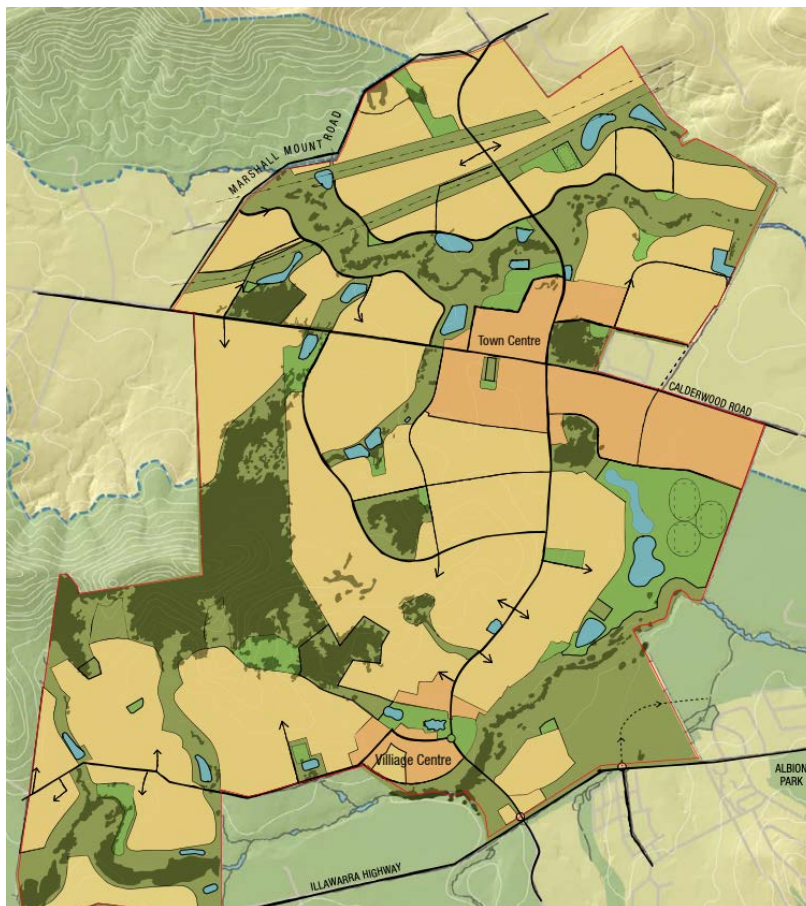




Calderwood Concept Plan Modification 4

Modifications to Concept Approval for Development of
Calderwood (MP09_0082 MOD 4)

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Glossary

Abbreviation	Definition
AHD	Australian Height Datum
BCA	Building Code of Australia
CIV	Capital Investment Value
Crown Lands	Crown Lands, DPIE
Department	Department of Planning, Industry and Environment
EESG	Environment, Energy and Science Group, DPIE (formerly NSW Office of Environment & Heritage – OEH)
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
LEP	Local Environmental Plan
Minister	Minister for Planning and Public Spaces
RMS	Roads and Maritime Services, TfNSW
Planning Secretary	Secretary of the Department of Planning, Industry and Environment
SEARs	Planning Secretary's Environmental Assessment Requirements
SEPP	State Environmental Planning Policy
SSD	State Significant Development
SSP SEPP	State Environmental Planning Policy (State Significant Precincts) 2005
TfNSW	Transport for NSW

Executive Summary

This report is an assessment of a request to modify the Concept Plan Approval (MP09_0082) for the redevelopment of 700 hectares (ha) at Calderwood for a range of residential, commercial, community uses, open space and protection of environmental lands. The site is located within the Shellharbour and Wollongong Local Government Areas.

The modification seeks approval to modify the approval to add approximately 1200 dwellings on the site by reducing lot sizes in certain locations. It also seeks to modify the provision of open space, road infrastructure, community infrastructure, the dedication of land for schools, water cycle management and sustainability measures. The request has been lodged by Lendlease Communities (Australia) Limited (the Proponent) pursuant to section 75W of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

During exhibition, the Department received 74 submissions, of which 57 objected to the proposal. The key issues raised included impacts on local infrastructure, flooding, water quality, and biodiversity. In response to these issues, the Proponent reduced the number of additional dwellings (from 1,700 to 1,200) and deleted the proposed increase in retail floor space within the Town Centre.

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 response.

The Department supports the proposal as it would increase housing supply and choice in line with growing demand and strategic objectives including housing within walking distance of a town centre. The Department considers the site can accommodate additional density and that appropriate infrastructure and environmental mitigation are proposed to support it.

Notwithstanding, the Department has recommended further refinements to the proposal through conditions requiring:

- A more detailed masterplan for the Town Centre Core.
- All additional open space to be provided on land owned by the Proponent.
- Safety measures for residential lots affected by the probable maximum flood.
- Only allowing small lot subdivision adjacent to larger parks (0.3 ha), B4 Mixed Use zone and 800m of the Town Centre.
- Appropriate pedestrian connections, pedestrian amenity, urban greening and streetscape outcomes in the denser urban areas.
- Clarification on the timing and standard of roadworks associated with upgrading Calderwood Road.
- Appropriate future intersection design requirements for the northern connection of Escarpment Drive to the road network
- Other landowners within the Concept Plan area are not adversely affected by the modification or the requirements of the Proponent to deliver infrastructure.

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_00982**) for the redevelopment of Calderwood.

The modification request seeks to increase the permitted number of dwellings on the site from 4800 to 6000 dwellings and make associated changes to the provision of open space, road infrastructure, community infrastructure, the dedication of land for schools, water cycle management and sustainability measures. The request has been lodged by Lendlease Communities (Australia) Limited (the Proponent) pursuant to section 75W of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

1.1 The Subject Site

The Calderwood Concept Plan approval site (the site) has an area of approximately 700 ha and is located approximately 10 km west of the Shellharbour City Centre and 20 km south-west of Wollongong (Figure 1). It is located within the Shellharbour and Wollongong Local Government Areas (LGA).

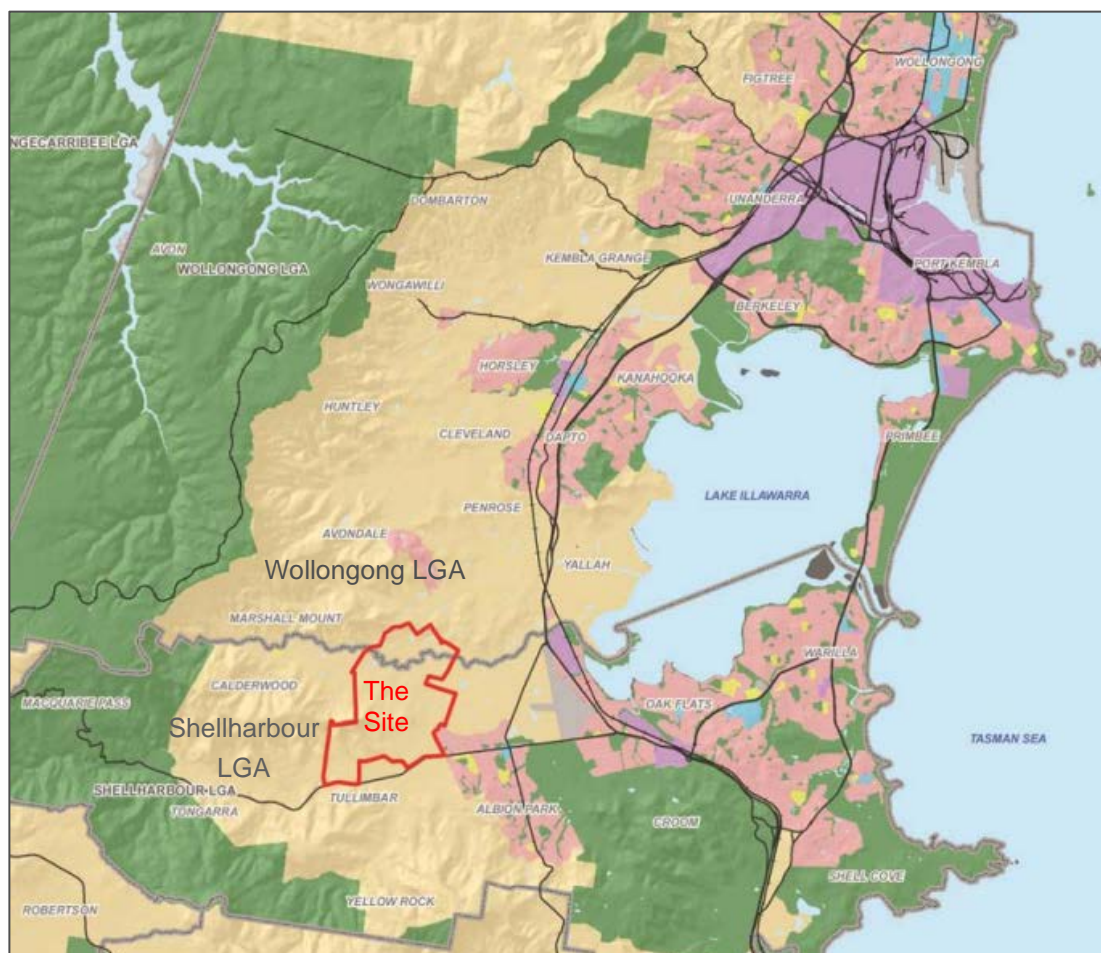


Figure 1 | Regional Context Map (Base source: Calderwood Concept Plan Environmental Assessment)

Lendlease is the developer for 609 ha of the overall 700 ha site, and there are three parts of the site being developed by other owners, known as the 'non-core' lands (**Figure 2**). Lendlease has commenced development of the site and a number of stages are now occupied or under construction.

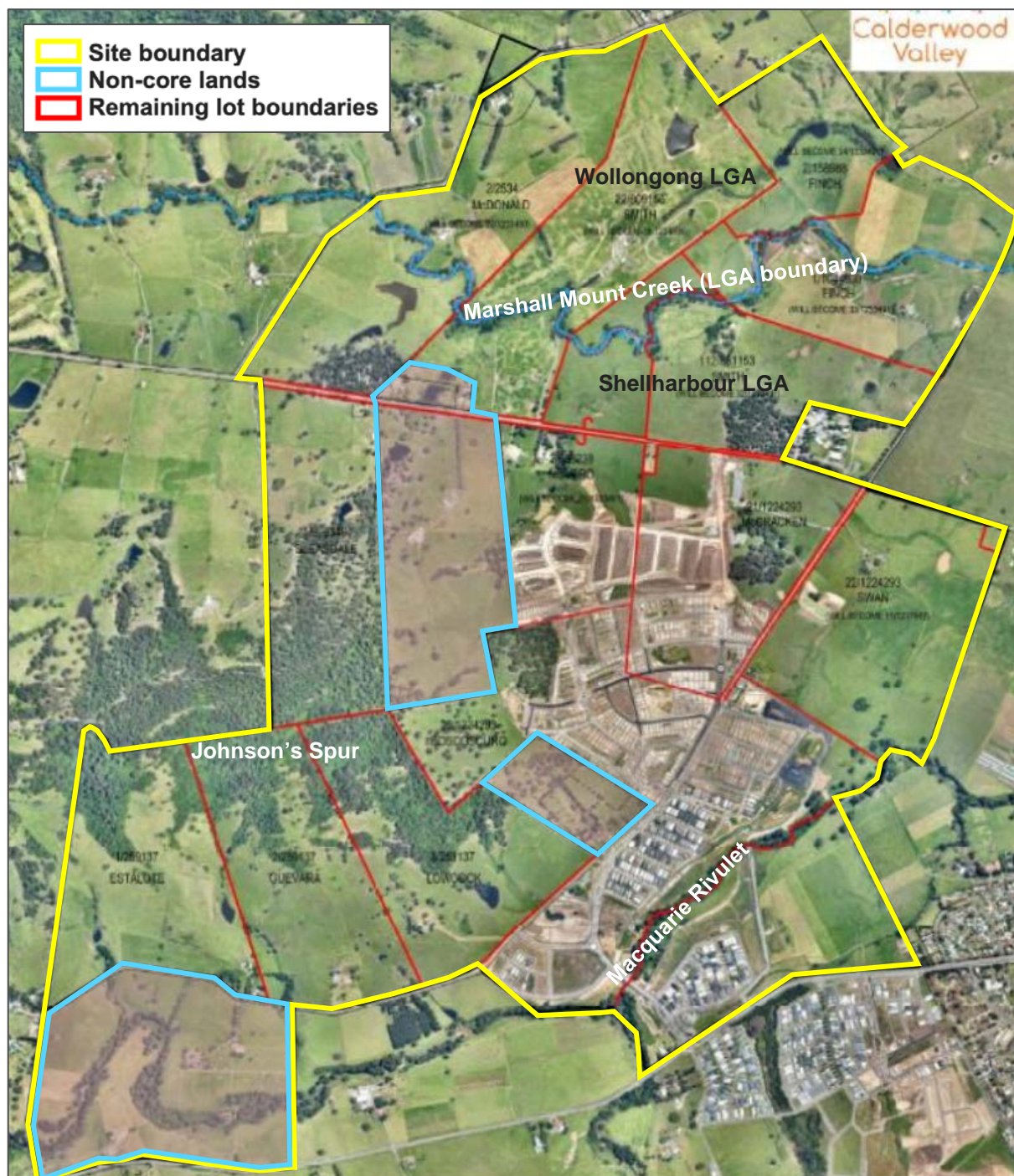


Figure 2 | Aerial view of the site (Base source: EIA)

1.2 Approval History

Concept Approval

On 8 December 2010, the then Minister for Planning granted Concept Approval to guide the development of 700 ha of land at Calderwood for the following purposes:

- 4800 residential dwellings
- 50ha of mixed-use land for a range of retail, commercial and light industrial uses
- open space and the protection of environmentally significant lands
- internal roads, service infrastructure and community facilities.

The Concept Plan has been modified on two occasions (**Table 1**). A further modification request (MOD 1) in relation to developer contributions and infrastructure requirements is awaiting further information from the Proponent who has advised it will be withdrawn following determination of this modification.

The approved Concept Plan layout is shown in **Figure 3**.

Table 1 | Summary of Modifications

Mod No.	Summary of Modifications	Approval Authority	Type	Approval Date
MOD 1	Amendments to requirements for local infrastructure contributions	N/A	75W	Under assessment
MOD 2	Modification to permit subdivision of environmental zoned land	IPC	75W	27 March 2018
MOD 3	Modifications to Integrated Housing requirements and the Development Control Strategy	N/A	75W	Withdrawn
MOD 5	Clarify the zoning of a section of land and replace an open riparian corridor with a habitat enhancement linkage	Department	75W	6 March 2020

State Significant Site Approval / Rezoning

On 14 January 2011, the subject site was declared a State Significant Site (SSS) in the then State Environmental Planning Policy (Major Development) 2005 (now the SSP SEPP). The SSS listing carried over most of the zoning and minimum lot size controls proposed in the Environmental Assessment and Preferred Project Report (PPR) for the SSS Listing and Concept Plan, however, minor amendments were made to minimum lot sizes within environmental lands, changes to zoning to address flood evacuation and provide appropriate transition to the adjoining rural properties.

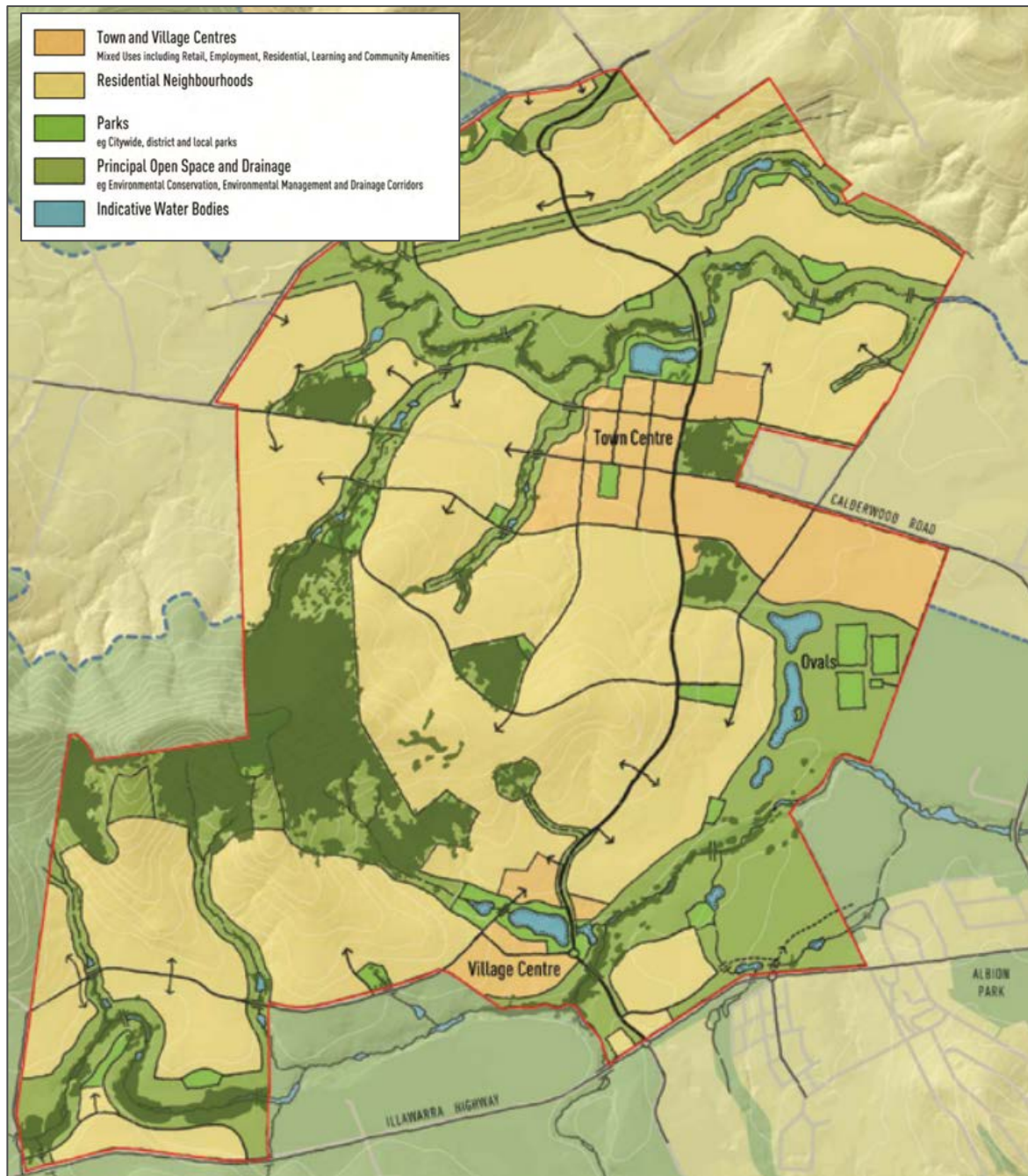


Figure 3 | Approved Concept Plan Layout (Base source: MP09_0082 approved plans)

Other Approvals

On 23 September 2013, and following refusal of the application by the Planning Assessment Commission, the Land and Environment Court (LEC) approved a project application for the first stage of the development, including 231 residential lots, nine mixed use and medium density lots and associated infrastructure on the subject site (MP 09_0083).

Shellharbour City Council (Shellharbour City Council) has also approved several Part 4 development applications permitting the creation of new residential allotments, public reserves, roads and public domain works. Some stages have been completed and are now occupied. Other applications have also been made on the non-core landowner sites.

2 Proposed modification

This section 75W modification request (MP09_0082 MOD 4) seeks approval to increase the residential capacity within the Calderwood site by increasing the maximum permitted number of dwellings and by reducing the residential lot sizes in certain areas. Changes to the provision of open space, road infrastructure, community infrastructure, the dedication of land for schools, water cycle management and ESD measures are also proposed.

The key components and features of the modification request (as refined during assessment) are provided in **Table 2** and are shown in **Figures 4 and 5**.

Table 2 | Main components of the modification request

Aspect	Approved Concept Plan	Proposed modification
Overall Development Description	Redevelopment of 700 ha at Calderwood for: <ul style="list-style-type: none"> 4800 residential dwellings 50ha of mixed-use land for a range of retail, commercial and light industrial uses open space and the protection of environmentally significant lands internal roads, service infrastructure and community facilities. 	Redevelopment of 700 ha at Calderwood for: <ul style="list-style-type: none"> 6000 residential dwellings 50ha of mixed-use land for a range of retail, commercial and light industrial uses open space and the protection of environmentally significant lands internal roads, service infrastructure and community facilities.
Dwellings	4800	6000
Minimum Residential Lot Size	<p>300m² in the R1 General Residential areas, except on sites:</p> <ul style="list-style-type: none"> directly opposite or adjacent to the Town and Village Centres or directly opposite or adjacent public parks at least 0.3ha, <p>where integrated housing may be provided with minimum lot size of</p> <ul style="list-style-type: none"> 125m² (attached and semi-detached) 150m² (detached). <p>Town and Village Centre (B4 Mixed use zone): No minimum size. DCS envisages lots as small as 80m²</p>	<p>300m² in the R1 General Residential areas, except on sites:</p> <ul style="list-style-type: none"> within an 800m walking catchment of the Town Centre directly opposite or adjacent to the Town and Village Centres or directly opposite or adjacent public parks at least 0.2ha, <p>the following minimum lot sizes apply:</p> <ul style="list-style-type: none"> standard residential lots: 225m² integrated housing: 125m² (all dwelling house types) <p>Town and Village Centre: No changes No minimum size. DCS envisages lots as small as 80m²</p> <p>Note: no changes to lot sizes on other lands.</p>
Town Centre	<ul style="list-style-type: none"> Town Centre including up to 20,000m² of retail floor space and approximately 20,000m² of non-retail commercial floorspace in conjunction with residential and other uses over a 40 ha area Requirement to prepare a Town Centre Strategy to guide development of the Town Centre 	<ul style="list-style-type: none"> Town Centre with up to 20,000m² of retail floor space and approximately 20,000m² of non-retail commercial floorspace concentrated in a smaller 'Town Centre Core' area and remaining parts of the Centre to be developed predominantly for residential uses Deletion of Town Centre Strategy requirement; Development Control Strategy updated to include Urban Design Principles, a Town Centre Core

Framework Plan and Town Centre Core Built Form Guidelines		
Village Centre	<ul style="list-style-type: none"> Local Centre including up to 5000m² of retail floor space 	<ul style="list-style-type: none"> No change
Community Centre	<ul style="list-style-type: none"> Construction and dedication of centre with 900m² floor space 	<ul style="list-style-type: none"> Floor space increased to 1120m²
Library	<ul style="list-style-type: none"> Contributions towards 625m² of library floor space 	<ul style="list-style-type: none"> Contributions towards 780m² of library floor space
Schools	<p>3 school sites dedicated to Department of Education (exact locations not determined):</p> <ul style="list-style-type: none"> High School site (6 ha) prior to subdivision for the 1500th dwelling Primary School site (3 ha) prior to subdivision for the 1500th dwelling Second Primary School (3 ha) prior to subdivision for the 2800th dwelling 	<p>3 school sites dedicated to Department of Education (confirmation of proposed locations):</p> <ul style="list-style-type: none"> High School (6 ha) prior to subdivision for the 2800th dwelling Primary School (3 ha) prior to subdivision for the 1500th dwelling Second Primary School (2ha) prior to subdivision for the 2800th dwelling
Environmental Lands	<ul style="list-style-type: none"> Environmental Lands including Johnsons Spur and Riparian Corridors to be conserved Landownership and management arrangements be determined as part of future DAs 	<ul style="list-style-type: none"> No change, except an amendment to one commitment to identify Council (in addition to Crown Lands) as a potential future landowner of Johnsons Spur
Open Space	<p>33.67ha of open space including</p> <ul style="list-style-type: none"> 17.83ha passive open space 15.84ha active open space 	<p>43.81ha of open space including</p> <ul style="list-style-type: none"> 21.84ha passive open space 21.96ha active open space
Road Infrastructure	<ul style="list-style-type: none"> Contributions to a range of local road upgrades outside the site (through VPAs with Wollongong City Council and Shellharbour City Council) Construction of upgraded Calderwood Road from the site boundary to the Tripoli Way extension to an improved two-lane standard of road Construction of internal roads including north-south arterial road (Escarpment Drive) and intersection upgrades at the northern and southern ends 	<ul style="list-style-type: none"> Additional contributions to Shellharbour City Council to fund upgrade of intersection to signalised intersection (Calderwood and Tripoli Way) Construction of upgraded signalised intersection at Illawarra Highway / Broughton Avenue (via State VPA) Retain construction of upgraded Calderwood Road to an improved two-lane standard of road and confirming the proposed standard and design of the roadway and timing for delivery of the upgrade Changes to internal roads including minor change to alignment of Escarpment Drive and revised proposed intersection arrangements at the northern end
Riparian Corridors & Water Cycle Management	<ul style="list-style-type: none"> Establishment of Riparian Corridors which in conjunction with Approved Water Cycle Management Strategy including water quality ponds / constructed wetlands and gross pollutant traps perform a key role in the water cycle management. Targets 80% reduction in total suspended solids, 45% reduction in phosphorus and 45% reduction in nitrogen entering the waterways from the site. 	<ul style="list-style-type: none"> Retention of all Riparian Corridors except partial removal of one corridor (Stream Reach 15) Revised Water Cycle Management Strategy with increased size of treatment devices but overall reduction in the number of wetlands / stormwater treatment train devices, changes to indicative location of treatment devices. Targets 85% reduction in total suspended solids, 65% reduction in phosphorus and 45% reduction in nitrogen entering the waterways from the site.

ESD

- A commitment to consider opportunities for the establishment of a solar farm and co (or tri) generation as part of the project, particularly for the Town Centre and employment precincts
- Solar Farm and Tri-generation commitment deleted and replaced by a commitment to achieve a minimum 5-star (and seek to achieve a 6-star) Green Star Communities Rating

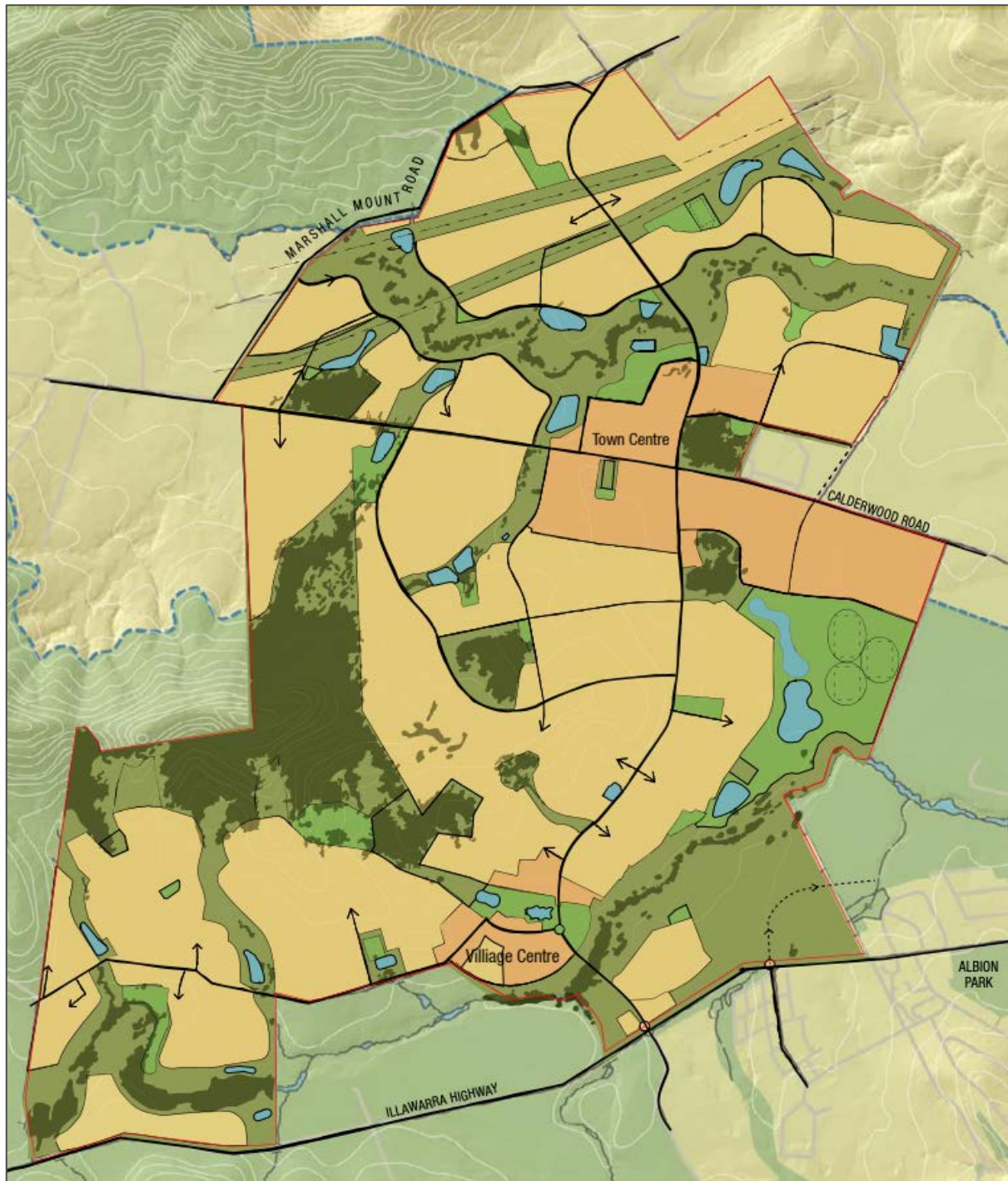


Figure 4 | Proposed Concept Plan Layout (Source: Proponent's Additional Information)

The additional 1200 dwellings are proposed within the existing approved developable footprint, including:

- The Town and Village Centres (the B4 Mixed Use zone) (shown brown and blue in **Figure 5**)
- Residential Zoned land (the R2 General Residential zone) within 800m walking catchment of the Town Centre (Shown pink in **Figure 5**)
- Residential Zoned land immediately opposite or adjacent to local parks larger than 2000m² where land is not steep (gradient less than 1 in 10) (shown black cross hatched in **Figure 5**)

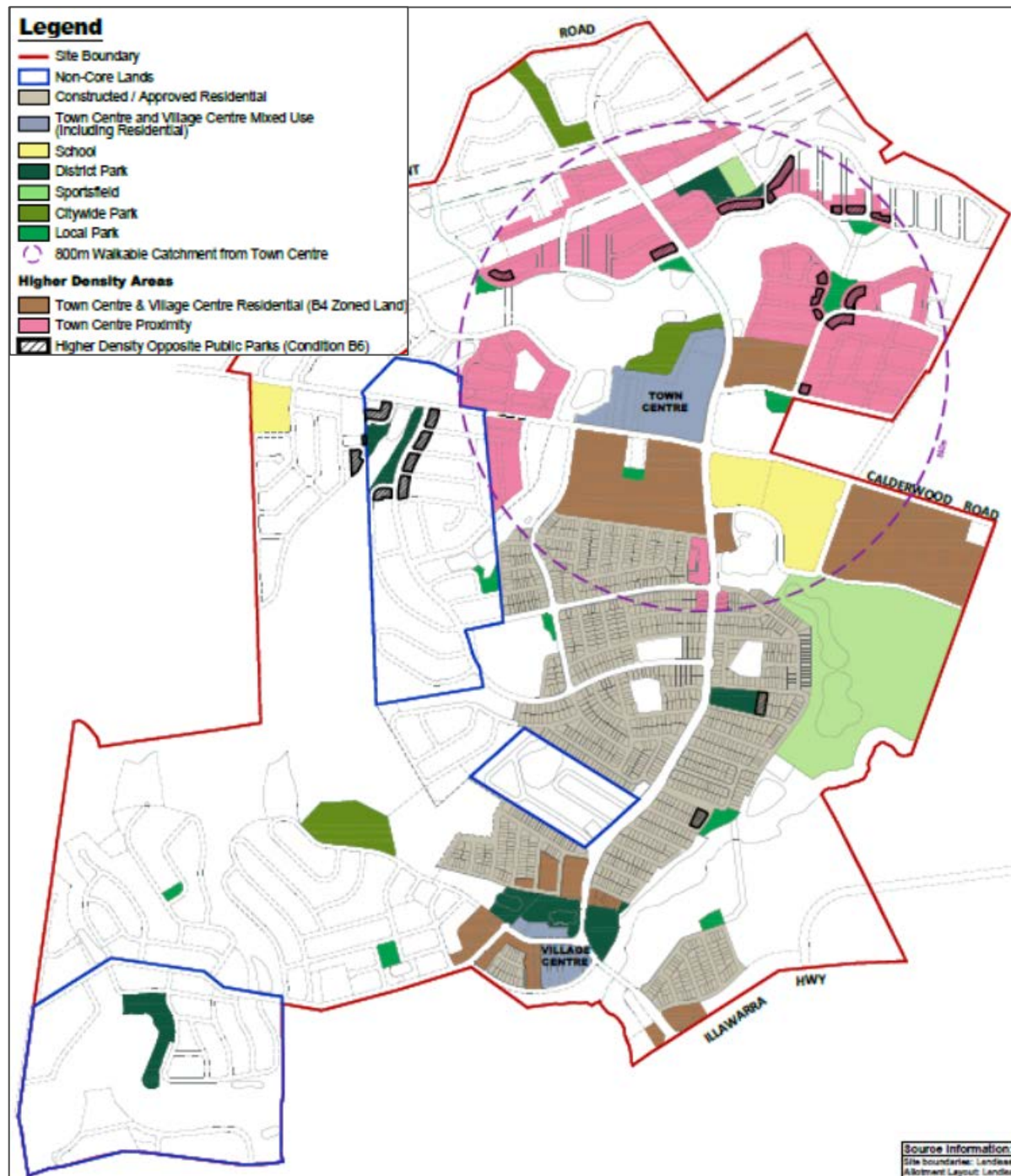


Figure 5 | Map demonstrating location of higher density areas (Source RtS)

The Development Control Strategy (DCS) for the project provides guidance for future development on the site. The modification includes some amendments to the DCS as follows:

- introduction of additional housing typologies, including design criteria for those housing types
- amendments to the location criteria for integrated housing and small lot housing
- further design advice on positioning and design of garages, particularly in respect of smaller integrated dwellings
- storage of waste ensuring that a designated storage area is integrated within the dwelling design
- requirements that integrated housing include landscaping in the front yard, where possible in the rear laneways and have pedestrian footpaths on the primary street frontage
- introduction of Urban Design Principles and Built Form objectives for the Town Centre
- introduction of parking rates for the Town Centre
- road and street sections amended to reflect established infrastructure already delivered with approval from Shellharbour City Council
- additional design provisions for design of laneways.

3 Strategic context

The Illawarra Shoalhaven Regional Plan

The Illawarra Shoalhaven Regional Plan recognises Calderwood as forming part of a major regional release area essential for the delivery of long-term housing growth in the region. The modification, would be consistent with the directions 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)
- Identify and conserve biodiversity values when planning new communities (Direction 2.4)
- Match supply of housing with demand (Direction 2.5)
- Ensure biodiversity values on the site are conserved (Direction 2.4)
- Grow opportunities for investment and activity in the region's network of centres (Direction 3.1)
- Protect the region's environmental values by focusing development in locations with the capacity to absorb development (Direction 5.1)

Shellharbour Local Strategic Planning Statement

The Shellharbour Local Strategic Planning Statement (LSPS) estimates that over the next 20 years, total population in the LGA will increase by 28% (to 93,440 people) resulting in the need for an additional 8200 dwellings. It also estimates that average household size will be 2.61 persons by 2040.

The LSPS advises that additional dwellings should be provided by increasing density within and around existing centres. The proposal is consistent with this intention in that the emerging Calderwood Centre is recognised as one of eight town centres in the LGA which are important for providing local employment, services and amenity to support residential growth. The modification proposes to provide the majority of the additional dwellings within 800m of the centre.

The proposal is also consistent with a range of other planning priorities, including delivery of greater housing diversity and affordability to meet the changing needs of the community and ensuring the protection of environmental and rural lands by delivering the additional density within existing approved urban areas.

Wollongong Local Strategic Planning Statement

The Wollongong LSPS states 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 Calderwood as one of the key urban release areas that will contribute to the provision of housing stock in the LGA, estimated to provide 800 dwellings towards the required 23,800. The exact distribution of the additional 1200 dwellings under the Concept approval would not be fixed, but the modification would increase the number of dwellings provided in the Wollongong LGA, making a positive contribution to housing the expected additional population growth.

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, but as the request for this modification was made before the 'cut-off date' of 1 March 2018, the provisions of Schedule 2 (clause 3) continue to apply. 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 of Planning Industry and Environment (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 Consent authority

The Minister for Planning and Public Spaces is the consent authority for the modification request. However, the Deputy Secretary, Planning and Assessment, may determine the request, under delegation dated 9 March 2020, as a political disclosure statement has not been received, and more than 50 unique submissions were received from the public objecting to the proposal.

4.3 Secretary's Environmental Assessment Requirements

On 1 February 2018, the Secretary notified the Proponent of the Environmental Assessment Requirements (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.

4.4 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_0082. However, since the application was approved, there have been

changes to the EPIs applicable to the site. The Department has therefore considered the proposal against the relevant EPIs that currently apply to the proposal in **Appendix B**.

The proposal complies with applicable EPIs, with the exception of the minimum lot size controls of State Environmental Planning Policy (State Significant Precincts) 2005 (SSP SEPP). However, in accordance with Clause 3B(2)(f) of Schedule 2 of the Environmental Planning and Assessment (Savings, Transitional and Other Provisions) Regulation 2017, a Concept Plan may override the provisions of any environmental planning instrument.

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 in **Appendix C**.

Ecologically Sustainable Development

The EP&A Act adopts the definition of ESD found in the *Protection of the Environment Administration Act 1991*. Section 6(2) of that Act states that ESD requires the effective integration of economic and environmental considerations in decision-making processes and that ESD can be achieved through the implementation of:

- the precautionary principle
- inter-generational equity
- conservation of biological diversity and ecological integrity
- improved valuation, pricing and incentive mechanisms.

ESD initiatives and sustainability measures will primarily be addressed as part of future development applications. The Development Control Strategy (DCS) under the Concept Approval includes measures to ensure ESD outcomes are incorporated into future subdivision and dwelling design, including objectives and controls in relation to orientation and solar access to dwellings, energy and water efficiency and waste management. The proposal does not diminish the sustainability outcomes required under the DCS.

The Proponent is seeking a more holistic approach to ESD by achieving a 6 star Green Star Communities Rating for the development as a whole rather than pursue the previously proposed solar farm or tri generation plant in the Town Centre. Further, the proposed provision of additional dwellings within approved urban areas would reduce pressure on environmental and rural lands, improving the ability to retain these areas for their environmental values in the long term.

The Department is satisfied the proposal is consistent with ESD principles and the proposed sustainability initiatives will encourage ESD, in accordance with the objects of the EP&A Act.

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 28 days between 13 September 2018 and 11 October 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 placed public exhibition notices in the Illawarra Mercury and The Advertiser on 12 September 2018 and provided written notice to the Councils, relevant Government agencies and adjoining landholders.

On 29 October 2020, the Department held two virtual community meetings for public submitters to provide an update on changes to the proposed modification during assessment. The issues raised in public submissions were discussed and comments and questions taken from the audience.

5.2 Summary of submissions

During the exhibition period, the Department received 74 submissions on 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	Comment
Shellharbour City Council	1	Object
Environment, Energy and Science Group (EESG) (former Office of Environment and Heritage)	1	Comment
Transport for NSW (Roads and Maritime Services) (former Roads and Maritime Services)	1	Comment
Transport for NSW	1	Comment
Lands and Water, DPIE (former Department of Industry, Land and Water)	1	Comment
NSW Environment Protection Authority	1	Comment
Civil Aviation Safety Authority	1	Comment
Rural Fire Service	1	Comment
Department of Education – School Infrastructure	1	Comment
Special Interest Groups		
Save Lake Illawarra Action Group	1	Object
Lake Illawarra Estuary Management Committee	1	Comment
Housing Trust	1	Comment

Community Members

< 5 km	40	Object
	3	Comment
5–100 km	14	Object
	1	Comment
> 100 km	1	Comment
Unknown location	2	Object
Total submissions	74	
Council and Agencies	1	Object
	9	Comment
Public submissions (including Special Interest Groups)	57	Object
	7	Comment

Public submissions on the EIS exhibition raised a number of issues, including:

- the timing for the delivery of the high school should not be delayed (44%)
- the size of the second primary school site should not be reduced (42%)
- additional pressure on infrastructure and services (33%)
- concerns about the additional lots and overpopulation (31%)
- the developer should honour the original masterplan and vision for the area (22%)
- traffic impacts associated with increased residential development (19%)
- additional stormwater runoff impacts, including additional pressure on Lake Illawarra (14%)
- the proposal for additional lots is greedy (14%)
- changes to the sustainability measures (14%)
- additional flood impacts (13%)
- concerns regarding amenity and changes to the character of the area (9%)
- more pressure on the Councils to maintain the additional infrastructure and increases to ratepayers (5%)
- the small lot typologies (5%)
- the planning process and the limited time for submissions to be provided (5%)
- biodiversity impacts (3%)
- impacts on property prices (3%)

The issues raised in submissions from Councils and Government agencies are detailed in **Table 4**.

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

Shellharbour City Council

- the modification is not required to meet identified housing supply shortages or housing mix deficiencies
- the modification would delay the assessment of development applications currently before Council for subdivisions of non-core lands within the Calderwood Urban Development Precinct (CUDP)
- potential flooding impacts for areas already subdivided, the bridge over the Macquarie Rivulet built in Stage 1 and impacts on land downstream
- flood modelling assumptions may impact on flooding behavior
- more information on cut and fill levels required and the OEH Risk-based Framework for Considering Waterway Health Outcomes in Strategic Land-use Planning Decisions be addressed
- traffic modelling concerns and the understated impacts on the road network
- potential delays to road upgrades such as Calderwood Road and Tripoli way
- Lack of information regarding riparian corridors, threatened endangered communities and flora and fauna, key fish habitats and the removal of Stream Reach 15
- ownership and management of environmental lands
- advice required from the Commonwealth (*Environmental Protection and Biodiversity Conservation Act* (EPBC Act))
- quantum, type, location and quality of additional open space and sporting facilities
- increased maintenance requirements for Shellharbour City Council given the additional infrastructure
- the existing VPA between Shellharbour City Council and the Proponent needs to be reviewed

Wollongong City Council

- requests the State Environmental Planning Policy (State Significant Precincts) 2015 be amended where there are inconsistencies between the SEPP and concept approval as modified
- clarity on the traffic modelling assumptions, including whether the ultimate West Dapto development scenario was considered
- concerns with some of the proposed road type parking lane widths, upgrade to the T-intersection on Escarpment Drive/Marshall Mount Road and recommends provision of a shared path on both sides of Escarpment Drive
- further information required on the impacts of the increased density on community facilities, open space and public domain and local infrastructure
- concerns with the biodiversity assessment regarding threatened ecological communities
- the Commonwealth Department of Environment and Energy and impacts to EPBC Act listed critically endangered ecological community
- impact on riparian areas, groundwater, groundwater dependent ecosystems (GDEs) and mapped key fish habitats
- the OEH Risk-based Framework for Considering Waterway Health Outcomes should be considered
- more flooding impact information required (potential loss of flood storage, cumulative impacts on the proposed landform, modelling of climate change effects, flooding affection downslope of the site, Probable Maximum Flood (PMF) levels and modelling assumptions
- cut and fill and potential visual impacts associated with this
- concerns about downstream impacts of the development on Lake Illawarra.

Environment, Energy and Science Group, DPIE

- impacts on Illawarra Lowlands Grassy Woodland threatened ecological community
- flooding impacts (climate change effects, future occupants safety and emergency services access across the full range of flood events up to the PMF)
- Proponent to consult Shellharbour City Council about water quality objectives and targets, consistent with the Risk-based Framework.

DPIE - Lands and Water

- SoC 35 relating to the preparation of Vegetation Management Plans be retained and the recommendations of the Biodiversity Assessment report be incorporated into the SoC

Transport for NSW

- the Proponent consult with the local bus operator regarding potential routes and bus stops as part of the design development for subsequent stages
- advises TfNSW cannot commit to funding or timing of specific bus network enhancements
- the Development Control Strategy (DCS) should not include any on street cycle lanes for any of the street types
- the Movement and Place framework should be included in the urban design principles for the Town Centre (Section 1.8 of the DCS).

Transport for NSW (Roads and Maritime Services)

- additional assessment is needed as the modelling for the Tullimbar development south of the Illawarra Highway shows overcapacity and oversaturation of the Illawarra Highway / Escarpment Drive intersection by 2026
- maximise walking, cycling and public transport to minimise vehicle trips and provide timely infrastructure.

School Infrastructure – Department of Education

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

- the high school land dedication be linked to the 4500th lot release instead of a specific year
- no objection to the proposed size reduction of the second primary school site from 3 ha to 2 ha
- supports potential for provision of shared spaces
- proposed roads be of appropriate width and design geometry and that the location and design of open spaces, pathways and recreation areas consider access and use by children.

Civil Aviation Safety Authority (CASA)

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

- the site is located within the current and future Obstacle Limitation Surfaces for Wollongong Aerodrome and any development within the area should be referred to Shellharbour City Council as the aerodrome operator
- recommends the Proponent consider standards and frameworks as part of any planning and development.

NSW Environment Protection Authority (EPA)

EPA advises that the Proponent should provide an assessment under the OEH Risk-based Framework for Considering Waterway Health Outcomes in Strategic Land-use Planning Decisions as the proposal is within the Lake Illawarra Catchment.

Rural Fire Service (RFS)

RFS advised it reviewed the proposed modification and does not object in principle to the proposed changes.

5.3 Response to Submissions and Further Information

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

On 6 June 2019, the Proponent provided a Response to Submissions (RtS) and Preferred Project Report (PPR) (**Appendix A**) which made the following changes to the exhibited project:

- reduced the number of proposed dwellings from 6500 to 6000 (4800 dwellings originally approved) but included wording that the cap related to 'principal dwellings' only (i.e. that secondary dwellings could be provided in addition to the 6000 principal dwellings)
- reduced the additional proposed open space provision from 14.2 ha to 10.61 ha (taking the total to 43.81 ha across the CUDP area)

- reduced the additional proposed community infrastructure contribution based on the revised dwelling yield. The proposed additional community centre space is reduced from 300m² to 220m² and the monetary contributions to Shellharbour City Council for the library is amended
- retained the approved Calderwood Road configuration of two lanes based on the revised dwelling yield (no longer proposing the Calderwood Road extension to four lanes)
- further revised the Calderwood Development Control Strategy in respect of dwelling typologies, design criteria and road design
- extended the timeframe to deliver land for the high school from 2031, to prior to the release of 4,500 lots (original concept plan is prior to the release of 1500 lots).

The RtS also provided additional information in relation to traffic impacts, flood impacts, stormwater management, biodiversity, open space provision and design guidelines.

The Department notified submitters of the RtS for 21 days between 26 June 2019 and 17 July 2019 and made it publicly available on the website. The Department also notified the Councils and relevant Government agencies of the RtS. An additional nine submissions were received from public authorities and five submissions from the public. 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 5**.

Table 5 | Summary of Council, Government Agency and Public Submissions to the RtS.

Shellharbour City Council
<ul style="list-style-type: none"> • reiterated concerns about the planning justification, type, location and quality of the additional open space, biodiversity impact assessment, key fish habitat, ownership and management of environmental lands, flooding impacts, inconsistencies between the concept approval and the SEPP • additional issues in relation to the term 'principal dwelling' and the implications of this for infrastructure requirements, the re-definition of the Town and Village Centre, need for a letter of offer to enter into a new VPA, flood modelling queries and flooding impacts on road infrastructure (Djindy Bridge, Calderwood Road and the North Macquarie Road/Illawarra Highway intersection) and the need for Calderwood Road to still be widened to four lanes.
Wollongong City Council
<ul style="list-style-type: none"> • flooding impacts, including potential cumulative impacts associated with the proposed landform, visual impacts of cut and fill, increased downstream flood affection, concerns about traffic modelling assumptions and understatement of traffic impacts, biodiversity assessment and impacts to critically endangered ecological communities • Concerns about Wollongong City Council the proposed introduction of the term 'principal dwelling' and impacts on infrastructure provision, flood access for emergency vehicles, proposed lots in Stage 4 being subject to high hazard flow, reduction of the minimum size for a local park, need for specialist studies to assess the impact to GDEs.
Environment, Energy and Science Group, DPIE
EESG reiterated earlier advice about information regarding large floods and associated impacts including public safety, the PMF event in the high school site, assessment of emergency management issues and flood free access within the site.
Crown Lands, DPIE
Crown Lands advised it will not accept the transfer of freehold land from the development into the Crown land estate and that a piece of Crown road adjoining the Illawarra Highway at the west end of North Macquarie Road should be transferred to Shellharbour City Council before the relevant DA approval.

Transport for NSW

TfNSW sought clarification in relation to consistency with the Guidelines for Public Transport Capable Infrastructure in Greenfield Sites.

Transport for NSW (Roads and Maritime Services)

TfNSW (RMS) re-iterated its earlier advice on the need for more detailed information and made the following comments:

- further information required on the Illawarra Highway/Broughton Avenue intersection (diamond operation modelling, sight lines, clear property boundaries) and Tripoli Way/Calderwood Road intersection (clear property boundaries)
- clarification of the infrastructure commitments and delivery, RMS recommend these upgrades be delivered as works in kind.

School Infrastructure – Department of Education

School Infrastructure noted the RtS approach is acceptable and it will continue to liaise with the Proponent to ensure the adequate and timely delivery of education land.

Sydney Water

Sydney Water advised it has no objection and has already prepared a servicing strategy for Calderwood for up to 6500 dwellings.

Rural Fire Service (RFS)

RFS advised it reviewed the proposed RtS and does not object in principle to the changes.

Public Submissions

Five public submissions were received in response to the RtS, two of which were objections and three provided comments. These submissions related to:

- general support for the modification (60%)
- impacts on the infrastructure delivery responsibilities of non-core landowner developers (60%)
- continued concern over flooding impacts, including in the PMF event and on the bridge over the Macquarie Rivulet (40%)
- the bulk earthworks scenarios used in the flood modelling (20%)
- excessive housing density (20%)

On 5 May 2020, the Proponent provided an Addendum Response to Submissions (ARtS) (**Appendix A**). The ARtS removed the proposed wording in relation to 'principal dwellings' introduced at the RtS and provided additional information and responses to issues raised relating to density and the distribution of residential dwellings, flood impacts, transport and road upgrades, open space provision, VPA progress and sustainability.

The Department notified the ARtS to the Councils and relevant government agencies. An additional five submissions were received. Copies of the submissions may be viewed at **Appendix A**.

Further information was also received on 17 July, 21 August, 28 August and 9 October 2020, and 26 February 2021. Further changes and additional information included:

- a reduction in the proposed maximum retail floor space in the town centre from 25,000m² to 20,000m² (i.e. retain the current maximum floor space)
- a comparison of the flooding impacts of the approved Concept plan and proposed Concept Plan based on the most up to date flood model

- an offer to amend the State VPA to include the upgrade of the intersection of the Illawarra Highway / Broughton Avenue
- an offer to amend the local infrastructure VPA with Shellharbour Council
- an updated Development Control Strategy to address issues raised by the Department
- corrections to mapping errors
- inclusion of a new area of publicly accessible town square (1000m²) within the town centre

Where relevant, the additional information was forwarded to the Councils and relevant government agencies. Copies of their submissions may be viewed at **Appendix A**. A summary of the relevant responses is provided in **Table 6**.

Table 6 | Summary of Council and Government Agency Submissions to the ARtS and additional information.

Shellharbour City Council
Shellharbour City Council advised a number of its outstanding concerns had not been addressed. These included concerns relating to proposed modifications to conditions and the Statement of Commitments, the Development Control Strategy, outstanding watercycle and flood management issues, the upgrade of Calderwood Road, management of environmental lands, open space provision and the lack of a letter of offer to enter into a revised VPA.
Wollongong City Council
Wollongong City Council advised it remains concerned about public safety in the event of flooding, upgrades required to Calderwood Road, visual impacts due to cut and fill and the reduction in primary school lands.
Environment, Energy and Science Group, DPIE
EESG advised flooding impacts and safety still had not been adequately addressed.
Crown Lands, DPIE
Crown Lands reiterated earlier advice it will not accept the transfer of land from the development and that a piece of Crown road should be transferred to Shellharbour City Council before the relevant DA approval.
Transport for NSW (Roads and Maritime Services)
TfNSW (RMS) initially advised it does not support the proposed modification in its current form as it has not adequately addressed timely delivery of the necessary road infrastructure upgrades, there are outstanding issues with intersection design and further information is required on how the State VPA will be updated to address infrastructure demands.
TfNSW advised that two traffic upgrades to support the needs of Calderwood were required. These upgrades include the intersection of the Illawarra Highway/Broughton Avenue and Calderwood Road/Tripoli Way. The Department's Infrastructure Contributions team has advised that the Proponent has agreed to amend the existing State VPA to include the upgrade of Illawarra Highway/Broughton Avenue. The upgrade of Calderwood Road/Tripoli Way would also be undertaken through a VPA between the Proponent and Shellharbour City Council.
TfNSW also indicated that the proposed modification may result in the need for upgrades on the State road network like additional lanes on the Princes Motorway to be brought forward. The Proponent advised that the traffic modelling used to test the proposed modification confirmed acceptable traffic operation across the road network. The Department considers there is no evidence to demonstrate the modification would require

changes to the timing of upgrades to the Princes Motorway and therefore has formed the view that any upgrade of the Princes Motorway will not form part of the amendment to the Planning Agreement.

6 Assessment

6.1 Density

The proposal seeks to increase the development yield on the site by increasing the cap on total dwellings from 4800 to 6000.

The majority of the increased density would be in and around the town centre, with the majority of the additional 1,200 dwellings to be delivered within 800 metres of the centre. It would be achieved in part by a reduction in the minimum residential zone lot size controls, effectively overriding the minimum 300m² lot size under the SSP SEPP that would otherwise apply.

The proposed increase in density was a key concern raised in the submissions. Concerns were raised by both Shellharbour City Council and the community that the proposed increase in density and dwellings on the site would result in adverse:

- traffic and road impacts
- additional stormwater runoff impacts, associated flooding impacts and associated environmental consequences
- impacts for access to sufficient infrastructure to service the additional population (including schools and open space)
- built form and urban character impacts

Shellharbour City Council also advised that it considers additional dwellings are not justified as there are no housing supply shortages or deficiencies in housing mix within the area.

The Proponent subsequently reduced the scale of the proposal by 500 dwellings (from an additional 1700 dwellings as originally sought to an additional 1200 dwellings). As such the scale of potential impacts associated with the increased density has also reduced. Nevertheless, Shellharbour City Council retained concerns regarding the need for the additional dwellings.

As described in **Section 3**, the Department considers there is strong strategic justification for provision of additional density in locations that are close to the town centre as it would:

- provide additional dwellings in an area where there is anticipated to be strong population growth over the next 20 years with an associated need for delivery of new dwellings to meet demand
- deliver more diverse housing types and houses on a greater range of lot sizes, to respond to changing homebuyer preferences, and ease housing affordability pressures
- deliver the additional dwellings in close proximity to a town centre, services and amenities, thereby ensuring additional residents have high levels of amenity and are within walking distance to services and amenities, reducing the need for car travel
- deliver the additional dwellings in existing urban zones, thereby minimising environmental impacts and reducing pressure for development to expand into existing environmental or rural areas.

The Department also considers the site is generally well suited to the provision of additional density. 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.

The Department has considered the potential impacts of the proposed additional density throughout this report. This includes consideration of the potential built form and urban character impacts (**Sections 6.2 and 6.3**), traffic and road impacts (**Section 6.4**), flooding impacts (**Section 6.5**), environmental and biodiversity impacts (**Sections 6.6 and 6.7**), schools (**Section 6.9**) and open space provision (**Section 6.8**). Subject to modifications and incorporation of additional appropriate measures as part of future detailed development applications, the Department concludes that the site is capable of supporting the proposed additional density.

For this reason, and 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 Residential Area Character

Under the existing approval and the provisions of the SSP SEPP, minimum lot size in the general residential zone is 300m². The exception to this is integrated housing with minimum lot sizes of 125m² for attached / semi-detached dwellings and 150m² for detached dwellings is permitted with subdivision after construction of dwellings on sites located directly opposite or adjacent to the town and village centres or public parks at least 0.3 ha in size.

The modification proposes to expand the area that permits small lot housing and change how the small lot housing can be delivered. The modification seeks to permit lots smaller than 300m² on all general residential zoned land within 800m of the town centre and to expand the area to include sites opposite public parks at least 0.2ha in size (rather than 0.3ha). The modification also initially sought to allow for increased residential densities and reduced lot sizes within 400m of the Village Centre, but this aspect of the modification was subsequently removed following concerns raised by Shellharbour City Council.

In terms of delivery of small lots, the proposal seeks to allow:

- Lots as small as 225m² to be delivered as standard residential lots (i.e. building design and construction following subdivision)
- Lots as small as 125m² (attached, semi-detached and detached) to be delivered as integrated housing, with building design and some construction (but not necessarily completion of building works prior to subdivision).

This would have an impact on the character of the affected residential areas with a greater density of dwellings, greater number of semi-detached and attached dwellings likely to be provided. A larger overall built form footprint compared to the landscaped areas is also likely to be provided. Maximum building heights (9 metres) would remain unchanged but there is also a greater likelihood of some development in this area being three storeys rather than two.

As discussed in **Section 6.1**, the Department supports the provision of additional density in locations that are close to the town centre to provide services and amenities within walking distance, but considers the extension of small lot housing to include sites adjacent to parks as small as 0.2ha (rather than 0.3ha as permitted under the existing Concept plan approval), could result in small lot housing in more remote parts of the site and create additional small pockets of built forms that are anomalous with their surrounding environment. To minimise these small pockets of dense housing, the Department does not support the proposed change to reduce the park size locational criteria for small lot housing.

The Department considers that not supporting this aspect of the modification request would be unlikely to result in any material consequences for the Proponent, noting that, following the proposed changes to open space (discussed in **Section 6.8**), only three parks would be smaller than 0.3 ha and none of these have been identified by the Proponent as potential locations for additional density. Further, one of these parks (L6) is in the B4 mixed use zone and therefore higher densities can be provided adjacent to the park anyway. Another (L10) is surrounded by completed development so there is no opportunity for provision of higher densities, and the third (L14) is in a remote location where the Department considers higher densities should not be supported.

The character of the other affected areas would be partly controlled by the Development Control Strategy (DCS) which sets the controls for future subdivision and dwelling design. The modification includes amendments to the DCS and responds to concerns raised by the Department and Councils.

The revised DCS retains minimum landscape area requirements for small lots (10% to 12%) but also includes an additional requirement for the provision of landscaping in the front yards of integrated development. The DCS also seeks to include additional controls to minimise impacts of the small lot housing, such as requirements to setback garage doors behind the main building line or upper levels to minimise their visual impacts.

Shellharbour City Council and Wollongong City Council did not raise specific concerns with the residential controls in the DCS. Shellharbour City Council recommended some additional measures to ensure built forms would be delivered as approved on integrated housing sites where subdivision precedes completion of the building works. The Proponent updated the requested amendments to reflect the recommendations of Shellharbour City Council.

The Department considers the DCS also provides appropriate guidance for the assessment of Standard Residential Lots and notes that the Greenfield Housing Code under State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 has come into force since the original CP was approved and applies to the General Residential zoned land on the site. Guidance for the development of housing on lots as small as 200m² will also ensure appropriate built form outcomes for dwellings delivered as complying development, consistent with planning policy. The Department is therefore satisfied that lots as small as 225m² can be delivered as standard residential lots without unacceptable consequences for future built form, streetscape or amenity outcomes, despite the variation from the 300m² lot size control under the SSP SEPP.

With regard to the Integrated Housing Lots, the Department notes this dwelling type would require a DA which would ensure further detailed assessment of design. The Department considers the DCS provides appropriate and detailed guidance for the assessment of future DAs on these lots to ensure good built form and amenity outcomes.

The DCS includes controls to ensure good levels of street tree canopy cover, including a requirement for a continuous street tree canopy cover within the road reserve, and landscaping and street trees within rear laneways. To further ensure appropriate outcomes are delivered within the proposed denser urban areas the Department recommends that future applications in the residential zone which propose to create lots smaller than 300m² demonstrate that:

- the adjoining road reserve would deliver pedestrian footpaths on each side of the road that proposes to include smaller lots
- the road reserve would provide at least a 3.5 metre wide landscaped verge which would provide a continuous street tree canopy cover along the length of the street

- should the number and extent of driveway crossings lead to a reduction in canopy cover or potentially compromise the future health of street trees, the subdivision is to include rear lane access to the proposed lots in accordance with the DCS.

Subject to this recommendation, the Department considers good amenity would be provided to the public domain and in conjunction with the additional requirements in the DCS and Greenfield Housing Code, development can be delivered on the proposed small lots to ensure appropriate outcomes for built form, amenity and subdivision character.

6.3 Town Centre Character

The proposed modification seeks to delete the requirement for a Town Centre Strategy and instead proposes to incorporate a new section in the DCS to provide guidance for the future development of the town centre. The Proposed new DCS chapter includes Urban Design Principles, a Town Centre Core Framework Plan and Town Centre Core Built Form Guidelines (**Figure 6**).

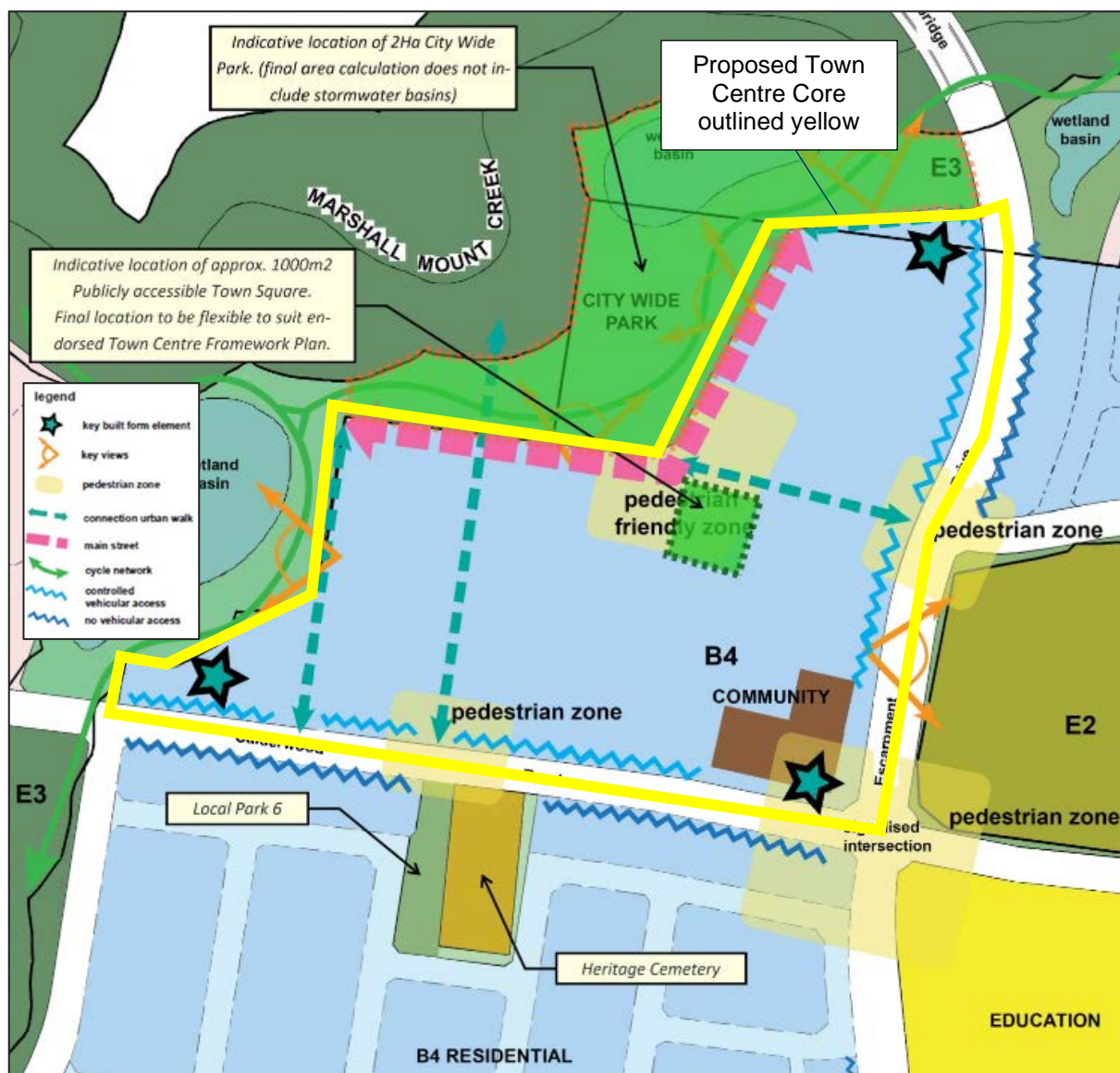


Figure 6 | Town Centre Core Framework Plan (Source: Additional Information following ARTS)

The existing Concept Plan 'Town Centre' did not identify how retail, commercial light industrial, entertainment, civic, recreation, residential, tourist accommodation and mixed use employment uses would be provided across this area (**Figure 7**). The proposed modification establishes a 'Town Centre Core' and the school site and indicates all remaining parts of the centre are identified as being predominantly for residential use (**Figure 8**).



Figure 7 | Approved Town Centre Area
(Source: Approved Concept Plan)

Figure 8 | Proposed Town Centre Landuses
(Base source: ARTS)

The DCS also seeks to introduce carparking guidance for the town centre and as discussed in **Section 6.4**, seeks to make changes to the road design of some town centre street types.

The Department considers the development must deliver a vibrant and active town centre with sufficient retail and commercial services to service the population of the development if the additional density and dwelling numbers are to be supported.

The Retail Floor Space Potential Report prepared for the original Concept Plan application identified that 1.38m² to 1.43m² of retail floor space should be provided per person on the site. The proposed 6000 dwellings are expected to generate a site population of around 15,500 people, resulting in a requirement for around 21,400m² - 22,200m² GFA of retail floor space to be provided on the site.

This can be accommodated under the existing approval which sets a maximum retail floor space at 25,000m² across both centres. However, the Department considers it is important that a minimum level of retail floor space and commercial floor space is provided in order to ensure delivery of a town centre appropriate for the proposed population.

To ensure the delivery of a high-quality town centre, the Department considers a more detailed masterplan for the Town Centre Core should be provided that would indicate the provision of:

- Retail floor space within the town centre that would deliver a minimum of 21,400m² retail GFA across the Calderwood site (i.e. 21,400m² less than the retail space provided in the village centre) and a maximum of 20,000m² within the town centre
- Approximately 20,000m² of other commercial floor space
- 1120m² of community floor space
- Proposed location of residential uses within the town centre core
- Associated car parking necessary to support all land uses
- All key pedestrian areas, including plaza and open space and active street frontages, including one key plaza or open space area that is at least 1000m² in size

- Vehicle and pedestrian circulation arrangements, including public transport infrastructure such as location of bus stops and car share spaces, and consideration of the 'Movement and Place framework' to ensure the needs of different customer groups (pedestrians, cyclists, public transport users and private vehicle drivers) are appropriately prioritized
- Appropriate staging to ensure delivery of retail and commercial services to the Calderwood population as it grows
- Built form controls that would ensure high quality built form outcomes, appropriate ground floor uses, active street frontages and weather protection along all key pedestrian routes and high quality public domain outcomes
- Suitable interface treatments between the town centre core and town centre residential areas.

Consistent with existing requirements, the Department considers the masterplan should be approved prior to any development within any part of the approved town centre / B4 mixed use zone. This would allow confirmation that the required levels of retail and commercial floor space could be provided in the core area and the core would not need to be extended into the other parts of the town centre, now identified for residential use. It would also enable appropriate design of the interface between the core and adjacent town centre residential uses, as well as ensure appropriate staging for delivery of retail and commercial services to meet the needs of the population as Calderwood is progressively developed.

As Shellharbour City Council will be assessing all future DAs for the town centre and will take ownership of the roadways and potentially some of the public spaces, the Department considers it is appropriate that the masterplan be developed in consultation with Shellharbour City Council. FEAR C9 is therefore recommended to be updated to require a detailed masterplan as outlined above.

The Department considers that subject to these requirements, the proposal would ensure delivery of a high quality, vibrant town centre core with sufficient retail, commercial, transport and employment opportunities to support the surrounding population, and justify the proposed increase in residential density on the site, including well-designed residential areas within the remaining parts of the B4 mixed use zone.

6.4 Traffic and Road Infrastructure

FEAR C5 of the Approved Concept Plan requires that for each future stage, a detailed traffic assessment is required which identifies the upgrades to the local roads required to accommodate that stage and accordingly incorporates those upgrades.

FEAR C12 specifically identifies the following roadworks which are to be required to be provided by the Proponent (to be included as conditions of approval as part of future DAs):

- Construction of the internal north-south arterial road (Escarpment Drive). The southern part of the road has been completed (shown blue on **Figure 9**).
- Upgrade of the intersection of the Illawarra Highway and Escarpment Drive to provide site access. This has been completed.
- The upgrade of Calderwood Road from the site boundary to the Tripoli Way extension to an improved two-lane standard of road (shown orange on **Figure 9**). These works have not yet commenced.

In addition, FEAR C12 requires contributions for other specific local road upgrades. Of relevance to this application are the contributions towards construction of the Tripoli Way Extension (shown Purple

in **Figure 9**). The VPA with Shellharbour City Council includes provision for contributions to these roadworks. Council has exhibited (in April and May 2020) the proposed alignment for the Tripoli Way Extension and works are expected to be carried out in 2025 - 2027.

A VPA with Wollongong City Council also provides contributions towards upgrades to Marshall Mount Road and Yallah Road located to the north of the site.

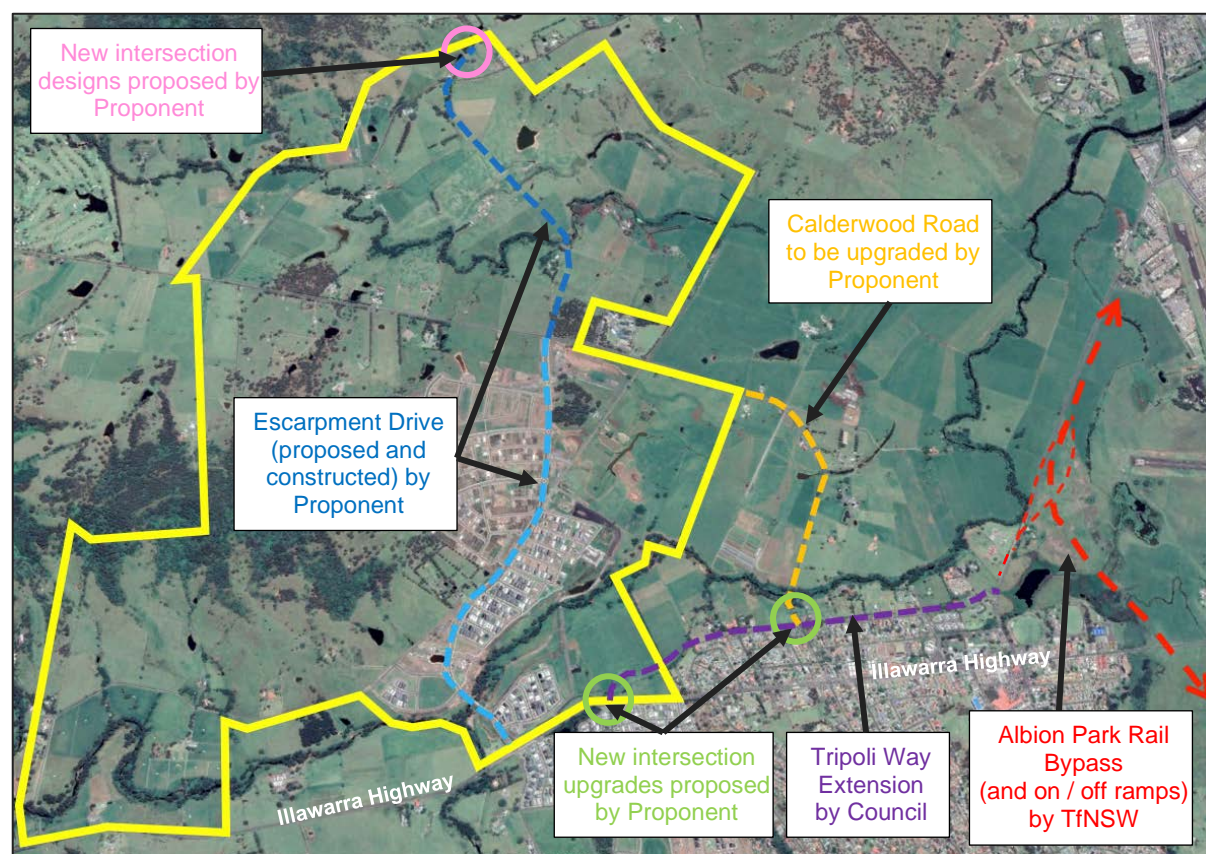


Figure 9 | Key road infrastructure (Base source: Google Earth)

The Albion Park Rail bypass project which is currently under construction by TfNSW is shown red in **Figure 9**. A VPA with the Minister provides contributions towards State transport infrastructure.

The modification as amended proposes the following additional external road infrastructure upgrades:

- Upgrade of two intersections to signalised intersections (circled green in **Figure 9**):
 - Illawarra Highway / Broughton Avenue and
 - Calderwood Road / Tripoli Way intersection
- Change to intersection design at the northern end of Escarpment Drive from an originally proposed three-way roundabout to two priority control T-intersections to give priority to the traffic driving along Escarpment Drive which is expected to have the higher average daily traffic volume (circled pink in **Figure 9**).

It is also proposed to make minor amendments to internal roads.

Council, Agencies and public submissions raised concerns with the traffic and transport implications of the modification request. Key concerns related to traffic impacts caused by the proposed additional population on the area generally, issues with the traffic assessment and the need for additional information to clarify assumptions and modelling.

The Traffic and Transport Report (TTR) submitted with the modification considered the impact of the proposed additional population on the surrounding road network. The Department is satisfied that the TTR, as revised, provides sufficient information to make an assessment of the likely traffic impacts of the proposed increase in dwelling yield.

The Department is satisfied that the proposed additional 1200 dwellings would not result in the need for any additional traffic upgrades beyond those identified by the Proponent above and discussed in the following sections. Should traffic assessments provided in conjunction with future applications identify the need for any additional upgrades, FEAR C5 of the existing approval allows for the provision of any additional upgrades to be provided in conjunction with the future approvals.

While the Department is satisfied the modification would not result in any requirement for additional road upgrades, a change in the number of dwellings may affect the apportionment of costs attributable to the Calderwood site for upgrades being funded under the VPA with Wollongong City Council. The Department therefore recommends a new FEAR requiring that prior to any development being carried out in the Wollongong LGA, the existing VPA with Wollongong City Council be amended, if necessary.

Calderwood Road Upgrade

Although the Transport Management and Accessibility Plan (TMAP) submitted with the original Concept Plan application assumed a timing of 2027 to 2031 for the provision of the Calderwood Road upgrade, the approval provides that the timing will be determined as part of future subdivision approvals. Shellharbour City Council requested that the timing be clarified to prior to the occupation of Stage One of the Town Centre Retail or by the end of 2027, whichever occurs first.

The Proponent has confirmed that the delivery of the road would coincide with the opening of the retail component of the Town Centre and the Tripoli Way works (which are planned for completion in 2027) and therefore agrees with the timing proposed by Shellharbour City Council.

The Proponent and Shellharbour City Council have agreed on a concept design for the upgrade of Calderwood Road. Condition 12(d) is recommended to be updated to include this concept design and the timing for delivery of the road upgrade as generally agreed between Council and the Proponent. The Department is satisfied that subject to these requirements, the proposed road would adequately cater for the traffic and cycle traffic generated by the proposed development.

Calderwood Road / Tripoli Way intersection

To support the increase in traffic generated by the proposed modification, the Proponent identified it would be necessary to upgrade the intersection at Calderwood Road / Tripoli Way to a signalised intersection. The Proponent's existing VPA with Shellharbour City Council includes funding for a roundabout at this location. It is proposed to amend the VPA to pay the additional or differential cost to further upgrade to a signalised intersection.

Shellharbour City Council raised no concerns with the proposed intersection or funding through a revised VPA. The Department has therefore recommended a FEAR requiring the VPA be amended to include the additional cost of the signalised intersection in accordance with the Proponent's offer.

Illawarra Highway / Broughton Avenue Intersection and State Infrastructure

To support the increase in traffic generated by the proposed modification, the Proponent identified that it would be necessary to upgrade the intersection at the Illawarra Highway / Broughton Avenue / new Tripoli Way from a roundabout to a signalised intersection. The Proponent has advised it is willing to

commit to deliver this infrastructure as a works-in-kind development contribution, to be included in a Deed of Amendment to the Planning Agreement between the Minister for Planning and Lendlease.

The Departments Infrastructure, Partnerships and Agreements team has confirmed it is supportive of the proposed change and in accordance with advice from TfNSW, the timing for delivery of the infrastructure is to be prior to release of a subdivision certificate which relates to land on which the 5281st dwelling is proposed to be constructed.

TfNSW raised some concerns with the design of the proposed intersection, including interim arrangements for right hand turns, approach sight distances, encroachment onto adjoining property boundaries and impacts to amenity of adjoining properties.

In response, the Applicant amended the design and alignment of the roadway to locate it further north of the existing intersection (occupying more of the Proponent's land) and demonstrate that there is adequate space to deliver an intersection that would meet TfNSW requirements and would not encroach onto adjoining sites.

The Department considers that given the northern side of the Illawarra Highway is undeveloped and owned by Lendlease, there would be sufficient space for delivery of a signalised intersection at this location that would meet TfNSW requirements, noting the final design would be agreed with TfNSW as part of the VPA.

The Department therefore recommends the VPA with the Minister be updated to include provision of the upgraded intersection.

Escarpment Drive / Marshall Mount Road / North Marshall Mount Road Intersections

The TTR notes the modelling for the original Concept Plan assumed a three-leg roundabout would be provided to the Marshall Mount Road / Escarpment Drive intersection and the nearby Marshall Mount Road / North Marshall Mount Road intersection was assumed to be a three-leg priority control intersection.

The modification proposes two priority control T-intersections to give priority to the traffic driving along Escarpment Drive. The modification is sought on the basis that Escarpment Drive is expected to have the higher average daily traffic volume, and good levels of service / intersection performance would be achieved under the proposed arrangements.

The Department recommends the intersection arrangements could be approved in principle, but that the final design is to demonstrate:

- (a) the two intersections would be sufficiently separated to ensure no adverse operational impacts as a result of queuing, having regard to the likely final design of both intersections following full development of the West Dapto Urban release area
- (b) the design of the road reserve (to be dedicated to Council) is to include sufficient land as necessary to deliver the long-term intersection upgrades considered in (a) above
- (c) the North Marshall Road intersection is to be designed to avoid or minimise impacts to the heritage listed former Marshall Mount Public School

Subject to these requirements, the Department considers the intersections would adequately cater for traffic demands to completion of the development of the site and would not materially inhibit the

provision of future road upgrades necessary to support the development of the West Dapto Urban release area.

Other Internal Changes and Street Widths

It is proposed to make some minor adjustments to the overall street layout, including extension of Calderwood Road from the town centre to the western boundary of the site. The proposed changes are the result of design refinements since the initial approval. No concerns were raised in the submissions with the amended layouts and the Department is satisfied the revised layouts would not result in any adverse impacts.

It is also proposed to modify the street typologies and street widths for various street types as set out in the Development Control Strategy (22 different street types). The Proponent advises the changes reflect the approved layouts of the streets in Shellharbour City Council for the subdivisions to date.

With the exception of some town centre streets, overall road reserve widths would remain the same with major roads being slightly increased in width.

The Department considers that the proposed street designs would provide good levels of accessibility including improved outcomes for cyclists on Escarpment Drive compared to the approved Concept Plan. The street designs also do not raise any additional issues with respect to bus movements compared to the approved Concept Plan and therefore the proposed changes to internal road layout and design are supported. A modification is recommended to the DCS to clarify that laneways are to include kerb and guttering as recommended by Shellharbour City Council.

6.5 Flooding

The original Concept Plan application was accompanied by a flood study (Reinco, 2009), however the approval required an updated Flood Study and Floodplain Risk Management Plan to be developed. As a result, an updated model was subsequently approved in conjunction with the Stage 1 DA (Cardno, 2011) which has been the basis for all flood planning on the site to date. The Statement of Commitments included in the approval also commit to ensuring:

- Flood planning levels equal to the 1 in 100 year (1% AEP) flood level plus 500mm freeboard
- Safe evacuation routes during the 1% AEP flood event for any land located within the PMF
- Design of all bridges to be above the 1% AEP flood level
- Design and location of all major spine roads within the development to be at or above the PMF.

Revised modelling

No changes are proposed to the above commitments, but since the Cardno model was developed in 2011, further data and flood studies for the area have become available. As a result, the Proponent proposes to update the flood modeling for the site. The new model (JWP, 2018) is based on Councils latest TUFLOW model for the Macquarie Rivulet with some refinements made to reflect some original parameters from the Cardno model and to reflect revised PAD levels to ensure they are located above the 1% AEP.

The revised modelling shows increased flows and flood levels within Marshall Mount Creek and the Macquarie Rivulet and in some parts of the site and some areas external to the site. As a result, concerns were raised by both Councils, EESG and in public submissions with regard to the flooding impacts of the proposal, including impacts within the site and downstream, impacts for road access,

safety, visual impacts associated with cut and fill and the assumptions and inputs used in the flood modelling.

In response, the Proponent provided additional information, including further information on inputs into the modelling and modelling outcomes. It also committed to measures to ensure flood free access over the Dijini Bridge.

As the JWP model is based on Council's current model, the Department considers it would provide a better prediction of flooding impacts on the site than the earlier Cardno model and therefore appropriate that it supersede the Cardno model. Without adoption of a new model, the extent of future flooding would continue to be underestimated with potential adverse impacts for the safety and amenity of future residents.

In order to determine the actual flooding impacts of the proposed modification, the Department asked the Proponent to model both the development of the site with 4800 and 6000 dwellings respectively, under the new model. The modelling demonstrated there would be no material difference to flooding impacts either on the site or downstream as a result of the proposed modification to increase dwelling yield.

Access

As described above the existing approval includes commitments to design all bridges to be above the 1% AEP flood level, and all major spine roads within the development to be at or above the PMF. The application indicates that if the JWP model is applied to the development rather than the Cardno model, the constructed Dijindi Bridge and a small section of the adjacent constructed spine road (Escarment Drive) would be affected by flooding contrary to these requirements.

The Department notes that while the proposed modification would not affect the flooding levels on Dijindi Bridge or Escarment Drive, it does seek to increase the population on site that will rely on this point of access / egress. The Department therefore considers it is essential that the modification ensure that the bridge and road would meet flood access requirements.

The Department considers that the exact engineering solution to ensure the bridge and spine roads are flood free can be resolved as part of a future DA. The Department therefore recommends a FEAR which requires that within six months of approval of Modification 4, the Proponent lodge an application to seek approval for an appropriate engineering solution that would not result in any other unacceptable impacts but would ensure any approved and constructed bridges and spine roads on the site would be flood-free in accordance with the Statement of Commitments.

PMF affectation

Application of the new model also results in the potential for creation of new residential lots that will be affected by the PMF on land that was previously not modelled as being affected. Some of the key affected areas are shown in **Figure 10**.

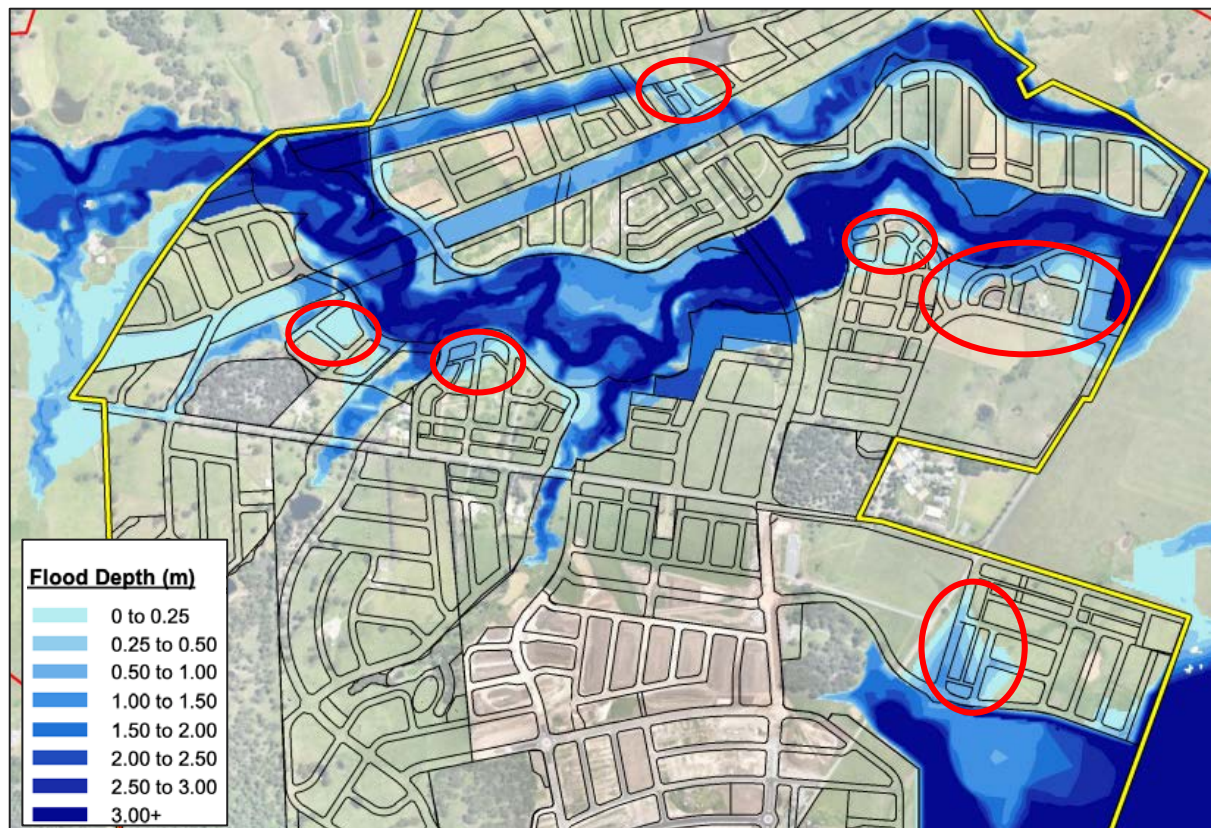


Figure 10 | Extract PMF Flood Map highlighting some potential future residential areas affected by flooding (Base source: Additional Information)

As described above, the proposal is required to provide safe evacuation routes during the 1% AEP flood event for any land located within the PMF. The modelling indicates this will be able to be achieved (subject to appropriate future design).

The Department considers that as the extent of land potentially affected by the PMF is not extensive, these are all matters that can be resolved as part of future DAs. The Department has therefore recommended a new FEAR requiring future subdivision applications affected by the PMF to demonstrate adequate shelter arrangements, structural soundness and access by emergency vehicles. Subject to these requirements, the Department considers flood risk has been adequately addressed.

6.6 Stormwater Management, Water Quality Impacts and Associated Impacts

Stormwater

As the proposed modification may increase pollutant load as a result of the increase in development density on the site, the modification request includes amended strategies for managing stormwater and water quality.

While detailed stormwater management arrangements would be provided as part of future DAs, the proposed concept Water Cycle Management Strategy sets stricter targets for water quality than the approved Concept Plan model, and MUSIC modelling of the proposed strategy demonstrates future development would be capable of exceeding these targets and the stormwater quality performance targets detailed in Wollongong City Council's Development Control Plan (DCP) 2009, (noting

Shellharbour City Council does not have stormwater quality performance targets), as set out in **Table 7**.

Table 7 | Pollution Load reduction targets and modelled outcomes of stormwater quality treatment

Pollutant	Pollutant Load Reduction required by WDCP	Existing adopted project targets for Calderwood	Proposed targets for Calderwood	Expected outcomes under MUSIC modelling
Gross Pollutants	90%	-	90%	99.7%
Total Suspended Solids	85%	80%	85%	85.3%
Total Phosphorous	60%	45%	65%	67.3%
Total Nitrogen	45%	45%	45%	48.3%

The Department is satisfied that as the proposed modification would result in stricter water quality targets than the existing approval, and the Proponent has demonstrated that it could meet or exceed these targets, the increased density on the site can be delivered without adverse downstream water quality impacts affecting key habitats.

Under the existing approved Statement of Commitments there is a requirement for the Proponent to maintain any drainage works that are to be dedicated to a public authority for a period of three years from the date of practical completion of the works, unless otherwise agreed by the Proponent and the relevant authority. There is no requirement for a VPA in relation to these works and to date maintenance of all water quality devices in the core lands is the responsibility of the Proponent initially with a transition to Councils consistent with the relevant DA consent conditions.

Noting the overall number of wetlands / treatment devices would be reduced under the proposal, the Department considers the modification would not result in a significant additional maintenance burden on the Councils and the modification therefore does not warrant a change to the existing arrangements for maintenance and transfer of treatment devices.

Groundwater

The Proponent notes that groundwater flows and impacts to groundwater dependent ecosystems (GDEs) will not be materially changed by the modification on the basis that the extent of fill across the site (which determines impervious surface area) will not change under the modification.

The Proponent's groundwater engineer has also confirmed that conclusions and recommendations in the original groundwater assessment accompanying the Concept Plan application remain appropriate. In this regard, the Proponent also notes that existing Commitment No. 69 reflects the recommendations of that report and includes measures to ensure that in areas of moderate risk (cuts greater than two metres in areas below RL 20), appropriate actions will be taken to minimise changes to spatial and temporal flows to ensure GDEs are not significantly affected.

The Department is satisfied the proposed additional density can be provided on the site without unacceptable additional consequences to groundwater flows or groundwater dependent ecosystems.

Riparian Corridors

The modification does not propose any material changes to the riparian corridors other than removal of part of Stream Reach 15 and replacement of Stream Reach 35 with a water quality basin. All other riparian corridors would be retained and all existing requirements in relation to management including vegetation management and rehabilitation within the corridors would not be affected by the proposal.

Despite the proposed minor changes to the riparian zones, as discussed above, the modification would result in an improvement to water quality outcomes on the site. The Department notes the two affected riparian corridors are not within environmental lands but are within the General Residential zone and is satisfied the changes to the Riparian Corridors would not result in any adverse outcomes in terms of biodiversity impacts or water quality impacts.

6.7 Biodiversity Impacts

The proposed modification does not seek to change the urban footprint, and therefore will not directly impact on the areas of high conservation significance or biodiversity outcomes on the site compared to the approved Concept Plan.

Shellharbour City Council and Wollongong City Council raised some concerns with the biodiversity assessment, including a lack of assessment of the impacts to threatened species and communities under the Commonwealth Environmental Protection and Biodiversity Conservation Act (EPBC Act), and a lack of consultation with the Commonwealth Government on these matters.

In response, the Proponent advised that it is addressing the requirements of the EPBC Act as a separate matter given the separate jurisdiction of the EPBC Act. The original Concept Approval was referred to the Commonwealth Department of the Environment, Water, Heritage and the Arts which determined that the proposed development was not a controlled action and did not require further assessment or approval under the EPBC Act.

The Department notes matters for consideration under the EPBC Act are beyond the scope of this assessment. The Department is satisfied the proposed modification would not result in any significant additional impacts to biodiversity values on the site beyond the impacts that would otherwise occurred under the existing approval.

As with the existing arrangements, biodiversity impacts will be a matter for more detailed consideration as part of the assessment of future DAs, having regard to the Biodiversity Conservation Act, including any required offsetting arrangements.

6.8 Open Space Provision

To support the additional population as a result of the proposed modification, the Proponent proposes to increase the amount of open space provided within the Calderwood site. Under the existing approval, the Proponent is required to deliver a total of 33.2 ha of open space (made up of 17.36 ha of local, district and city-wide parks and 15.84 ha of sports fields). Arrangements for delivery of open space are set out in the Voluntary Planning Agreements with each Council and a number of parks have already been delivered.

The modification request, as amended, proposes to increase total open space requirements from 33.2 ha to 43.81 ha (**Figure 11**). The increase of 10.61 ha of open space would be achieved by:

- Provision of new sports fields in Wollongong City Council LGA (0.9ha)
- A newly created local park on Shellharbour City Council LGA (0.2 ha)
- Increase to the calculated size of the sports fields in Shellharbour City Council (5.2ha) to more accurately reflect the actual size of the sports fields
- Amendments to the size of most of the other parks to reflect either:
 - a proposed increase in the park size; or
 - a more accurate autocad measurement of parks already delivered or approved which exceed the original approval requirements.

Shellharbour City Council's key outstanding concerns were that some of the expanded areas of open space are in parts of the site that are remote from the areas where additional density is proposed and some areas are within non-core lands. Council also raised concerns that no assessment of the proposed additional land has been provided in terms of the appropriateness of the land for open space (such as how it is affected by slope, flooding etc), and notes that the increase in sports fields in Shellharbour City Council utilises land already dedicated to Council.

In response to Shellharbour City Council's concerns, the Proponent notes that:

- the proposed areas of increased density are adequately serviced in that all dwellings in the town centre / increased density area would be within 400m walking distance to a park
- in addition to the proposed open space areas, an area of 1000 m² (0.1 ha) is proposed in the town centre and would effectively serve as an open space area adding to the amenity of the centre.

The Department is satisfied that the distribution of open space across the Concept Plan site is satisfactory. Although not all of the additional open space would be provided directly adjacent to the areas where additional population is proposed, the town centre and surrounding area would be well serviced by open space, with the majority of dwellings within the area of increased density being within 200m walking distance to a park, and all dwellings within this area being within 400m of a park, consistent with the recommendations of the NSW Greener Places Design Guide.

Ultimately, however, the relevant Council or other authority will be responsible for accepting the dedication of this open space and its ongoing management and it is important that the relevant Council or other authority is satisfied with the design and location of open space. Therefore, it is recommended that condition B5 be updated to refer to the open space plans submitted with Modification 4 as the indicative plans and that the existing requirement for further agreement with the relevant Council or other authority is retained.

Wollongong City Council raised a concern that the minimum size for a local park shown on the Concept Plan drawings is reduced from 0.3 ha to 0.2 ha. To address Wollongong City Council's concerns, the recommended conditions of approval require local parks within the Wollongong LGA to be at least 0.3 ha.

Subject to these conditions the Department is satisfied that the proposal would deliver an appropriate level of open space to meet the needs of the population generated by the modification.

Issues related to the timing for the provision of open space and the new or amended VPAs are considered in **Section 6.10**.

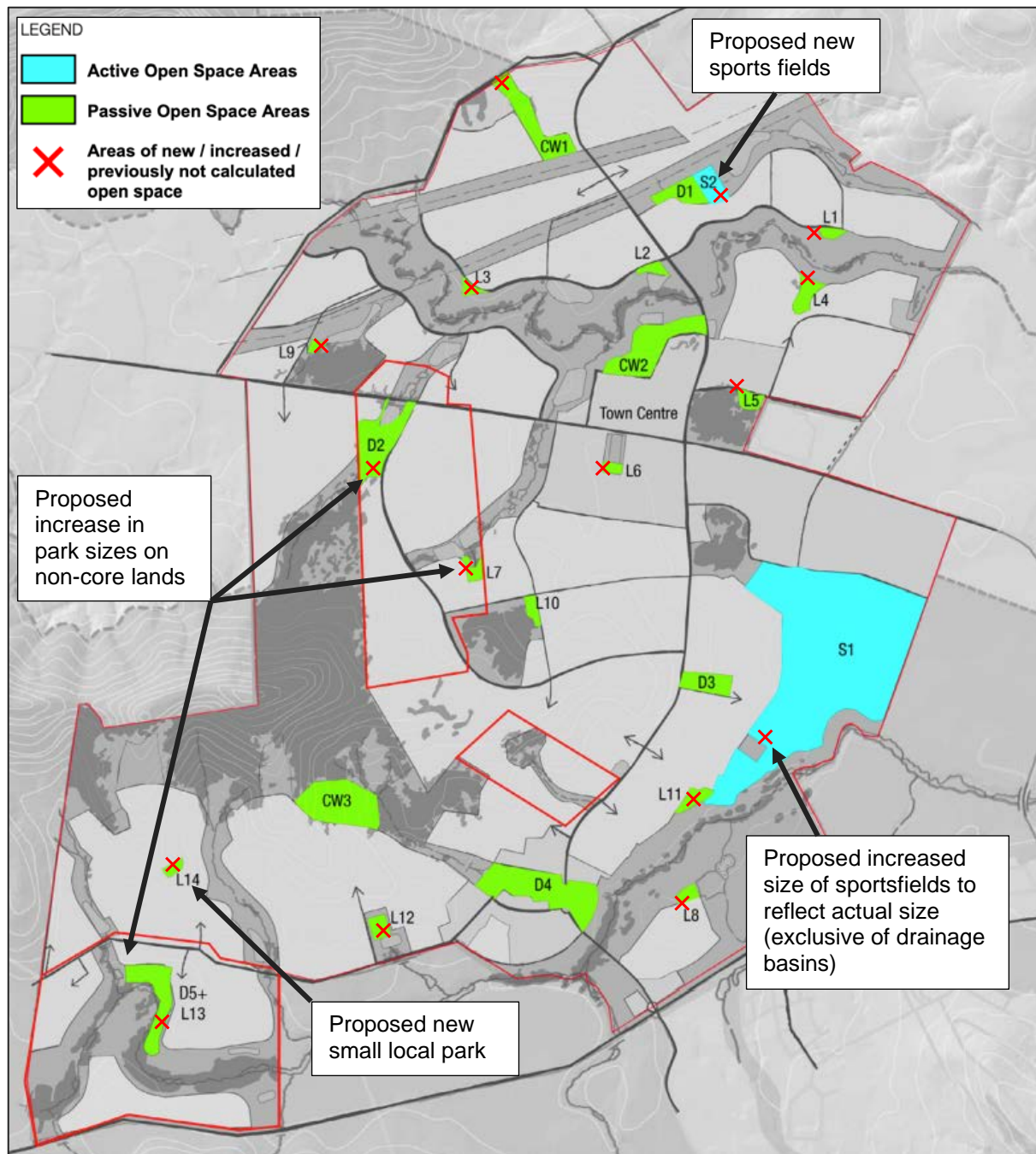


Figure 11 | Proposed Open Space provision across the site (Source: Proponent's RtS)

6.9 Schools

The existing Concept Approval and the VPA with the NSW Minister for Planning and Public Spaces includes the dedication of a total of 12 hectares for public schools, comprising:

- 2 primary school sites (2 x 3ha) dedicated by the creation of the 1500th and 2800th dwellings
- 1 high school site (6 ha) dedicated by the creation of the 1500th dwelling.

As part of this modification application, the Proponent proposes to change the preferred location of the schools (**Figure 12**), reduce the size of the second primary school to 2 ha, and delay the timing of the provision of the land for the first primary school and the high school as follows:

- First primary school at the 1500th dwelling

- High School at the 2800th dwelling

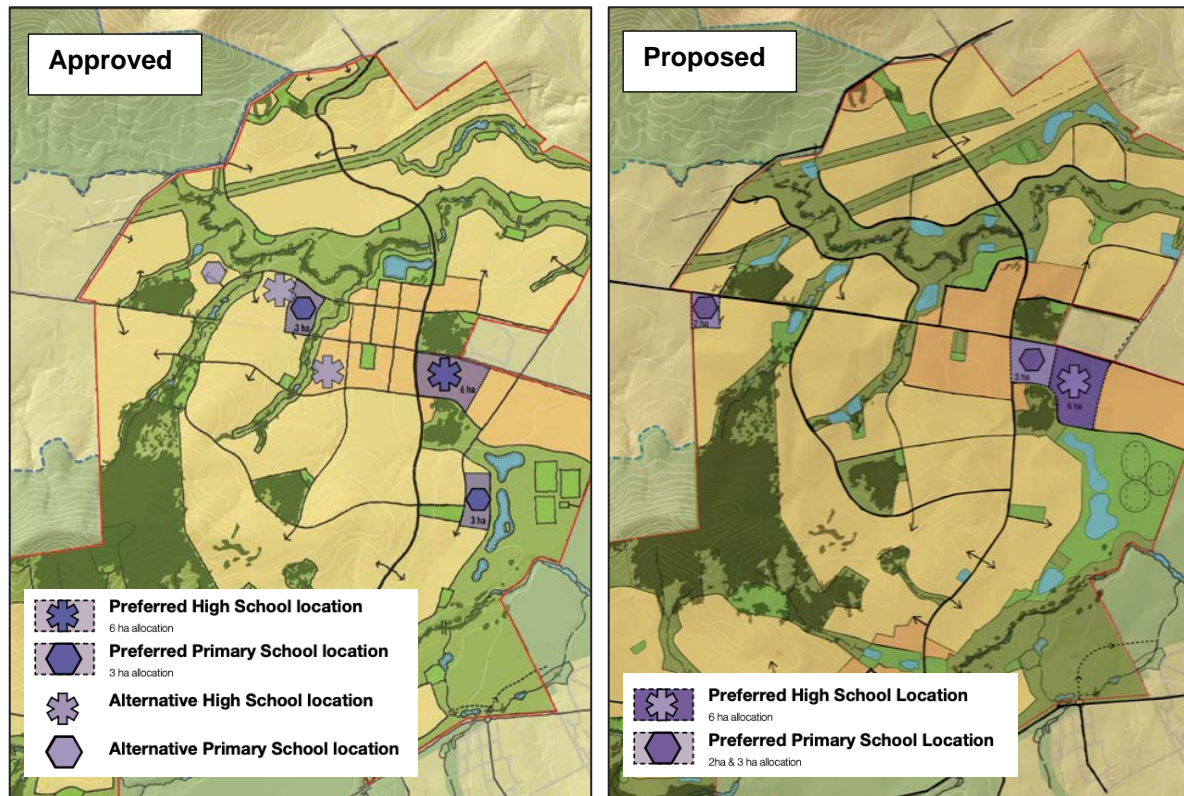


Figure 12 | Location of Schools: Approved and Proposed (Source: Proponent's RtS)

The amendments arise from discussions with the Department of Education (Schools Infrastructure NSW).

A Social Infrastructure Assessment that included population projections, demonstrates that the development is only likely to generate demand for one primary school. Given this circumstance, it may be determined in the future that the second primary school is not required. The Department of Education would prefer to take a cautious approach in the short term and therefore suggested reducing the land area for the second primary school from 3 ha to 2 ha as well as extend the timeframe for delivery of that school.

The Department of Education also confirmed the high school is not expected to be delivered until 2031 and a revision to the timing for delivery to the 2800th dwelling would better reflect this timing than the existing requirements under the VPA.

Changes to the size and delivery of the schools was a key concern raised in submissions. However, the Department of Education (School Infrastructure NSW) has confirmed the proposed approach by the Proponent is acceptable and that it would continue to liaise with the Proponent to ensure the adequate and timely delivery of education land within the precinct.

The Department is supportive of the proposed changes. The modification request provides certainty by confirming the exact location of the schools. Co-locating the proposed high school and primary school in a central location ensures good levels of accessibility and will enable sharing of resources.

The Social Infrastructure Assessment demonstrates that the provision of 6500 dwellings within Calderwood would have likely generated demand for approximately 1116 public primary school places.

The revised proposal for 6000 dwellings is likely to result in less demand. The 3ha primary school site is of a sufficient size to accommodate 1000 students and therefore a second public primary school may not be required. If a school is required, a smaller sized school would still be sufficient to meet all potential demand for public primary school places generated by the proposal without any reliance on other public open space.

While the Concept Approval and the VPA provide for the timing of the dedication of the land to the Department of Education, the timing for construction and delivery of the schools is a matter for the Department of Education and is outside of the terms of the Concept Approval.

6.10 Infrastructure Provision, Voluntary Planning Agreements and Non-Core Landowners

Wollongong Council VPAs and Infrastructure

Lendlease and two non-core landowners have previously entered into separate VPAs with Wollongong City Council, to pay contributions towards local infrastructure including road upgrades. Other infrastructure to be delivered on the site (such as a parks and roads) are not included as part of the VPA and will be a separate requirement as part of future DAs. The VPA with Lendlease envisaged development of up to 6000 dwellings and therefore is not materially affected by the proposed modification, with the exception of a potential change to the apportionment of costs attributable to the Calderwood site due to the increased population on the site as discussed in **Section 6.4**. As discussed, the Department has recommended the existing VPA between Lendlease and Wollongong City Council be amended, if necessary, to reflect a corrected apportionment of costs. VPAs with non-core landowners should not be affected as there would be no change to dwelling numbers proposed to be delivered on those sites.

Shellharbour Council VPA and Infrastructure

Lendlease has previously entered into a VPA with Shellharbour City Council which covers the provision of local infrastructure for the development and includes both physical provision of infrastructure and the payment of monetary contributions. Physical works include the community centre, all parks and sports fields, community facilities and infrastructure. Monetary contributions include contributions to local road upgrades, community infrastructure (including a library) and administration. The agreement relates to development of both core and non-core land although the non-core landowners are not party to the agreement. Non-core landowners advise they will therefore be required to provide infrastructure and contributions generally in accordance with the Concept Plan, including the approved 'Local Development Schedule'.

The VPA will need to be amended to reflect the changes to infrastructure provision under this modification. Additional proposed infrastructure includes:

- Increase in the size of the community centre (additional 220m² GFA)
- Additional contributions towards the branch library at Albion Park
- Additional open space provided on the site within Shellharbour LGA

Shellharbour City Council has raised the following concerns:

- No letter of offer has been made by the Proponent and Council should be able to negotiate infrastructure upgrades through a letter of offer.

- The information provided to date fails to address the implications and co-ordination with regards to non-core lands and additional infrastructure located on those lands
- The proposed timing for entering into the VPA (prior to the creation of the 4801st lot), would be too late as infrastructure upgrades affected by the VPA would already have been approved and possibly delivered prior to the VPA
- No information has been provided as to any proposed changes to the monetary contributions.

Non-core landowners have raised the following concerns:

- The development staging for non-core landholders should be uncoupled from the infrastructure delivery requirements of Lendlease
- The requirement for infrastructure provision on the non-core landholding sites should be tied to the development of those sites, rather than the development of Lendlease sites
- The modification should not result in any additional infrastructure delivery requirements or obligations for the non-core sites. The information provided is ambiguous as to who would be responsible for delivery of infrastructure (Lendlease or non-core landholders) as the proposed updated Local Development Schedule has removed the distinction between works which are proposed by Lendlease as opposed to those being required by the approval.

Subject to recommended conditions in relation to open space provision (**Section 6.8**), and consideration of the proposed roadworks (**Section 6.4**), the Department considers that overall the amount of additional infrastructure proposed by the Proponent, including the increased size of the community centre and increased contribution to the library is appropriate to support the additional population. The Department therefore recommends that FEAR C12 be amended to reflect these revised levels of infrastructure provision.

The Department also notes that while it may be appropriate to amend other monetary contributions under the VPA (for example in relation to city-wide infrastructure and administration) to account for an increase in population on the site, these are matters to be negotiated with Shellharbour City Council as part of the VPA negotiations. The Proponent advises that it has progressed discussions with Shellharbour City Council on the matter of a local VPA but is not yet in a position to provide a formal Letter of Offer. The Department considers the proposed modification can be approved without a formal letter of offer, subject to a new FEAR which requires that satisfactory arrangements be in place for the delivery of the local infrastructure required by amended FEAR 12. Council will still be able to negotiate other monetary contributions to be provided under the VPA, as it has previously.

The Department agrees that satisfactory arrangements or a new or amended VPA need to be prioritised in light of the increased residential density proposed and the ongoing delivery of subdivisions where new or expanded parks are proposed. The recommended amendments to condition C12 require the arrangements to be in place prior to 2023 or the issue of the 2000th occupation certificate, whichever occur first.

The Department also considers it is important that these arrangements do not affect or impede delivery of development on the three non-core landholding sites. Given there is no proposal to increase dwelling numbers on these non-core landholding sites, it is important that they are not disadvantaged, and that the modification does not result in any additional responsibilities for these landowners. The Department therefore recommends new FEARS which provide that:

- the staging and delivery of development on the three non-core landholding sites is not to be tied to any infrastructure required to be delivered by the core landholder, or any requirements for satisfactory arrangements arising from the modification
- that any contributions or infrastructure to be provided on the three non-core landholding sites is to be provided in conjunction with the development of those sites and is not required to be provided any earlier
- that nothing in the modification approval is to be read or construed as requiring any additional infrastructure provision on the non-core landholding sites compared to the concept plan as originally approved.

The Department considers that subject to these conditions, the modification would allow the Proponent and Council to negotiate the terms of the VPA to ensure the delivery of appropriate infrastructure to support the additional population on the site, without adversely impacting the non-core land holders or development of their sites.

NSW Government VPA and Infrastructure

Lendlease and all non-core Landowners have entered into separate VPAs with the Minister for contributions towards State Infrastructure. Non-core landholder VPAs are not affected by the modification. As discussed in Sections 6.4 and 6.9, the VPA between Lendlease and the Minister will need to be amended to reflect the revised arrangements for land dedications for the school sites and for provision of a new intersection at Illawarra Highway / Tripoli Road / Broughton Avenue.

The Department's contributions team have advised a letter of offer from Lendlease to this effect has been accepted. A condition is recommended requiring the VPA be amended within six months of approval of Modification 4.

Subject to this condition, the Department is satisfied the proposal adequately addresses State Infrastructure requirements.

6.11 Other issues

Issue	Findings	Recommendations
Future Ownership and Management of Environmental Lands	<ul style="list-style-type: none"> • The existing approval (FEAR C9) requires that future DAs include management plans for the environmental lands on the site, and that the management plans set out ownership arrangements to ensure the long-term management of these areas. Commitments 2 - 4 of the approval provide that the Proponent will dedicate these lands to Crown Lands, subject to Crown Lands agreement, or will identify a suitable alternative landownership option and land transfer will only occur after a suitable maintenance period. • The modification does not seek to change these requirements, except to identify Council (in addition to Crown Lands) as a potential future landowner of Johnsons Spur and provide that land transfer will only occur after implementation of an agreed Vegetation Management Plan • Crown Lands advised it will not accept the transfer of freehold land and asked that all references to this option be removed from the application. Council advised it has not agreed to take ownership of Johnson's Spur and recommends a clear pathway be identified for the ongoing sustainable management of environmental lands. It also 	<ul style="list-style-type: none"> • No additional conditions or modifications necessary

initially recommended the indicative maintenance period prior to transfer of ownership be changed from 3 years to 5 years, but has subsequently confirmed that 3 years is acceptable.

- The Department considers there are no material changes under the modification that would require the details of future land ownership to be resolved as part of the modification request or require additional changes to the approval with regard to landownership. The existing approval and the Statement of Commitments as proposed provide for flexibility in landownership arrangements and do not require Crown Lands or Council to accept transfer of lands and land ownership can be considered as part of future applications in accordance with the existing approval. The Department also notes that the maintenance periods outlined in the commitments are indicative only and it is open to any Authority accepting land transfer to require a different maintenance period as part of the transfer agreement.

Crown Land road

- Crown Lands advised that a piece of Crown road adjoining the Illawarra Highway at the west end of North Macquarie Road should be transferred to Shellharbour City Council on the basis that the proposed additional density on the site would result in an additional maintenance burden on Crown lands.
- The Department notes traffic modelling has demonstrated that the modification would not materially affect trips through this intersection and therefore the Department considers the proposal does not give rise to a need to address ownership of the land as part of the modification.
- Future ownership of the land is considered a matter between Shellharbour City Council and Crown lands and is outside of the scope of this application.
- No additional conditions or modifications necessary

Principal and Secondary Dwellings

- While the RtS sought to reduce the number of dwellings proposed on the site from 6500 to 6000, it also sought to provide that the number of dwellings applies to 'principal dwellings' only, that is, secondary dwellings would be permitted in addition to the 6000 'principal' dwellings.
- Following significant concerns raised by both Councils and the Department with the potential impacts of the proposed change, the ARtS subsequently removed the terms 'principal dwellings' from the application and confirmed that the proposal seeks approval for up to 6000 dwellings, inclusive of secondary dwellings.
- The DCS was also amended to increase the minimum lot size for secondary dwellings from 300m² to 450m² to align with the State Planning controls for secondary dwellings.
- Both Councils have confirmed that this issue has therefore been resolved.
- The Department agrees and considers that as the existing approval for 4800 dwellings is inclusive of secondary dwellings, it is appropriate that any modification to dwelling numbers be in the same terms, that is inclusive of secondary dwellings.
- No additional conditions or modifications necessary

Affordable Housing

- Housing Trust, Wollongong, recommended that a percentage of the development be contributed as social and affordable rental housing.
- The Proponent advised no affordable rental housing is proposed.
- The Department considers the modification request does not result in any adverse impacts for affordable housing and therefore does not generate a need to contribute part of the development as affordable housing. Rather, the proposed
- No additional conditions or modifications necessary

increase in housing supply as well as the proposed reduction in lot sizes would result in beneficial impacts for housing affordability.

Environmentally Sustainable Development

- ESD Measures will be predominantly addressed as part of the assessment of future DAs. However, existing commitment No. 24 provides that the proponent will consider opportunities for the establishment of both solar farms and co (or tri) generation as part of the project, particularly for the Town Centre and employment precincts.
 - It is proposed to delete this commitment and instead commit to achieving a minimum 5- star (and seek to achieve a 6- star) Green Star Communities Rating. The Proponent advises the changes are sought as the Green Star rating would provide a more holistic approach to sustainability, the solar farm and power generation has proven not to be feasible and residents can still install solar panels on their homes with subsidies as arranged by the Proponent with an energy provider.
 - Concerns were raised in public submissions about the deletion of the solar farm in favour of a Green Star Communities rating. One non-core landowner raised concern the change may result in additional commitments and responsibilities for individuals or the non-core landowners. Shellharbour City Council sought additional clarification as to how the rating would be achieved.
 - The Proponent subsequently achieved certification of a 6- star green star rating and outlined the range of commitments to support sustainable development across the site as it develops including the town centre (discussed in **Section 4**). The Proponent also clarified that all responsibility for the achievement of the green star rating lies with Lendlease and will not fall to the non-core landowners.
 - The Department considers the commitment to a 5 – 6 Star Green Star Rating ensures a high level of sustainability measures will be incorporated across the site and provides a greater level of surety of sustainability than the existing commitment to consider opportunities to establish a solar farm or tri-generation. The Department considers the modification therefore results in an improvement for sustainability on the site.
- No additional conditions or modifications necessary

Aviation

- CASA noted the site is located within the current and future Obstacle Limitation Surfaces for Wollongong Aerodrome and recommended the Proponent consider specific issues, standards and frameworks as part of any planning and development. It also recommended referral to Shellharbour City Council as the operator of the Aerodrome. Shellharbour City Council raised no concerns with respect to aviation issues.
 - Given the proposal results in no changes to the types of land uses permitted on the site, no variation is proposed to the maximum building height controls, and the proposal does not change the urban footprint of the development, the Department considers no material issues arise with respect to impacts to aviation impacts .
 - Consistent with existing processes, impacts would be assessed and mitigated as part of future applications where relevant.
- No additional conditions or modifications necessary

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 the strategic objectives of the Illawarra Shoalhaven Regional Plan and the draft Shellharbour and Wollongong Local Strategic Planning Statements.

Key issues considered in the assessment of the proposal include density, residential and town centre character, traffic and roads, flooding, water quality and ecological impacts, open space provision, land for schools, and issues relating to landownership arrangements.

During the assessment process, the Proponent reduced the scale of the proposed modification and in doing so, reduced the impacts of the proposal, including traffic and road infrastructure concerns.

The Department considers the site is well suited for the proposed increased density. Being a greenfield site approved for urban development, but with large parts of the site 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 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
- subject to future master planning and DAs, the proposal could ensure delivery of a high quality, vibrant town centre core with sufficient retail, commercial, transport and employment opportunities to support the surrounding population, and justify the proposed increase in residential density on the site, in addition to well-designed residential areas within the remaining parts of the B4 mixed use zone
- subject to some intersection upgrades as proposed, the proposal is unlikely to result in any unacceptable traffic impacts to the surrounding area compared to the approved Concept Plan
- the modification would not result in any additional flooding impacts compared to the development as approved
- the proposal is likely to result in improved water quality outcomes compared to those required by the existing approval
- the proposal would not result in adverse environmental outcomes as it would not increase the urban footprint, encroaching into environmental lands or require any material additional clearing of native vegetation
- subject to conditions, the modification would result in improved levels of passive and active open space to support the needs of future residents

- the proposal provides greater certainty about the location of future schools and will not affect the timing for delivery of the schools, which is determined by the Department of Education and not the approval
- the commitment to a 5 – 6 Star Green Star Rating ensures a high level of sustainability measures will be incorporated across the site
- subject to the recommendations of this report, the proposal would not result in additional impacts to or responsibilities for non-core landowners

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 D**.

8 Recommendation

It is recommended that the Deputy Secretary, Planning and Assessment, as delegate of the Minister for Planning and Public Spaces:

- **considers** the findings and recommendations of this report
- **determines** that the application MP09_0082 MOD 4 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
- **modify** the consent MP09_0082
- **signs** the attached approval of the modification (**Appendix C**).

Recommended by:



Keiran Thomas
Director
Regional Assessments

Recommended by:

Anthea Sergeant
Executive Director
Key Sites and Regional Assessments

9 Determination

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

David Gainsford

Deputy Secretary Assessment and Systems Performance
Planning and Assessment

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=8939

2. Submissions

http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=8939

3. Response to Submissions

http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=8939

4. Addendum Response to Submissions and Response to Requests for further information

http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=8939

Appendix B – Statutory Considerations

State Environmental Planning Policy (State Significant Precincts) 2005 (SSP SEPP)

The SSP SEPP aims to facilitate the development of identified State Significant Precincts for the benefit of the state. Calderwood is an identified State Significant Precinct and the SSP SEPP establishes the land use zoning and planning controls applicable to the site. It also establishes minimum lot sizes and maximum building heights, as well as further requirements in relation to flood planning, heritage protection and provision of public utilities.

With the exception of the general residential lot sizes, the proposed modification does not seek to make any changes that would result in a development that would contravene the land use zoning and planning controls applicable under the SSP SEPP.

It is noted that the existing Concept Approval already overrides the existing minimum lot size controls applicable to parts of the general residential zone under the SSP SEPP as it allows for subdivision of lots smaller than the minimum lot sizes set by the SSP SEPP in certain situations. The modified Concept Approval would effectively further expand on this and overrides the SSP SEPP controls. This is permissible in accordance with Clause 3B(2)(f) of Schedule 2 of the Environmental Planning and Assessment (Savings, Transitional and Other Provisions) Regulation 2017 which provides that *‘the provisions of any environmental planning instrument or any development control plans do not have effect to the extent to which they are inconsistent with the terms of the approval of the concept plan’*.

As described in **Sections 3, 6.1 and 6.2**, the proposed reduction in minimum lot size within 800 metres of the centre is supported as it will facilitate delivery of improved housing supply and improved housing diversity in close proximity to a town centre, services and amenities, without unacceptable outcomes for the character of the residential zone, adverse environmental impacts or unacceptable impacts for the future amenity of the sites. The proposal is therefore consistent with strategic planning policy as well as the objectives of the General Residential zone and the objectives of the minimum lot size controls under the SSP SEPP.

Shellharbour City Council and Wollongong City Council recommended the SSP SEPP be amended to reflect the proposed change to minimum lot size to ensure there are no inconsistencies between the Concept Approval and the SSP SEPP. The Department considers this is not necessary as the Concept Plan acts to override the SSP SEPP to the extent of any inconsistency.

State Environmental Planning Policy (Coastal Management) 2018

The northern part of the site including and around Marshall Mount Creek is identified as ‘coastal wetlands’ and ‘proximity area for coastal wetlands’.

The modification does not propose any additional development within the area designated as ‘coastal wetlands’ and therefore no matters for consideration arise under clause 10 of the SEPP.

However, the proposed modification would increase development densities on land identified as a ‘proximity area for coastal wetlands’. In accordance with Clause 11, consent may not be granted on land identified as a ‘proximity area for coastal wetlands’ unless the consent authority is satisfied that the proposed development will not significantly impact on the biophysical, hydrological or ecological integrity of the coastal wetland or the quantity and quality of surface and ground water flows to and from the wetland. Hydrology impacts and impacts on the coastal wetlands are considered in **Sections 6.5 and 6.6** and the Department is satisfied that the proposed modification would not result in any

additional impacts to the wetlands as compared to the approved concept plan and would result in improved outcomes for water quality compared to the approved concept plan.

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 Department is satisfied that as the proposal does not seek to change the land use zoning or increase the development footprint, the modified proposal would not raise any additional issues with regard to contamination as compared to the approved concept plan. As required by SEPP 55, issues of contamination and remediation would be further addressed at the development application stage.

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 65 (Design Quality of Residential Apartment Development) (SEPP 65)

The modification request is accompanied by an Urban Design Report which demonstrates that future residential development subject to this SEPP is to be delivered in accordance with SEPP 65 and the associated Apartment Design Guide. This would be subject to detailed assessment as part of future development applications.

Appendix C – Objects of the EP&A Act

Consideration of the Objects of the EP&A Act, as they relate to the proposed modification, is provided in **Table C1**.

Table C1 | 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. The additional dwellings would be provided on approved urban land close to future services and public transport. The proposal would not expand the urban footprint and 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	Ecologically sustainable development (ESD) is considered below (Section 4.4.3).
(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 in and around 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 would 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	The modification does not seek to expand the urban footprint and will not involve additional development on environmental lands, ensuring the modification would not adversely impact on any native animals and plants, including threatened species, populations and ecological communities, and their habitats. Refer also to discussion in Sections 6.6 and 6.7 .
(f) to promote the sustainable management of built and cultural heritage (including Aboriginal cultural heritage)	Subject to consideration of road design adjacent to a heritage item (refer to discussion in Section 6.4), the modification would not affect heritage values, noting the three heritage sites on or adjacent to the site would otherwise not be affected by the proposed modifications. Similarly, the potential for harm to Aboriginal cultural heritage is not materially affected by the modification given there is no change to the development footprint.
(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 amenity is discussed in **Sections 6.2 and 6.3.**

(h) to promote the proper construction and maintenance of buildings, including the protection of the health and safety of their occupants	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 .

Appendix D – Instrument of Approval of Modification

http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=8939