreshore sites in the Northern Precinct. The Department and Council raised concerns that the proposal would result in three isolated (but visually prominent) sites out of character with surrounding lower scale development, in an area that is not in proximity to retail, services and public transport.

In response, the Addendum RtS removed the changes to those sites in the Northern Precinct and instead sought similar changes to two sites in the Central Precinct. The Department is supportive of the proposal, noting:

- the proposed residential flat building sites are located in close proximity to the future neighbourhood centre, open space and community facilities proposed for the Central Precinct, thereby ensuring additional density is appropriately located adjacent to a centre and services
- the sites will have a visual relationship with nearby industrial land with similar height controls so that the buildings would not appear out of scale within the context of the site, but rather would provide an appropriate transition between the industrial development to the south and the lower scale residential development to the north.

Visual Impacts and View Loss

Consideration has been given to the way the site is viewed from outside of the site and how the modifications would affect the scenic values of the area.

A Visual Impact Assessment (VIA) was submitted with the application which considered the impacts of the proposal. The VIA demonstrates that public views of the site are generally from a significant distance – such as the foreshore on the far sides of Lake Illawarra.

Based on the VIA and following the changes to the proposed urban footprint in the RtS and Addendum RtS, the Department is satisfied that from all distant vantage points the proposed increase in density and expansion of urban footprint would not be discernible compared to the approved Concept Plan and would not result in any adverse impacts on the scenic quality of the area including views of Mount Brown, the Illawarra Escarpment or the Lake Illawarra Foreshore.

Further, the proposed undergrounding of transmission lines within the Northern Precinct (see **Figure 5**) would result in improved visual outcomes in this part of the site compared to the Concept Plan as approved.

The only area of material impact would be closer views of the ridge line in the Central Precinct (**Figures 20**). The VIA notes there would be changes to this horizon with new dwellings on Carlyle Close that have the potential to form skyline elements. The VIA therefore recommends that

envelopes and height controls should be provided to ensure that visibility of these dwellings above the ridge line is minimised.

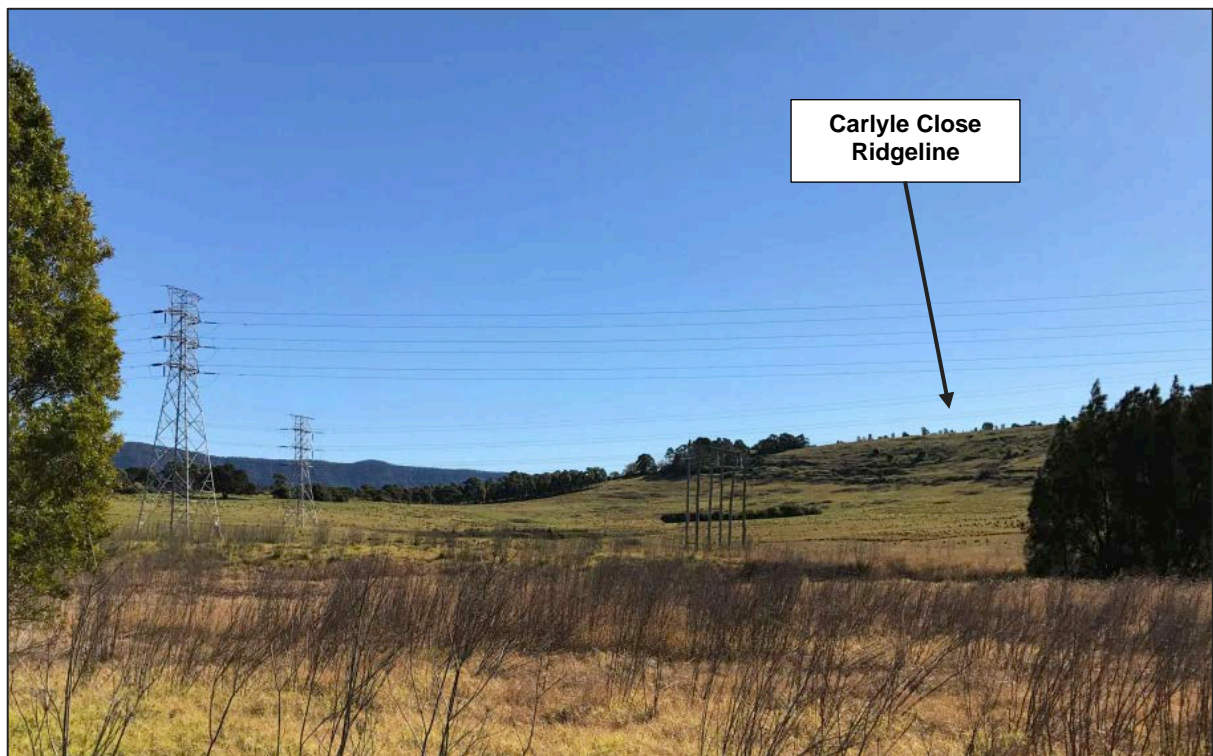


Figure 20 | Central Precinct as viewed from Yallah Bay Road (Source: VIA)

A related concern raised in one public submission, was that the proposed modification could result in view loss impacts for residents on Carlyle Close if new dwellings are constructed close to the ridge line.

Residents of Carlyle Close currently enjoy extensive views as can be seen in **Figure 4**. The proposed modification would increase the potential for view loss impacts from this location as it would result in a greater number of dwellings on the upper slopes of the precinct, not expected under the current applicable planning controls.

Consistent with the recommendation of the VIA, the Department therefore recommends the Design Guidelines include measures such as building envelope and height controls for lots fronting Carlyle Close to minimise visual impacts and view loss impacts from Carlyle Close. It is also recommended that future subdivision applications include restrictions on the lots to reflect the Design Guidelines, noting the dwellings on the site are likely to be developed as complying development under the Rural Housing Code.

6.4 Traffic and Roads

The existing Concept Plan approval included internal and external road infrastructure works to mitigate traffic impacts of the development and improve local road connections. Roads and road infrastructure works required under the existing approval are shown in **Figure 21** and include:

- one connection from the site to the Princess Highway at Yallah Bay Road. The existing junction is to be replaced with a new two-lane circulating roundabout. All other connections

with the Highway shown on the approved plans are to be deleted. Design is to be finalised to the satisfaction of TfNSW and Council with the first DA for works on the site

- the closure of Cormack Avenue so that it no longer connects with the Princes Highway, to be delivered in conjunction with development of the Central Precinct. Concept design is to be to the satisfaction of TfNSW and Council with the first DA for super lot subdivision
- an internal north-south collector road (with infrastructure accommodating buses and cycleways) linking the site with Haywards Bay to the south. A section of this road (over Duck Creek) could not legally be approved under the Concept Plan but is required to be delivered through a planning agreement between the landowners and Council, with a separate approval pathway under Part 5 of the EP&A Act. The timing for delivery of the roadway is to be agreed with Council at the time of the first application for super lot subdivision
- an east-west collector road, incorporating upgrade of Yallah Bay Road and connections with the Northern Precinct, also incorporating cycleways. The timing for delivery of the roadway is to be agreed with Council at the time of the first application for super lot subdivision.
- upgrade on Gilba Road delivered in conjunction with subdivision of the Northern Precinct.

It is also relevant to note that the eastern edge of the site adjoins the Princes Highway and Princess Motorway. Since approval of the Concept Plan, road upgrades known as the Albion Park Rail Bypass (APRB) have been approved (under SSI 6878, approved by the Minister for Planning on 30 January 2018) and construction has commenced. The APRB approval includes a new 'northern interchange' or 'Yallah interchange' adjacent to the site (**Figure 22**). The approved design includes a highway off-ramp (which will encroach into the site), the realignment of Yallah Bay Road and connection with the Princes Highway / northern interchange with a two-lane roundabout, as well as a new roundabout at the existing northbound off-ramp. Although approved as part of the APRB, the northern interchange does not form part of the upgrade works currently underway and will be delivered separately subject to future funding. The requirement in the existing Tallawarra Concept Plan approval for the Proponent to deliver a roundabout at Princess Highway and Yallah Bay Road and close Cormack Avenue will effectively enable delivery of the eastern roundabout of the interchange.

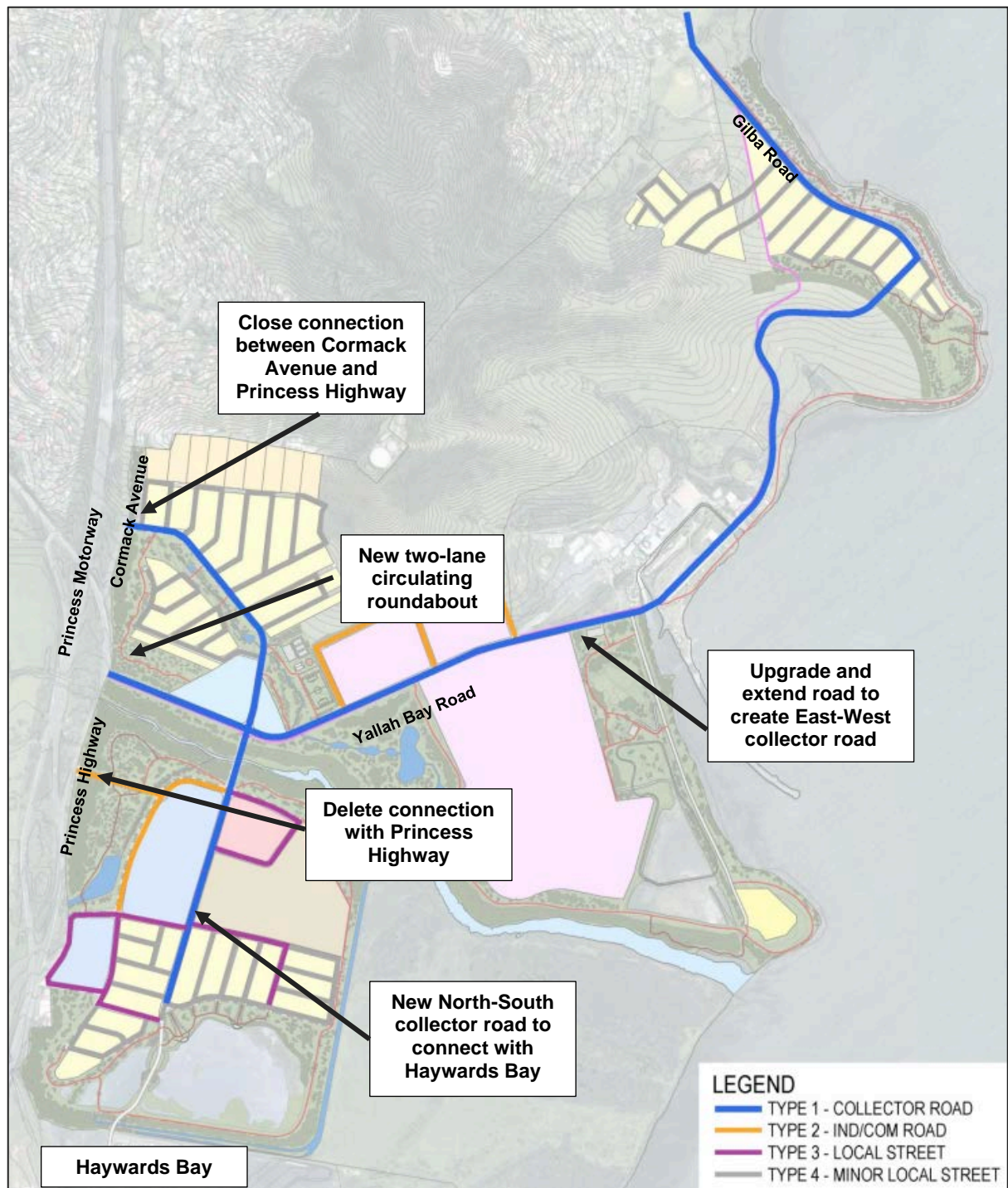


Figure 21 | Approved road infrastructure works (Base image source: MP09_0131 Approved Plans)

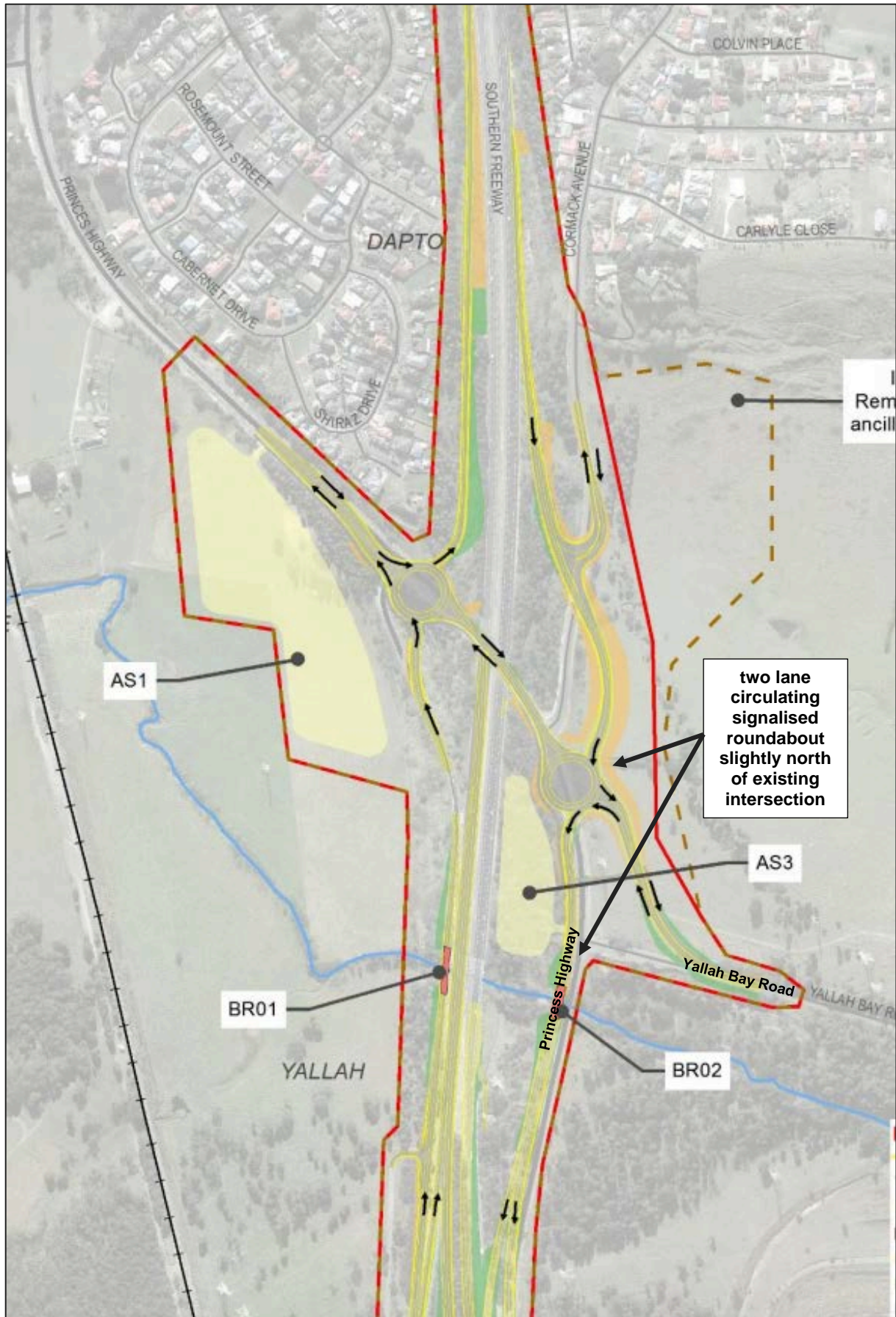


Figure 22 | Approved APRB design (Source: SSI 6878 Submissions & Preferred Infrastructure Report)

The proposed modified scheme retains the approved road infrastructure works but seeks changes to commitments in relation to determining timing for delivery of the works. The modification also seeks to make changes to the internal road hierarchy (**Figure 23**) and to road designs and widths.

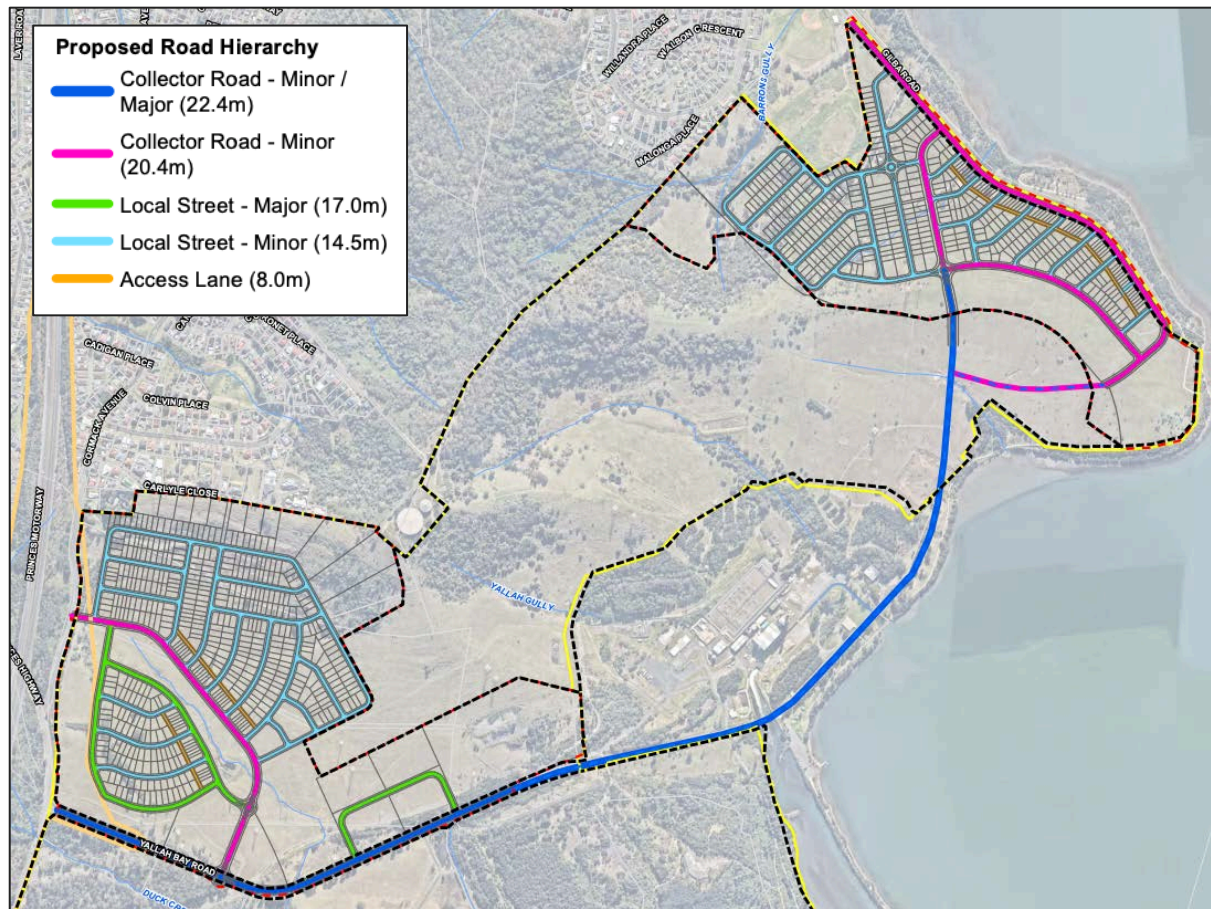


Figure 23 | Proposed road layout / road hierarchy (Source: Addendum RTS)

Council, agencies and public submissions raised a number of concerns about the traffic and transport implications of the modification request. Key concerns relate to:

- issues with the Traffic Impact Assessment (TIA) and the need for additional information to clarify assumptions and modelling
- the traffic impacts of the proposed additional population, particularly on the Princes Highway intersections, and any associated need for additional mitigation measures / road upgrades
- the possibility that the modification would affect delivery of the Hayward's Bay link / collector road with associated adverse impacts for connectivity
- the importance of retaining the east-west collector road
- adjustments to subdivision layout and site boundaries to enable the dedication of land required for the approved APRB
- the impact of the additional density on public transport
- the need for the detailed design of roads to accommodate bus movements, required cycleways and pedestrian paths in accordance with relevant requirements

Each of these issues are discussed in detail below.

Traffic Assessment

A TIA was submitted with the modification which considered the impact of the proposed additional population (from the approved 1010 lots to a revised yield of 1494 lots initially proposed) on the adjacent Princes Highway intersections. The TIA was updated with the RtS and further information and modelling was also provided with the Addendum RtS to address a number of concerns raised by TfNSW, Council and the public, including additional information and clarification to address concerns raised by TfNSW regarding the modelling and underlying assumptions made. Modelling was also updated based on revised modelling undertaken by TfNSW in relation to the APRB. Following the additional information and modelling submitted with the RtS and Addendum RtS, TfNSW did not raise any further concerns with the modelling and associated inputs and assumptions.

The Department is satisfied that the TIA, as revised by the RtS and Addendum RtS, provides sufficient information to make a conservative assessment of the likely traffic impacts of the proposed modification. In this regard, the Department notes that the modelling is based on an increase in development yield from 1010 lots as approved to 1494 lots as was initially intended to be sought by the modification. However, subsequent design amendments have resulted in a proposed total development yield of 1257 lots. As such, the actual traffic impacts of the modification would be less than that predicted by the TIA and the TIA therefore provides a conservative assessment. The Department notes more detailed and updated traffic assessments would be required as part of future DAs.

Intersection Performance and External Road Infrastructure Upgrades

The TIA, as amended by the RtS and Addendum RtS, considered the impacts of the modification on the operation of the adjacent Princess Highway intersections. Given the timing for delivery of the northern interchange is not yet known, impacts were modelled based on both the existing road layout, and the proposed layout of the northern interchange. The RtS and Addendum RtS also addressed other concerns raised in public submissions with regard to traffic impacts on other local roads.

Princes Highway prior to construction of the northern interchange

Based on an increase in development yield from 1010 lots to 1494 lots and retention of the existing road layouts, the proposed modification would result in an overall worsening of performance of Princes Highway intersections adjacent to the site by 2041 compared to the approved Concept Plan. All intersections would however, continue to operate at satisfactory levels of service ('LOS' 'C' or better) with the exception of the intersection of the Motorway off-ramp / Princes Highway which would have an LOS of 'F' ('unsatisfactory') during the PM peak.

However, the modelling also demonstrates that by upgrading the intersection of the Motorway off-ramp with Princes Highway to a signalised intersection or a roundabout, intersection performance could be improved to LOS C (satisfactory).

The impact could therefore be mitigated by an intersection upgrade. However, the need for an upgrade / timing of any upgrade is not certain at this stage, noting that:

- the northern interchange may be delivered in coming years which would deliver the required intersection upgrade anyway
- the modelling is based on 1494 lots, when only 1257 lots are now sought, and therefore actual impacts to the intersection may be less significant than predicted by the modelling

- the modelling is based on the existing road layout however, the approved Concept Plan requires the Applicant provide a new roundabout at Yallah Bay Road / Princes Highway and the closure of Cormack Avenue. These may have flow on effects that improve the modelled performance of the off-ramp intersection.

For these reasons the Department considers further detailed traffic assessments should be carried out in conjunction with the subdivision of each precinct. Where those assessments demonstrate that proposed development would result in a worsening of intersection performance and an intersection upgrade is necessary to achieve a LOS of C or better, an intersection upgrade (designed in consultation with TfNSW and Council) should be incorporated as part of the application. Subject to a future environmental assessment requirement to this effect, the Department is satisfied that traffic impacts can be adequately mitigated prior to the construction of the northern interchange.

Princes Highway following construction of the northern interchange

Based on an increase in development yield from 1010 lots to 1494 lots and construction of the northern interchange, the proposed modification would result in overall comparable levels of performance of Princes Highway intersections adjacent to the site by 2041 compared to the impact of the approved Concept Plan, and importantly, all intersections would operate at satisfactory levels of service ('LOS' 'C') or better.

The modelling is based on delivery of two-lane roundabouts with traffic signals to assist with controlling flows.

The existing approval requires the Proponent provide a roundabout at the intersection of Yallah Bay Road and Princes Highway, with the design to be agreed with TfNSW and Council. TfNSW have recommended that a condition be imposed to ensure the design of the roundabout is consistent with the approved design of the APRB roundabout in this location, and therefore is consistent with the outcomes predicted by the modelling. A FEAR has been recommended accordingly. The delivery of this intersection upgrade is discussed further below.

Roundabout at Princess Highway / Yallah Bay Road

The modification application initially sought to amend FEAR 15 which currently requires the design of the roundabout at this location to be approved by TfNSW and Council with the first future super lot subdivision application and the first application which proposes works. The modification sought to clarify the timing for approval of the design and requested that this should be with the first application for development within the Central Precinct following super lot subdivision. However, the Addendum RtS no longer sought any change to the condition.

As discussed above, with the approval of the APRB, the design of the roundabout has progressed since the time of the original Concept Plan approval, and the Department has recommended that the FEAR be updated to have regard to TfNSW's requirement that the design be consistent with the approved design of the APRB roundabout in this location.

Subject to this requirement, there is no need to specify a timeframe for approval of the intersection design, noting details of the design and delivery will form part of the satisfactory arrangement requirements for State Infrastructure, which as discussed in **Section 6.11**, will need to be agreed prior to the issue of the first super lot subdivision application and formalised by a Voluntary Planning Agreement (VPA) at the time of the first application following super lot subdivision.

Cormack Avenue Closure

The modification application initially sought to amend FEAR 16 which requires submission of a concept design for closure of Cormack Avenue prior to the first DA for super lot subdivision, and implementation of the road closure in conjunction with development of the Central Precinct. The modification sought to defer the timing for the concept design to the first DA for development in the Central Precinct and maintain the timing of the implementation. However, the Addendum RtS no longer sought any change to the condition.

TfNSW advised it has no objection to the proposed amendment to the timing, provided the modification ensures the works would be completed prior to any subdivision within the precinct.

Although a modification to the condition is no longer sought, the Department considers that it is appropriate that the final design be agreed in conjunction with the first DA that proposes the works rather than at super lot subdivision stage and this would not adversely impact the Proponent. FEAR 16 has been amended accordingly.

The Department considers the timing for delivery of the works as specified by the existing condition ('in conjunction with development of the Central Precinct') is specific enough for the Concept Plan approval, and would allow Council in consultation with TfNSW to specify a more exact timing as part of the relevant future DA assessment, having regard to TfNSW's recommendation and coordinated completion of other roads through the site to ensure connectivity for adjoining residents to the north is not compromised.

Impacts to other roads external to the site

Some public submissions raised concern with the traffic impacts on the streets of the adjoining neighbourhoods. A key concern was that the revised layout would include lots fronting Carlyle Close at the northern edge of the Central Precinct with associated traffic impacts for that street which is very narrow. Neither Council nor TfNSW raised any concerns in this regard.

The traffic assessment submitted with the original Concept Plan proposal demonstrated that traffic impacts to adjoining neighbourhoods would be unlikely to be significant. Similarly, the Department considers that traffic impacts of the proposed modification, including around eight additional allotments fronting Carlyle Close are unlikely to result in significant additional or unacceptable adverse traffic impacts to adjoining residential streets. Further, the Department considers that the proposal would improve local road connections and connectivity within the area, and therefore would be of benefit to adjoining residential areas.

However, the proposal would result in additional impacts to Carlyle Close and to ensure that any potential impacts are appropriately mitigated should they arise, a FEAR is recommended to require that impacts to Carlyle Close be considered, and if necessary or appropriate, road widening to accommodate the additional impact of the development on that road be included in the proposal. Subject to this condition, the Department is satisfied that the proposed additional density would not result in unacceptable traffic outcomes for adjoining residential areas.

Haywards Bay Link Road / North-South Collector Road

The existing approval includes an internal north-south collector road through the Southern Precinct linking the site with the residential area of Haywards Bay to the south (**Figure 21**). The existing

approval does not specify the timing for delivery of the roadway. Rather, as set out in the approved Statement of Commitments, the timing for delivery of the roadway is required to be detailed in an agreement with Council at the time of the first application for super lot subdivision.

Council and TfNSW both raised concerns that the modification may jeopardise delivery of the roadway. The proposed modification would allow for separate land ownership, and for development of the Northern and Central Precincts to proceed independently of the Southern Precinct. The application also seeks to remove the commitment to agree to the timing for delivery of infrastructure, such as this roadway, at the time of the first super lot subdivision (it only commits to provide a letter of offer at this time, but not to enter into an agreement). This may have the effect of only allowing the roadway to be delivered in conjunction with the Southern Precinct, as once the land is subdivided without an agreement in place, there would be no mechanism to require development of the road in conjunction with the Northern or Central Precincts.

If the roadway is only constructed as part of the development of the Southern Precinct, the Department considers the future of the roadway is questionable given that Energy Australia has not indicated whether it will be proceeding with constructing the Southern Precinct and significant contamination issues within the precinct need to be resolved prior to further subdivision and development.

Council raised concerns on the basis of traffic impacts and advised that any approval for additional yield should include a requirement for provision of the Haywards Bay Link Road as the traffic modelling was based on the link being in place.

TfNSW consider it vital to retain connectivity to Haywards Bay via the road as approved in order to minimise local trips on the state road network and maximise alternative and public transport options. It notes that without this link, local trips between Haywards Bay and Tallawarra will need to be made via the Princes Motorway and Princes Highway which it considers inappropriate. In terms of timing, TfNSW initially advised that the link should be provided in conjunction with development of the neighbourhood centre and industrial land in the Central Precinct. However, TfNSW subsequently revised its position and recommends that the current application not preclude the future delivery of the Haywards Bay Road link in accordance with the existing conditions of the concept approval and associated Statement of Commitments. That is, in accordance with any timing that may be agreed with Council at the time of the first super lot subdivision application.

The Proponent has advised that it is not feasible to deliver the roadway in conjunction with the Central Precinct. In support of its position, the Proponent:

- provided traffic modelling to demonstrate that no unacceptable traffic impacts to the adjoining road network would arise as a result of constructing the Northern and Central Precincts without the Haywards Bay Link. Traffic modelling predicts that intersections would operate at LOS 'C' or better both before and after construction of the Northern Interchange
- advised that as the current traffic and movement arrangements for Haywards Bay are not detrimentally impacted by the development of the Central and Northern Precincts, it considers there is no clear nexus which requires the delivery of the Haywards Bay Road link with the development of the Central Precinct
- advised that the modification does not seek the removal or deletion of the Haywards Bay Road link and it considers the existing conditions and commitments of the Concept Approval

are adequate to ensure the road link is delivered in a manner consistent with the context of the overall project

- suggested existing conditions indicate the Concept Approval intended the roadway would be constructed in conjunction with the subdivision of the Southern Precinct. In this regard it refers to Condition B3 and FEAR No 1, which provide that:

B3 Access Road and Bridge over Duck Creek to the Lakeside (Southern Precinct) from Yallah Bay Road

The access road and bridge over Duck Creek from Yallah Bay Road to the Lakeside Precinct must be deleted from the Concept Plan. Clause 8N(2)(b) of the Environmental Planning and Assessment Regulation 2000 prevents the Minister from being able to approve this roadway. (Note: The granting of approval for this road under Part 5 of the EP&A Act is not inconsistent with the term of this approval)."

1 Access road and bridge across Duck Creek can be constructed

The first application for development within the Lakeside (Southern Precinct) must be accompanied by documentation which demonstrates to the satisfaction of Wollongong City Council that an access road and bridge across Duck Creek, linking the northern boundary of the Precinct with Yallah Bay Road can and will be constructed at no cost to Council prior to the development of that Precinct."

- advised it considers the best outcome for the site results from the delivery of the Central and Northern Precincts prior to the Southern Precinct, ensuring that the most important collector road network and connections to the Princes Highway are established first, without any adverse consequences to existing Haywards Bay traffic and movement options.

Department's Consideration

The Department disagrees with the Applicant that the modification could not affect delivery of the roadway. The proposed modification includes changes to the approved Statement of Commitments that would remove a requirement to agree on the timing for delivery of the roadway prior to the first super lot subdivision.

The Department also considers that existing Condition B3 and FEAR No 1 in no way preclude development of the roadway at any stage prior to the development of the remainder of the Southern Precinct and do not indicate any specific requirement that the road be delivered in conjunction with the remainder of development in the Southern Precinct. Further, subject to appropriate agreement and arrangements with Council, the road could be delivered at any time under the provisions of the Infrastructure SEPP and Part 5 of the EP&A Act.

The Department acknowledges that based on the traffic modelling provided, the increase in density proposed by the modification does not, of itself, give rise to a specific requirement to amend the existing approval to ensure the roadway is delivered in conjunction with the Central or Northern Precincts to mitigate impacts of the additional population.

However, the Department agrees with TfNSW that the roadway is an essential piece of infrastructure to provide connectivity with adjoining areas to the south and to enable public transport and local private vehicle movements in the area without having to use the Princes Motorway, noting that the roadway is required to be specifically designed to accommodate local bus movements. It is an essential component of the Concept Plan and part of a suite of measures aimed at improving connectivity providing some local public benefits which would assist with offsetting other impacts of the development. It is acknowledged that further investigations and negotiations with Council, in

consultation with TfNSW, may determine that it is reasonable to delay the provision of the roadway until such time as the Southern Precinct is developed. However, it may also be found that the roadway is needed sooner in order to provide appropriate local connectivity. Therefore the Department considers it is important that this modification does not fetter the Council's existing ability under the Concept Approval to negotiate on the timing for delivery of the roadway, and agrees with TfNSW that the modification must not preclude the future delivery of the Haywards Bay Road link in accordance with the existing conditions of the concept approval and associated Statement of Commitments.

To overcome the proposed amendments to the Statement of Commitments, and noting the complications of executing a VPA for development on the Southern Precinct when there is currently no proposal to develop that area, the Department recommends a new FEAR to ensure that the timing for delivery of this roadway is to be determined in conjunction with the first super lot subdivision, and that if required, appropriate mechanisms are included with the super lot subdivision application to enable delivery of the roadway in accordance with any agreement made. Relevant mechanisms, if required as a result of any agreement, could include, for example, creation of a separate lot for the roadway which could then be acquired by Bridgehill or dedicated to Council, or an easement over the future road reserve benefiting the owners of the Central Precinct and / or Council. As discussed below, similar arrangements are also necessary for construction of the extension of Yallah Bay Road to connect the Central and Northern Precincts.

As discussed in **Section 6.12**, delivery of the roadway could also be affected by proposed changes to timing for resolution of contamination issues. As discussed in that section, the Department has therefore also recommended the imposition of a further amendment to the FEARS, to enable any contamination issues associated with delivery of the Haywards Bay Road link to be resolved prior to the remainder of the Southern Precinct where necessary.

Subject to these future assessment requirements, the Department is satisfied the proposed modification would not jeopardise Council's ability to negotiate on the future delivery of the Haywards Bay Link Road and would ensure the intended outcomes of the existing Concept Plan approval are retained.

Yallah Bay Road / East-West Collector Road

In addition to the Haywards Bay north-south collector road, the existing approval also includes an east-west collector road linking Yallah Bay Road and the Central Precinct with the Northern Precinct (**Figure 21**). The proposed road requires upgrading and reconstruction of the existing Yallah Bay Road. It also requires new roadworks within lots proposed for retention by Energy Australia, and may potentially require a small adjustment to the boundary with the power station.

As with the Haywards Bay link road, the delivery of this piece of infrastructure is also currently required to be agreed with Council at the time of the first super lot subdivision and is needed to improve local area connectivity. However, this east-west collector road is also essential for development of the Northern Precinct as it would provide egress for residents of the Northern Precinct during flood events (refer to discussion in **Section 6.7**).

Council requested that the Proponent demonstrate provision of road connections between the Northern and Central Precinct are retained and included in the early provision of infrastructure. The

Proponent included the roadway on the RtS plans (as it had previously been left off some earlier plans) but did not identify how and when the road would be provided.

As the roadway relates to land that is proposed to be retained by Energy Australia, and for the same reasons as discussed in relation to the Haywards Bay road link above, it is important that the first super lot subdivision also incorporate measures to enable delivery of the road upgrades and road extension in conjunction with the development of the Central and Northern Precincts. It is therefore recommended that the new FEAR in relation to the Haywards Bay Road link also apply to the east-west collector road. Subject to this recommendation, the Department is satisfied the proposed modification would enable delivery of the road consistent with the intended outcomes of the existing Concept Plan approval.

Detailed road design

Concerns were raised in submissions with respect to aspects of the detailed design of future roads including:

- Council suggested street trees should be depicted throughout the development and wider road reserves provided to accommodate street trees. It also suggested improvements to roundabout design, street furniture and lighting.
- TFNSW recommended a cycleway should be included on the north-south and east-west collector roads and the street network layout needs to be designed to have adequate reservation space to accommodate potential bus services and infrastructure
- public submissions raised concerns that the street design would not accommodate footpaths, cycle paths and emergency access in conjunction with increased on-street parking due to small lot sizes and the need for street trees.

The Department notes that the detailed design of the roads (including street trees, lighting and furniture) will be a matter for consideration as part of the assessment of future DAs. The Concept Plan establishes the overall general layout of roads and road hierarchy. The Concept Plan also seeks to establish future road reserve widths for each road type.

The Department notes that the proposed local road widths indicated on the road hierarchy plan submitted with the modification are generally narrower than the road widths established by the approved Concept Plan and also narrower than the road widths otherwise required under Wollongong DCP 2009 (**Table 8**).

Table 8 | Comparison of Road Reserve Widths

Proposed Road Widths / Names	Equivalent under Concept Approval	Equivalent width under WDCP2009
22.4m Collector Road Minor / Major	Varies Collector Road	21.9 Major Collector Road
20.4m Collector Road Minor	Varies Collector Road	20.95 Minor Collector Road
17.0m Local Street Major	18.6 – 21.4	18.8m or greater

	Commercial / Industrial Road or Local Street	Town and Village Centre Road or Local road with parking
14.5m Local Street Minor	15.5 – 16.5m Minor Local Street	17.1m Access Street
8.0m Access Lane	N/A – no laneways	8.4m Laneway

The Department considers the indicated road widths, particularly the local streets, would not be sufficient to adequately cater for the needs of the proposed additional population density with associated additional traffic, cycle and pedestrian movements and increased likelihood of on-street parking. As discussed in **Section 6.3**, the road reserves are also essential for significant street tree planting to contribute to amenity and canopy cover and offset the impact of reduced on-site plantings due to reduced lot sizes.

The Department considers Wollongong DCP 2009 provides appropriate guidance for the design and width of roadways within the LGA. The Department recommends a condition which specifies that road layout and road hierarchy shown on the modification plans are indicative only and a new FEAR which requires that roads in the Central and Northern Precincts be designed in accordance with Wollongong DCP 2009. Subject to this requirement, the Department is satisfied future roads and associated footpaths, cycleways, tree planting and infrastructure would be able to be provided in accordance with local guidance and would be adequate to serve the future needs of residents without unacceptable adverse impacts.

Public Transport

TfNSW raised concerns that the modification identified changes to existing bus routes which may result in adverse impacts and suggested the applicant should provide further information with respect to public transport strategies for the site.

However, the modification application itself does not result in any changes to existing bus routes. Potential indicative routes are shown, but ultimately bus routes through the site would be a matter for public transport providers. As with the approved Concept Plan, the modification includes collector roads which would be designed as part of future DAs to adequately cater for bus movements. There is no material change from the approved Concept Plan in this regard. The Department is also satisfied that the additional density sought by the modification does not give rise to additional considerations for public transport at the Concept Plan Stage, and that consultation with public transport providers, road design, infrastructure and bus stops to cater for public transport needs could be appropriately addressed as part of future DAs.

Land Dedication for delivery of APRB

During the assessment process, TfNSW identified that land on the western boundary of the site is required for delivery of the APRB project and requested the plans be amended and the Central Precinct be redesigned having regard to the required road boundaries for the APRB.

The RtS and Addendum RtS included amended plans which removed all proposed development from that part of the site required for the APRB and advised that land would be transferred to TfNSW.

However, the proposed indicative plan for the first super lot subdivision includes the future APRB land as part of the proposed Central Precinct allotment. TfNSW have therefore requested that a condition be imposed to ensure the land is excluded from the central super lot and be shown as a separate lot as part of the first super lot subdivision application. Condition A6 in relation to super lot subdivision is recommended to be amended accordingly.

TfNSW also recommends a condition be imposed to ensure that no proposed lots and/or works associated with the modified development (apart from required roadworks to provide the access to the Princes Highway) are to be in the area required by TfNSW for APRB and that no other works associated with the development (including, but not limited to, proposed local roads, bicycle paths, noise mitigation measures, landscaping works and infrastructure required to service the proposed development) are to occur within the APRB project boundaries.

Subject to these conditions, the modified proposal would adequately cater for the requirements of TfNSW with regard to the land required for the APRB.

6.5 Natural Environment and Biodiversity

Biodiversity and environmental impacts arising from the modification were the key concerns raised in public submissions, including special interest groups, the Lake Illawarra Estuary Management Committee, the Save Lake Illawarra Action Group, the National Parks Association of NSW, Illawarra Birders Inc, and a key issue raised in agency submissions from EESG, Crown Lands, Water, Fisheries and Council.

Key concerns related to:

- reduction in green space / environmental lands, associated additional clearing of native vegetation and loss of habitat and endangered ecological communities
- connectivity
- impact to fauna, including birds
- future ownership and management
- impacts to water runoff and to waterway health including Lake Illawarra
- impacts to groundwater

Impacts to water quality and groundwater are considered in **Section 6.6**. Other impacts are discussed below.

Encroachment into E3 Environmental Management zone

The Department notes that although a key concern in community submissions during exhibition related to the increased urban footprint and associated reduction in green space and environmental lands, the urban footprints were subsequently amended during the assessment process and the extent of the proposed encroachment into environmental lands has been reduced.

Further, of the seven areas of increased or expanded residential footprint, four (A, B, C and D on **Figure 8**) are already zoned for residential use under WLEP 2009 and therefore the expansion of the residential footprint into these areas is entirely consistent with expectations under existing statutory controls.

However, there are three areas of encroachment into areas zoned E3 Environmental Management. Proposed areas of encroachment into areas zoned E3 Environmental Management, as well as the affected areas of native vegetation under the modification request are shown in **Figures 24 and 25**.

In support of the modification, the Proponent advised that the ecological impacts were considered to be limited as the majority of the affected land was already cleared, the modification would only require limited additional clearing of land and the impacts will be managed through planting and reintroduction of vegetation in other areas of the site. The Proponent also provided a Biodiversity Assessment Report (BAR) which assessed the impacts of the proposed modification. The BAR considered the native vegetation affected by the proposed modification. Based on the BAR, the Department concludes the proposed modification would affect two areas of native vegetation on the site beyond the impacts of the approved Concept Plan:

- approximately 2 to 2.5ha of Sydney Blue Gum X Bangalay – Lilly Pilly moist forest (or Moist Box Redbox Foothills Forest) in the Central Precinct (see **Figure 25**). This is not a threatened ecological community (EEC).
- an area of less than 0.5 ha of Forest Red Gum - Thin-leaved Stringybark grassy woodland (or Coastal Grassy Redgum Forest) in the Northern Precinct (**Figure 24**) which is listed as a threatened ecological community under both the NSW *Threatened Species Conservation Act 1995* and the Commonwealth *Environmental Protection and Biodiversity Conservation Act 1999*.

EESG has advised of the following outstanding concerns with the biodiversity impacts:

- the rationale for reducing the quantum of E3 zoned lands has not been provided
- the exact extent of additional clearing proposed by the modification has not been quantified
- future DAs triggering Biodiversity Offsets will need to convert credits calculated under the Concept Approval to the Biodiversity Assessment Method under the BC Act, it would be helpful if the current application estimated the offsets required for each future DA / stage.
- the Commonwealth Government should be consulted regarding impacts upon Illawarra Lowlands Grassy Woodland and Swamp Oak Floodplain Forest threatened ecological communities

The Department notes the E3 Environmental Management zone already permits residential development and roads but envisages much larger lot sizes (40ha) than those proposed under the modification. Under the provisions of the former Part 3A of the EP&A Act, the Concept Approval may override the LEP controls. In this case, the Department considers the strategic benefits of utilising land in an existing urban release area for provision of additional housing to meet growing demand and population growth (discussed in **Section 3**) may justify some encroachment of smaller lot residential development onto the E3 zoned land, subject to consideration of the objective of the E3 zone to '*protect, manage and restore areas with special ecological, scientific, cultural or aesthetic values*'.

In this case, the Department considers there is one part of the affected land that would contain special ecological, scientific, cultural and aesthetic values. The western edge of the northern precinct:

- contains a riparian corridor identified under the existing approval and WLEP2009
- contains EEC as described above
- is mapped as a 'coastal wetland' and 'coastal wetland proximity area' under State Environmental Planning Policy (Coastal Management) 2018 (The Coastal Management SEPP)

- is mapped as 'natural resource sensitivity – biodiversity' under WLEP2009 which roughly correlates with the area of EEC and the riparian corridor.

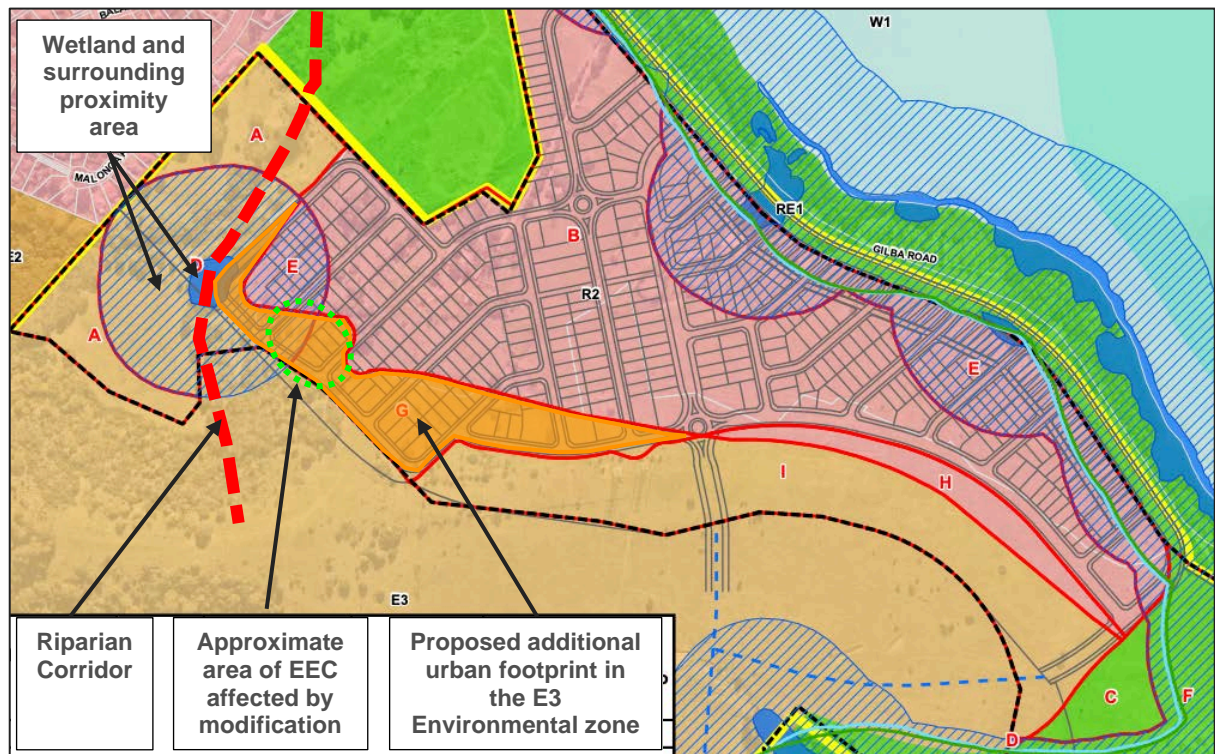


Figure 24 | Proposed Northern Precinct layout over zoning map and Coastal Management SEPP Map (Base Image source: Addendum RTS)

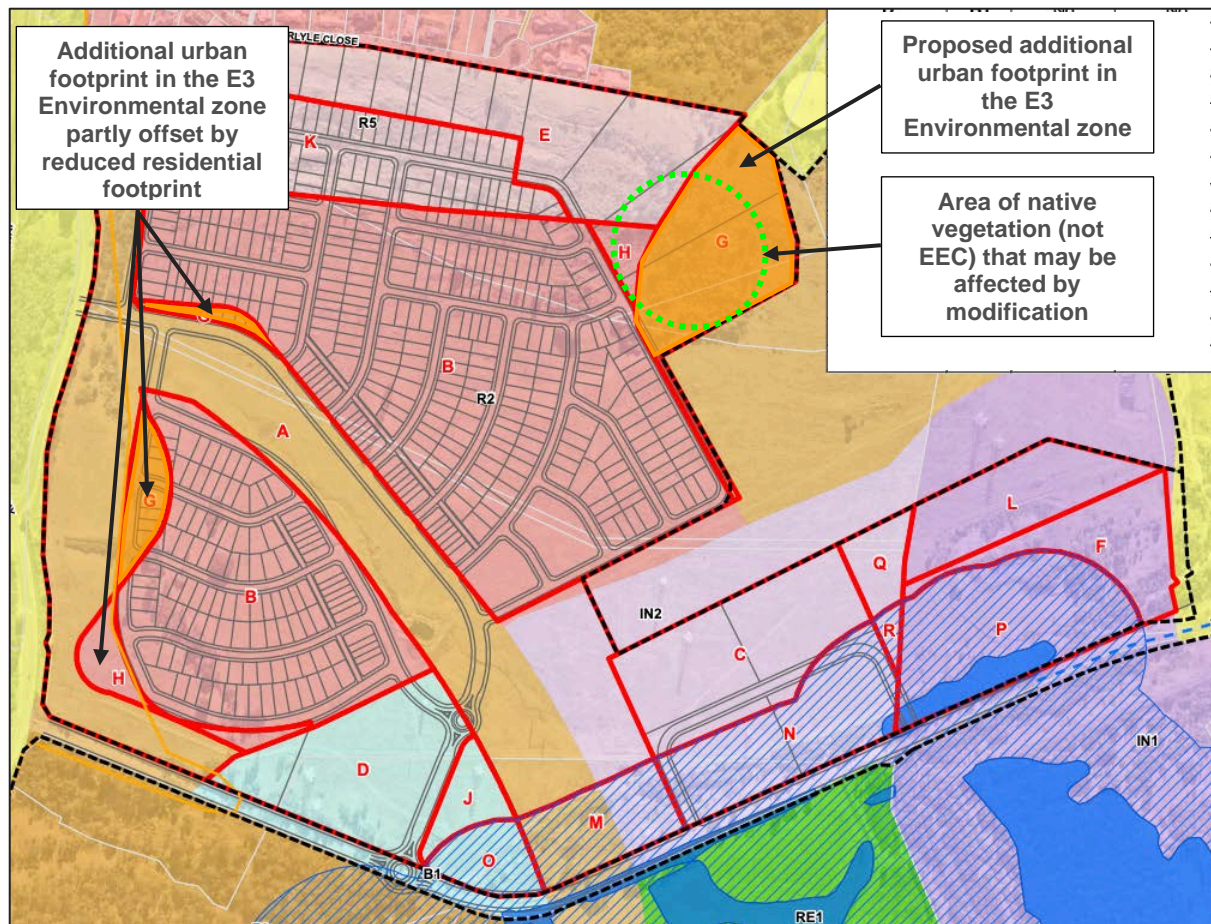


Figure 25 | Proposed Central Precinct layout over zoning map and Coastal Management SEPP Map (Base Image source: Addendum RTS)

Although the provisions of the Coastal Management SEPP and WLEP 2009 do not apply to the modification request (refer **Appendix A**), the Department considers it would be inconsistent with the objectives of the zone to permit development of a road through a known wetland. Further, the approved Concept Plan commits to provide a minimum core riparian zone of 20 metres on either side of the waterway and 30 metres at the urban interface. In addition, the inclusion of roads and residential lots in environmental zoned land designated as containing EEC, would also be inconsistent with the zone objectives to protect, manage and restore areas with special ecological, scientific, cultural or aesthetic values.

The Department notes the approved road and lot layouts shown on the plans are indicative only and the final layout will be a matter for consideration as part of the future subdivision DAs. As discussed in **Section 6.4**, the Department recommends a FEAR which confirms the layouts are indicative only. It also recommends a FEAR which requires the western end of the northern precinct within the E3 Environmental Management zoned land to be redesigned to ensure that roads and lot layouts will not adversely impact the wetland, will ensure the riparian zone requirements of the original Concept Approval are met and will minimise impacts to EEC in the E3 zone.

Subject to this modification, the Department considers that impacts of the proposed encroachment and clearing would not be significant, would be appropriately offset as part of future DAs and would not significantly affect areas of special ecological, scientific, cultural or aesthetic values, noting:

- in the context of the entire site, including the remaining lands that would be conserved for Environmental Management Purposes, the encroachment into the E3 zoned land is not extensive.
- within the Central Precinct,
 - additional areas of encroachment along the western boundary are small and generally offset by reduced areas of residential development along the same boundary, and
 - the affected proposed large lot residential area in the north-east would only require a small proportion of the site for future building footprints and it may be possible to retain significant areas of vegetation on these sites.
- within the remaining areas of the Northern Precinct,
 - affected areas are generally already cleared of vegetation so that biodiversity impacts would not be extensive, and the land does not have special ecological, scientific, cultural or aesthetic values
- an existing requirement for a Vegetation Management Plan (VMP) to ensure appropriate land management outcomes across the remaining areas of the site, including weed removal and revegetation, in conjunction with offsets required under future DAs will ensure that the impacts of clearing and development will be appropriately offset by improved outcomes on other parts of the site / other lands.

The Department also considers sufficient information in relation to vegetation clearing is provided to enable an assessment at Concept Plan level. Exact calculations will be required as part of future DAs as will offsets under the BC Act. Given the potential variations to required clearing discussed above, it is appropriate that more exact calculations only be required as part of future DAs which determine final subdivision design and layout. In addition, the proposed modification would result in no change to affected areas of Swamp Oak Floodplain Forest (as these are located within the approved footprint) and subject to the proposed modification discussed above, would not materially affect Illawarra Lowlands Grassy Woodland. The modification would not therefore constitute a controlled action or requirement for referral to the Commonwealth Government.

The Department is therefore satisfied that the proposal would result in limited consequences as a result of the expansion into the E3 Environmental Management zoned land.

Biodiversity Connectivity

EESG and public submissions raised concerns in relation to the provision of biodiversity corridors. Concerns related to impacts to biodiversity corridor lands under the Regional Plan and impacts to an environmental corridor required to be created under Term of Approval (TOA) B4 of the existing Concept Plan approval.

The Department is satisfied the proposed minor modifications to the precincts would result in no material changes to regional biodiversity corridors.

TOA B4 requires that woodland revegetation proposed along the southern boundary of the northern precinct is to comprise a continuous vegetated corridor providing ecological connectivity to facilitate movement of native fauna between the Mount Brown Reserve and the foreshore of Lake Illawarra. The proposal does not seek to modify this requirement, other than update the reference to the landscape plan within the condition.

However, the submitted plans do not demonstrate compliance with TOA B4. The indicative landscape plans show some proposed vegetation along the southern boundary of the proposed open space area but it is interspersed with structures and pathways and some areas are shown as very narrow so it is unclear if it would meet the intentions of the TOA. To ensure both open space outcomes (refer to discussion in **Section 6.9**) as well as environmental outcomes can be achieved there may be a need to extend the plantings / corridor into adjoining land to the south to be retained by Energy Australia. In addition, there are gaps in vegetation to the west and to create a continuous corridor, there may be a requirement for additional plantings either within the precinct (with a modification to the indicative subdivision layout) or on adjoining land retained by Energy Australia.

To ensure the intention of the TOA is achieved in light of the proposed modification creating separate owners being responsible for development of different areas, the Department recommends the TOA be modified to require that the details of the continuous corridor, including details of who will be responsible for plantings and maintenance, be incorporated into the updated VMP required at the time of the super lot subdivision (see below). Subject to this requirement, the Department is satisfied the original intention of the approval will continue to be achieved.

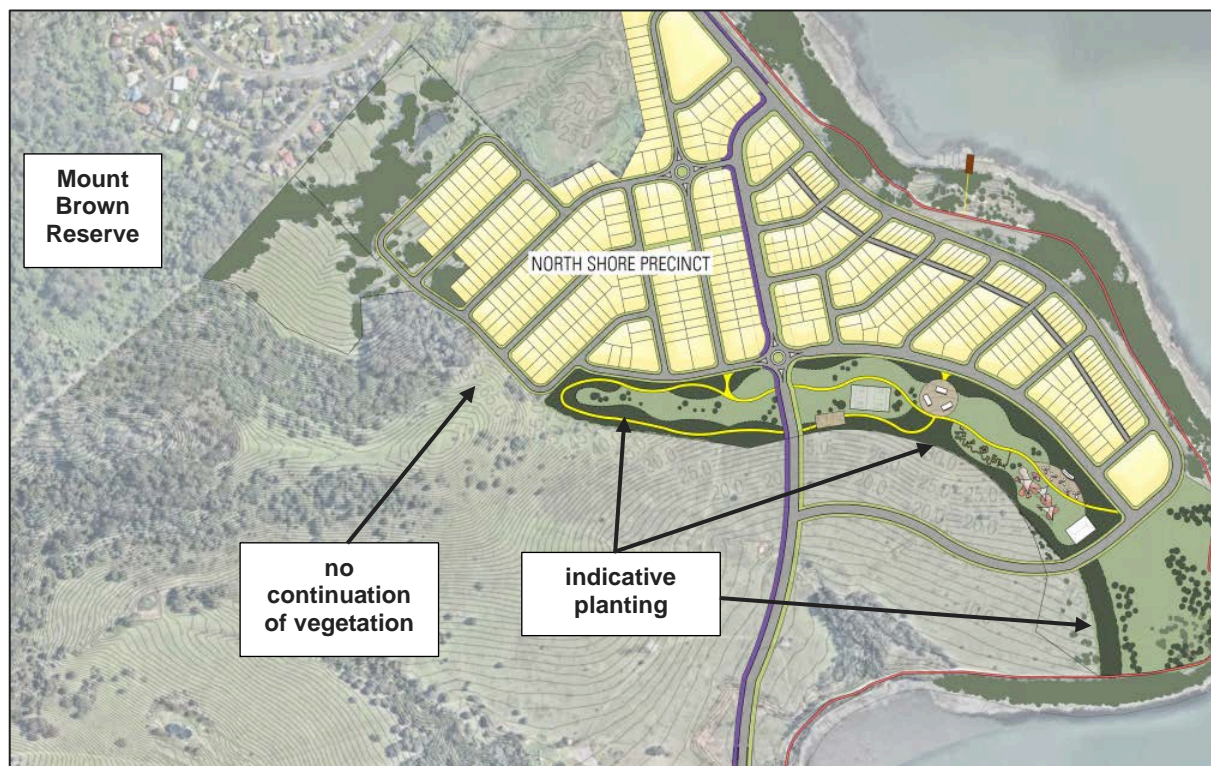


Figure 26 | Extract from landscape plan (Source: Addendum RTS)

Vegetation Management Plan

The original Concept Plan proposal included a VMP for the site which included details of land management across the site to remove weeds and revegetate and restore environments and riparian corridors. FEAR 10 requires the plan to be updated at the time of the application for super lot subdivision to include appropriate actions to ensure revegetated and weed managed areas are self-sustaining after 5 years and there is an ongoing management regime for these areas in perpetuity.

The modification seeks to amend the FEAR to prepare the plan in two parts, land north of Yallah Bay Road and land south of Yallah Bay Road, and to change the wording to provide that only commitments to the appropriate actions are required to be included in the updated VMP.

No concerns have been raised in the submissions in relation to the proposed change and the Department is satisfied the modified FEAR would generally achieve the intended outcome of the original approval. However, given the proposal to subdivide the site and create separate owners responsible for development of different areas, the Department recommends the VMP and first future subdivision application also address timing for works under the plan, to ensure that any vegetation works or offset arrangements proposed within the Energy Australia Lands which will offset the impacts of the development in the Northern and Central Precincts will be carried out in conjunction with the development of those precincts as appropriate.

Impacts to Fauna including Birds

Public submissions raised concerns that the modification would have an adverse impact on fauna, particularly birds, noting that birdlife has significantly increased on the site since the original approval. Concerns related to changes to water quality impacting birdlife (discussed in **Section 6.6**), general impact of additional population density and traffic on birdlife, the reduced allotment size resulting in less open space within the subdivisions and potential for impacts to the shores of Lake Illawarra. Some submissions also requested consideration be given to a bird sanctuary in the Southern Precinct.

Although the BAR considered impacts to fauna as a result of the development, it did not identify specific impacts to fauna as a result of the modification request. Agencies did not raise specific concerns with impacts to fauna and birdlife.

The Department notes that the key bird habitats relate to the Lake Illawarra foreshores and the ash ponds in the Southern Precinct and the modification does not affect these areas. Further, as the modification would not result in substantial additional clearing of native vegetation as discussed above, and a FEAR is recommended to widen road reserves to enable appropriate street tree provision and canopy cover with the subdivisions (discussed in **Section 6.3**) there would be limited overall impacts to birdlife and to native fauna as compared to the approved Concept Plan. Impacts would be required to be quantified and offset as part of future DAs under the BC Act.

Future Ownership and Management of Environmental Lands

The existing approval requires that where future applications propose to transfer land to public ownership they must include details of proposed ownership arrangements, or, where a public authority is unwilling to accept transfer of environmental zoned lands or lands are required as an environmental offset, the Proponent must implement an alternative method of securing the identified lands in perpetuity such as a biobanking agreement.

The modification does not seek to change this requirement.

EESG advised it would be beneficial if the modification provided an update on likely future open space and environmental lands ownership and management, noting that since the time of the original approval there have been legislative changes in relation to biodiversity conservation, there is now the potential for the environmental lands to be managed as a Biodiversity Stewardship Agreement, and the

Lake Illawarra Foreshore Authority (which was previously identified as potential future land owner) no longer exists.

The Department considers there are no material changes under the modification that would require details of future land ownership to be provided as part of the modification request and that offsets and landownership can be considered as part of future applications in accordance with the existing approval. Water Impacts and Stormwater Management

Surface Water Quality and Waterway Health

Concerns were raised in submissions about the increased footprint and increased development density. This would in turn result in adverse outcomes for water being discharged from the site, with adverse impacts for the health of affected waterways and Lake Illawarra and flow on effects for flora and fauna which rely on the waterways.

In response to these concerns, the RtS amended the plans to reduce the expansion of the urban footprint and provided an updated concept water sensitive urban design assessment. Treatment measures include rainwater tanks, gross pollutant traps, vegetated swales, sedimentation ponds, bioretention basins and constructed wetlands. Detailed stormwater management arrangements would be provided as part of future DAs, but MUSIC modelling of the concept design demonstrated the proposal, as modified, would be capable of exceeding the stormwater quality performance targets detailed in Wollongong Council's DCP 2009, as set out in **Table 8**.

Table 8 | Pollution Load reduction targets and modelled outcomes of stormwater quality treatment

Pollutant	Pollutant Load Reduction required by DCP	Existing adopted project targets for Tallawarra Lands	Proposed targets for Tallawarra Lands	Expected outcomes under MUSIC modelling
Gross Pollutants	90%	90-95%	95%	99.8%
Total Suspended Solids	85%	85-90%	90%	92%
Total Phosphorous	60%	60-65%	65%	66.6%
Total Nitrogen	45%	45-50%	50%	50.5%

Following submission of the additional information, EESG acknowledged the proposal would meet Council's DCP targets, but advised that the additional information does not identify how the proposal will impact estuary health and recommended that the water quality assessment be prepared in accordance with the 'NSW Government's Risk-based Framework for Considering Waterway Health Outcomes in Strategic Landuse Planning decisions' (the RBF).

Water and Fisheries advised that water quality targets should be adjusted to ensure a neutral or beneficial effect on water quality compared to pre-development discharges (rather than an improvement in post development with treatment vs post development without treatment as is the basis for the assessment submitted in the RTS). It also recommended long term stormwater monitoring and auditing.

The Proponent provided the following responses in the Addendum RTS:

- the RBF is primarily designed to enable decision makers such as Councils to determine management responses to meet water health objectives. It includes a case study on the Lake Illawarra Catchment. While the case study does not set any water quality / pollution reduction targets, the Tallawarra Lands site is within an area where it is recommended that stormwater controls could be improved. The RBF advises that in these areas, reaching (or going beyond) Council's DCP stormwater load reduction targets would improve the health of Lake Illawarra.
- project targets and modelled outcomes of the revised Concept Plan would not only reach but would go beyond Council's pollution load reduction targets and therefore the proposal is consistent with outcomes expected under the RBF.
- a site-specific DCP or Design Guidelines which will be provided prior to development of the site, will include the proposed water quality targets as well as specific improvement strategies to ensure beneficial outcomes on the water quality and health of the aquatic environment having regard to the RBF.

The Department notes that under the existing approval, stormwater treatment and stormwater quality issues would be matters for consideration as part of future DAs. Existing FEARs also require a stormwater management masterplan to be developed in accordance with Council's LEP and DCP and detailed stormwater management plans are to be provided as part of subsequent DAs.

The Department considers that subject to these requirements and noting the updated targets for water quality identified in the WSUD assessment, the proposed modification would not adversely affect water quality outcomes on the site. While the developable area on the site would increase under the proposal, additional water quality treatment measures are also able to be provided so that overall pollution load reduction would not only exceed Council's DCP but is predicted to exceed the higher water quality targets of the approved Concept Plan.

On this basis, the Department is also satisfied the proposal would be consistent with the RBF which recommends reaching or going beyond Council's DCP stormwater load reduction targets and notes the RBF advises that this would result in an improvement to the health of the waterway.

The Department therefore considers that additional consideration of water quality pre- and post-development as was recommended by Water and Fisheries is not required for the assessment of the modification.

However, the Department notes agency advice that supports long term stormwater quality monitoring and independent auditing and therefore recommends the relevant FEAR be updated to ensure measures for long term stormwater quality monitoring and independent auditing.

Subject to these requirements, the Department considers the modification would provide a greater surety of improvement to water quality outcomes compared to the approved Concept Plan, despite an increase in developable area.

Groundwater

DPIE Water recommended conditions in relation to interception of groundwater during construction, and in relation to heavy metals in groundwater. EESG recommended further consideration be given to potential soil contamination and impacts for groundwater.

The Department considers groundwater encountered during construction is a matter for consideration as part of relevant future DAs and is not affected by this modification.

Groundwater contamination was considered in detail in the original Concept Approval and FEARs were included to ensure appropriate future assessment of ground water contamination as part of future applications. The Department notes concerns related primarily to the Southern Precinct, rather than the Northern or Central Precincts.

The Proponent advises that previous studies have demonstrated that development in some of the hilly portions of the site will not change the groundwater regimes associated with substantially impervious clay-bedrock conditions and therefore the modification is not expected to result in any significant changes to the groundwater regime.

The Department is satisfied the proposed modification does not give rise to additional concerns with respect to groundwater, with any impacts able to be managed and mitigated as part of future DA assessments.

Water Quantity / Volume of Flows

Although the modification, due to increased urban / building footprints would increase the volume of stormwater discharged from the site during rain events, the hydrology assessment submitted with the modification request finds that the proposed changes would be insignificant when compared against the peak discharges generated from the greater Duck Creek and Lake Illawarra catchments. As such, it concludes that the increases in developed area are not expected to result in changes in the flood behaviour or environmental impacts within Duck Creek or Lake Illawarra.

EESG advised that due to the location of the site in the lower reaches of the catchment, the proposal is unlikely to result in significant adverse flood impacts downstream, however there may be implications in terms of increased scour, erosion and mobilisation of sediments into Lake Illawarra associated with an increase in the magnitude, frequency and volume of flows discharged from the development.

The Department considers that as with the likely changes to the hydraulic regime created by the development already approved under the Concept Plan, these matters would be resolved through appropriate future stormwater management design as part of future applications and the proposed modification does not give rise to any specific additional concerns that require further resolution at Concept Plan stage.

6.6 Flooding

As discussed above, as the site is at the bottom of the catchment, the proposal is unlikely to result in adverse flood impacts downstream. However, parts of the site are subject to flooding.

The modification request as initially lodged and in the RtS sought to make changes to land use arrangements in the southern part of the Central Precinct which is affected by flooding, including extending industrial land uses and roads into the flood affected area and altering a watercourse and open space arrangements in the flood affected area. In response to concerns raised by Council and the Department, the Proponent subsequently amended the Addendum RtS plans to revert to the

approved layout in this part of the site, and the updated proposal therefore does not result in any additional flooding concerns in this part of the site compared to the Concept Plan as approved.

Other flooding concerns raised in submissions include:

- EESG advise areas proposed for increased density and population are constrained by flooding in that access roads are inundated in a 1 in 100-year flood event. This raises issues of safety, isolation and access for emergency services
- EESG recommends a catchment-wide Flood Plain Risk Management Study and Plan for the Duck Creek Catchment should be prepared to manage future development in the floodplain
- Council notes details of PMF flood modelling was not provided with the application and should be undertaken to ensure the development complies with Council's DCP.
- Council advise in the Northern Precinct it is unclear how flows from the existing watercourse will be managed and recommends design requirements for discharges and flow paths.

The Department notes flooding was considered in detail in the assessment of the original Concept Plan assessment, including consideration of identical concerns raised by the then OEH in relation to inundation of access roads and the need for a catchment-wide flood risk study and plan and concerns with a lack of defined flood levels for determining flood planning levels. As part of its assessment at that time, the Department engaged its own flooding consultants to conduct a peer review of the Proponents assessments. The Department's previous assessment noted that:

- additional information and commitments provided by the Proponent demonstrates that all access roads to the Central and Southern Precincts will be at or above the PMF flood level. Northbound egress from the Northern Precinct is not flood free but the catchment is very small and therefore flood events would typically have a very short duration. Further, the southbound extension to Yallah Bay Road would be constructed above the PMF and would provide an alternative evacuation route
- a catchment-wide Flood Plain Risk Management Study is unrealistic. The Department recommended a FEAR which requires a floodplain risk assessment and management plan for the entire site consistent with Councils planning controls, the Duck Creek Flood Study and the NSW Floodplain Development Manual
- additional information and commitments by the Proponent provide that all residential flood planning levels will be above the 1 in 100 year flood level plus an additional 1.0m to account for both freeboard and sea level rise
- the Department's flooding consultant concluded the site can be developed without there being any insurmountable flood related obstacles or risks.

The Department notes that areas of additional footprint proposed by the modification are not within the flood affected areas on the site. The modification also does not seek to change commitments to deliver access roads above the PMF, residential levels above the 1 in 100 year flood level, or to change requirements for a floodplain risk assessment and management plan.

The Department therefore considers the proposed modification would not result in any significant additional flood risks. The flood risks will be able to be appropriately mitigated as part of the required future floodplain risk assessment and management plan which will establish flood levels and appropriate flood planning levels, detail how flows from the existing watercourses will be managed and ensure appropriate outcomes for discharges onto adjoining land and waterways.

As discussed in **Section 6.4**, a FEAR is recommended to ensure the southbound extension to Yallah Bay Road could be delivered in conjunction with the development of the Northern Precincts, despite being partly on land under separate ownership, to ensure appropriate levels of access including flood free access / egress to the Northern Precinct.

6.7 Aboriginal Heritage Impacts

Aboriginal heritage was considered in detail in the assessment of the original Concept Plan approval. Impacts to Aboriginal Heritage were considered to be acceptable subject to future applications implementing the recommendations of the Aboriginal Archaeological Assessment submitted with the original application and the requirements of a future Aboriginal Cultural Heritage Management Plan (ACHMP) required to accompany the first application to Council.

The proposed modification seeks to allow the required ACHMP to be prepared in two parts:

- Part 1 for the Central and Northern super lots to be submitted with the first future super lot subdivision DA
- Part 2 for the Southern Precinct to be submitted with the first DA in the Southern Precinct following super lot subdivision.

The modification was also accompanied by draft Aboriginal Cultural Heritage Assessment Reports (ACHARs) for the Northern and Central Precincts. The ACHARs made a number of recommendations including further consultation with Aboriginal parties, further archaeological assessment in areas of moderate and high archaeological potential and one PAD site, and that a culturally significant Fig Tree should be conserved.

Concerns were raised in submissions in relation to Aboriginal Heritage Impacts. Responsibility for management of Aboriginal Heritage has changed over the assessment process, with comments received from OEH, then EESG and currently Heritage NSW. For simplicity this part of the report will refer to all comments as being from Heritage NSW. The name of the agency providing comments at the time of each submission can be seen in **Section 5** and in **Appendix A**.

Council, Heritage NSW, the Illawarra Estuary Management Advisory Committee and other public submissions raised the following key concerns:

- that the proposed additional footprint would result in an expansion of potential heritage impacts
- additional archaeological test excavation and Aboriginal community consultation (as recommended by the ACHAR submitted with the modification) is required to better inform the impact of the development on Aboriginal heritage. This should be carried out prior to determination of the modification or there should be flexibility to adjust the final design of the subdivision based on results of test excavation and consultation
- the Proponent should commit to protection and retention of the Fig Tree in the Central Precinct, and relocation of the tree should not be supported
- an ACHMP should be prepared in consultation with Heritage NSW and should be done at an early stage to integrate heritage protection with the approvals process
- Roads linking the central and northern precincts and other areas will also require appropriate Aboriginal heritage assessment.

The Department has considered the Aboriginal heritage impacts of the proposed modification in each relevant part of the site.

Northern Precinct

In response to the concerns raised in the submissions, the Proponent carried out detailed test excavations for the Northern Precinct which identified 11 Aboriginal sites within the Precinct that may be subject to harm as a result of the development. The Proponent also consulted with the Aboriginal Community on the results of the test excavations and proposed impacts to Aboriginal Cultural Heritage values in the Northern Precinct. It also prepared an ACHAR, which will be used to guide the ongoing management of the Precinct. The ACHAR recommends preparation of an Aboriginal Cultural Heritage Management Plan (ACHMP) for the site, application for an Aboriginal Heritage Impact Permit (AHIP), continued consultation with Aboriginal Parties and unexpected finds protocols.

Heritage NSW reviewed the information and advised all of its key issues have been addressed and it has no further comments with regard to the Northern Precinct.

The Department has considered the results of the test excavations and the ACHAR and notes that the proposed modification would only materially affect two of the 11 identified sites. The modification does nothing to change the impacts to other sites which are already within the approved Concept Plan footprint. Of the two affected sites:

- 'Bomaderry Point 1' is located below the transmission lines and previously was not proposed for development. Undergrounding of the transmission lines and extension of the residential footprint into this area will affect this site. It consists of a shell midden but the site has been badly disturbed with highly fragmented shell. It is assessed as having low scientific significance, low historical significance and moderate aesthetic value.
- 'Tallawarra North Pad 1' is a low-density artefact scatter. Part of the PAD would already be affected by the approved Concept Plan footprint. The PAD is assessed as having low scientific significance, low historical significance and moderate aesthetic value.

The ACHAR recommends mitigation measures to minimise impacts and record and conserve artefacts, which would be formalised through the future ACHMP and AHIP process. Noting Heritage NSW has not raised any concerns with the proposal, the Department considers the proposal would appropriately minimise and mitigate Aboriginal heritage impacts within the Northern Precinct.

Central Precinct

During the assessment process, the Proponent amended the proposed boundary of the precinct to ensure one identified PAD site would not be affected by the modification. No further test excavations or consultation were carried out for the Central Precinct.

Heritage NSW questioned why test excavations haven't occurred and how the boundaries of the PAD site have been established in the absence of test excavations. It also questioned the lack of consultation in relation to the culturally significant Fig Tree on the site and advised of the need for an ACHMP for the site. Council also raised concerns in relation to the fig tree and raised concerns that the proposal would result in further encroachment of development into areas higher on the site, with potential associated heritage impacts.

The Applicant responded that:

- the only material change to the boundaries of the Precinct is a small additional section in the north-east (shown green on **Figure 27**) and this area has previously been assessed as having low archaeological potential. As such no further archaeological testing is required for this area
- all areas of moderate to high potential within the Central Precinct will be subject to future test excavations as part of future applications as required in the current Concept Plan approval
- although archaeological testing has not been conducted to determine the boundaries of the PAD site, boundaries of the site have been established in consultation with Heritage NSW based on landform and contours, and as shown in **Figure 27**, the site is not within the area affected by the modification
- consultation has not yet occurred in relation to the culturally significant Fig Tree. This will be undertaken in conjunction with the draft ACHMP for the Central Precinct
- as required by the Concept Approval an ACHMP is being prepared.

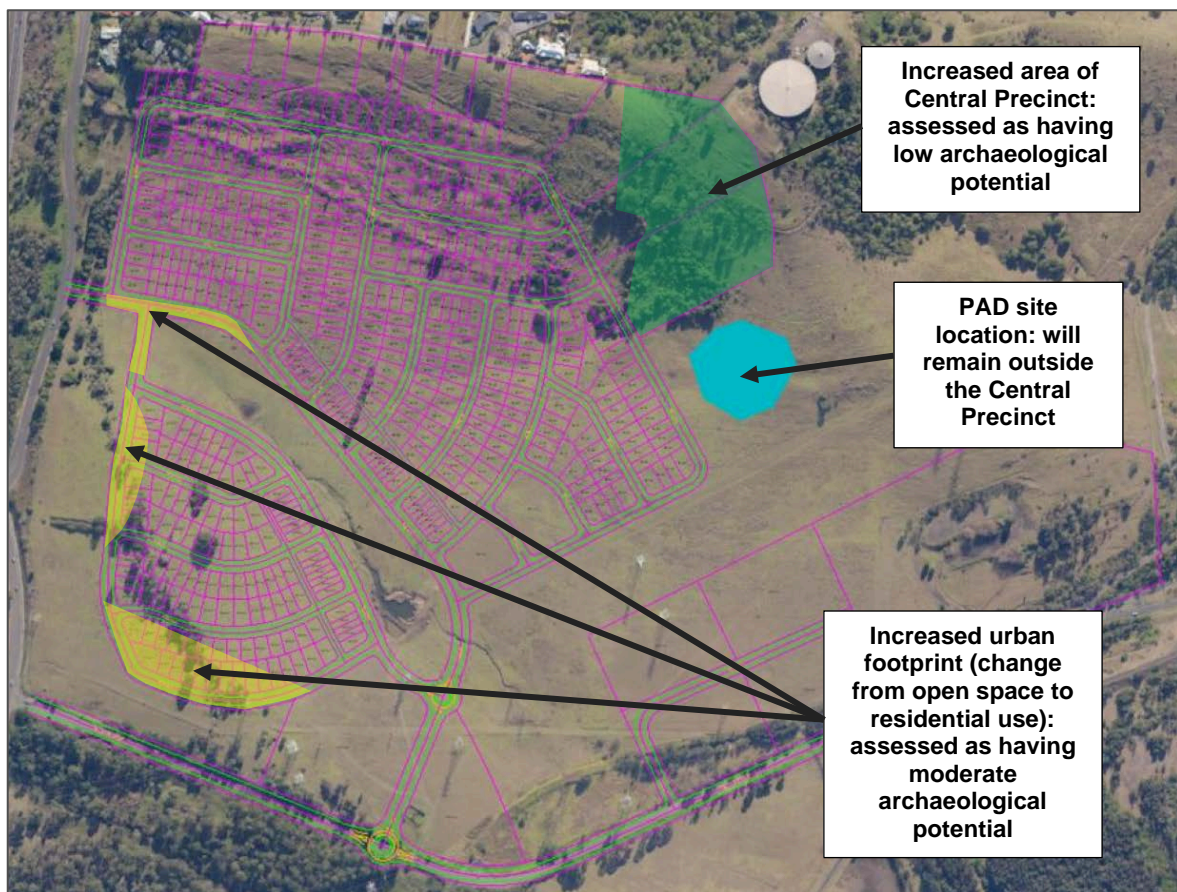


Figure 27 | Proposed changes to footprint of development and archaeological potential (base image source: Proponent's supplementary information)

Heritage NSW subsequently recommended that every effort should be made to avoid harm to the Fig Tree and that test excavations be carried out prior to development consents for subdivision to allow flexibility to avoid harm to Aboriginal objects.

The Department considers that the proposed modification would be unlikely to result in significant adverse Aboriginal heritage impacts in the Central Precinct, noting that:

- although initially included in the modification proposal, as seen in **Figure 27**, the PAD site would be located outside of the boundaries of the site.
- other known Aboriginal Archaeological sites, including the site which incorporates the culturally significant Fig Tree are all within the urban footprint already approved by the Concept Plan and the proposed modification does not alter this
- the northern / elevated part of the Precinct which is subject to additional footprint and the greatest increase in density is all identified as having low archaeological potential.

However, the Department notes there are some small areas of increased urban footprint in the western part of the Precinct and these have been identified as having moderate archaeological potential (shown in yellow on **Figure 27**). Future test excavations required in these areas may reveal the presence of Aboriginal sites.

In the absence of test excavations, assessment and consultation prior to determination of the modification request, the Department recommends a FEAR requiring an updated Cultural Heritage Management Plan to ensure test excavations and consultation would be carried out before finalisation of the Plan. This would ensure the future subdivision layout could be adjusted to address Aboriginal heritage on sites (already identified or identified through future test excavations and consultation), in particular sites that are identified as being appropriate to retain insitu. This recommendation would also ensure that the subdivision design would respond appropriately to the values of the Fig Tree identified through further consultation with Aboriginal Parties.

The Department also notes the assessments provided to date do not cover the full extent of the Central Precinct, with the eastern section of the Industrial area missing from the assessment areas. A FEAR is therefore recommended to confirm that the future Archaeological Assessments, ACHAR and ACHMP consider the entire Precinct.

Subject to these requirements the Department is satisfied that Aboriginal heritage impacts would be appropriately considered and minimised in future subdivision applications for the Precinct and the proposed modification would not result in significant impacts for Aboriginal heritage.

Road Links

Delivery of the Northern Precinct will also require a road through land that is proposed to be retained by Energy Australia (as discussed in detail in **Section 6.4**). Archaeological testing or consultation has not occurred to assess potential impacts for Aboriginal Cultural Heritage.

The Department therefore recommends that Part 1 of the required ACHMP apply not only to Central and Northern super lots but also to the road reserve required to deliver the upgraded and extended roadway connecting the two precincts. A modification to the FEAR has been recommended accordingly.

Subject to this requirement, the Department is satisfied the Aboriginal heritage impacts associated with delivery of the roadway will be appropriately considered and minimised.

6.8 Open Space

Loss of open space and the need for additional open space to support the increase in population under the proposal were raised in public and Council submissions. Council advised there was a need

for the provision of additional open space and facilities in the Northern Precinct and that the provision of open space and facilities should be based on a needs assessment. It also identified a number of concerns with the design of the open space facilities in the Central Precinct.

The Proponent subsequently amended the Northern Precinct layout to include an enlarged area of open space, with the facilities including playground, multi-use courts, picnic areas, pathways and cafe. It also reinstated the approved layout for open space in the Central Precinct and identified that final design of open space facilities would be subject to further development as part of future applications (**Figures 28 and 29**).

The Department notes that the modification also results in a rearrangement and loss of some land previously identified for passive open space within the Central Precinct (**Figures 30 and 31**).



Figure 28 | Approved layout of Northern Precinct open space (Source: MP09_0131 Amended Landscape Plan)

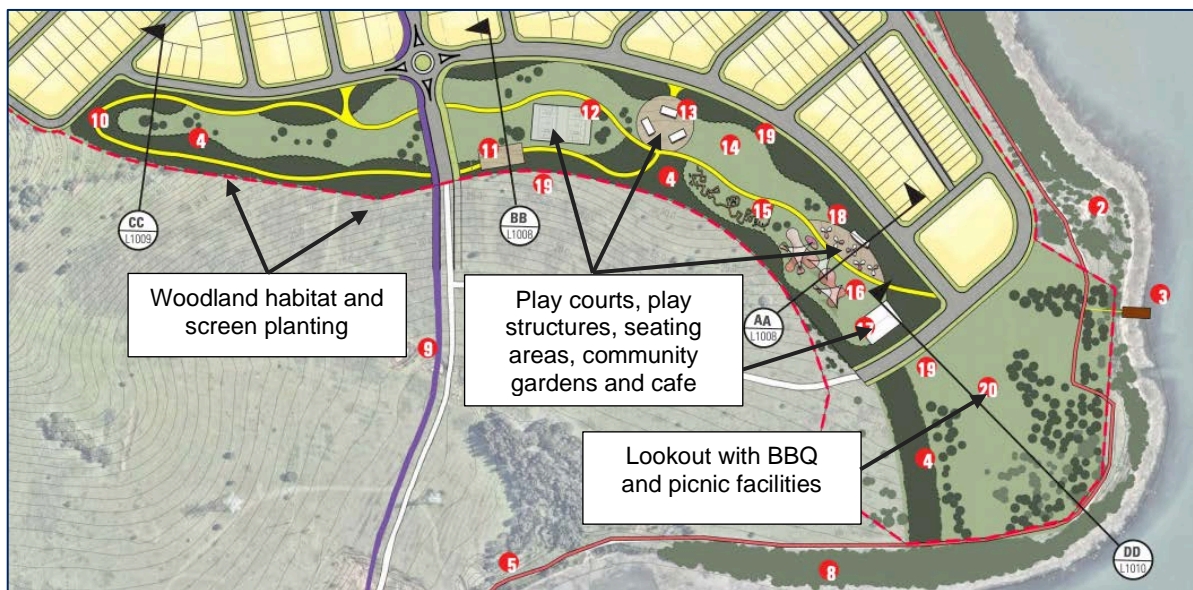


Figure 29 | Proposed layout of Northern Precinct open space (Source: RTS Landscape Plan)

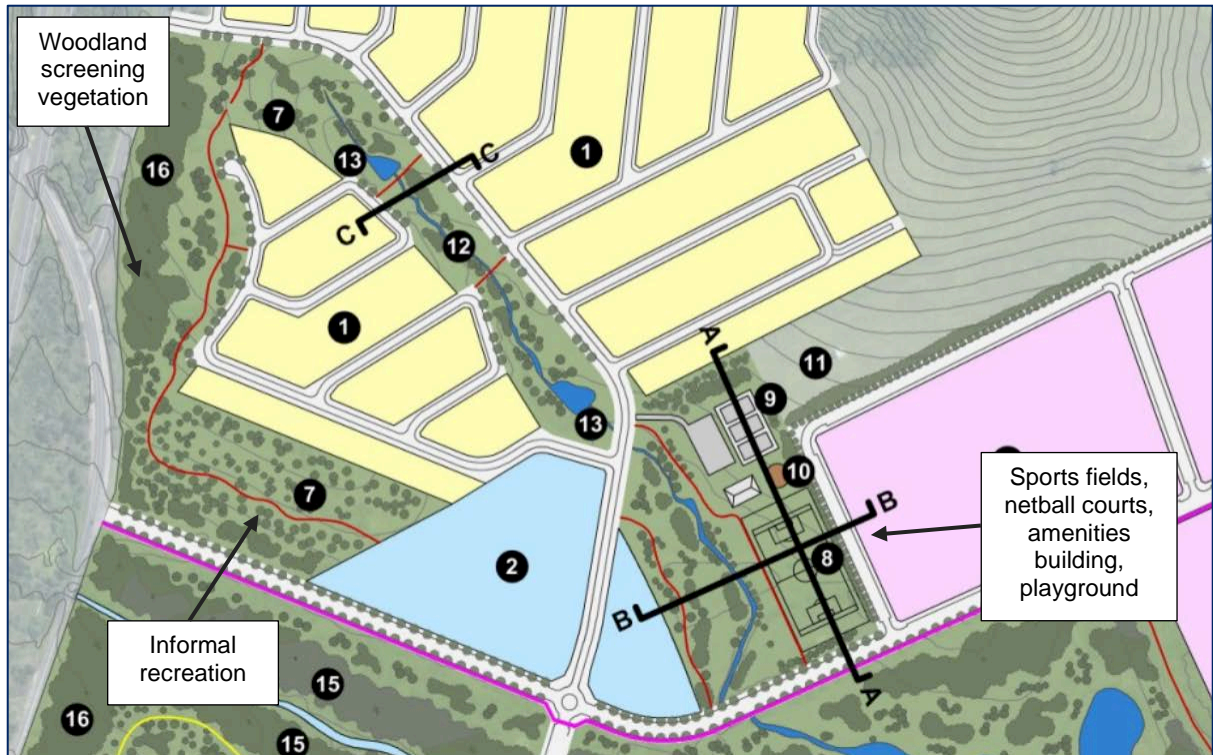


Figure 30 | Approved layout of Central Precinct open space (Source: MP09_0131 Amended Landscape Plan)



Figure 31 | Proposed layout of Central Precinct open space (Source: Addendum RtS Plans)

Following amendments to the plans, the Council advised of the following outstanding concerns and recommendations with regard to open space:

- open space is still not based on any community / social infrastructure needs assessment

- there should be a well distributed network of open space, with an equal split between active and passive recreation areas
- pocket parks are to be developed within super lot boundaries
- open space should reflect Council's Urban Greening Strategy, ecological conservation principles and the need to provide amenity
- additional opportunities should be provided for children and young people
- the design of open space will need to meet Council requirements with regard to stormwater management and safety, size and gradient of ball sport areas, orientation of courts and accessibility of facilities
- land at the western end of the northern precinct could be developed for a sports field / activity space as well as additional habitat to offset loss of EEC
- recommend a link be provided to Hector Harvey Park.

The Department considers that overall the Concept Plan, as amended, would result in a well distributed open space network with an appropriate mix of passive and active recreation areas. Despite the increase in population under the modification and the loss of some passive recreation space in the Central Precinct, the modification would overall, result in a net improvement to open space. The improvement is due to the significant additional embellishment of open space in the Northern Precinct to provide a wide range of facilities and opportunities, including facilities for children and young people, not previously available in the Precinct. Under the amended proposal all future residents within both the Central and Northern Precincts would be within a short walk of open space areas that provide a range of facilities and functions including playgrounds and play courts. The Department therefore considers the modification does not require the provision of additional pocket parks and a social infrastructure needs assessment is not required to assess the proposed amendments.

Issues relating to the layout and design of the open space areas, urban greening and ecological conservation can be resolved as part of future applications and negotiations with Council. The Department does not consider the modification gives rise to the need for additional sports facilities in the western end of the northern precinct and notes additional facilities in this area may conflict with ecological and heritage values in this location. A link to Hector Harvey Park (adjoining the Northern Precinct) is supported as the modification effectively removes a link that would have been available under the approved layout. A FEAR has been recommended accordingly.

The Department is satisfied that overall the proposal would result in improved open space outcomes for future residents on the site and does not give rise to any unacceptable impacts with regard to open space.

6.9 Acoustic Impacts

Concerns were raised in submissions regarding noise impacts from the power station and the Princes Motorway (APRB) on the proposed revised residential areas. These are each considered in turn below.

Power Station Noise

The modification request, as originally submitted, proposed to extend the residential footprints of both the northern and central precincts closer towards the Tallawarra Power Station (**Figure 7**).

Concerns were raised by Council and the EPA with regard to the acoustic impacts to future dwellings within these precincts, which would be exposed to high noise levels from the power plant. Further information was also requested in relation to acoustic modelling.

In response, the Applicant reduced the extent of the proposed footprints in the Northern and Central Precincts and provided an updated acoustic assessment to address concerns raised about the acoustic modelling. The revised footprints ensure all residential lots would be located outside of the 40dB noise contour based on noise generated from Tallawarra A and B Power Stations. (**Figure 32**).

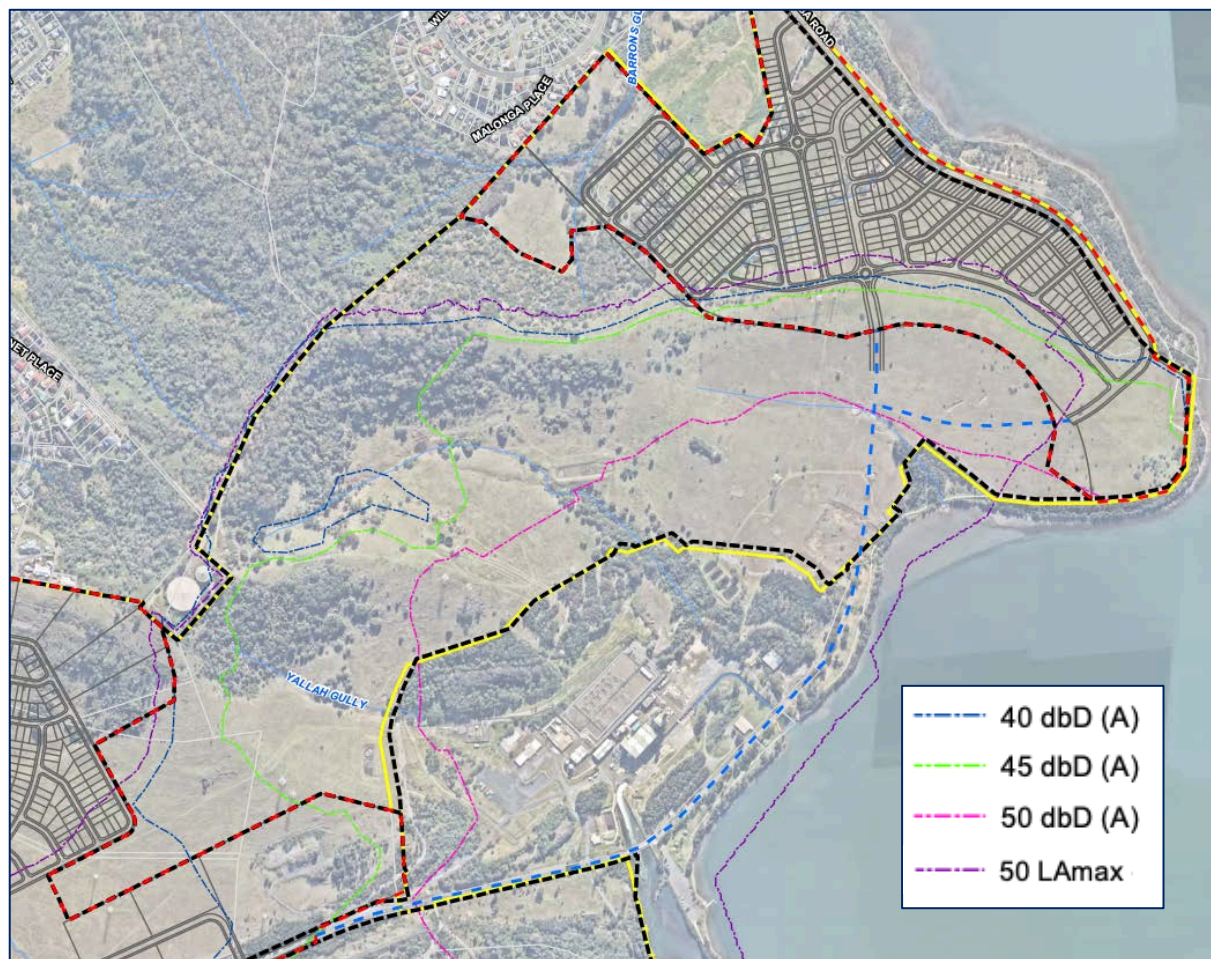


Figure 32 | Extract from noise constraints plan showing location of residential development relative to noise contours from power plant noise (Source: Addendum RTS)

Following revision of the proposal, the EPA and Council did not have any concerns with regard to noise. The EPA recommended a number of measures / approaches to better promote noise outcomes as part of future applications such as reducing impacts at receivers through appropriate design and communication mechanisms to inform future residents of the noise affected areas. However, it is noted that these are matters for Council to consider as part of future applications.

The Department is therefore satisfied the proposal would not result in the creation of residential lots which would suffer from unacceptable acoustic impacts from the power station. The Department also notes that contemporary science supports an LA_{max} of 52 dB(A), rather than 50 dB(A), and as such has recommended that future applications demonstrate that dwellings would be outside of the 52 dB(A) LA_{max} contour, therefore providing increased options for the placement of dwellings on the most noise affected sites.

Road Noise

As the western edge of the Central Precinct would be adjacent to the Princes Highway and new motorway ramps, the impacts of road noise on the future residential area are required to be considered in accordance with Clause 102 of State *Environmental Planning Policy (Infrastructure)* 2007. The original approval included a buffer zone / open space area between the residential area and the roadway which could have included an acoustic wall within a landscaped setting or other treatments to mitigate noise from the road, if found to be necessary. However, under the modification, it is proposed to transfer this land to RMS, to meet RMS requirements for highway upgrades. As a result, other than the future RMS land, there would be no undeveloped land between the site and the Princes Highway which could accommodate noise walls or similar.

RMS also advises that the responsibility for noise mitigation lies with the developer and that, where noise modelling as part of future DAs demonstrates a need for mitigation measures, those measures must be provided on the developers' land (and not on the future RMS land). RMS raised concern that the amended layout does not make provision for future acoustic treatments on the Proponent's site other than possible architectural treatments to future dwellings. RMS advises noise walls are preferred as they provide noise reduction for both external and internal noise areas.

In response, the Applicant advised that acoustic impacts would be considered and addressed as part of future DAs for subdivision within the Central Precinct. This would include detailed noise modelling and where necessary, mitigation measures such as noise barriers and / or architectural treatments to dwellings.

The Department notes RMS advice that noise walls are preferred over architectural treatments to dwellings and agrees that should detailed noise assessments demonstrate the need for noise mitigation, this should be provided as an acoustic wall within a landscaped setting or a landscape treatment between the built area of the Central Precinct and the Highway. This would ensure noise reduction is addressed holistically and provided to all outdoor areas within the Precinct, would not result in adverse streetscape impacts caused by high boundary walls surrounding individual allotments, and would ensure mitigation outcomes are similar to that which could be achieved under the current approval.

The Department has therefore recommended that should future assessments demonstrate the need for noise mitigation to the Central Precinct, the indicative subdivision layout could be amended to enable provision of a landscaped area to the west of the perimeter road sufficient in size to provide an acoustic wall within a landscaped setting or landscape treatments (such as mounds) to adequately address noise mitigation requirements.

Subject to these recommendations, the Department is satisfied the impacts of road noise on the future residential area would be adequately addressed, without adverse impacts to the amenity or character of the precinct and without undue burden on future owners of individual allotments.

6.10 State Public Infrastructure

FEAR 25 requires that the first application to Council must demonstrate satisfactory arrangements have been made for the provision of designated State public infrastructure, in accordance with Clause 6.1 of Wollongong LEP 2009. In effect, this would require the preparation of a Voluntary Planning Agreement (VPA) for state infrastructure provision or contributions.

The proposal originally sought to delay the timing for demonstration of satisfactory arrangements to future applications for 'development', as opposed to the first application which is for super lot subdivision only. The Proponent advises that modification is sought on the basis that preparation of a VPA for the entire site places an unreasonable financial burden on Bridgehill, given much of the land is to remain in Energy Australia's ownership.

The Department notes that this matter was considered in the original assessment as the Proponent at that time (Energy Australia) also sought to delay the timing for satisfactory arrangements. The Department's assessment did not support the delay as the first super lot subdivision was likely to result in over 30 parcels of land and therefore *"if satisfactory arrangements are not required to be made by the proponent at the time of super lot subdivision, the Department would be faced with the prospect of negotiating satisfactory arrangements with multiple landowners, in the event that super lots are sold before satisfactory arrangements are made"*.

In response to these concerns, the Proponent subsequently amended the modification to create only four super lots and clarified that satisfactory arrangements would be made in two stages:

- for the Northern and Central Precincts at the time of the first application for urban development in those Precincts and prior to any subdivision within the Precincts
- for the entire Southern Precinct at the time of the first application for urban development and prior to subdivision within the Precinct.

TfNSW, being responsible for the provision of road infrastructure funded by any VPAs under this condition, have not raised concerns with the amended timing. However, TfNSW advised that the Department should be satisfied that the terms of the modification would ensure satisfactory arrangements would be met prior to further subdivision or development following the creation of the super lots and that the modification would not further complicate future discussions.

The Department's Infrastructure, Contributions and Agreements team have advised that the revised approach is generally acceptable. As such, the Department considers the amended approach proposed by the Applicant as acceptable as it would ensure all infrastructure needs are agreed upfront, with negotiations only carried out with two owners. It would also allow development of the Northern and Central Precincts to be progressed by Bridgehill without being constrained by Energy Australia's progress or actions on entering into a VPA on the Southern site.

The Department has therefore recommended FEAR 25 be updated to allow satisfactory arrangements to be made in two stages..

6.11 Contamination

Concerns were raised in submissions regarding proposed changes to FEARs 11 and 12 and the need to address contamination issues in the southern part of the site.

FEAR 11 requires that future applications be accompanied by further contamination investigations which consider a range of contamination issues, mitigation and management measures. The effect of the condition is that contamination matters across the entire site would need to be considered and addressed as part of the first future application for super lot subdivision.

FEAR 12 requires the first future application to Council (the super lot subdivision) include verification from a site auditor as to the adequacy of previous assessments as well as certification of the suitability of the entire site for the proposed use. This condition also effectively requires contamination matters across the entire site to be addressed in the initial application, and potentially also requires remediation across the entire site prior to the first subdivision.

The Proponent is seeking to modify both FEARs so that the timing of the requirements applies separately to the Southern Precinct and to the Northern and Central Precincts, with:

- all additional assessments relating to the Northern and Central Precincts being resolved at the time of the first super lot subdivision
- all additional assessments relating to the Southern Precinct being resolved at the time of the first application to further subdivide or carry out works within the Southern Precinct
- required remediation works arising from the above assessments then being completed on the relevant land / precinct prior to any further subdivision or any building work within that land precinct.

The modification would also allow for remediation works and validation to be undertaken in conjunction with subdivision works and initial bulk earthworks, which the Proponent considers to be more appropriate than requiring works to be undertaken in conjunction with a super lot subdivision where no physical works are proposed.

The suggested wording of the revised FEARs was amended on a number of occasions throughout the assessment process to address concerns raised by the Department and the EPA to ensure all appropriate actions to address contamination on the site are undertaken at the appropriate stage. The Proponent also requested further amendments to clarify the type of works affected by the conditions.

Following the Addendum RTS, the EPA advised it was supportive of the proposed changes to timing, agreed with proposed wording of FEAR 11, and recommended a small change to the proposed wording of FEAR 12 (to clarify timing and extent of certification in the Southern Precinct) and raised no objection to the amendment to clarify the scope of the conditions.

However, Council considers that contamination matters should be addressed upfront and holistically across the entire site, to ensure environmental outcomes are resolved without delay to the southern area which is of greatest concern with regard to contamination.

The Department considers the proposed modification is reasonable. SEPP 55 requires consideration of land contamination issues in relation to the purpose of the development. Super lot subdivision does not give rise to any purpose such as approval of future land uses nor approval of any physical works. Therefore, it is not necessary to consider contamination and remediation of the Southern Precinct in order to subdivide the site.

Further, as the Northern and Central Precincts are clearly distinguished from the Southern Precinct, it is reasonable to consider contamination and remediation in each of these areas separately. Where it can be demonstrated that the Northern and Central Precincts are suitable for development, no

unacceptable impacts arise from development proceeding in those areas prior to resolution of contamination issues in the Southern Precinct. The modification would therefore ensure development is not delayed in areas where contamination issues have been resolved.

The modification would also allow any required remediation works to be carried out in conjunction with subdivision works and earthworks, which is consistent with standard practice and would not result in any adverse outcomes, subject to appropriate validation prior to further development of each precinct.

The Department is therefore satisfied the proposed revised FEARs (as amended by the EPA) would generally ensure all appropriate investigations and remediation works are resolved in an appropriate and timely manner relevant to the development of each part of the site.

However, the Department acknowledges that the proposed amendments to the FEARs and timing for resolution of contamination issues could potentially impact the ability to deliver the Haywards Bay Link Road prior to development of the remainder of the Southern Precinct if required (as discussed in detail in **Section 6.4**). The Department therefore also recommends the imposition of a further FEAR, to enable any contamination issues associated with delivery of the Haywards Bay Road link to be resolved prior to the remainder of the Southern Precinct, should the link road be delivered prior to other subdivision works within the precinct.

6.12 Other issues

Issue	Findings	Recommendations
Bushfire	<ul style="list-style-type: none"> A Bushfire Assessment was submitted with the application which finds that the proposal complies with Planning for Bushfire Protection (PBP) requirements. RFS advised the design should be amended to provide a perimeter road around all residential lots. The only exception is where residential lots adjoin land with a plan of management. RFS also noted future DAs will need to demonstrate compliance with relevant bush fire safety requirements which may require further amendment to the Concept Plan. The Department notes the current indicative scheme includes perimeter roads to all residential lots, with the exception of approximately 22 lots in the Northern Precinct which adjoin a Council reserve and four large lot residential sites in the Central Precinct. The Proponent has confirmed the Council reserve is subject to a Plan of Management 	<ul style="list-style-type: none"> The Department recommends a future assessment requirement that clarifies that the road and subdivision layout are indicative only and the final design is to meet the requirements of PBP. FEARs are recommended to be updated to reflect the latest version of PBP.

and therefore a perimeter road is not required for the adjoining lots.

- The Department notes that the Concept Plan road and lot layout are indicative only and subject to future development and subdivision approval. The requirements for perimeter roads can therefore be addressed as part of future applications, having regard to PBP provisions.
- Existing FEAR 23 requires future applications which include bushfire prone land to demonstrate that the development meets PBP requirements, will ensure the modification would not result in any additional bushfire risks

European Heritage

- The site contains one listed heritage item under WLEP 2012, being Mount Brown Reserve in the northern part of the site.
- The proposed new boundaries of the Northern Precinct would extend into the mapped area of the heritage listed item, but no development is proposed in this area and it is proposed to manage the land as Environmental Management Land. The Department also considers the additional development proposed by the modification would not materially impact on views to and from the Reserve (**Section 6.3**).
- Heritage Impact Assessments (HIS) on the site have also identified five potential historic sites in the Northern and Central Precincts. The proposed modification would result in increased encroachment into two of these areas, known as TH2 and TH3, being part of a farm complex and incorporating the significant Fig Tree discussed in **Section 6.8**. Existing requirements of the HIS under the Concept Approval provide that where practicable, impacts to these areas should be avoided and that where impacts are unavoidable, detailed archaeological assessments are to be provided.
- An updated HIS was submitted with the modification request which assesses the archaeological potential of these sites as low
- The Department is satisfied the modification would not adversely impact on the heritage values of the Mount Brown Reserve and no additional measures are required.
- The Department recommends that additional assessment and investigations be carried out as part of future applications to determine the archaeological potential and significance of sites TH2 and TH3, and that where archaeological potential is confirmed, impacts to these areas should be avoided or where impacts are unavoidable, detailed archaeological assessments are to be provided.
- The Department recommends a modification to FEAR 8 that the CHMP also include a Heritage Interpretation Plan.

and no longer proposes avoidance or detailed archaeological assessment.

- Council raised concern that the HIS appears to downgrade the potential significance of these sites and advises the HIS should be amended to reflect additional historical investigations and include clear archaeological significance and context mapping.
- Council also recommends a Heritage Management Plan and Heritage Interpretation Plan should be required for the site.
- The Proponent provided additional information to support its assessment that the sites have limited archaeological potential, however Council maintains its concern that the HIS does not accurately reflect all available information.
- The Department therefore recommends that additional assessment and investigations be carried out as part of future applications to determine the archaeological potential of these sites, and that where archaeological potential is confirmed, impacts to these areas should be avoided or where impacts are unavoidable, detailed archaeological assessments are to be provided.
- The Department notes existing FEAR 8 requires a Cultural Heritage Management Plan that includes measures to avoid and minimise impacts to heritage items. The Department recommends a modification to the FEAR that the CHMP also include a Heritage Interpretation Plan.
- Subject to these conditions, the Department considers the Heritage impacts of the proposed modification would be appropriately addressed as part of future applications.

Affordable Housing

- | | |
|---|--|
| <ul style="list-style-type: none"> • The need for provision of affordable housing was raised by Council and in some public submissions. • Council and the Illawarra Housing Trust request that a percentage of the development be contributed as social and affordable rental | <ul style="list-style-type: none"> • No changes or additional recommendations required. |
|---|--|
-

housing. Council noted it had applied to be included in *State Environmental Planning Policy No 70 – Affordable Housing (Revised Scheme)* which would provide a policy mechanism to ensure affordable housing is a component of new development precincts, including Tallawarra Lands.

- The Proponent advised it would provide social and affordable housing as is required by statutory requirements in place at the time of individual development applications.
- The Department notes that *State Environmental Planning Policy No 70 – Affordable Housing (Revised Schemes)* was amended in February 2019 to include Wollongong LGA but only applies to applications submitted after that date. While it doesn't apply to the assessment of the current modification request, it will apply to future DAs on the site, so that it is likely that affordable housing will be delivered as part of future development.
- The Department otherwise considers the modification request does not result in any adverse impacts for affordable housing. Rather, the proposed increase in housing supply as well as the proposed reduction in lot sizes would result in beneficial impacts for housing affordability.

Geotechnical

- One public submission raised concern with the soil stability in the northern part of the Central Precinct which is characterised by steep slopes.
- Previous geotechnical investigations at the time of the original application noted there was a moderate risk of landslide in these areas but that the risk could be reduced by changes to soil cover, regrading of surfaces, installation of subsurface drainage, water drains and piping, appropriate vegetation cover and appropriate footings into rock.
- Geotechnical advice submitted with the modification request confirms that there is potential for risk but that risks can be
- The Department recommends a new FEAR that requires future applications that relate to areas of slope instability identified in the Coffey Environments Report 2010 are to be prepared having regard to the findings of that report and the requirements of WDCP 2009 Chapter E12: Geotechnical Assessment of Slope Instability.

managed with appropriate engineering design.

- The Department considers that as the proposal would result in increased residential density in this part of the site, it is appropriate to include an additional FEAR to ensure geotechnical risks are addressed as part of future applications.

Crown Land

- Crown Lands manage the foreshore lands adjacent to the site and advised their land is not managed to provide any recreational use or opportunity on the foreshore, it does not support any proposal for use of the Crown Land to meet the proposed development's requirements for open space, conservation land, foreshore access or structures. In this regard plans showing proposed footpaths and jetties, stormwater management and tree planting on the Crown Land should be removed from the plans.
 - In response to these concerns, the Proponent updated the plans to relocate stormwater management structures shown on Crown Land under the original approval onto the subject site and confirmed no works would be undertaken on any Crown Land.
 - The Department is satisfied the proposal does not rely on Crown Land for open space or any other purpose and does not propose works on Crown Land. However, it notes that paths and jetties are shown on the adjacent Crown Land sites on the plans.
- A term of approval is recommended to remove any possible ambiguity and clarify that the Concept Plan does not approve any works on the adjacent Crown Lands.

7 Evaluation

The Department has assessed the proposed modification in accordance with the relevant requirements of the EP&A Act. The Department has carefully considered the issues raised in the submissions and the response to those issues provided by the Proponent and is satisfied the impacts have been satisfactorily addressed by the proposal or through the Department's recommended conditions.

The Department considers the proposal has strategic merit as it provides additional housing and variety in housing to meet growing demands consistent with strategic objectives of the Illawarra Shoalhaven Regional Plan and the draft Wollongong Local Strategic Planning Statement. It also ensures the delivery of housing and employment lands in the northern part of the site is not delayed or constrained by unrelated environmental issues elsewhere on the site.

Key issues considered in the assessment of the proposal include density, character and visual impacts, traffic and roads, environmental impacts including ecological impacts and water quality impacts, Aboriginal heritage, open space provision, acoustic issues, and issues relating to dividing landownership arrangements and associated responsibilities.

During the assessment process, the Proponent significantly reduced the scale of the proposed modification to respond to concerns relating to acoustic impacts, open space, heritage and flooding, and in so doing also partially addressed ecological and other impacts associated with the proposal.

The Department considers the site is well suited for the proposed increased density. Being a greenfield site approved for urban development, but yet to be developed, there is scope to design future stages to include appropriate infrastructure and mitigation measures to accommodate the additional density without unacceptable adverse amenity or environmental outcomes.

The Department has recommended Future Environmental Assessment Requirements throughout this assessment to ensure that the additional density and changes to land ownership arrangement can be accommodated without unacceptable impacts. Subject to these recommendations, the Department concludes the modification request is acceptable as:

- future subdivisions will be able to be designed to provide appropriate character, amenity, landscape and built form outcomes and adequately cater for the additional traffic, pedestrian and cycle movements associated with the modification
- the modification would not result in adverse visual impacts or unacceptable view loss impacts and would result in an improvement to visual outcomes in the Northern Precinct due to the proposed undergrounding of visually obtrusive transmission lines in this area
- the proposal is unlikely to result in any material additional traffic impacts to the surrounding area compared to the approved Concept Plan, and should impacts arise, they can be resolved through future applications where necessary
- subject to recommended modifications, the proposal would not result in significant adverse environmental outcomes as a result of encroaching into Environmental Management Land or as a result of additional clearing of native vegetation and any impacts will be able to be offset as part of future applications

- the proposal is likely to result in improved water quality outcomes compared to those anticipated by the existing approval and does not raise any additional concerns with respect to flooding
- Aboriginal cultural heritage impacts will be appropriately assessed and mitigated as part of future applications
- the proposal includes improved provision of open space with significant additional embellishment of open space in the Northern Precinct to provide a wide range of facilities and opportunities for future residents
- the proposal would not result in adverse acoustic outcomes for future residents
- contamination issues would be addressed as part of future applications consistent with requirements and expectations for contaminated land management
- subject to the recommendations of this report, the proposal would allow for changes to landownership arrangements and associated responsibilities to enable the delivery of development in the Northern and Central Precincts, without compromising the ability to address infrastructure and environmental and heritage outcomes on remaining sites necessary to support the development of the Northern and Central Precincts.

The Department's assessment concludes the impacts of the modification request are acceptable and can be appropriately mitigated through the recommended future environmental assessment requirements as outlined in **Appendix C**.

8 Recommendation

It is recommended that the Executive Director, Key Sites and Regional Assessments, as delegate of the Minister for Planning and Public Spaces:

- **considers** the findings and recommendations of this report
- **determines** that the application MP 09_0131 MOD 1 falls within the scope of s75W of the EP&A Act
- **accepts and adopts** all of the findings and recommendations in this report as the reasons for making the decision to approve the modification
- **agrees** with the key reasons for approval listed in the draft notice of decision
- **modifies** the consent MP09_0131
- **signs** the attached approval of the modification (**Appendix C**).

Recommended by:



Michelle Niles
A/Team Leader
Regional Assessments

Recommended by:



Keiran Thomas
Director
Regional Assessments

9 Determination

The recommendation is **Adopted / Not adopted** by:

Anthea Sargeant

Executive Director

Key Sites and Regional Assessments

as delegate of the Minister for Planning and Public Spaces

Appendices

Appendix A – List of referenced documents

1. Modification Report

http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=8059

2. Submissions

http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=8059

3. Response to Submissions

http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=8059

4. Addendum Response to Submissions

http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=8059

Appendix B – Environmental Assessment

http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=8059

Appendix C – Instrument of Approval of Modification

http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=8059

Appendix D – Statutory Considerations

State Environmental Planning Policy (Infrastructure) 2007 (Infrastructure SEPP)

The Infrastructure SEPP aims to facilitate the effective delivery of infrastructure across the State by improving regulatory certainty and efficiency, identifying matters to be considered in the assessment of development adjacent to particular types of infrastructure development, and providing for consultation with the relevant public authorities about certain development during the assessment process.

The Department has consulted and considered comments from relevant public authorities (**Section 5 and 6** of the report). The Department has included suitable conditions in the recommended conditions of consent.

State Environmental Planning Policy No. 55 - Remediation of Land

SEPP 55 aims to ensure that potential contamination issues are considered in the determination of a development application. The Concept Plan approval gave detailed consideration to contamination issues and included FEARs to ensure future applications were accompanied by further contamination investigations, mitigation and management measures to ensure appropriate outcomes in accordance

with SEPP 55. As required by SEPP 55, issues of contamination and remediation would be further addressed at the development application stage.

As discussed in **Section 6.12**, the modification request seeks to change the timing of the additional assessments and remediation works. The Department is satisfied the proposed changes would not affect compliance with the requirements of SEPP 55 and the proposal does not raise any additional issues with regard to contamination as compared to the approved concept plan.

Draft State Environmental Planning Policy (Remediation of Land)

The Draft Remediation SEPP will retain the overarching objective of SEPP 55 promoting the remediation of contaminated land to reduce the risk of potential harm to human health or the environment. The Department is satisfied that the modified proposal would not raise any additional issues with regard to contamination objectives of the Draft Remediation SEPP.

State Environmental Planning Policy No 14 – Coastal Wetlands

SEPP 14 was repealed on 3 April 2018. However, in accordance with the savings and transitional provisions of the Coastal Management SEPP (discussed below) SEPP 14 continues to apply to the assessment of the Concept Plan modification.

There are two wetlands identified under SEPP 14 on the subject site: both located in the Southern Precinct. As no works are proposed within the identified wetlands, there are no relevant assessment requirements under the SEPP.

State Environmental Planning Policy No 71 – Coastal Management

SEPP 71 was repealed on 3 April 2018. However, in accordance with the savings and transitional provisions of the Coastal Management SEPP (discussed below), SEPP 71 continues to apply to the assessment of the Concept Plan modification.

The site is within the coastal zone as defined by the SEPP. Matters for consideration under the SEPP have been assessed as part of this report, including scenic quality impacts (**Section 6.3**) biodiversity impacts and wildlife corridors (**Section 6.5**) stormwater treatment, water quality impacts and impacts to the waterways (**Section 6.6**), and conservation of heritage, including Aboriginal Cultural Heritage (**Section 6.8** and **6.13**). In relation to other matters for consideration, the Department notes the proposed modification would not result in any additional impacts for foreshore access, coastal foreshore processes, overshadowing of the foreshore, loss of views of the foreshore and that measures to ensure energy and water efficiency would be considered as part of future applications.

State Environmental Planning Policy (Coastal Management) 2018

The Coastal Management SEPP came into effect on 3 April 2018. Parts of the site are identified as 'coastal wetlands', 'proximity area for coastal wetlands', 'coastal environment area' and 'coastal use area' under the SEPP which will have implications for the future assessment of DAs for development of the site.

However, in accordance with Clause 21, for the purpose of this modification assessment, the former planning provisions continue to apply (in this case SEPP 14 and SEPP 71) and the Coastal Management SEPP can not be applied to consideration of the current application as

- the application was made within 12 months of commencement of the Coastal Management SEPP,
- an EIS was submitted with the application
- the Secretary issued SEARs for the preparation of the EIS and
- the SEARs required the EIS to consider SEPP 14

Wollongong Local Environmental Plan (WLEP) 2009

With the exception of permissibility, the provisions of WLEP 2009 do not apply to the assessment of applications under the provisions of the former Part 3A of the EP&A Act.

Nevertheless, the Department has considered provisions of the WLEP 2009 and those matters raised by Council in its assessment of the development (refer to **Section 5**). Consideration of the relevant clauses of the WLEP 2009 is provided in **Table 1**.

Table 1 | Consideration of the WLEP 2009

WLEP2009	Department Comment / Assessment
Clause 2.1 Land Use Zones	The proposed modification does not seek to carry out any development prohibited under the table to the clause. Rather it proposes development of a greater density to that envisaged by the controls in Clauses 4.1 – 4.5 (below). Consideration has been given to the objectives of the E3 zone where it is affected by the modification (Section 6.5) and the Department is satisfied that subject to some modifications, the proposed modification would not result in unacceptable consequences inconsistent with the objectives of the affected zone.
Clause 2.3 Zone Objectives and Land Use Table	
Clause 4.1 Minimum Subdivision Lot size	The modified Concept Approval will override existing minimum lot size controls applicable to the site under the LEP. Refer to discussion in Section 6.1 and Section 6.3 on the proposed change to the controls.
Clause 4.2A Erection of dwelling houses on land in certain rural and environmental protection zones	The clause provides that the minimum Lot size for E3 Environmental Management Zoned Land is generally 40ha. The modified Concept Approval will override the lot size controls. Refer to discussion in Section 6.1 and Section 6.3 on the proposed change to the controls.
Clause 4.3 Height of Buildings	The modified Concept Approval will override existing height controls applicable to the site under the LEP. Refer to discussion in Section 6.1 and Section 6.3 on the proposed change to the controls.
Clause 4.4 Floor Space Ratio (FSR)	The modified Concept Approval will effectively override existing the FSR applicable to the site under the LEP. Refer to discussion in Section 6.1 and Section 6.3 on the proposed change to the controls.
Clause 5.10 Heritage Conservation	Heritage Impacts have been considered in detail in Sections 6.8 and 6.13 . Existing and recommended FEARs will ensure future DAs will appropriately assess and protect heritage values consistent with the objectives of the clause.

Clause 6.1 Arrangements for designated State Public Infrastructure	Satisfactory arrangement requirements for provision of State Public Infrastructure are considered in Section 6.11 . The requirements of the Concept approval with regard to satisfactory arrangements will achieve the objectives of this clause.
Clause 6.2 Development Control Plan	The clause requires a DCP must be prepared for the site prior to subdivision. Term of Approval A5 which requires Development Guidelines (for inclusion into Council's DCP) to be developed with the first application to Council acts in place of this requirement. The Guidelines are discussed in Section 6.3
Clause 7.1 Public Utility Infrastructure	The Department has consulted with utility providers and is satisfied the additional density on the site is capable of being adequately serviced subject to appropriate arrangements being made as part of future DAs.
Clause 7.2 Natural Resource Sensitivity - Biodiversity	Biodiversity Impacts have been considered in Section 6.5
Clause 7.3 Flood Planning	The development site is not identified on the Flood Planning Map under the clause; however parts of the site are affected by flooding. Section 6.7 provides consideration of flood planning issues
Clause 7.4 Riparian Lands	As discussed in Section 6.5 , the proposed modification affects one area of riparian land under the LEP. A FEAR has been recommended to ensure impacts to the Riparian zone would be minimised in accordance with the existing Concept approval requirements.
Clause 7.5 Acid sulfate soils	Acid sulfate soils will be considered in detail as part of future DAs. The modification primarily affects land classified as Class 5 acid sulfate soils under the LEP. As the modification would be unlikely to result in development below five metres AHD or lower the water table on adjoining land, no further assessment requirements arise.
Clause 7.6 Earthworks	Earthworks and associated impacts will be required to be considered as part of future DAs.
Clause 7.13 Certain Land within Business Zones	The modification does not make any material change to the proposed neighbourhood centre that would affect the ability to provide non-residential ground floor uses and have appropriate openings facing the street as part of future applications as required by the clause.
Clause 7.14 Minimum Site width	The clause sets minimum site widths for multi-dwelling housing lots (18 metres) and residential flat building lots (24 metres). Given the layout plans submitted with the modification request are indicative only, the Department is satisfied appropriate lot widths can be provided as part of future subdivision DAs to support these forms of development, as appropriate.
Clause 7.16 Tallawarra Power Station Buffer Area	In accordance with the clause, buildings may not be erected on the land identified on the map unless adequate measures will be in place to minimise adverse noise and odour impacts of the power station. Noise has been considered in Section 6.10 and the Department is satisfied the proposal would not result in the creation of residential lots which would suffer from unacceptable acoustic impacts from the power station. Given the proposal does not significantly change the boundaries of the precincts, the Department is also satisfied that the modification

would not materially change the potential for odour impacts to properties on the site.
