PLANNING PROPOSAL
CITY OF COFFS HARBOUR

Reduce Minimum Lot Size
Lot 21 DP 831915, 35 Saye Close, Sandy Beach

July 2024
VERSION 2 Exhibition

PLANNING PROPOSAL STATUS

Stage	Version / Date *(blank until achieved)*
Reported to Council – Initiate s3.33 **Version 1 - Pre_Exhibition**	***Version 1 – Pre-Exhibition*** ***23/05/2024***
Referred to DPHI s3.34(1) **Version 1 - Pre_Exhibition**	***27/05/2024***
Gateway Determination s3.34(2) **Version 1 - Pre_Exhibition**	***20/06/2024***
Amendments Required:	***No***
Public Exhibition – Schedule 1 Clause 4 **Version 2 - Exhibition**	***05/07/2024 – 15/08/2024***
Reported to Council – Initiate Revised PP s3.33 **Version x - Re_Exhibition**	
Revised PP Sent to the Minister - s3.35(1) **Version x - Re_Exhibition**	
Altered Gateway Determination s3.34(2) **Version x - Re_Exhibition**	
Public Exhibition – Schedule 1 Clause 4 **Version x - Re_Exhibition**	
Reported to Council – Endorsement (or Making of LEP if delegated) s3.36 **Version x - Post Exhibition**	
Endorsed by Council for Submission to Minister for Notification (or Making where not delegated) s3.36(2) **Version x – Post Exhibition**	

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EXECUTIVE SUMMARY & EXHIBITION INFORMATION

What is a Planning Proposal?

A planning proposal is a document that explains the intended effect of a proposed local environmental plan (LEP) and sets out the justification for making that plan. Essentially, the preparation of a planning proposal is the first step in making an amendment to Coffs Harbour LEP 2013.

A planning proposal assists those who are responsible for deciding whether an LEP amendment should proceed and is required to be prepared by a relevant planning authority. Council, as a relevant planning authority, is responsible for ensuring that the information contained within a planning proposal is accurate and accords with the *Environmental Planning and Assessment Act 1979* and the NSW Department of Planning, Housing and Infrastructure's *Local Environmental Plan Making Guideline 2023.*

What is the Intent of this Planning Proposal?

The intent of this Planning Proposal is to amend the Lot Size Map Sheet LSZ_005E of Coffs Harbour LEP 2013 as it relates to Lot 21 DP 831915, 35 Saye Close, Sandy Beach, from 1 hectare to 5,000 m^2.

Public Exhibition

This planning proposal is on public exhibition in accordance with the Gateway Determination issued by NSW Department of Planning, Housing and Infrastructure. Copies of the planning proposal and supportive information can be viewed on the City of Coffs Harbour's Have Your Say Page https://haveyoursay.coffsharbour.nsw.gov.au/ for the duration of the exhibition period.

All interested persons are invited to view and make a submission on the planning proposal during the exhibition period. Issues raised by submissions will be reported to Council for a final decision. Submissions can be made online, or in writing by email or post to:

The General Manager
City of Coffs Harbour
Locked Bag 155
COFFS HARBOUR NSW 2450
Email: coffs.council@chcc.nsw.gov.au

Any questions, contact:
Joseph Kirwood on 6648 4628
or email joseph.kirwood@chcc.nsw.gov.au

Note: The City is committed to openness and transparency in its decision making processes. The Government Information (Public Access) Act 2009 requires the City to provide public access to information held unless there are overriding public interest considerations against disclosure. Any submissions received will be made publicly available unless the writer can demonstrate that the release of part or all of the information would not be in the public interest. However, the City would be obliged to release information as required by court order or other specific law.

Written submissions must be accompanied, where relevant, by a "Disclosure Statement of Political Donations and Gifts" in accordance with the provisions of the Local Government and Planning Legislation Amendment (Political Donations) Act 2008 No. 44 Disclosure forms are available from the City's Customer Service Section or on the City's website www.coffsharbour.nsw.gov.au/disclosurestatement.

BACKGROUND

Proposal	Reduce Minimum Lot Size
Property Details	Lot 21 DP 831915, 35 Saye Close, Sandy Beach
Current Land Use Zone(s)	R5 Large Lot Residential
Proponent	Keiley Hunter Town Planning
Landowner	CoffsChap Pty Ltd
Location	Figure 1: Location Map is included below

This planning proposal has been prepared in accordance with the Environmental Planning and Assessment Act 1979 and *Local Environmental Plan Making Guideline 2023* (NSW Department of Planning, Housing and Infrastructure).

This planning proposal explains the intended effects of a proposed amendment to Coffs Harbour LEP 2013 to amend the Lot Size Map from 1 hectare to 5,000 m^2 for Lot 21 DP 831915, 35 Saye Close, Sandy Beach. The amendment will allow development application to be made for subdivision of the land to create a single additional lot as shown in Figure 2.

The Site

The site is located along Saye Close, Sandy Beach within an existing large lot residential area as shown in Figure 1 below. The site also has frontage to Solitary Islands Way on the eastern boundary.

The site contains a childcare centre that is accessible from the Saye Close frontage and is largely cleared on the western portion of the site. The eastern portion of the site includes vegetation that is mapped as Secondary Koala Habitat.

The site has an area of 1.002 hectares and is zoned R5 Large Lot Residential under LEP 2013. The current minimum lot size for this area is 1 hectare, as shown in Part 4: Mapping - Figure 3.

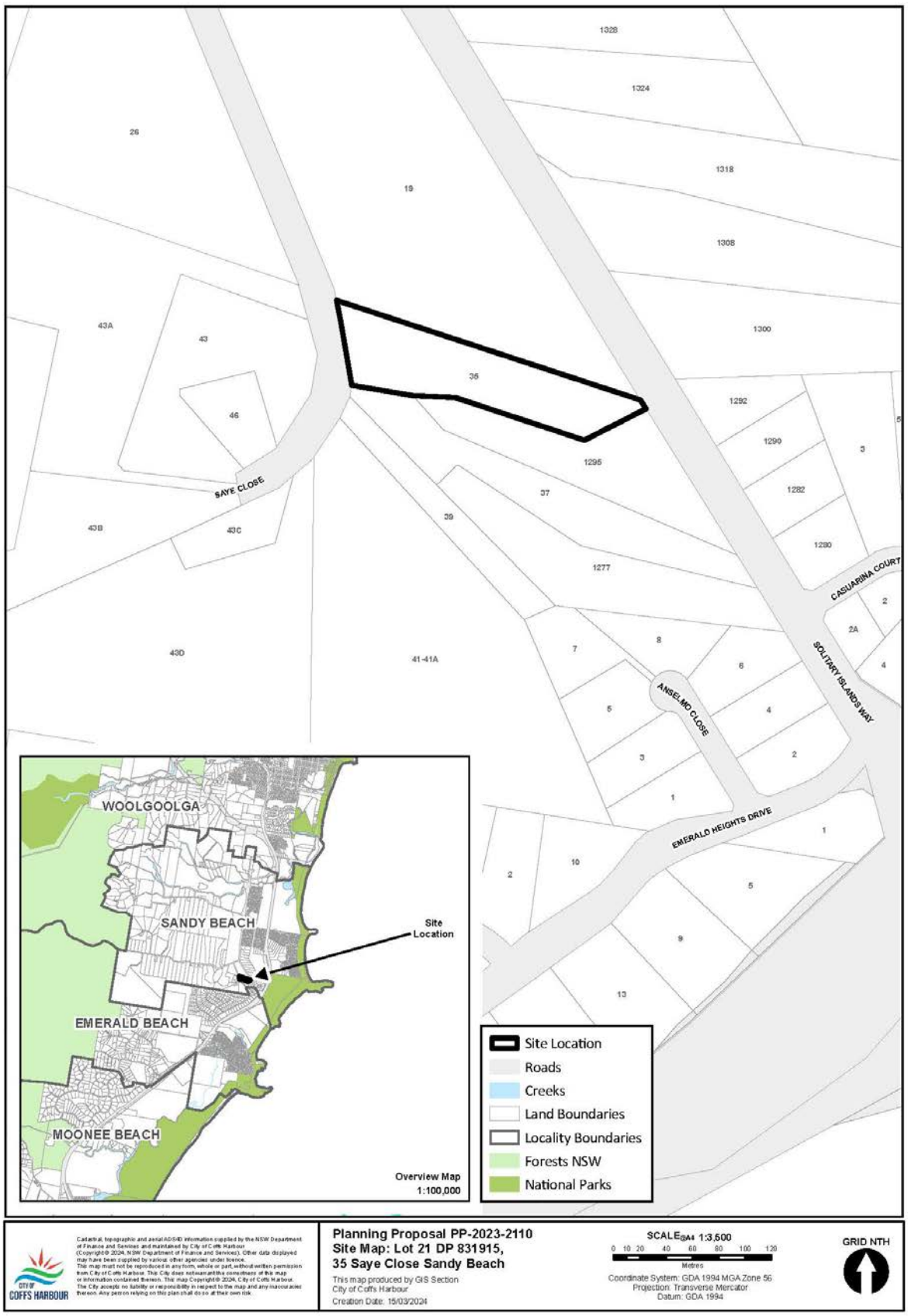

Figure 1: Location Map

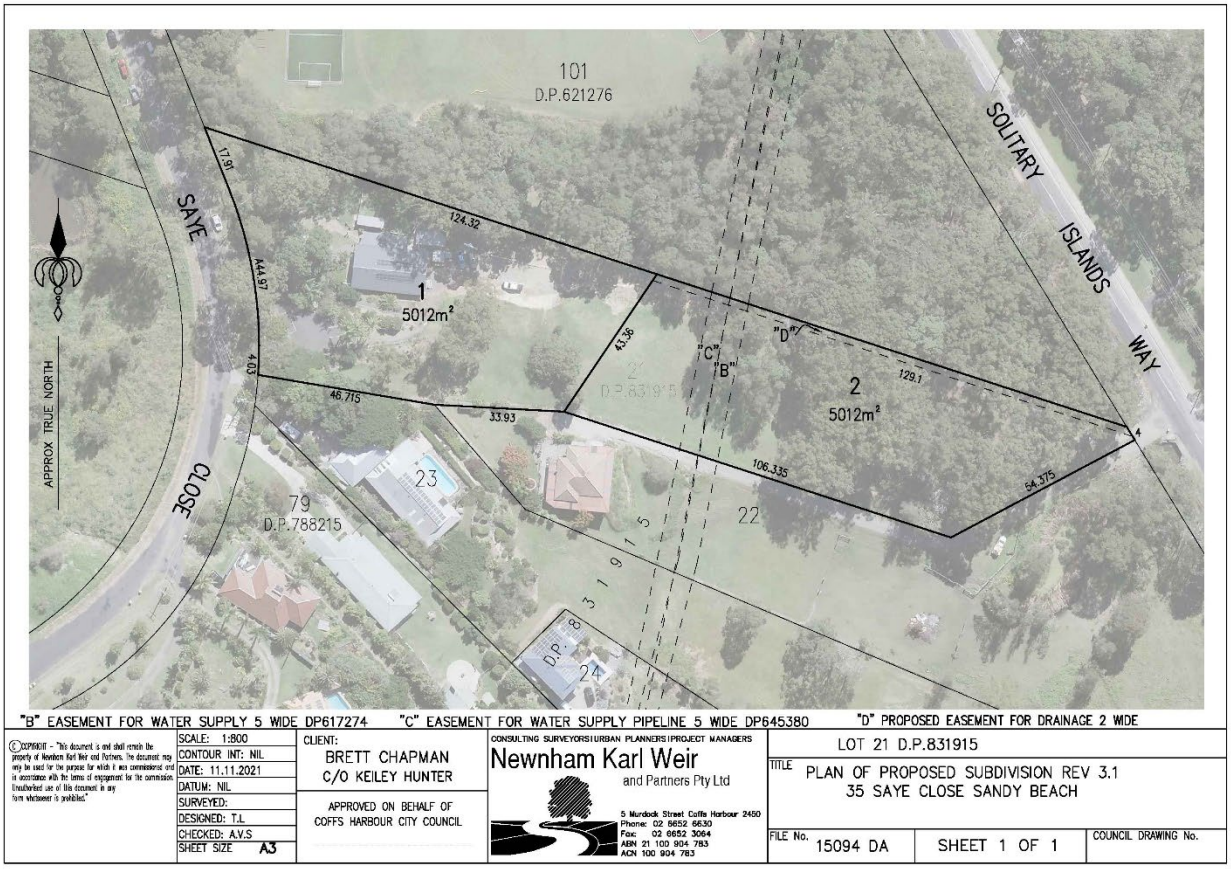

Figure 2: Concept Subdivision Layout

Note: In preparing this planning proposal, Council has not endorsed the proposed plan of subdivision as this is subject to the development application process.

PART 1 – OBJECTIVES OR INTENDED OUTCOMES

The intended outcome of this planning proposal is to amend the Lot Size Map (Sheet LSZ_005E) of Coffs Harbour LEP 2013 to reduce the minimum lot size applying to the site from 1 hectare to 5,000 m^2 to enable development application to be made for subdivision of the land.

PART 2 – EXPLANATION OF PROVISIONS

The proposed LEP amendment is to reduce the minimum lot size of 1 hectare to 5,000 m^2 for Lot 21 DP 831915, 35 Saye Close, Sandy Beach. This is to be achieved through the amendment of Sheet LSZ_005E (Lot Size Map) of LEP 2013.

PART 3 – JUSTIFICATION & SITE-SPECIFIC MERIT

This part provides a response to the following matters in accordance with the *Local Environmental Plan Making Guideline 2023* (NSW Department of Planning, Housing and Infrastructure):

- Section A: Need for the planning proposal
- Section B: Relationship to strategic planning framework
- Section C: Environmental, social and economic impact

Section A – Need for the planning proposal

1. Is the planning proposal a result of an endorsed local strategic planning statement, strategic study or report?

Yes. The site is included in an existing R5 Large Lot Residential zone and the City's Local Growth Management Strategy (LGMS) 2020, Chapter 6 – Large Lot Residential allows for the potential reduction of minimum lot size in the R5 zone, where sufficiently justified.

Coffs Harbour has a range of lot sizes in its large lot (rural residential) areas, which reflect varying minimum lot size standards that have changed over time. These varied lot sizes are apparent within the Sandy Beach and Emerald Beach large lot areas, and in close proximity to the site. A reduction in minimum lot size for the site would be consistent with the surrounding neighbourhood and its character, as smaller sized lots are already present.

The proposed minimum lot size of 5,000 m^2 will be sufficient to ensure that future lots might achieve a practical and efficient layout to meet their intended (rural residential) use. In this regard, the indicative layout in Figure 2 is demonstrative of this; achieving a practical and efficient layout in a rural residential context.

2. Is the planning proposal the best means of achieving the objectives or intended outcomes, or is there a better way?

Yes. The planning proposal is considered the best way to achieve the intended outcome and is consistent with the approach set out in the LGMS, which is set out above. It is also consistent with the manner in which Council has dealt with similar planning proposals.

3. Is there a net community benefit?

The Net Community Benefit Criteria is identified in the NSW Government's publication *The Right Place for Business and Services*. This policy document has a focus on ensuring growth within existing centres and minimising dispersed trip generating development. It applies most appropriately to planning proposals that promote significant increased residential areas or densities, or significant increased employment areas or the like. This planning proposal does not relate to ensuring growth within existing centres and minimising dispersed trip generating development; nor does it relate to promoting significant increased residential areas or densities, or significant increased employment areas or the like. The criteria in the Net Community Benefit test cannot be properly applied to this planning proposal.

Section B – Relationship to strategic planning framework

4. Will the planning proposal give effect to the objectives and actions contained within the North Coast Regional Plan 2041?

The proposed LEP amendment is considered to be consistent with the relevant goals, objectives, activities and actions within the North Coast Regional Plan 2041 as follows:

GOAL 1 – LIVEABLE, SUSTAINABLE AND RESILIENT

- ***Objective 1 – Provide well located homes to meet demand***

Strategy 1.1 A 10 year supply of zoned and developable residential land is to be provided and maintained in Local Council Plans endorsed by the Department of Planning, Housing and Infrastructure.

The proposed LEP amendment is not inconsistent with this strategy. As per Coffs Harbour Local Growth Management Strategy 2020, reduction of minimum lot size of land in Zone R5 Large Lot Residential is permitted where a land capability assessment supports a smaller lot size. The proposed amendment is contained within Zone R5 and is therefore consistent.

Action 1 Establish the North Coast urban housing monitoring program.

The proposed LEP amendment is not inconsistent with this action.

Strategy 1.2 Local Council plans are to encourage and facilitate a range of housing options in well located areas.

The proposed LEP amendment is not inconsistent with this strategy.

Strategy 1.3 Undertake infrastructure service planning to establish land can be feasibly serviced prior to rezoning.

The proposed LEP amendment is not inconsistent with this strategy. The proposed amendment is supported by a Land Capability Assessment in Appendix 4, which indicates the on-site sewage management can be maintained at a reduced minimum lot size.

Strategy 1.4 Councils in developing their future housing strategies must prioritise new infill development to assist in meeting the region's overall 40% multi-dwelling / small lot housing target and are encouraged to work collaboratively at a subregional level to achieve the target.

The proposed LEP amendment is not inconsistent with this strategy.

Strategy 1.5 New rural residential housing is to be located on land which has been approved in a strategy endorsed by the Department of Planning, Housing and Infrastructure and is to be directed away from the coastal strip.

As per Coffs Harbour Local Growth Management Strategy 2020, reduction of minimum lot size of land in Zone R5 Large Lot Residential is permitted where a land capability assessment supports a smaller lot size. The proposed amendment is contained within an existing R5 Large Lot Residential Zone and shall only result in the potential for a single additional allotment. As such, the proposed amendment is consistent with this strategy.

Strategy 1.6 Councils and LALCs can partner to identify areas which may be appropriate for culturally responsive housing on Country.

The proposed LEP amendment is not inconsistent with this strategy.

Action 2 Provide guidance to help councils plan for and manage accommodation options for seasonal and itinerant workers.

The proposed LEP amendment is not inconsistent with this action.

- ***Objective 2 – Provide for more affordable and low cost housing***

Action 3 Establish Housing Affordability Roundtables for the Mid North Coast and Northern Rivers subregions with councils, community housing providers, State agencies and the housing development industry to collaborate, build knowledge and identify measures to improve affordability and increase housing diversity.

The proposed LEP amendment is not inconsistent with this action.

- ***Objective 3 – Protect regional biodiversity and areas of high environmental value***

Strategy 3.1 Strategic planning and local plans must consider opportunities to protect biodiversity values by:

- focusing land-use intensification away from HEV assets and implementing the 'avoid, minimise and offset' hierarchy in strategic plans, LEPs and planning proposals;
- ensuring any impacts from proposed land use intensification on adjoining reserved lands or land that is subject to a conservation agreement are assessed and avoided;
- encouraging and facilitating biodiversity certification by Councils at the precinct scale for high growth areas and by individual land holders at the site scale, where appropriate;
- updating existing biodiversity mapping with new mapping in LEPs where appropriate;
- identifying HEV assets within the planning area at planning proposal stage through site investigations;
- applying appropriate mechanisms such as conservation zones and Biodiversity Stewardship Agreements to protect HEV land within a planning area and considering climate change risks to HEV assets;
- developing or updating koala habitat maps to strategically conserve koala habitat to help protect, maintain and enhance koala habitat; and
- considering marine environments, water catchment areas and groundwater sources to avoid potential development impacts.

The proposed LEP amendment is not inconsistent with this strategy. The site contains Secondary Koala Habitat in the eastern portion of the site, which shall be addressed as part of any future subdivision or development.

Strategy 3.2 In preparing local and strategic plans Councils should:

- embed climate change knowledge and adaptation actions; and
- consider the needs of climate refugia for threatened species and other key species.

The proposed LEP amendment is not inconsistent with this strategy.

Collaboration Activity 1:

Work with and assist councils to:

- review biodiversity mapping and related local environmental plan and development control plan provisions;
- improve access to data to enable identification of protected areas including NPWS Estate, Crown Reserves and in-perpetuity private land conservation agreements to inform local planning;
- ensure koala habitat values are included in land-use planning decisions through regional plans, local strategic planning statements and local environmental plans.

Lead Agency: NSW Biodiversity and Conservation Division

The proposed LEP amendment is not inconsistent with this activity.

- ***Objective 4 – Understand, celebrate and integrate Aboriginal culture***

Strategy 4.1 Councils prepare cultural heritage mapping with an accompanying Aboriginal cultural management plan in collaboration with Aboriginal communities to protect culturally important sites.

The proposed LEP amendment is not inconsistent with this strategy.

Strategy 4.2 Prioritise applying dual names in local Aboriginal language to important places, features or infrastructure in collaboration with the local Aboriginal community.

The proposed LEP amendment is not inconsistent with this strategy.

- ***Objective 5 – Manage and improve resilience to shocks and stresses, natural hazards and climate change***

Strategy 5.1 When preparing local strategic plans, councils should be consistent with and adopt the principles outlined in the Strategic Guide to Planning for Natural Hazards.

The proposed LEP amendment is not inconsistent with this strategy.

Strategy 5.2 Where significant risk from natural hazard is known or presumed, updated hazard strategies are to inform new land use strategies and be prepared in consultation with emergency service providers and Local Emergency Management Committees (LEMCs). Hazard strategies should investigate options to minimise risk such as voluntary housing buy back schemes.

The proposed LEP amendment is not inconsistent with this strategy.

Strategy 5.3 Use local strategic planning and local plans to adapt to climate change and reduce exposure to natural hazards by:

- identifying and assessing the impacts of place-based shocks and stresses;
- taking a risk-based-approach that uses the best available science in consultation with the NSW Government, emergency service providers, local emergency management committees and bush fire risk management committees;
- locating development (including urban release areas and critical infrastructure) away from areas of known high bushfire risk, flood and coastal hazard areas to reduce the community's exposure to natural hazards;
- identifying vulnerable infrastructure assets and considering how they can be protected or adapted;
- building resilience of transport networks in regard to evacuation routes, access for emergencies and, maintaining freight connections;
- identifying industries and locations that would be negatively impacted by climate change and natural hazards and preparing strategies to mitigate negative impacts and identify new paths for growth;

- preparing, reviewing and implementing updated natural hazard management plans and Coastal Management Programs to improve community and environmental resilience which can be incorporated into planning processes early for future development;
- identifying any coastal vulnerability areas;
- updating flood studies and flood risk management plans after a major flood event incorporating new data and lessons learnt; and
- communicating natural hazard risk through updated flood studies and strategic plans.

The proposed LEP amendment is not inconsistent with this strategy. The proposed amendment shall be referred to NSW Rural Fire Service for further consideration, as the site is identified as Bushfire Prone Land (Vegetation Categories 1 & 3).

Strategy 5.4 Resilience and adaptation plans should consider opportunities to:

- encourage sustainable and resilient building design and materials (such as forest products) including the use of renewable energy to displace carbon intensive or fossil fuel intensive options
- promote sustainable land management including Ecologically Sustainable Forest Management (ESFM)
- address urban heat through building and street design at precinct scale that considers climate change and future climatic conditions to ensure that buildings and public spaces are designed to protect occupants in the event of heatwaves and extreme heat events
- integrate emergency management and recovery needs into new and existing urban areas including evacuation planning, safe access and egress for emergency services personnel, buffer areas, building back better, whole-of-life cycle maintenance and operation costs for critical infrastructure for emergency management
- adopt coastal vulnerability area mapping for areas subject to coastal hazards to inform the community of current and emerging risks
- promote economic diversity, improved environmental, health and well-being outcomes and opportunities for cultural and social connections to build more resilient places and communities.

The proposed LEP amendment is not inconsistent with this strategy.

Strategy 5.5 Partner with local Aboriginal communities to develop land management agreements and policies to support cultural management practices.

The proposed LEP amendment is not inconsistent with this strategy.

Collaboration Activity 2:

Work with councils and agencies and the Transition North Coast Working Group to deliver the North Coast Enabling Regional Adaptation report to provide opportunities for climate change adaptation pathways with the aim of transitioning key regional systems to a more resilient future.

Lead Agency: NSW Office of Energy and Climate Change

The proposed LEP amendment is not inconsistent with this activity.

- ***Objective 6 – Create a circular economy***

Strategy 6.1 Support the development of circular economy, hubs, infrastructure and activities and consider employment opportunities that may arise from circular economies and industries that harness or develop renewable energy technologies and will aspire towards an employment profile that displays a level of economic self-reliance, and resilience to external forces.

The proposed LEP amendment is not inconsistent with this strategy.

Strategy 6.2 Use strategic planning and waste management strategies to support a circular economy, including dealing with waste from natural disasters and opportunities for new industry specialisations.

The proposed LEP amendment is not inconsistent with this strategy.

- ***Objective 7 – Promote renewable energy opportunities***

Strategy 7.1 When reviewing LEPs and local strategic planning statements:

- ensure current land use zones encourage and promote new renewable energy infrastructure;
- identify and mitigate impacts on views, local character and heritage where appropriate; and
- undertake detailed hazard studies.

The proposed LEP amendment is not inconsistent with this strategy.

- ***Objective 8 – Support the productivity of agricultural land***

Strategy 8.1 Local planning should protect and maintain agricultural productive capacity in the region by directing urban, rural residential and other incompatible development away from important farmland.

The proposed LEP amendment is not inconsistent with this strategy. The proposed amendment is not located within proximity to any important farmland identified in the North Coast Regional Plan 2041.

- ***Objective 9 – Sustainably manage and conserve water resources***

Strategy 9.1 Strategic planning and local plans should consider:

- opportunities to encourage riparian and coastal floodplain restoration works;
- impacts to water quality, freshwater flows and ecological function from land use change;
- water supply availability and issues, constraints and opportunities early in the planning process;
- partnering with local Aboriginal communities to care for Country and waterways;
- locating, designing, constructing and managing new developments to minimise impacts on water catchments, including downstream waterways and groundwater resources;
- possible future diversification of town water sources, including groundwater, stormwater harvesting and recycling;
- promoting an integrated water cycle management approach to development;
- encouraging the reuse of water in new developments for urban greening and for irrigation purposes;
- improving stormwater management and water sensitive urban design;
- ensuring sustainable development of higher `water use industries by considering water availability and constraints, supporting more efficient water use and reuse, and locating development where water can be accessed without significantly impacting on other water users or the environment;
- identifying and protecting drinking water catchments and storages in strategic planning and local plans; and
- opportunities to align local plans with any certified Coastal Management Programs.

The proposed LEP amendment is not inconsistent with this strategy.

Strategy 9.2 Protect marine parks, coastal lakes and estuaries by implementing the NSW Government's Risk-Based Framework for Considering Waterway Health Outcomes in Strategic Land-use Planning Decisions, with sensitive marine parks, coastal lakes and estuaries prioritised.

The proposed LEP amendment is not inconsistent with this strategy.

Strategy 9.3 Encourage a whole of catchment approach to land use and water management across the region that considers climate change, water security, sustainable demand and growth, the natural environment and investigate options for water management through innovation.

The proposed LEP amendment is not inconsistent with this strategy.

- ***Objective 10 – Sustainably manage the productivity of our natural resources***

Strategy 10.1 Enable the development of the region's natural, mineral and forestry resources by avoiding interfaces with land uses that are sensitive to impacts from noise, dust and light interference.

The proposed LEP amendment is not inconsistent with this strategy.

Strategy 10.2 Plan for the ongoing productive use of lands with regionally significant construction material resources in locations with established infrastructure and resource accessibility.

The proposed LEP amendment is not inconsistent with this strategy.

GOAL 2 – PRODUCTIVE AND CONNECTED

- ***Objective 11 – Support cities and centres and coordinate the supply of well-located employment land***

Strategy 11.1 Local council plans will support and reinforce cities and centres as a focal point for economic growth and activity.

The proposed LEP amendment is not inconsistent with this strategy.

Strategy 11.2 Utilise strategic planning and land use plans to maintain and enhance the function of established commercial centres by:

- simplifying planning controls
- developing active city streets that retain local character
- facilitating a broad range of uses within centres in response to the changing retail environment
- maximising the transport and community facilities commensurate with the scale of development proposals.

The proposed LEP amendment is not inconsistent with this strategy.

Strategy 11.3 Support existing and new economic activities by ensuring council strategic planning and local plans:

- retain, manage and safeguard significant employment lands
- respond to characteristics of the resident workforce and those working in the LGA and neighbouring LGAs
- identify local and subregional specialisations
- address freight, service and delivery considerations
- identify future employment lands and align infrastructure to support these lands
- provide flexibility in local planning controls
- are responsive to future changes in industry to allow a transition to new opportunities

- provide flexibility and facilitate a broad range of commercial, business and retail uses within centres
- focus future commercial and retail activity in existing commercial centres, unless there is no other suitable site within existing centres, there is a demonstrated need, or there is positive social and economic benefit to locate activity elsewhere
- are supported by infrastructure servicing plans for new employment lands to demonstrate feasibility prior to rezoning.

The proposed LEP amendment is not inconsistent with this strategy. The proposed amendment does not intend to remove, add or otherwise impact employment land.

Strategy 11.4 New employment areas are in accordance with an employment land strategy endorsed by the Department of Planning, Housing and Infrastructure.

The proposed LEP amendment is not inconsistent with this strategy. The proposed amendment only intends to enable the creation of a single additional large lot residential lot.

- ***Objective 12 – Create a diverse visitor economy***

Strategy 12.1 Council strategic planning and local plans should consider opportunities to:

- enhance the amenity, vibrancy and safety of centres and township precincts;
- create green and open spaces that are accessible and well connected and enhance existing green infrastructure in tourist and recreation facilities;
- support the development of places for artistic and cultural activities;
- identify appropriate areas for tourist accommodation and tourism development;
- protect heritage, biodiversity and agriculture to enhance cultural tourism, agri-tourism and eco-tourism;
- partner with local Aboriginal communities to support cultural tourism and connect ventures across the region;
- support appropriate growth of the nighttime economy;
- provide flexibility in planning controls to allow sustainable agritourism and ecotourism;
- improve public access and connection to heritage through innovative interpretation; and
- incorporate transport planning with a focus on active transport modes to connect visitors to key destinations.

The proposed LEP amendment is not inconsistent with this strategy.

- ***Objective 13 – Champion Aboriginal self-determination***

Strategy 13.1 Provide opportunities for the region's LALCs, Native Title holders and community recognised Aboriginal organisations to utilise the NSW planning system to achieve development aspirations, maximising the flow of benefits generated by land rights to Aboriginal communities through strategic led planning.

The proposed LEP amendment is not inconsistent with this strategy.

Strategy 13.2 Prioritise the resolution of unresolved Aboriginal land claims on Crown land.

The proposed LEP amendment is not inconsistent with this strategy.

Strategy 13.3 Partner with community recognised Aboriginal organisations to align strategic planning and community aspirations including enhanced Aboriginal economic participation, enterprise and land, sea and water management.

The proposed LEP amendment is not inconsistent with this strategy.

Strategy 13.4 Councils consider engaging Aboriginal identified staff within their planning teams to

facilitate strong relationship building between councils, Aboriginal communities and key stakeholders such as Local Aboriginal Land Councils and local Native Title holders.

The proposed LEP amendment is not inconsistent with this strategy.

Strategy 13.5 Councils should establish a formal and transparent relationship with local recognised Aboriginal organisations and community, such as an advisory committee.

The proposed LEP amendment is not inconsistent with this strategy.

Action 5 The Department of Planning, Housing and Infrastructure will work with LALCs, Native Title holders and councils by:

- meaningfully engaging with LALCs and Native Title holders in the development and review of strategic plans to ensure aspirations are reflected in plans;
- building capacity for Aboriginal communities, LALCs and Native Title holders to utilise the planning system; and
- incorporating Aboriginal knowledge of the region into plan.

The proposed LEP amendment is not inconsistent with this action.

- ***Objective 14 – Deliver new industries of the future***

Strategy 14.1 Facilitate agribusiness employment and income-generating opportunities through the regular review of council planning and development controls, including suitable locations for intensive agriculture and agribusiness.

The proposed LEP amendment is not inconsistent with this strategy. The proposed amendment relates to rural residential land, and therefore will not result in any change to agribusiness opportunities.

Strategy 14.2 Protect established agriculture clusters and identify expansion opportunities in local plans that avoid land use conflicts, particularly with residential and rural residential land uses.

The proposed LEP amendment is not inconsistent with this strategy. The site is located adjacent to RU2 Rural Landscape zoned land on the other side of Saye Close. As the proposed amendment results in a minor increase (single additional lot) to rural residential land within an existing rural residential zone, land use conflict is deemed to be unlikely.

- ***Objective 15 – Improve state and regional connectivity***

Strategy 15.1 Protect proposed and existing transport infrastructure and corridors to ensure network opportunities are not sterilised by incompatible land uses or land fragmentation.

The proposed LEP amendment is not inconsistent with this strategy.

Collaboration Activity 4:

To ensure that centres experiencing high growth have well planned and sustainable transport options, placed-based Transport Plans will be developed for key cities and centres across the North Coast region.

Lead Agency: Transport for NSW

The proposed LEP amendment is not inconsistent with this activity.

- ***Objective 16 – Increase active and public transport usage***

Strategy 16.1 Encourage active and public transport use by:

- prioritising pedestrian amenity within centres for short everyday trips
- providing a legible, connected and accessible network of pedestrian and cycling facilities
- delivering accessible transit stops and increasing convenience at interchanges to serve an ageing customer
- incorporating emerging anchors and commuting catchments in bus contract renewals

- ensuring new buildings and development include end of trip facilities
- integrating the active transport network with public transport facilities
- prioritising increased infill housing in appropriate locations to support local walkability and the feasibility of public transport stops

The proposed LEP amendment is not inconsistent with this strategy.

Strategy 16.2 Local plans should encourage the integration of land use and transport and provide for environments that are highly accessible and conducive to walking, cycling and the use of public transport and encourage active travel infrastructure around key trip generators.

The proposed LEP amendment is not inconsistent with this strategy.

- ***Objective 17 – Utilise new transport technology***

Strategy 17.1 Councils should consider how new transport technology can be supported in local strategic plans, where appropriate.

The proposed LEP amendment is not inconsistent with this strategy.

Collaboration Activity 6:

Investigate public transport improvements including on-demand services.

Lead Agency: Transport for NSW

The proposed LEP amendment is not inconsistent with this activity.

GOAL 3 – GROWTH CHANGE AND OPPORTUNITY

- ***Objective 18 – Plan for sustainable communities***

Action 6 Undertake housing and employment land reviews for the Northern Rivers and Mid North Coast subregions to assess future supply needs and locations.

The proposed LEP amendment is not inconsistent with this action.

- ***Objective 19 – Public spaces and green infrastructure support connected and healthy communities***

Strategy 19.1 Councils should aim to undertake public space needs analysis and develop public space infrastructure strategies for improving access and quality of all public space to meet community need for public spaces. This could include:

- drawing on community feedback to identify the quantity, quality and the type of public space required
- prioritising the delivery of new and improved quality public space to areas of most need
- considering the needs of future and changing populations
- identifying walkable and cycleable connectivity improvements and quality and access requirements that would improve use and enjoyment of existing infrastructure
- consolidating, linking and enhancing high quality open spaces and recreational areas
- working in partnership with local Aboriginal communities to develop bespoke cultural infrastructure which responds to the needs of Aboriginal communities and

The proposed LEP amendment is not inconsistent with this strategy.

Strategy 19.2 Public space improvements and new development should consider the local conditions, including embracing opportunities for greening and applying water sensitive urban design principles.

The proposed LEP amendment is not inconsistent with this strategy.

Strategy 19.3 Encourage the use of council owned land for temporary community events and creative practices where appropriate by reviewing development controls.

The proposed LEP amendment is not inconsistent with this strategy.

Strategy 19.4 Local environmental plan amendments that propose to reclassify public open space must consider the following:

- the role or potential role of the land within the open space network;
- how the reclassification is strategically supported by local strategies such as open space or asset rationalisation strategies;
- where land sales are proposed, details of how sale of land proceeds will be managed; and
- the net benefit or net gain to open space.

The proposed LEP amendment is not inconsistent with this strategy. The proposed amendment shall not reclassify public open space.

- ***Objective 20 – Celebrate local character***

Strategy 20.1 Ensure strategic planning and local plans recognise and enhance local character through use of local character statements in local plans and in accordance with the NSW Government's Local Character and Place Guideline.

The proposed LEP amendment is not inconsistent with this strategy.

Strategy 20.2 Celebrate buildings of local heritage significance by:

- retaining the existing use where possible
- establishing a common understanding of appropriate reuses
- exploring history and significance
- considering temporary uses
- designing for future change of use options.

The proposed LEP amendment is not inconsistent with this strategy. There are no buildings of local heritage significance on the site.

Coffs Harbour Narrative

Regional Priorities

- Manage and support growth in Coffs Harbour, anchored by the expanding health, education and creative industries sectors, and Coffs Harbour Airport Enterprise Park.
- Deliver suitable housing and job opportunities across the LGA including in Coffs Harbour, Woolgoolga, Moonee Beach, Toormina and Sapphire Beach.
- Protect environmental assets that sustain the agricultural and tourism industries.

Livable and Resilient

- Provide mitigation measures in response to climate change.
- Support environmentally sustainable development that is responsive to natural hazards.
- Retain and protect local biodiversity through effective management of environmental assets and ecological communities.

Productive and Connected

- Develop health, education and aviation precincts at the South Coffs Harbour Enterprise Area and Coffs Harbour Airport Enterprise Park, and new employment land at Woolgoolga and Bonville.

- Promote the sustainable use of important farmland areas through encouraging initiatives to support the development of the agricultural sector and agribusiness.
- Identify opportunities to expand nature based, adventure and cultural tourism assets including Solitary Islands Marine Park and other coastal, hinterland, and heritage assets, which will support the local ecotourism industry.

Housing and Place

- Enable 'better places' through placemaking initiatives, active transport, urban design specific to the North Coast, and facilitation of the '20 minute neighbourhood'.
- Deliver housing at Woolgoolga, North Boambee Valley and Bonville, and address the temporary worker housing needs associated with the Coffs Harbour Bypass.
- Enhance the variety of housing options available by promoting a compact urban form in and around the Coffs Harbour city centre and Park Beach.

Smart, Connected and Accessible (Infrastructure)

- Increase and strengthen social, economic and strategic links with the Mid North Coast subregion including Bellingen, Clarence Valley and Nambucca LGAs, particularly regarding the delivery of additional employment lands.
- Maximise opportunities associated with the increased connectivity provided by the new Coffs Harbour Bypass.

The proposed LEP amendment is not inconsistent with this narrative given that it shall only result in a minor increase for large lot residential land. The reduction in minimum lot size will enable more efficient use of rural residential land and shall not negatively impact any biodiversity values. The proposed amendment is in keeping with the neighbourhood character, where other similarly sized lots can be found.

5. Is the planning proposal consistent with Council's endorsed local strategic planning statement, or another endorsed local strategy or strategic plan?

Council adopted its Local Strategic Planning Statement (LSPS) on 25 June 2020 for the whole of the Coffs Harbour LGA. The proposed LEP amendment accords with the vision and planning priorities within the Coffs Harbour LSPS, in particular:

Planning Priority	Action
5. Deliver greater housing supply, choice and diversity	A5.1 - Review and amend Council's local planning controls relating to housing supply, choice and diversity as outlined in the Local Growth Management Strategy
	A5.5 - Implement remaining actions from the Local Growth Management Strategy as funding allows

MyCoffs Community Strategic Plan 2032

The City's Community Strategic Plan is based on four overarching themes: Community Wellbeing; Community Prosperity; A Place for Community; and Sustainable Community Leadership. Within each theme there are a number of sustainable development objectives and outcomes.

The planning proposal supports the vision of the MyCoffs Community Strategic Plan 'connected, sustainable, thriving' and will assist in achieving the objectives of the Plan by: attracting people to work, live and visit; and by undertaking development that is environmentally, socially and economically responsible.

Theme	Objective	Outcome
A Place for Community: *Liveable neighbourhoods with a defined identity*	We are creating liveable places that are beautiful and appealing.	• The Coffs Harbour area is a place we are proud to call home. Our neighbourhoods have a strong sense of identity and are actively shaped by the local community. • Our neighbourhoods are people-friendly and liveable environments.
	We undertake development that is environmentally, socially and economically responsible.	• Population growth is focussed within the existing developed footprint. • Sustainable design and best practice development provide quality housing options.

Coffs Harbour Local Growth Management Strategy

The Planning Proposal is consistent with the Coffs Harbour Local Growth Management Strategy.

The site is included in an existing R5 Large Lot Residential zone, and the LGMS (Chapter 6 – Large Lot Residential Lands) addresses the potential reduction of minimum lot size in the R5 zone, where sufficiently justified. Section 6.7 within Chapter 6 of the LGMS states the following:

"It is also reasonable that if undeveloped land within zone R5 can justify a reduced lot size, then it should be considered through an applicant-initiated planning proposal. This would allow a merit case for a revised minimum lot size LEP amendment request to be submitted to Council, bearing in mind the underlying reasons for the standard in the first place and the objectives of zone R5."

The planning proposal is supported by Appendix 4 – Land Capability Assessment and Appendix 5 – Bushfire Subdivision & Infill Assessment Report, which indicate that the reduction of the minimum lot size is appropriate.

6. Is the planning proposal consistent with any other applicable State and Regional Study or Strategies?

Coffs Harbour Regional City Action Plan 2036

The NSW Government developed the Coffs Harbour Regional City Action Plan (the Plan) to provide a framework to manage and shape the city's future growth. The Plan was finalised in March 2021 and it identifies 5 overarching goals which incorporate objectives and related actions. This planning proposal is consistent with the following relevant goals, objectives and associated actions within the Plan:

Goal	Objective	Actions

Live	17. Deliver a city that responds to Coffs Harbour's unique green cradle setting and offer housing choice.	17.1	Promote a sustainable growth footprint and enhance place-specific character and design outcomes.
		17.4	Support a greater variety and supply of affordable housing.

7. Is the planning proposal consistent with applicable state environmental planning policies (SEPP)?

The table provided in Appendix 1 provides an assessment of consistency against each State Environmental Planning Policy relevant to the Planning Proposal.

8. Is the planning proposal consistent with applicable Ministerial Directions (s9.1 directions)?

The table provided in Appendix 2 provides an assessment of consistency against Ministerial Planning Directions relevant to the Planning Proposal.

Section C – Environmental, social and economic impact

9. Is there any likelihood that critical habitat or threatened species, populations or ecological communities, or their habitats, will be adversely affected as a result of the proposal?

No; there is little likelihood that critical habitat or threatened species, populations or ecological communities, or their habitats, will be adversely affected as a result of the planning proposal. The site is largely cleared around the existing child-care centre, and the remaining vegetation located in the eastern area of the site does not contain any threatened species habitat.

10. Are there any other likely environmental effects as a result of the planning proposal and how are they proposed to be managed?

Yes; the following matters have been identified as considerations for the planning proposal and any resulting development application.

Bushfire Risk

Bushfire risk has been addressed in a Bushfire Subdivision & Infill Assessment Report (Appendix 5).

The report demonstrates that the planning proposal (and eventually two-lot large lot residential subdivision of the site) complies with relevant objectives (for the development type) and performance criteria within *Planning for Bushfire Protection 2019*.

Wastewater Capability Assessment

The Land Capability Assessment (Appendix 4) demonstrates that a minimum lot size of 5,000 m^2 is suitable to accommodate the sustainable application of wastewater (on-site) from both future and existing residential development, taking into account the intended future subdivision of the site for large lot purposes.

Koala Habitat

A Biodiversity Assessment (Appendix 3) identified that vegetation within the eastern area of the site as Secondary Koala Habitat. Future development applications that affect this area shall be assessed in accordance with Coffs Harbour Development Control Plan 2015 and the Coffs Harbour City Koala Plan of Management 1999.

11. Has the planning proposal adequately addressed any social and economic effects?

Yes; the planning proposal is not likely to result in any adverse social or economic effects. Social benefits include a likely minor increase in housing stock in the Sandy Beach locality, which may have flow on benefits to local community activities. Economic benefits are limited to the likely construction of a further dwelling on the site, and minor flow on benefits to local businesses.

Section D – State and Commonwealth interests

12. Is there adequate public infrastructure for the planning proposal?

Yes; the planning proposal is unlikely to create significant additional demand on existing public infrastructure. The proposed LEP amendment will enable the creation of one additional lot, which shall be serviced by on-site water collection and a waste-water treatment system, as there are no available City water and sewer mains. Vehicular access can be achieved from Saye Close and Solitary Islands Way.

13. What are the views of State and federal public authorities and government agencies consulted in order to inform the Gateway determination?

The NSW Department of Planning, Housing and Infrastructure issued a Gateway Determination for the planning proposal on 20 June 2024 (Appendix 8). The Gateway Determination requires consultation on the planning proposal with:

- NSW Rural Fire Service; and
- NSW Biodiversity Conservation and Science Group.

These agencies shall be consulted during the public exhibition period.

Note: Following exhibition this section of the planning proposal will be updated to include details of the community consultation.

PART 4 – MAPS

Proposed maps amendments to Coffs Harbour LEP 2013, as described in Part 2 of this planning proposal, are shown below.

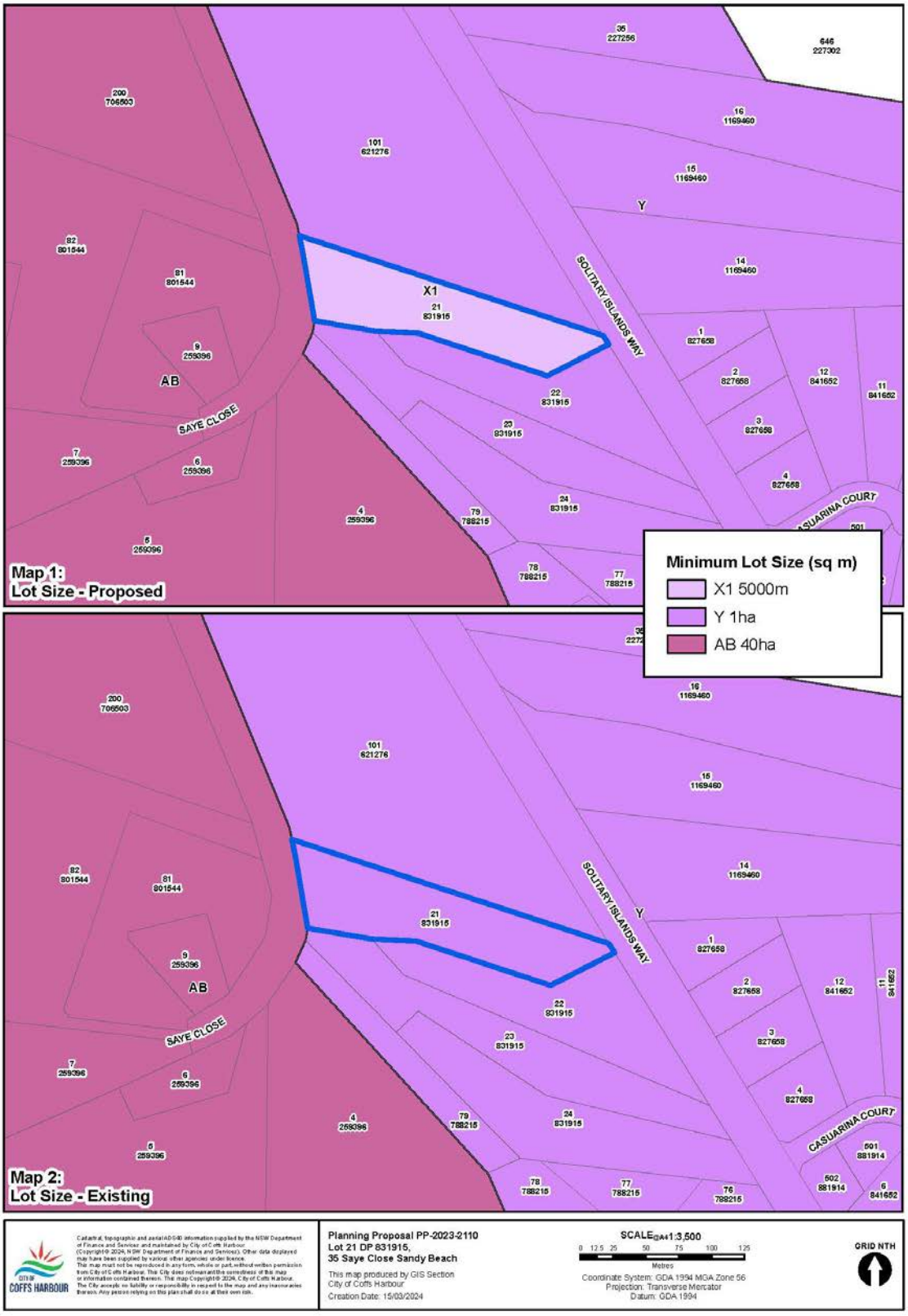

Figure 3: Combined map of existing and proposed amendments to Lot Size Map (Sheet LSZ_005E)

Technical Notes:

- *An amended version of this map sheet will be created and supplied to NSW Department of Planning, Housing and Infrastructure if Council resolves to initiate the planning proposal.*

PART 5 – COMMUNITY CONSULTATION

The Gateway determination issued by the NSW Department of Planning, Housing and Infrastructure specifies the community consultation requirements that must be undertaken for the planning proposal. The planning proposal shall be exhibited for a minimum of 20 working days, and state agencies shall have the opportunity to comment on the planning proposal within 30 working days.

Public Exhibition of the planning proposal will include the following:

Advertisement

Placement of an online advertisement in the Coffs Newsroom.

Consultation with affected owners and adjoining landowners

Written notification of the public exhibition to the proponent, the landowner and adjoining/adjacent landowners.

Website

The planning proposal will be made publicly available on the City's Have Your Say Website at: https://haveyoursay.coffsharbour.nsw.gov.au/

Note: Following public exhibition, this section of the planning proposal will be updated to include details of the community consultation.

PART 6 –PROJECT TIMELINE

A project timeline is yet to be determined however the anticipated timeframes are provided below in Table 1, noting that the Gateway Determination issued by the NSW Department of Planning, Housing and Infrastructure will specify the date that the planning proposal is to be completed.

Table 1: Anticipated Timeline

Milestone	Anticipated Timeframe
Consideration by Council	May 2024
Commencement (date of Gateway determination)	June 2024
Pre-exhibition & agency consultation	July - August 2024
Consideration of submissions	August 2024
Post-Exhibition review and additional studies	August 2024
Reporting to Council for consideration	November 2024
Submission to Minister to make the plan (if not delegated) Submission to Minister for notification of the plan (if delegated)	December 2024
Gazettal of LEP Amendment	December 2025

APPENDIX 1 – CONSIDERATION OF STATE ENVIRONMENTAL PLANNING POLICIES

State Environmental Planning Policy	Relevant Chapter	Applicable	Consistent	Comment
State Environmental Planning Policy (Biodiversity and Conservation) 2021	Chapter 2 - Vegetation in Non-Rural Areas	No	N/A	The aims of this chapter of the Policy are: a) to protect the biodiversity values of trees and other vegetation in non-rural areas of the State, and b) to preserve the amenity of non-rural areas of the State through the preservation of trees and other vegetation. The proposed LEP amendment does not contain provisions that contradict or hinder the application of this chapter of the SEPP.
	Chapter 3 - Koala Habitat Protection 2020	No	N/A	The aims of this chapter of the Policy are to encourage the proper conservation and management of areas of natural vegetation that provide habitat for koalas to ensure a permanent free-living population over their present range and reverse the current trend of koala population decline: a) by requiring the preparation of plans of management before development consent can be granted in relation to areas of core koala habitat, and b) by encouraging the identification of areas of core koala habitat, and c) by encouraging the inclusion of areas of core koala habitat in environment protection zones. The proposed LEP amendment does not contain provisions that contradict or hinder the application of this chapter of the SEPP.
	Chapter 4 - Koala Habitat Protection 2021	Yes	Yes	The aims of this chapter of the Policy are to encourage the conservation and management of areas of natural vegetation that provide habitat for koalas to support a permanent free-living population over their present range and reverse the current trend of koala population decline. The site contains Secondary Koala Habitat identified by Coffs Harbour City Koala Plan of Management 1999. This area is fully contained with the R5 Large Lot Residential Zone and therefore any tree removal proposed for future development shall be assessed in

State Environmental Planning Policy	Relevant Chapter	Applicable	Consistent	Comment
				accordance with the Coffs Harbour Development Control Plan 2015. As such, the proposed LEP amendment does not contain provisions that contradict or hinder the application of this chapter of the SEPP.
	Chapter 6 – Water Catchments	N/A	N/A	The City of Coffs Harbour is not listed in the "land to which this chapter applies" and thus this chapter of the policy does not apply to the Coffs Harbour LGA at this point in time.
	Chapter 13 – Strategic Conservation Planning	N/A	N/A	The City of Coffs Harbour is not listed in the "land application map" and thus this chapter of the policy does not apply to the Coffs Harbour LGA at this point in time.
SEPP (Exempt and Complying Development Codes) 2008	N/A – this is a standalone State Environmental Planning Policy	No	N/A	This Policy aims to provide streamlined assessment processes for development that complies with specified development standards by: a) providing exempt and complying development codes that have State-wide application, and b) identifying, in the exempt development codes, types of development that are of minimal environmental impact that may be carried out without the need for development consent, and c) identifying, in the complying development codes, types of complying development that may be carried out in accordance with a complying development certificate as defined in the Act, and d) enabling the progressive extension of the types of development in this Policy, and e) providing transitional arrangements for the introduction of the State-wide codes, including the amendment of other environmental planning instruments. The proposed LEP amendment does not contain provisions that contradict or hinder the application of this SEPP.
State Environmental Planning Policy (Housing) 2021	N/A – this is a standalone State Environmental Planning Policy	No	N/A	The principles of this Policy are: a) enabling the development of diverse housing types, including purpose-built rental housing, b) encouraging the development of housing that will meet the needs of

State Environmental Planning Policy	Relevant Chapter	Applicable	Consistent	Comment
				more vulnerable members of the community, including very low to moderate income households, seniors and people with a disability, c) ensuring new housing development provides residents with a reasonable level of amenity, promoting the planning and delivery of housing in locations where it will make good use of existing and planned infrastructure and services, d) minimising adverse climate and environmental impacts of new housing development, e) reinforcing the importance of designing housing in a way that reflects and enhances its locality, f) supporting short-term rental accommodation as a home-sharing activity and contributor to local economies, while managing the social and environmental impacts from this use, g) mitigating the loss of existing affordable rental housing. The proposed LEP amendment does not contain provisions that contradict or hinder the application of this SEPP.
State Environmental Planning Policy (Industry and Employment) 2021	Chapter 3 - Advertising and Signage	No	N/A	This aims of this chapter of the Policy are: a) to ensure that signage (including advertising): (i) is compatible with the desired amenity and visual character of an area, and (ii) provides effective communication in suitable locations, and (iii) is of high quality design and finish, and b) to regulate signage (but not content) under Part 4 of the Act, and c) to provide time-limited consents for the display of certain advertisements, and d) to regulate the display of advertisements in transport corridors, and e) to ensure that public benefits may be derived from advertising in and adjacent to transport corridors. This Policy does not regulate the content of signage and does not require consent for a change in the content of signage. The proposed LEP amendment does not contain provisions that contradict or

State Environmental Planning Policy	Relevant Chapter	Applicable	Consistent	Comment
				hinder the application of this chapter of the SEPP.
State Environmental Planning Policy (Planning Systems) 2021.	Chapter 2 -State and Regional Development	No	N/A	The aims of this chapter of the Policy are: a) to identify development that is State significant development, b) to identify development that is State significant infrastructure and critical State significant infrastructure, c) to identify development that is regionally significant development. The proposed LEP amendment does not contain provisions that contradict or hinder the application of this chapter of the SEPP.
	Chapter 3 - Aboriginal Land	N/A	N/A	The aims of this Chapter of the Policy are: a) to provide for development delivery plans for areas of land owned by Aboriginal Land Councils to be considered when development applications are considered, and b) to declare specified development carried out on land owned by Aboriginal Land Councils to be regionally significant development. The proposed LEP amendment does not contain provisions that contradict or hinder the application of this chapter of the SEPP.
	Chapter 4 - Concurrences and Consents	No	N/A	The proposed LEP amendment does not contain provisions that contradict or hinder the application of this chapter of the SEPP.
State Environmental Planning Policy (Precincts—Central River City) 2021	Chapter 2 – State Significant Precincts	No	N/A	The aims of this chapter of the Policy are to: a) to facilitate the development, redevelopment or protection of important urban, coastal and regional sites of economic, environmental or social significance to the State so as to facilitate the orderly use, development or conservation of those State significant precincts for the benefit of the State, b) to facilitate service delivery outcomes for a range of public services and to provide for the development of major sites for a public purpose or redevelopment of major sites no longer appropriate or suitable for public purposes

State Environmental Planning Policy	Relevant Chapter	Applicable	Consistent	Comment
				The proposed LEP amendment does not contain provisions that contradict or hinder the application of this chapter of the SEPP.
State Environmental Planning Policy (Precincts—Eastern Harbour City) 2021	Chapter 2 -State Significant Precincts	No	N/A	The aims of this chapter of the Policy are to: c) to facilitate the development, redevelopment or protection of important urban, coastal and regional sites of economic, environmental or social significance to the State so as to facilitate the orderly use, development or conservation of those State significant precincts for the benefit of the State, d) to facilitate service delivery outcomes for a range of public services and to provide for the development of major sites for a public purpose or redevelopment of major sites no longer appropriate or suitable for public purposes The proposed LEP amendment does not contain provisions that contradict or hinder the application of this chapter of the SEPP.
State Environmental Planning Policy (Precincts—Regional) 2021	Chapter 2 -State Significant Precincts	N/A	N/A	The aims of this chapter of the Policy are to: a) to facilitate the development, redevelopment or protection of important urban, coastal and regional sites of economic, environmental or social significance to the State so as to facilitate the orderly use, development or conservation of those State significant precincts for the benefit of the State, b) to facilitate service delivery outcomes for a range of public services and to provide for the development of major sites for a public purpose or redevelopment of major sites no longer appropriate or suitable for public purposes. The proposed LEP amendment does not contain provisions that contradict or hinder the application of this chapter of the SEPP.
State Environmental Planning Policy (Primary Production) 2021	Chapter 2 - Primary Production and Rural Development	No	N/A	The aims of this chapter of the Policy are to: a) to facilitate the orderly economic use and development of lands for primary production,

State Environmental Planning Policy	Relevant Chapter	Applicable	Consistent	Comment
				b) to reduce land use conflict and sterilisation of rural land by balancing primary production, residential development and the protection of native vegetation, biodiversity and water resources, c) to identify State significant agricultural land for the purpose of ensuring the ongoing viability of agriculture on that land, having regard to social, economic and environmental considerations, d) to simplify the regulatory process for smaller-scale low risk artificial waterbodies, and routine maintenance of artificial water supply or drainage, in irrigation areas and districts, and for routine and emergency work in irrigation areas and districts, e) to encourage sustainable agriculture, including sustainable aquaculture, f) to require consideration of the effects of all proposed development in the State on oyster aquaculture, g) to identify aquaculture that is to be treated as designated development using a well-defined and concise development assessment regime based on environment risks associated with site and operational factors. The proposed LEP amendment does not contain provisions that contradict or hinder the application of this chapter of the SEPP.
State Environmental Planning Policy (Resilience and Hazards) 2021	Chapter 2 - Coastal Management	No	N/A	The aim of this chapter of the Policy is to promote an integrated and co-ordinated approach to land use planning in the coastal zone in a manner consistent with the objects of the Coastal Management Act 2016, including the management objectives for each coastal management area, by: a) managing development in the coastal zone and protecting the environmental assets of the coast, and b) establishing a framework for land use planning to guide decision-making in the coastal zone, and c) mapping the 4 coastal management areas that comprise the NSW coastal zone for the purpose of the definitions in the Coastal Management Act 2016.

State Environmental Planning Policy	Relevant Chapter	Applicable	Consistent	Comment
				The proposed LEP amendment does not contain provisions that contradict or hinder the application of this chapter of the SEPP.
	Chapter 3 – Hazardous and Offensive Development	No	N/A	The aims of this chapter of the Policy are: a) to amend the definitions of hazardous and offensive industries where used in environmental planning instruments, and b) to render ineffective a provision of any environmental planning instrument that prohibits development for the purpose of a storage facility on the ground that the facility is hazardous or offensive if it is not a hazardous or offensive storage establishment as defined in this Policy, and c) to require development consent for hazardous or offensive development proposed to be carried out in the Western Division, and d) to ensure that in determining whether a development is a hazardous or offensive industry, any measures proposed to be employed to reduce the impact of the development are taken into account, and e) to ensure that in considering any application to carry out potentially hazardous or offensive development, the consent authority has sufficient information to assess whether the development is hazardous or offensive and to impose conditions to reduce or minimise any adverse impact, and f) to require the advertising of applications to carry out any such development. The proposed LEP amendment does not contain provisions that contradict or hinder the application of this chapter of the SEPP.
	Chapter 4 – Remediation of Land	No	N/A	The aims of this chapter of the Policy are to promote the remediation of contaminated land for the purpose of reducing the risk of harm to human health or any other aspect of the environment— a) by specifying when consent is required, and when it is not required, for a remediation work, and b) by specifying certain considerations that are relevant in rezoning land and

State Environmental Planning Policy	Relevant Chapter	Applicable	Consistent	Comment
				in determining development applications in general and development applications for consent to carry out a remediation work in particular, and c) by requiring that a remediation work meet certain standards and notification requirements. The proposed LEP amendment does not contain provisions that contradict or hinder the application of this chapter of the SEPP.
State Environmental Planning Policy (Resources and Energy) 2021	Chapter 2 - Mining, Petroleum Production and Extractive Industries	No	N/A	The aims of this chapter of the Policy are, in recognition of the importance to New South Wales of mining, petroleum production and extractive industries: a) to provide for the proper management and development of mineral, petroleum and extractive material resources for the purpose of promoting the social and economic welfare of the State, and b) to facilitate the orderly and economic use and development of land containing mineral, petroleum and extractive material resources, and b1) to promote the development of significant mineral resources, and c) to establish appropriate planning controls to encourage ecologically sustainable development through the environmental assessment, and sustainable management, of development of mineral, petroleum and extractive material resources, and d) to establish a gateway assessment process for certain mining and petroleum (oil and gas) development: (i) to recognise the importance of agricultural resources, and (ii) to ensure protection of strategic agricultural land and water resources, and (iii) to ensure a balanced use of land by potentially competing industries, and (iv) to provide for the sustainable growth of mining, petroleum and agricultural industries. The proposed LEP amendment does not contain provisions that contradict or hinder the application of this chapter of the SEPP.

State Environmental Planning Policy	Relevant Chapter	Applicable	Consistent	Comment
State Environmental Planning Policy (Sustainable Buildings) 2022	Chapter 2 - Standards for residential development - BASIX	No	N/A	The aims of this SEPP are to encourage the design and delivery of sustainable buildings that minimise energy and water use. The proposed LEP amendment does not contain provisions that contradict or hinder the application of Chapter 2 of the SEPP.
	Chapter 3 - Standards for non-residential development	No	N/A	The aims of this SEPP are to encourage the design and delivery of sustainable buildings that minimise energy and water use. The proposed LEP amendment does not contain provisions that contradict or hinder the application of Chapter 3 of the SEPP.

State Environmental Planning Policy	Relevant Chapter	Applicable	Consistent	Comment
State Environmental Planning Policy (Transport and Infrastructure) 2021	Chapter 2 - Infrastructure	No	N/A	The aim of this chapter of the Policy is to facilitate the effective delivery of infrastructure across the State by: a) improving regulatory certainty and efficiency through a consistent planning regime for infrastructure and the provision of services, and b) providing greater flexibility in the location of infrastructure and service facilities, and c) allowing for the efficient development, redevelopment or disposal of surplus government owned land, and d) identifying the environmental assessment category into which different types of infrastructure and services development fall (including identifying certain development of minimal environmental impact as exempt development), and e) identifying matters to be considered in the assessment of development adjacent to particular types of infrastructure development, and f) providing for consultation with relevant public authorities about certain development during the assessment process or prior to development commencing, and g) providing opportunities for infrastructure to demonstrate good design outcomes. The proposed LEP amendment does not contain provisions that contradict or hinder the application of this chapter of the SEPP.
	Chapter 3 - Educational Establishments and Child Care Facilities	No	N/A	The aim of this chapter of the Policy is to facilitate the effective delivery of educational establishments and early education and care facilities across the State by: a) improving regulatory certainty and efficiency through a consistent planning regime for educational establishments and early education and care facilities, and b) simplifying and standardising planning approval pathways for educational establishments and early education and care facilities (including identifying certain development of

State Environmental Planning Policy	Relevant Chapter	Applicable	Consistent	Comment
				minimal environmental impact as exempt development), and c) establishing consistent State-wide assessment requirements and design considerations for educational establishments and early education and care facilities to improve the quality of infrastructure delivered and to minimise impacts on surrounding areas, and d) allowing for the efficient development, redevelopment or use of surplus government-owned land (including providing for consultation with communities regarding educational establishments in their local area), and e) providing for consultation with relevant public authorities about certain development during the assessment process or prior to development commencing, and f) aligning the NSW planning framework with the National Quality Framework that regulates early education and care services, and g) ensuring that proponents of new developments or modified premises meet the applicable requirements of the National Quality Framework for early education and care services, and of the corresponding regime for State regulated education and care services, as part of the planning approval and development process, and h) encouraging proponents of new developments or modified premises and consent authorities to facilitate the joint and shared use of the facilities of educational establishments with the community through appropriate design. The proposed LEP amendment does not contain provisions that contradict or hinder the application of this chapter of the SEPP.
	Chapter 4 – Major Infrastructure Corridors	No	N/A	The aims of this chapter of the Policy are: a) to identify land that is intended to be used in the future as an infrastructure corridor, b) to establish appropriate planning controls for the land for the following purposes— (i) to allow the ongoing use and development of the land until it is

State Environmental Planning Policy	Relevant Chapter	Applicable	Consistent	Comment
				needed for the future infrastructure corridor, (ii) to protect the land from development that would adversely impact on or prevent the land from being used as an infrastructure corridor in the future. The proposed LEP amendment does not contain provisions that contradict or hinder the application of this chapter of the SEPP.

APPENDIX 2 – CONSIDERATION OF MINISTERIAL PLANNING DIRECTIONS

S9.1 Direction	Applicable	Consistent	Comment
Focus area 1: Planning Systems			
1.1 Implementation of Regional Plans	This direction applies to a relevant planning authority when preparing a planning proposal for land to which a Regional Plan has been released by the Minister for Planning and Public Spaces. Planning proposals must be consistent with a Regional Plan released by the Minister for Planning and Public Spaces. A planning proposal may be inconsistent with the terms of this direction only if the relevant planning authority can satisfy the Planning Secretary (or an officer of the Department nominated by the Secretary), that: (a) the extent of inconsistency with the Regional Plan is of minor significance, and (b) the planning proposal achieves the overall intent of the Regional Plan and does not undermine the achievement of the Regional Plan's vision, land use strategy, goals, directions or actions.	Yes	The North Coast Regional Plan 2041 (NCRP) applies to the Coffs Harbour LGA. The NCRP includes strategies and actions on environmental, economic and social (community) opportunities, as well as maintaining character and housing. Specific responses to relevant strategies and the associated actions and activities contained within the NCRP are provided in Part 3, Section B (4) above. It is considered that the planning proposal complies with the NCRP.
1.2 Development of Aboriginal Land Council land	This direction does not currently apply to the Coffs Harbour LGA.	N/A	
1.3 Approval and Referral Requirements	This direction applies to all relevant planning authorities when preparing a planning proposal. A planning proposal to which this direction applies must: (a) minimise the inclusion of provisions that require the concurrence, consultation or referral of development applications to a Minister or public authority, and (b) not contain provisions requiring concurrence, consultation or referral of a Minister or public authority unless the relevant planning authority has obtained the approval of: i. the appropriate Minister or public authority, and ii. the Planning Secretary (or an officer of the Department nominated by the Secretary), prior to undertaking community consultation in satisfaction of Schedule 1 to the EP&A Act, and	Yes	The planning proposal does not include provisions that require the concurrence, consultation or referral of development applications to a Minister or public authority. It also does not identify development as designated development.

S9.1 Direction	Applicable	Consistent	Comment
	(c) not identify development as designated development unless the relevant planning authority: i. can satisfy the Planning Secretary (or an officer of the Department nominated by the Secretary) that the class of development is likely to have a significant impact on the environment, and ii. has obtained the approval of the Planning Secretary (or an officer of the Department nominated by the Secretary) prior to undertaking community consultation in satisfaction of Schedule 1 to the EP&A Act. A planning proposal must be substantially consistent with the terms of this direction.		
1.4 Site Specific Provisions	This direction applies to all relevant planning authorities when preparing a planning proposal that will allow a particular development to be carried out. (1) A planning proposal that will amend another environmental planning instrument in order to allow particular development to be carried out must either: (a) allow that land use to be carried out in the zone the land is situated on, or (b) rezone the site to an existing zone already in the environmental planning instrument that allows that land use without imposing any development standards or requirements in addition to those already contained in that zone, or (c) allow that land use on the relevant land without imposing any development standards or requirements in addition to those already contained in the principal environmental planning instrument being amended. (2) A planning proposal must not contain or refer to drawings that show details of the proposed development. A planning proposal may be inconsistent with the terms of this direction only if the relevant planning authority can satisfy the Planning Secretary (or an officer of the Department nominated by the Secretary) that the provisions of the planning proposal that are inconsistent are of minor significance.	Yes	The planning proposal does not allow a particular development to be carried out, it shall only reduce the minimum lot size to enable subdivision.
1.4A Exclusion of Development Standards from Variation	This direction applies when a planning proposal authority prepares a planning proposal that proposes to introduce or alter an existing exclusion to clause 4.6 of a Standard	N/A	The planning proposal will not introduce or alter an existing exclusion to clause 4.6 of Coffs Harbour LEP 2013.

S9.1 Direction	Applicable	Consistent	Comment
	Instrument LEP or an equivalent provision of any other environmental planning instrument.		
Focus area 1: Planning Systems – Place Based			
Directions 1.5 – 1.22 do not apply to the Coffs Harbour LGA.			
Focus area 2: Design and Place			
Directions yet to be included.			
Focus area 3: Biodiversity and Conservation			
3.1 Conservation Zones	This direction applies to all relevant planning authorities when preparing a planning proposal. (1) A planning proposal must include provisions that facilitate the protection and conservation of environmentally sensitive areas. (2) A planning proposal that applies to land within a conservation zone or land otherwise identified for environment conservation/protection purposes in a LEP must not reduce the conservation standards that apply to the land (including by modifying development standards that apply to the land). This requirement does not apply to a change to a development standard for minimum lot size for a dwelling in accordance with Direction 9.3 (2) of "*Rural Lands*". A planning proposal may be inconsistent with the terms of this direction only if the relevant planning authority can satisfy the Planning Secretary (or an officer of the Department nominated by the Secretary that the provisions of the planning proposal that are inconsistent are: (a) justified by a strategy approved by the Planning Secretary which: i. gives consideration to the objectives of this direction, and ii. identifies the land which is the subject of the planning proposal (if the planning proposal relates to a particular site or sites), or (b) justified by a study prepared in support of the planning proposal which gives consideration to the objectives of this direction, or	Yes	The site does not include any environmentally sensitive areas. The site does not contain land within a conservation zone or and otherwise identified for environment conservation/protection purposes.

S9.1 Direction	Applicable	Consistent	Comment
	(c) in accordance with the relevant Regional Strategy, Regional Plan or District Plan prepared by the Department of Planning, Housing and Infrastructure which gives consideration to the objective of this direction, or (d) is of minor significance.		
3.2 Heritage Conservation	This direction applies to all relevant planning authorities when preparing a planning proposal. A planning proposal must contain provisions that facilitate the conservation of: (a) items, places, buildings, works, relics, moveable objects or precincts of environmental heritage significance to an area, in relation to the historical, scientific, cultural, social, archaeological, architectural, natural or aesthetic value of the item, area, object or place, identified in a study of the environmental heritage of the area, (b) Aboriginal objects or Aboriginal places that are protected under the *National Parks and Wildlife Act 1974*, and (c) Aboriginal areas, Aboriginal objects, Aboriginal places or landscapes identified by an Aboriginal heritage survey prepared by or on behalf of an Aboriginal Land Council, Aboriginal body or public authority and provided to the relevant planning authority, which identifies the area, object, place or landscape as being of heritage significance to Aboriginal culture and people. A planning proposal may be inconsistent with the terms of this direction only if the relevant planning authority can satisfy the Planning Secretary (or an officer of the Department nominated by the Secretary) that: (a) the environmental or indigenous heritage significance of the item, area, object or place is conserved by existing or draft environmental planning instruments, legislation, or regulations that apply to the land, or (b) the provisions of the planning proposal that are inconsistent are of minor significance.	Yes	*European Heritage* The site does not contain any items listed as Heritage Items in Schedule 5 of Coffs Harbour LEP 2013 or the State Heritage Register. There are no European Heritage issues that would prevent a reduction in minimum lot size applying to the land. *Aboriginal Cultural Heritage* The site does not contain any mapped known or predictive Aboriginal Cultural Heritage (ACH), and an AHIMS search has not revealed any ACH sites on or near the site.
3.3 Sydney Drinking Water Catchments	This direction does not currently apply to the Coffs Harbour LGA.	N/A	
3.4 Application of C2 and C3	This direction does not currently apply to the Coffs Harbour LGA.	N/A	

S9.1 Direction	Applicable	Consistent	Comment
Zones and Environmental Overlays in Far North Coast LEPs			
3.5 Recreation Vehicle Areas	A planning proposal must not enable land to be developed for the purpose of a recreation vehicle area (within the meaning of the *Recreation Vehicles Act 1983*): (a) where the land is within a conservation zone, (b) where the land comprises a beach or a dune adjacent to or adjoining a beach, (c) where the land is not within an area or zone referred to in paragraphs (a) or (b) unless the relevant planning authority has taken into consideration: i. the provisions of the guidelines entitled Guidelines for the Selection, Establishment and Maintenance of Recreation Vehicle Areas, Soil Conservation Service of NSW, September 1985, and ii. the provisions of the guidelines entitled Recreation Vehicles Act 1983, Guidelines for Selection, Design and Operation of Recreation Vehicle Areas, State Pollution Control Commission, September 1985. A planning proposal may be inconsistent with the terms of this direction only if the relevant planning authority can satisfy the Planning Secretary (or an officer of the Department nominated by the Secretary) that the provisions of the planning proposal that are inconsistent are: (a) justified by a strategy approved by the Planning Secretary which: i. gives consideration to the objective of this direction, and ii. identifies the land which is the subject of the planning proposal (if the planning proposal relates to a particular site or sites), or (b) justified by a study prepared in support of the planning proposal which gives consideration to the objective of this direction, or (c) in accordance with the relevant Regional Strategy, Regional Plan or District Plan	Yes	The planning proposal does not enable land to be developed for the purpose of a recreation vehicle area (within the meaning of the *Recreation Vehicles Act 1983*).

S9.1 Direction	Applicable	Consistent	Comment
	prepared by the Department of Planning, Housing and Infrastructure which gives consideration to the objective of this direction, or (d) of minor significance.		
3.6 Strategic Conservation Planning	This direction does not currently apply to the Coffs Harbour LGA.	N/A	
3.7 Public Bushland	This direction does not currently apply to the Coffs Harbour LGA.	N/A	
3.8 Willandra Lakes Region	This direction does not currently apply to the Coffs Harbour LGA.	N/A	
3.9 Sydney Harbour Foreshores and Waterways Area	This direction does not currently apply to the Coffs Harbour LGA.	N/A	
3.10 Water Catchment Protection	This direction does not currently apply to the Coffs Harbour LGA.	N/A	
Focus Area 4: Resilience and Hazards			
4.1 Flooding	This direction applies to all relevant planning authorities that are responsible for flood prone land when preparing a planning proposal that creates, removes or alters a zone or a provision that affects flood prone land. (1) A planning proposal must include provisions that give effect to and are consistent with: (a) the NSW Flood Prone Land Policy, (b) the principles of the Floodplain Development Manual 2005, (c) the Considering flooding in land use planning guideline 2021, and (d) any adopted flood study and/or floodplain risk management plan prepared in accordance with the principles of the Floodplain Development Manual 2005 and adopted by the relevant council. (2) A planning proposal must not rezone land within the flood planning area from Recreation, Rural, Special Purpose or Conservation Zones to a Residential, Business, Industrial or Special Purpose Zones.	Yes	The City's spatial mapping indicates that a small area of the site is located within the 1 in 100 Year ARI Flood Extent. This area is located along the frontage to Solitary Islands Way. There are adequate planning controls in place to ensure that flooding is appropriately managed as part of any future development applications. Future development on the land must comply with Clause 5.21 of Coffs Harbour LEP 2013 and Section E4 of Coffs Harbour DCP 2015. The planning proposal is deemed to be consistent with this direction, as it does not rezone land or contain provisions that permit

S9.1 Direction	Applicable	Consistent	Comment
	(3) A planning proposal must not contain provisions that apply to the flood planning area which: (a) permit development in floodway areas, (b) permit development that will result in significant flood impacts to other properties, (c) permit development for the purposes of residential accommodation in high hazard areas, (d) permit a significant increase in the development and/or dwelling density of that land, (e) permit development for the purpose of centre-based childcare facilities, hostels, boarding houses, group homes, hospitals, residential care facilities, respite day care centres and seniors housing in areas where the occupants of the development cannot effectively evacuate, (f) permit development to be carried out without development consent except for the purposes of exempt development or agriculture. Dams, drainage canals, levees, still require development consent, (g) are likely to result in a significantly increased requirement for government spending on emergency management services, flood mitigation and emergency response measures, which can include but are not limited to the provision of road infrastructure, flood mitigation infrastructure and utilities, or (h) permit hazardous industries or hazardous storage establishments where hazardous materials cannot be effectively contained during the occurrence of a flood event. (4) A planning proposal must not contain provisions that apply to areas between the flood planning area and probable maximum flood to which Special Flood Considerations apply which: (a) permit development in floodway areas, (b) permit development that will result in significant flood impacts to other properties, (c) permit a significant increase in the dwelling density of that land, (d) permit the development of centre-based childcare facilities, hostels, boarding houses, group homes, hospitals,		development within the flood planning area.

S9.1 Direction	Applicable	Consistent	Comment
	residential care facilities, respite day care centres and seniors housing in areas where the occupants of the development cannot effectively evacuate, (e) are likely to affect the safe occupation of and efficient evacuation of the lot, or (f) are likely to result in a significantly increased requirement for government spending on emergency management services, and flood mitigation and emergency response measures, which can include but not limited to road infrastructure, flood mitigation infrastructure and utilities. (5) For the purposes of preparing a planning proposal, the flood planning area must be consistent with the principles of the Floodplain Development Manual 2005 or as otherwise determined by a Floodplain Risk Management Study or Plan adopted by the relevant council. A planning proposal may be inconsistent with this direction only if the planning proposal authority can satisfy the Planning Secretary (or their nominee) that: (a) the planning proposal is in accordance with a floodplain risk management study or plan adopted by the relevant council in accordance with the principles and guidelines of the *Floodplain Development Manual 2005*, or (b) where there is no council adopted floodplain risk management study or plan, the planning proposal is consistent with the flood study adopted by the council prepared in accordance with the principles of the *Floodplain Development Manual 2005* or (c) the planning proposal is supported by a flood and risk impact assessment accepted by the relevant planning authority and is prepared in accordance with the principles of *the Floodplain Development Manual 2005* and consistent with the relevant planning authorities' requirements, or (d) the provisions of the planning proposal that are inconsistent are of minor significance as determined by the relevant planning authority.		
4.2 Coastal Management	This direction applies when a planning proposal authority prepares a planning proposal that applies to land that is within the coastal zone, as defined under the *Coastal Management Act*	Yes	The site is not within the coastal zone, as defined under the *Coastal Management Act 2016* – comprising the coastal

S9.1 Direction	Applicable	Consistent	Comment
	2016 -comprising the coastal wetlands and littoral rainforests area, coastal vulnerability area, coastal environment area and coastal use area -and as identified by chapter 3 of the *State Environmental Planning Policy (Biodiversity and Conservation) 2021.* (1) A planning proposal must include provisions that give effect to and are consistent with: (a) the objects of the *Coastal Management Act 2016* and the objectives of the relevant coastal management areas; (b) the NSW Coastal Management Manual and associated Toolkit; (c) NSW Coastal Design Guidelines 2003; and (d) any relevant Coastal Management Program that has been certified by the Minister, or any Coastal Zone Management Plan under the *Coastal Protection Act 1979* that continues to have effect under clause 4 of Schedule 3 to the *Coastal Management Act 2016*, that applies to the land. (2) A planning proposal must not rezone land which would enable increased development or more intensive land-use on land: (a) within a coastal vulnerability area identified by the *State Environmental Planning Policy (Resilience and Hazards) 2021*; or (b) that has been identified as land affected by a current or future coastal hazard in a local environmental plan or development control plan, or a study or assessment undertaken: i. by or on behalf of the relevant planning authority and the planning proposal authority, or ii. by or on behalf of a public authority and provided to the relevant planning authority and the planning proposal authority. (3) A planning proposal must not rezone land which would enable increased development or more intensive land-use on land within a coastal wetlands and littoral rainforests area identified by chapter 3 of the *State Environmental Planning Policy (Biodiversity and Conservation) 2021.* (4) A planning proposal for a local environmental plan may propose to amend the following maps, including increasing or decreasing the land within these maps, under the *State Environmental Planning Policy (Resilience and Hazards) 2021*:		wetlands and littoral rainforests area, coastal vulnerability area, coastal environment area, or coastal use area – and as identified by *State Environmental Planning Policy (Biodiversity and Conservation) 2021.*

S9.1 Direction	Applicable	Consistent	Comment
	(a) Coastal wetlands and littoral rainforests area map; (b) Coastal vulnerability area map; (c) Coastal environment area map; and (d) Coastal use area map. Such a planning proposal must be supported by evidence in a relevant Coastal Management Program that has been certified by the Minister, or by a *Coastal Zone Management Plan* under the *Coastal Protection Act 1979* that continues to have effect under clause 4 of Schedule 3 to the *Coastal Management Act 2016*. A planning proposal may be inconsistent with the terms of this direction only if the planning proposal authority can satisfy the Planning Secretary (or their nominee) that the provisions of the planning proposal that are inconsistent are: (a) justified by a study or strategy prepared in support of the planning proposal which gives consideration to the objective of this direction, or (b) in accordance with any relevant Regional Strategic Plan or District Strategic Plan, prepared under Division 3.1 of the EP&A Act by the relevant strategic planning authority, which gives consideration to the objective of this direction, or (c) of minor significance.		
4.3 Planning for Bushfire Protection	This direction applies to all local government areas when a relevant planning authority prepares a planning proposal that will affect, or is in proximity to land mapped as bushfire prone land. In the preparation of a planning proposal, the relevant planning authority must consult with the Commissioner of the NSW Rural Fire Service following receipt of a Gateway determination under section 56 of the Act, and prior to undertaking community consultation in satisfaction of section 57 of the Act, and take into account any comments so made. A planning proposal must: (a) have regard to *Planning for Bushfire Protection 2019*, (b) introduce controls that avoid placing inappropriate developments in hazardous areas, and (c) ensure that bushfire hazard reduction is not prohibited within the Asset Protection Zone (APZ).	No	The site is mapped as bushfire prone land. The Bushfire Subdivision & Infill Assessment Report (Appendix 5) demonstrates that future development on the site by way of subdivision can comply with Planning for Bushfire Protection 2019. Upon receipt of a Gateway Determination, the NSW Rural Fire Service shall be consulted to determine if the LEP amendment is justifiably inconsistent to this direction.

S9.1 Direction	Applicable	Consistent	Comment
	A planning proposal must, where development is proposed, comply with the following provisions, as appropriate: (a) provide an Asset Protection Zone (APZ) incorporating at a minimum: (i) an Inner Protection Area bounded by a perimeter road or reserve which circumscribes the hazard side of the land intended for development and has a building line consistent with the incorporation of an APZ, within the property, and (ii) an Outer Protection Area managed for hazard reduction and located on the bushland side of the perimeter road, (b) for infill development (that is development within an already subdivided area), where an appropriate APZ cannot be achieved, provide for an appropriate performance standard, in consultation with the NSW Rural Fire Service. If the provisions of the planning proposal permit Special Fire Protection Purposes (as defined under section 100B of the *Rural Fires Act 1997*), the APZ provisions must be complied with, (c) contain provisions for two-way access roads which link to perimeter roads and/or to fire trail networks, (d) contain provisions for adequate water supply for firefighting purposes, (e) minimise the perimeter of the area of land interfacing the hazard which may be developed, (f) introduce controls on the placement of combustible materials in the Inner Protection Area. A planning proposal may be inconsistent with the terms of this direction only if the relevant planning authority can satisfy the Planning Secretary (or an officer of the Department nominated by the Secretary) that the council has obtained written advice from the Commissioner of the NSW Rural Fire Service to the effect that, notwithstanding the non-compliance, the NSW Rural Fire Service does not object to the progression of the planning proposal.		
4.4 Remediation of Contaminated Land	This direction applies when a planning proposal authority prepares a planning proposal that applies to: (a) land that is within an investigation area within the meaning of the *Contaminated Land Management Act 1997*,	Yes	A review of the City's records identifies that the site was previously used for agricultural/horticultural activities (banana cultivation).

S9.1 Direction	Applicable	Consistent	Comment
	(b) land on which development for a purpose referred to in Table 1 to the contaminated land planning guidelines is being, or is known to have been, carried out, (c) the extent to which it is proposed to carry out development on it for residential, educational, recreational or childcare purposes, or for the purposes of a hospital – land: i. in relation to which there is no knowledge (or incomplete knowledge) as to whether development for a purpose referred to in Table 1 to the contaminated land planning guidelines has been carried out, and ii. on which it would have been lawful to carry out such development during any period in respect of which there is no knowledge (or incomplete knowledge). (1) A planning proposal authority must not include in a particular zone (within the meaning of the local environmental plan) any land to which this direction applies if the inclusion of the land in that zone would permit a change of use of the land, unless: (a) the planning proposal authority has considered whether the land is contaminated, and (b) if the land is contaminated, the planning proposal authority is satisfied that the land is suitable in its contaminated state (or will be suitable, after remediation) for all the purposes for which land in the zone concerned is permitted to be used, and (c) if the land requires remediation to be made suitable for any purpose for which land in that zone is permitted to be used, the planning proposal authority is satisfied that the land will be so remediated before the land is used for that purpose. In order to satisfy itself as to paragraph 1(c), the planning proposal authority may need to include certain provisions in the local environmental plan. (2) Before including any land to which this direction applies in a particular zone, the planning proposal authority is to obtain and have regard to a report specifying the findings of a preliminary investigation of the land carried out in accordance with the contaminated land planning guidelines.		The planning proposal is deemed to be consistent to this direction, as it is accompanied by an Environmental Site Assessment (Appendix 7), which concludes no further investigation or remediation is required.

S9.1 Direction	Applicable	Consistent	Comment
4.5 Acid Sulfate Soils	This direction applies to all relevant planning authorities that are responsible for land having a probability of containing acid sulfate soils when preparing a planning proposal that will apply to land having a probability of containing acid sulfate soils as shown on the Acid Sulfate Soils Planning Maps held by the Department of Planning, Housing and Infrastructure. (1) The relevant planning authority must consider the Acid Sulfate Soils Planning Guidelines adopted by the Planning Secretary when preparing a planning proposal that applies to any land identified on the Acid Sulfate Soils Planning Maps as having a probability of acid sulfate soils being present. (2) When a relevant planning authority is preparing a planning proposal to introduce provisions to regulate works in acid sulfate soils, those provisions must be consistent with: (a) the Acid Sulfate Soils Model LEP in the Acid Sulfate Soils Planning Guidelines adopted by the Planning Secretary, or (b) other such provisions provided by the Planning Secretary that are consistent with the Acid Sulfate Soils Planning Guidelines. (3) A relevant planning authority must not prepare a planning proposal that proposes an intensification of land uses on land identified as having a probability of containing acid sulfate soils on the Acid Sulfate Soils Planning Maps unless the relevant planning authority has considered an acid sulfate soils study assessing the appropriateness of the change of land use given the presence of acid sulfate soils. The relevant planning authority must provide a copy of any such study to the Planning Secretary prior to undertaking community consultation in satisfaction of clause 4 of Schedule 1 to the Act. (4) Where provisions referred to under 2(a) and 2(b) above of this direction have not been introduced and the relevant planning authority is preparing a planning proposal that proposes an intensification of land uses on land identified as having a probability of acid sulfate soils on the Acid Sulfate Soils Planning Maps, the planning proposal must contain provisions consistent with 2(a) and 2(b). A planning proposal may be inconsistent with the terms of this direction only if the relevant planning authority can satisfy the Planning	Yes	A review of the City's records indicate that the site is situated in Class 5 Acid Sulfate Soils and is located approximately 100m from land identified as Class 3. The planning proposal is deemed to be consistent with this direction, as it shall not rezone the land or add any additional permitted uses that would be land use intensification. Further consideration may be required as part of any future development application.

S9.1 Direction	Applicable	Consistent	Comment
	Secretary (or an officer of the Department nominated by the Secretary) that the provisions of the planning proposal that are inconsistent are: (a) justified by a study prepared in support of the planning proposal which gives consideration to the objective of this direction, or (b) of minor significance.		
4.6 Mine Subsidence and Unstable Land	This direction applies when a relevant planning authority prepares a planning proposal that permits development on land that is within a declared mine subsidence district in the Coal Mine Subsidence Compensation Regulation 2017 pursuant to section 20 of the Coal Mine Subsidence Compensation Act 2017, or has been identified as unstable in a study, strategy or other assessment undertaken by or on behalf of the relevant planning authority or by or on behalf of a public authority and provided to the relevant planning authority. (1) When preparing a planning proposal that would permit development on land that is within a declared mine subsidence district, a relevant planning authority must: (a) consult Subsidence Advisory NSW to ascertain: i. if Subsidence Advisory NSW has any objection to the draft local environmental plan, and the reason for such an objection, and ii. the scale, density and type of development that is appropriate for the potential level of subsidence, and (b) incorporate provisions into the draft Local Environmental Plan that are consistent with the recommended scale, density and type of development recommended under 1(a)(ii), and (c) include a copy of any information received from Subsidence Advisory NSW with the statement to the Planning Secretary (or an officer of the Department nominated by the Secretary prior to undertaking community consultation in satisfaction of Schedule 1 to the Act. (2) A planning proposal must not permit development on land that has been identified as unstable as referred to in the application section of this direction. A planning proposal may be inconsistent with the terms of this direction only if the relevant	N/A	The planning proposal does not apply to land that: • is within a declared mine subsidence district, or • has been identified as unstable in a study, strategy or other assessment undertaken by or on behalf of a public authority or by or on behalf of a public authority and provided to the relevant planning authority.

S9.1 Direction	Applicable	Consistent	Comment
	planning authority can satisfy the Planning Secretary (or an officer of the Department nominated by the Secretary that the provisions of the planning proposal that are inconsistent are: (a) justified by a strategy approved by the Planning Secretary which: i. gives consideration to the objective of this direction, and ii. identifies the land which is the subject of the planning proposal (if the planning proposal relates to a particular site or sites), or (b) justified by a study prepared in support of the planning proposal which gives consideration to the objective of this direction, or (c) in accordance with the relevant Regional Strategy, Regional Plan or District Plan prepared by the Department of Planning, Housing and Infrastructure which gives consideration to the objective of this direction, or (d) of minor significance.		
Focus Area 5: Transport and Infrastructure			
5.1 Integrating Land Use and Transport	This direction applies to all relevant planning authorities when preparing a planning proposal that will create, alter or remove a zone or a provision relating to urban land, including land zoned for residential, business, industrial, village or tourist purposes. (1) A planning proposal must locate zones for urban purposes and include provisions that give effect to and are consistent with the aims, objectives and principles of: (a) Improving Transport Choice – Guidelines for planning and development (DUAP 2001), and (b) The Right Place for Business and Services – Planning Policy (DUAP 2001). A planning proposal may be inconsistent with the terms of this direction only if the relevant planning authority can satisfy the Planning Secretary (or an officer of the Department nominated by the Secretary) that the provisions of the planning proposal that are inconsistent are: (a) justified by a strategy approved by the Planning Secretary which: i. gives consideration to the objective of this direction, and	Yes	The proposal shall alter a provision relating to land zoned for residential, by reducing the applicable minimum lot size. The proposal is consistent with the Improving Transport Choice – Guidelines for planning and development (DUAP 2001), and The Right Place for Business and Services – Planning Policy (DUAP 2001). The proposal is deemed to be of minor significance as it accords with the City's Local Growth Management Strategy, and will not result in a substantial increase of movement due to the potential of a single additional lot.

S9.1 Direction	Applicable	Consistent	Comment
	ii. identifies the land which is the subject of the planning proposal (if the planning proposal relates to a particular site or sites), or (b) justified by a study prepared in support of the planning proposal which gives consideration to the objective of this direction, or (c) in accordance with the relevant Regional Strategy, Regional Plan or District Plan prepared by the Department of Planning, Housing and Infrastructure which gives consideration to the objective of this direction, or (d) of minor significance.		
5.2 Reserving Land for Public Purposes	This direction applies to all relevant planning authorities when preparing a planning proposal. (1) A planning proposal must not create, alter or reduce existing zonings or reservations of land for public purposes without the approval of the relevant public authority and the Planning Secretary (or an officer of the Department nominated by the Secretary). (2) When a Minister or public authority requests a relevant planning authority to reserve land for a public purpose in a planning proposal and the land would be required to be acquired under Division 3 of Part 2 of the Land Acquisition (Just Terms Compensation) Act 1991, the relevant planning authority must: (a) reserve the land in accordance with the request, and (b) include the land in a zone appropriate to its intended future use or a zone advised by the Planning Secretary (or an officer of the Department nominated by the Secretary), and (c) identify the relevant acquiring authority for the land. (3) When a Minister or public authority requests a relevant planning authority to include provisions in a planning proposal relating to the use of any land reserved for a public purpose before that land is acquired, the relevant planning authority must: (a) include the requested provisions, or (b) take such other action as advised by the Planning Secretary (or an officer of the Department nominated by the Secretary) with respect to the use of the land before it is acquired.	N/A	The planning proposal does not create, alter or reduce land reserved for a public purpose.

S9.1 Direction	Applicable	Consistent	Comment
	(4) When a Minister or public authority requests a relevant planning authority to include provisions in a planning proposal to rezone and/or remove a reservation of any land that is reserved for public purposes because the land is no longer designated by that public authority for acquisition, the relevant planning authority must rezone and/or remove the relevant reservation in accordance with the request. A planning proposal may be inconsistent with the terms of this direction only if the relevant planning authority can satisfy the Planning Secretary (or an officer of the Department nominated by the Secretary) that: (a) with respect to a request referred to in paragraph (4), further information is required before appropriate planning controls for the land can be determined, or (b) the provisions of the planning proposal that are inconsistent with the terms of this direction are of minor significance.		
5.3 Development Near Regulated Airports and Defence Airfields	This direction applies to all relevant planning authorities when preparing a planning proposal that will create, alter or remove a zone or a provision relating to land near a regulated airport which includes a defence airfield. (1) In the preparation of a planning proposal that sets controls for development of land near a regulated airport, the relevant planning authority must: (a) consult with the lessee/operator of that airport; (b) take into consideration the operational airspace and any advice from the lessee/operator of that airport; (c) for land affected by the operational airspace, prepare appropriate development standards, such as height controls. (d) not allow development types that are incompatible with the current and future operation of that airport. (2) In the preparation of a planning proposal that sets controls for development of land near a core regulated airport, the relevant planning authority must: (a) consult with the Department of the Commonwealth responsible for airports and the lessee/operator of that airport; (b) for land affected by the prescribed airspace (as defined in clause 6(1) of the	N/A	The planning proposal does not create, alter or remove a zone or provision relating to land near a regulated airport including a defence airfield.

S9.1 Direction	Applicable	Consistent	Comment
	Airports (Protection of Airspace) Regulation 1996, prepare appropriate development standards, such as height controls. (c) not allow development types that are incompatible with the current and future operation of that airport. (d) obtain permission from that Department of the Commonwealth, or their delegate, where a planning proposal seeks to allow, as permissible with consent, development that would constitute a controlled activity as defined in section 182 of the *Airports Act 1996*. This permission must be obtained prior to undertaking community consultation in satisfaction of Schedule 1 to the EP&A Act. (3) In the preparation of a planning proposal that sets controls for the development of land near a defence airfield, the relevant planning authority must: (a) consult with the Department of Defence if: i. the planning proposal seeks to exceed the height provisions contained in the *Defence Regulations 2016 – Defence Aviation Areas* for that airfield; or ii. no height provisions exist in the *Defence Regulations 2016 – Defence Aviation Areas* for the airfield and the proposal is within 15km of the airfield. (b) for land affected by the operational airspace, prepare appropriate development standards, such as height controls. (c) not allow development types that are incompatible with the current and future operation of that airfield. (4) A planning proposal must include a provision to ensure that development meets *Australian Standard 2021 – 2015, Acoustic-Aircraft Noise Intrusion – Building siting and construction* with respect to interior noise levels, if the proposal seeks to rezone land: (a) for residential purposes or to increase residential densities in areas where the Australian Noise Exposure Forecast (ANEF) is between 20 and 25; or (b) for hotels, motels, offices or public buildings where the ANEF is between 25 and 30; or		

S9.1 Direction	Applicable	Consistent	Comment
	(c) for commercial or industrial purposes where the ANEF is above 30. (5) A planning proposal must not contain provisions for residential development or to increase residential densities within the 20 Australian Noise Exposure Concept (ANEC)/ANEF contour for Western Sydney Airport. A planning proposal may be inconsistent with the terms of this direction only if the relevant planning authority can satisfy the Planning Secretary (or an officer of the Department nominated by the Secretary) that the provisions of the planning proposal that are inconsistent are: (a) justified by a strategy approved by the Planning Secretary, which: i. gives consideration to the objectives of this direction; and ii. identifies the land which is the subject of the planning proposal (if the planning proposal relates to a particular site or sites), or (b) justified by a study prepared in support of the planning proposal which gives consideration to the objectives of this direction; or (c) in accordance with the relevant Regional Plan prepared by the Department of Planning, Housing and Infrastructure which gives consideration to the objectives of this direction.		
5.4 Shooting Ranges	This direction applies to all relevant planning authorities when preparing a planning proposal that will affect, create, alter or remove a zone or a provision relating to land adjacent to and/ or adjoining an existing shooting range. (1) A planning proposal must not seek to rezone land adjacent to and/ or adjoining an existing shooting range that has the effect of: (a) permitting more intensive land uses than those which are permitted under the existing zone; or (b) permitting land uses that are incompatible with the noise emitted by the existing shooting range. A planning proposal may be inconsistent with the terms of this direction only if the relevant planning authority can satisfy the Planning Secretary (or an officer of the Department nominated by the Secretary) that the	N/A	The planning proposal does not create, alter or remove a zone or provision relating to land adjacent to and/or adjoining an existing shooting range.

S9.1 Direction	Applicable	Consistent	Comment
	provisions of the planning proposal that are inconsistent are: (a) justified by a strategy approved by the Planning Secretary, which: i. gives consideration to the objectives of this direction, and ii. identifies the land which is the subject of the planning proposal (if the planning proposal relates to a particular site or sites), or (b) justified by a study prepared in support of the planning proposal which gives consideration to the objective of this direction, or (c) is of minor significance.		
Focus area 6: Housing			
6.1 Residential Zones	This direction applies to all relevant planning authorities when preparing a planning proposal that will affect land within an existing or proposed residential zone (including the alteration of any existing residential zone boundary), or any other zone in which significant residential development is permitted or proposed to be permitted. (1) A planning proposal must include provisions that encourage the provision of housing that will: (a) broaden the choice of building types and locations available in the housing market, and (b) make more efficient use of existing infrastructure and services, and (c) reduce the consumption of land for housing and associated urban development on the urban fringe, and (d) be of good design. (2) A planning proposal must, in relation to land to which this direction applies: (a) contain a requirement that residential development is not permitted until land is adequately serviced (or arrangements satisfactory to the council, or other appropriate authority, have been made to service it), and (b) not contain provisions which will reduce the permissible residential density of land. A planning proposal may be inconsistent with the terms of this direction only if the relevant planning authority can satisfy the Planning Secretary (or an officer of the Department	Yes	The planning proposal will enable the creation of one additional lot on the site. The potential for an additional lot will broaden the locality for further housing development. The planning proposal relates to land that has infrastructure and services available to it that are suitable for rural residential purposes. Appropriate planning controls are also contained within Coffs Harbour DCP 2015 to ensure that development is of good design.

S9.1 Direction	Applicable	Consistent	Comment
	nominated by the Secretary) that the provisions of the planning proposal that are inconsistent are: (a) justified by a strategy approved by the Planning Secretary which: i. gives consideration to the objective of this direction, and ii. identifies the land which is the subject of the planning proposal (if the planning proposal relates to a particular site or sites), or (b) justified by a study prepared in support of the planning proposal which gives consideration to the objective of this direction, or (c) in accordance with the relevant Regional Strategy, Regional Plan or District Plan prepared by the Department of Planning, Housing and Infrastructure which gives consideration to the objective of this direction, or (d) of minor significance.		
6.2 Caravan Parks and Manufactured Home Estates	This direction applies to all relevant planning authorities when preparing a planning proposal. This direction does not apply to Crown land reserved or dedicated for any purposes under the *Crown Land Management Act 2016,* except Crown land reserved for accommodation purposes, or land dedicated or reserved under the *National Parks and Wildlife Act 1974.* (1) In identifying suitable zones, locations and provisions for caravan parks in a planning proposal, the relevant planning authority must: (a) retain provisions that permit development for the purposes of a caravan park to be carried out on land, and (b) retain the zonings of existing caravan parks, or in the case of a new principal LEP zone the land in accordance with an appropriate zone under the *Standard Instrument (Local Environmental Plans) Order 2006* that would facilitate the retention of the existing caravan park. (2) In identifying suitable zones, locations and provisions for manufactured home estates (MHEs) in a planning proposal, the relevant planning authority must:	Yes	The planning proposal does not identify suitable zones, locations or provisions for caravan parks or manufactured home estates.

S9.1 Direction	Applicable	Consistent	Comment
	(a) take into account the categories of land set out in Schedule 6 of *State Environmental Planning Policy (Housing)* as to where MHEs should not be located, (b) take into account the principles listed in clause 9 Schedule 5 of *State Environmental Planning Policy (Housing)*(which relevant planning authorities are required to consider when assessing and determining the development and subdivision proposals), and (c) include provisions that the subdivision of MHEs by long term lease of up to 20 years or under the *Community Land Development Act 1989* be permissible with consent. A planning proposal may be inconsistent with the terms of this direction only if the relevant planning authority can satisfy the Planning Secretary (or an officer of the Department nominated by the Secretary that the provisions of the planning proposal that are inconsistent are: (a) justified by a strategy approved by the Planning Secretary which: i. gives consideration to the objective of this direction, and ii. identifies the land which is the subject of the planning proposal (if the planning proposal relates to a particular site or sites), or (b) justified by a study prepared in support of the planning proposal which gives consideration to the objective of this direction, or (c) in accordance with the relevant Regional Strategy, Regional Plan or District Plan prepared by the Department of Planning, Housing and Infrastructure which gives consideration to the objective of this direction, or (d) of minor significance.		
Focus area 7: Industry and Employment			
7.1 Employment Zones	This direction applies to all relevant planning authorities when preparing a planning proposal that will affect land within an existing or proposed business or industrial zone (including the alteration of any existing business or industrial zone boundary). A planning proposal must:	N/A	The planning proposal will not affect land within an existing or proposed employment zone (including the alteration of any employment zone boundary).

S9.1 Direction	Applicable	Consistent	Comment
	(a) give effect to the objectives of this direction, (b) retain the areas and locations of existing business and industrial zones, (c) not reduce the total potential floor space area for employment uses and related public services in business zones, (d) not reduce the total potential floor space area for industrial uses in industrial zones, and (e) ensure that proposed new employment areas are in accordance with a strategy that is approved by the Planning Secretary. A planning proposal may be inconsistent with the terms of this direction only if the relevant planning authority can satisfy the Planning Secretary (or an officer of the Department nominated by the Secretary) that the provisions of the planning proposal that are inconsistent are: (a) justified by a strategy approved by the Planning Secretary, which: i. gives consideration to the objective of this direction, and ii. identifies the land which is the subject of the planning proposal (if the planning proposal relates to a particular site or sites), or (b) justified by a study (prepared in support of the planning proposal) which gives consideration to the objective of this direction, or (c) in accordance with the relevant Regional Strategy, Regional Plan or District Plan prepared by the Department of Planning, Housing and Infrastructure which gives consideration to the objective of this direction, or (d) of minor significance.		
7.2 Reduction in non-hosted short-term rental accommodation period	This direction does not currently apply to the Coffs Harbour LGA.	N/A	
7.3 Commercial and Retail Development along the Pacific Highway, North Coast	Applies when a relevant planning authority prepares a planning proposal for land in the vicinity of the existing and/or proposed alignment of the Pacific Highway. (1) A planning proposal that applies to land located on "within town" segments of the Pacific Highway must provide that:	N/A	The site is not located in the vicinity of the existing and/or proposed alignment of the Pacific Highway.

S9.1 Direction	Applicable	Consistent	Comment
	(a) new commercial or retail development must be concentrated within district centres rather than spread along the Highway; (b) development with frontage to the Pacific Highway must consider impacts that the development has on the safety and efficiency of the highway; and (c) for the purposes of this paragraph, "within town" means areas which prior to the draft LEP have an urban zone (e.g. Village, residential, tourist, commercial and industrial etc.) and where the Pacific Highway is less than 80km/hour. (2) A planning proposal that applies to land located on "out-of-town" segments of the Pacific Highway must provide that: (a) new commercial or retail development must not be established near the Pacific Highway if this proximity would be inconsistent with the objectives of this Direction. (b) development with frontage to the Pacific Highway must consider the impact the development has on the safety and efficiency of the highway. (c) For the purposes of this paragraph, "out-of-town" means areas which, prior to the draft local environmental plan, do not have an urban zone (e.g.: "village", "residential", "tourist", "commercial", "industrial", etc.) or are in areas where the Pacific Highway speed limit is 80 km/hour or greater. (3) Notwithstanding the requirements of paragraphs (4) and (5), the establishment of highway service centres may be permitted at the localities listed in Table 1, provided that the Roads and Traffic Authority is satisfied that the highway service centre(s) can be safely and efficiently integrated into the highway interchange(s) at those localities. A planning proposal may be inconsistent with the terms of this direction only if the relevant planning authority can satisfy the Planning Secretary (or an officer of the Department nominated by the Secretary) that the provisions of the planning proposal that are inconsistent are of minor significance.		
Focus area 8: Resources and Energy			

S9.1 Direction	Applicable	Consistent	Comment
8.1 Mining, Petroleum Production and Extractive Industries	This direction applies to all relevant planning authorities when preparing a planning proposal that would have the effect of: (a) prohibiting the mining of coal or other minerals, production of petroleum, or winning or obtaining of extractive materials, or (b) restricting the potential development of resources of coal, other minerals, petroleum or extractive materials which are of State or regional significance by permitting a land use that is likely to be incompatible with such development. (1) In the preparation of a planning proposal affected by this direction, the relevant planning authority must: (a) consult the Secretary of the Department of Primary Industries (DPI) to identify any: i. resources of coal, other minerals, petroleum or extractive material that are of either State or regional significance, and ii. existing mines, petroleum production operations or extractive industries occurring in the area subject to the planning proposal, and (b) seek advice from the Secretary of DPI on the development potential of resources identified under (1)(a)(i), and (c) identify and take into consideration issues likely to lead to land use conflict between other land uses and: i. development of resources identified under (1)(a)(i), or ii. existing development identified under (1)(a)(ii). (2) Where a planning proposal prohibits or restricts development of resources identified under (1)(a)(i), or proposes land uses that may create land use conflicts identified under (1)(c), the relevant planning authority must: (a) provide the Secretary of DPI with a copy of the planning proposal and notification of the relevant provisions, (b) allow the Secretary of DPI a period of 40 days from the date of notification to provide in writing any objections to the terms of the planning proposal, and (c) include a copy of any objection and supporting information received from the Secretary of DPI with the statement to the Planning Secretary (or an officer of the	N/A	The planning proposal will not prohibit the mining of coal or other minerals, production of petroleum, or winning or obtaining of extractive materials; or restrict the potential development of resources of coal, other minerals, petroleum or extractive materials which are of State or regional significance (by permitting a land use that is likely to be compatible with such development).

S9.1 Direction	Applicable	Consistent	Comment
	Department nominated by the Secretary before undertaking community consultation in satisfaction of Schedule 1 to the Act. A planning proposal may be inconsistent with the terms of this direction only if the relevant planning authority can satisfy the Planning Secretary (or an officer of the Department nominated by the Secretary), that the provisions of the planning proposal that are inconsistent are of minor significance.		
Focus area 9: Primary Production			
9.1 Rural Zones	This direction applies when a relevant planning authority prepares a planning proposal that will affect land within an existing or proposed rural zone (including the alteration of any existing rural zone boundary). A planning proposal must not rezone land from a rural zone to a residential, business, industrial, village or tourist zone. A planning proposal may be inconsistent with the terms of this direction only if the relevant planning authority can satisfy the Planning Secretary (or an officer of the Department nominated by the Secretary that the provisions of the planning proposal that are inconsistent are: (a) justified by a strategy approved by the Planning Secretary which: i. gives consideration to the objectives of this direction, and ii. identifies the land which is the subject of the planning proposal (if the planning proposal relates to a particular site or sites), or (b) justified by a study prepared in support of the planning proposal which gives consideration to the objectives of this direction, or (c) in accordance with the relevant Regional Strategy, Regional Plan or District Plan prepared by the Department of Planning, Housing and Infrastructure which gives consideration to the objective of this direction, or (d) is of minor significance.	N/A	The planning proposal will not rezone land from a rural zone to a residential, employment, mixed use, SP4 Enterprise, SP5 Metropolitan Centre, W4 Working Waterfront, village or tourist zone. The planning proposal does not include provisions that will increase the permissible density of land within a rural zone.
9.2 Rural Lands	This direction applies when a relevant planning authority prepares a planning proposal for land outside the local government areas of lake Macquarie, Newcastle, Wollongong and LGAs	N/A	The planning proposal will not affect land within an existing or proposed rural or conservation zone (including the alteration of

S9.1 Direction	Applicable	Consistent	Comment
	in the Greater Sydney Region (as defined in the *Greater Sydney Commission Act 2015*) other than Wollondilly and Hawkesbury, that: (a) will affect land within an existing or proposed rural or conservation zone (including the alteration of any existing rural or conservation zone boundary) or (b) changes the existing minimum lot size on land within a rural or conservation zone. (1) A planning proposal must: (a) be consistent with any applicable strategic plan, including regional and district plans endorsed by the Planning Secretary, and any applicable local strategic planning statement (b) consider the significance of agriculture and primary production to the State and rural communities (c) identify and protect environmental values, including but not limited to, maintaining biodiversity, the protection of native vegetation, cultural heritage, and the importance of water resources (d) consider the natural and physical constraints of the land, including but not limited to, topography, size, location, water availability and ground and soil conditions (e) promote opportunities for investment in productive, diversified, innovative and sustainable rural economic activities (f) support farmers in exercising their right to farm (g) prioritise efforts and consider measures to minimise the fragmentation of rural land and reduce the risk of land use conflict, particularly between residential land uses and other rural land use (h) consider State significant agricultural land identified *in* chapter 2 of the *State Environmental Planning Policy (Primary Production) 2021* for the purpose of ensuring the ongoing viability of this land (i) consider the social, economic and environmental interests of the community. (2) A planning proposal that changes the existing minimum lot size on land within a rural or conservation zone must demonstrate that it: (a) is consistent with the priority of minimising rural land fragmentation and land use conflict, particularly between residential and other rural land uses		existing rural or conservation zone boundaries) or change the existing minimum lot size within a rural or conservation zone.

S9.1 Direction	Applicable	Consistent	Comment
	(b) will not adversely affect the operation and viability of existing and future rural land uses and related enterprises, including supporting infrastructure and facilities that are essential to rural industries or supply chains (c) where it is for rural residential purposes: i. is appropriately located taking account of the availability of human services, utility infrastructure, transport and proximity to existing centres ii. is necessary taking account of existing and future demand and supply of rural residential land. A planning proposal may be inconsistent with the terms of this direction only if the relevant planning authority can satisfy the Planning Secretary (or an officer of the Department nominated by the Secretary) that the provisions of the planning proposal that are inconsistent are: (a) justified by a strategy approved by the Planning Secretary and is in force which: i. gives consideration to the objectives of this direction, and ii. identifies the land which is the subject of the planning proposal (if the planning proposal relates to a particular site or sites), or (b) is of minor significance.		
9.3 Oyster Aquaculture	This direction applies to any relevant planning authority when preparing a planning proposal in 'Priority Oyster Aquaculture Areas' and oyster aquaculture outside such an area as identified in the *NSW Oyster Industry Sustainable Aquaculture Strategy* (2006) ("the Strategy"), when proposing a change in land use which could result in: (a) adverse impacts on a 'Priority Oyster Aquaculture Area' or a "current oyster aquaculture lease in the national parks estate", or (b) incompatible use of land between oyster aquaculture in a 'Priority Oyster Aquaculture Area' or a "current oyster aquaculture lease in the national parks estate" and other land uses. (1) In the preparation of a planning proposal the relevant planning authority must: (a) identify any 'Priority Oyster Aquaculture Areas' and oyster aquaculture leases outside such an area, as shown the maps	N/A	This direction only applies to Priority Oyster Aquaculture Areas and oyster aquaculture outside such an area as identified in the NSW Oyster Industry Sustainable Aquaculture Strategy (2006).

S9.1 Direction	Applicable	Consistent	Comment
	to the Strategy, to which the planning proposal would apply, (b) identify any proposed land uses which could result in any adverse impact on a 'Priority Oyster Aquaculture Area' or oyster aquaculture leases outside such an area, (c) identify and take into consideration any issues likely to lead to an incompatible use of land between oyster aquaculture and other land uses and identify and evaluate measures to avoid or minimise such land use in compatibility, (d) consult with the Secretary of the Department of Primary Industries (DPI) of the proposed changes in the preparation of the planning proposal, and (e) ensure the planning proposal is consistent with the Strategy. (2) Where a planning proposal proposes land uses that may result in adverse impacts identified under (1)(b) and (1)(c), relevant planning authority must: (a) provide the Secretary of DPI with a copy of the planning proposal and notification of the relevant provisions, (b) allow the Secretary of DPI a period of 40 days from the date of notification to provide in writing any objections to the terms of the planning proposal, and (c) include a copy of any objection and supporting information received from the Secretary of DPI with the statement to the Planning Secretary before undertaking community consultation in satisfaction of Schedule 1 to the EP&A Act. A planning proposal may be inconsistent with the terms of this direction only if the relevant planning authority can satisfy the Planning Secretary (or an officer of the Department nominated by the Secretary) that the provisions of the planning proposal that are inconsistent are of minor significance.		
9.4 Farmland of State and Regional Significance on the NSW Far North Coast	This direction does not currently apply to the Coffs Harbour LGA.	N/A	

Biodiversity Assessment, proposed subdivision of 35 Saye Close, Sandy Beach

Prepared for

Keiley Hunter Urban Planner

G N Elks BSc MLitt. Botanist and Plant Ecologist

Idyll Spaces Environmental Consultants

21 Titans Close Bonville 2450

idyll.spaces@gmail.com

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This report has been prepared by G. Elks BSc (Botany) MLitt (Ecology) MECA of Idyll Spaces Environmental Consultants. The information presented is, in the opinion of the author, a true and accurate record of a study undertaken solely in response to the brief. While every attempt has been made to ensure the accuracy and objectivity of the report, the variability of the natural environment and the paucity of comparative research data may require that professional judgement be applied in reaching conclusions. Any opinions expressed in the report are the professional opinions of the author. They are not legal advice, nor are they intended to advocate any specific proposal or position.

The author accepts no liability or responsibility whatsoever for or in respect of any use of or reliance upon this report or its supporting material by any third party.

G.N. Elks B.Sc (Botany), M.Litt (Ecology), MECA

Introduction

Background

Keiley Hunter Urban Planner has engaged Greg Elks of Idyll Spaces Environmental Consultants to undertake an assessment of the biodiversity impacts of subdivision and associated works at 35 Saye Close, Sandy Beach.

The aim of the assessment is to identify impacts on flora and fauna that may be constraints to the proposal. The objectives are to:

- undertake a Bionet search of records in the locality to identify potentially occurring threatened biodiversity;
- undertake a site transect survey to identify plant species composition, fauna habitat attributes and any threatened flora or community present;
- Review and report on:
    - vegetation classification and mapping;
    - NSW Biodiversity values mapping;
    - key habitat features such as watercourses, large trees, old trees, large woody debris, Koala feed tree species, dens, roosts, nests, dense ground layer vegetation, nectar sources, fruit-bearing trees etc. likely to be utilised by threatened species known to occur in the locality;
    - Coffs Harbour Koala Plan of Management (KPoM), and
    - Biodiversity Offset Scheme threshold triggers.

Description of the proposal

The proposal seeks to subdivide the land to create one additional vacant Torrens Title lot suitable for residential dwelling. An existing childcare centre will remain within the residual lot. Upgrades to the childcare centre are necessary to meet current bushfire safety standards and wastewater management guidelines.

Subject site, study area and locality

For the purposes of this assessment the locality is defined as the area within a square of approximately 10kmx10km centred on the study area. The locality includes roughly equal parts of coastal rural and residential areas, forested National Park and State Forests and the Tasman Sea (**Figure 1**).

The study area is 35 Saye Close, Sandy Beach (Lot 21 DP 831915) (**Figure 2**) plus a buffer of 10 metres to native vegetation. The Subject Site (the site) is the area likely to be impacted by the proposal and consists of the vegetated parts of Lot 21 DP 831915.

Methods

Map and data review

A search of Bionet Wildlife Atlas records was undertaken on 5 September 2023. Aerial orthophotographs and maps were inspected online to identify vegetation communities and other mapped features of interest at https://www.coffsharbour.nsw.gov.au/Building-and-planning/Online-

mapping-tool , https://www.lmbc.nsw.gov.au/Maps/index.html?viewer=BOSETMap, https://geo.seed.nsw.gov.au, Spatial Information Exchange https://maps.six.nsw.gov.au/ and Google Earth Pro.

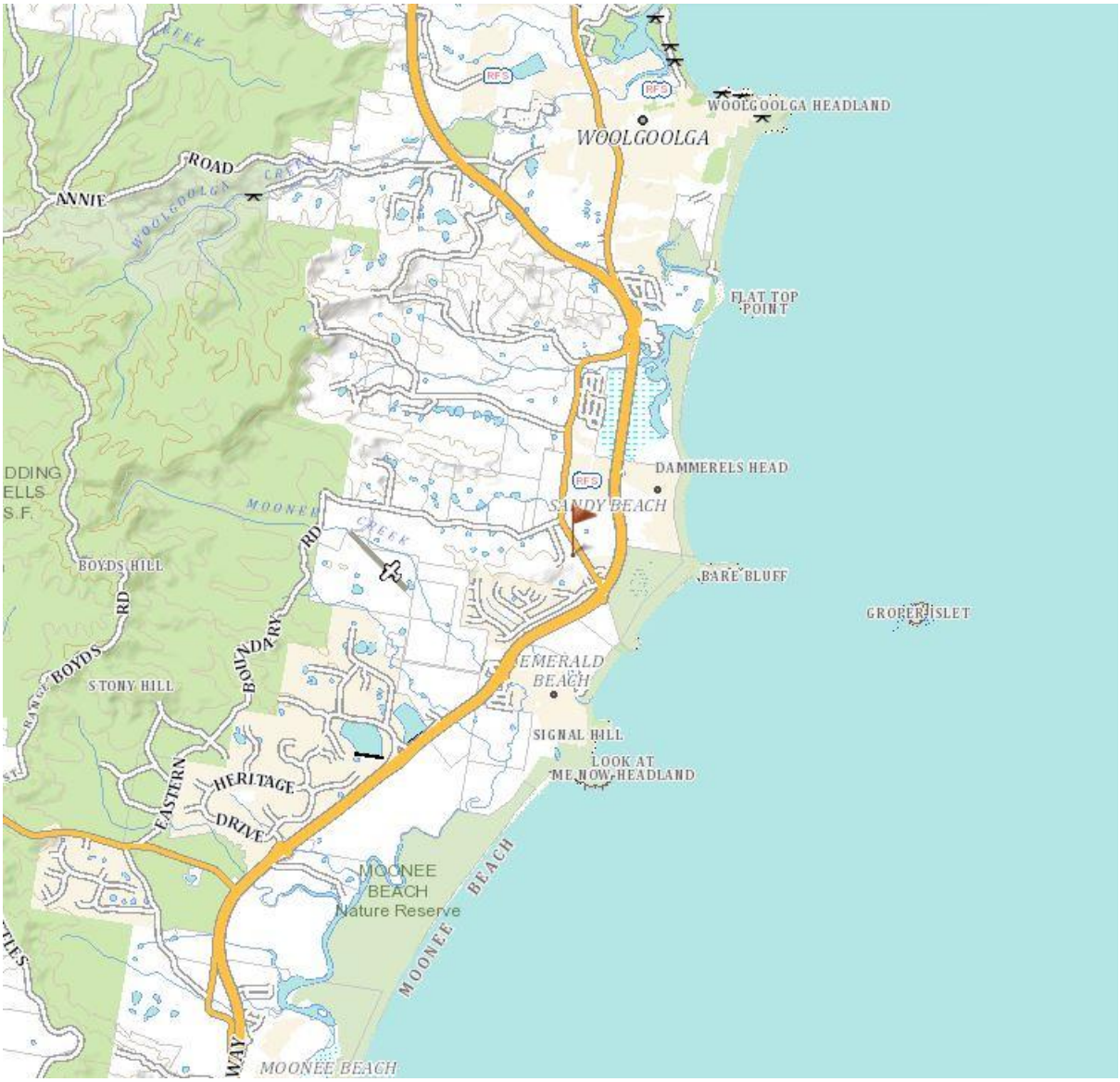

Figure 1 Study area locality (DPSI NSW Topographic Map)

Field survey

All parts of the study area supporting native vegetation were comprehensively searched by means of a 1.5 hour meander transect on 5 September 2023 to examine flora and fauna habitats, identify vegetation communities and search the subject site for threatened flora and evidence of threatened fauna known to occur in the locality.

The Spot Assessment Technique was applied on proposed Lot 2 to assess the presence of Koala scat and Koala use.

Figure 2. Aerial image (CHCC 2023) showing existing vegetation canopy, building envelopes and associated APZ

Results

Study area description

LEP 2013 Landuse Zone

R5 Large Lot Residential.

Landscape and soils

The study area is located on the lower east to north facing slopes of a ridgeline separating Sandy Beach from Emerald Heights.

It is mapped as occurring on the Megan soil landscape. Soils on the site are stony Red-Brown Earths on Carboniferous sedimentary rocks that have developed on Late Carboniferous metasediments of the Coffs Harbour association.

Existing vegetation mapping

State Vegetation Type mapping (**Figure 3**) shows the vegetation on most of the site as *PCT 3250 Northern Foothills Blackbutt Grassy Forest*. This forest is described (Bionet Plant Community Type data) as

> A very tall to extremely tall, grassy or occasionally shrub-grass sclerophyll open forest, which occurs extensively on the coast, coastal ranges and foothills ranges between Grafton and Gosford, with limited outlying occurrences near Woodburn and Wollongong. The canopy very frequently includes Eucalyptus pilularis dominating with the highest cover and commonly Eucalyptus microcorys, sometimes with locally high cover. Other canopy species occasionally include Corymbia intermedia and Syncarpia glomulifera, rarely with Angophora costata, Eucalyptus resinifera and Eucalyptus propinqua. Allocasuarina torulosa occurs very frequently and occasionally forms a mid-dense sub-canopy. The shrub Polyscias sambucifolia is very frequently present, commonly with vine Billardiera scandens, usually as scattered individuals. Polyscias sambucifolia is sometimes locally abundant and forms thickets in less frequently burnt sites. The grassy ground layer almost always includes a high cover of Imperata cylindrica, very frequently with Pteridium esculentum, Lomandra longifolia, Entolasia stricta and Themeda triandra, all usually with low cover. This PCT occurs mainly in warm, wet locations receiving 1200-1580 mm mean annual rainfall, at low to mid elevations of 10-370 metres asl. It occurs mainly on clay-rich sedimentary or meta-sedimentary substrates, occasionally higher-quartz sediments, on ridge to mid-slope sites which are frequently burnt.

Figure 3. Extract from State Vegetation Type Mapping.

A small patch of forest in the far north-western corner of the site is mapped as *PCT 3252: Northern Hinterland Grey Gum-Mahogany Grassy Forest* (**Photo 1**). Overstorey floristics of this patch do not appear to be floristically different to *PCT 3250* mapped elsewhere on the site (**Photo 2**) and are a poor fit for *PCT 3252*.

Coffs Harbour City Council's Class 5 vegetation mapping classifies all onsite native vegetation and some exotic vegetation as *DOF01 Coast And Escarpment Blackbutt Dry Forest*, described in CHCC (2012)as follows:

> A tall open forest characterised by an open canopy of Blackbutt (*Eucalyptus pilularis*). Other species that co-dominate may include some or all of the following species: Red Mahogany (*Eucalyptus resinifera* subsp. *hemilampra*), Scribbly Gum (*Eucalyptus signata*), Turpentine (*Syncarpia glomulifera*), Pink Bloodwood (*Corymbia intermedia*) and Tallowwood (*Eucalyptus microcorys*). The understorey is predominantly grassy and/or ferny and can vary from a heathy to a dry shrubby species composition. A range of other canopy species may be present as associated species and include Smooth-barked Apple (*Angophora costata*), Blue Gum (*Eucalyptus saligna*) and Small-fruited Grey Gum (*Eucalyptus propinqua*).

Figure 4. CHCC mapping of site vegetation community DOF01.

Mapped Koala habitat/Prescribed Vegetation

Part of the vegetation categorised as PCT 3250 and DOF01 is identified in the KPoM as secondary Koala habitat, and as Prescribed Vegetation under the Coffs Harbour DCP 2015 (**Figure 5**).

Other Biodiversity Values

- The study area is not identified as land with high biodiversity value on the NSW Biodiversity Values Map.
- The study area vegetation is not mapped as an Endangered Ecological Community and does not meet edaphic or floristic requirements.
- No CHCC mapped Biodiversity Corridor traverses the site.

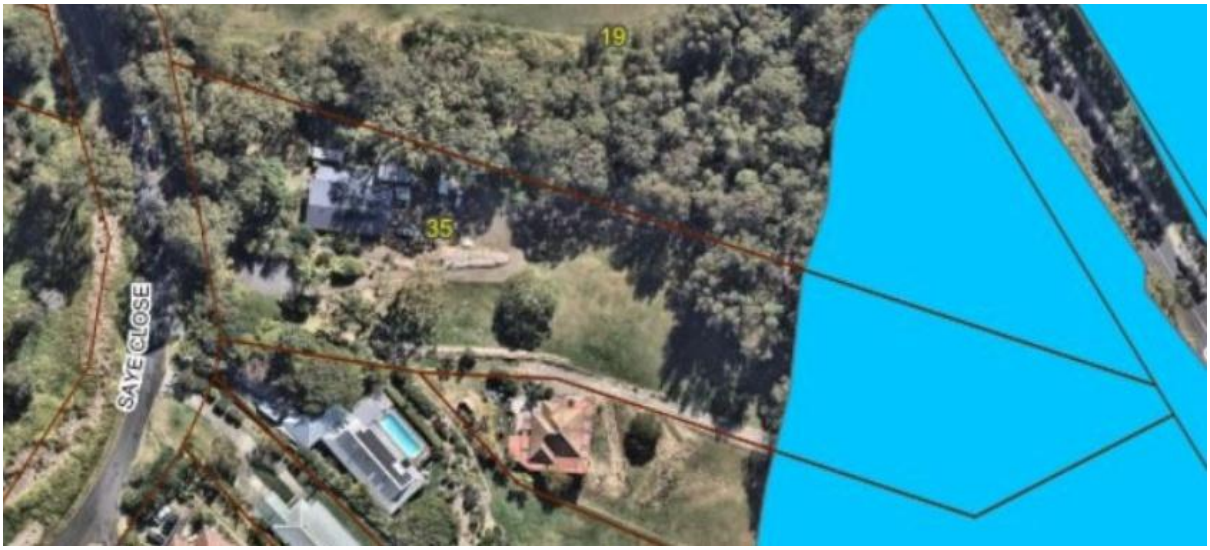

Figure 5. CHCC Secondary Koala Habitat and Prescribed Vegetation

Vegetation description

Native forest vegetation

Structure and floristics

Up to 30% foliage cover of remnant trees to around 25 metres tall, predominantly Blackbutt, together with occasional Narrow-leaved white mahogany on lower slopes and Forest red gum and Grey ironbark upslope.

There is a very sparse cover of eucalyptus saplings and small trees including Swamp box, Swamp oak and Broadleaved paperbark to around 12 metres.

Shrubs are represented by several specimens of Elderberry panax and Rough-fruited pittosporum surviving near the base of remnant trees. Occasional native ground layer grasses, herbs and graminoids also survive in areas around the bases of remnant trees that are inaccessible to mowers.

The remainder of the vegetated part of the property is closely mown and the ground layer is predominantly Broadleaved paspalum together with a suite of common urban weeds.

Disturbance Impacts

The original forest cover has obviously been cleared and burnt, with the exception of a solitary stump and its attendant hollow log well over 1 metre diameter (**Photo 4**).

Remnant trees are in the young, early mature and mature growth stages, indicating that tree cover has established episodically over the past 20 - 80 years or so.

There is no evidence of recent fire.

Classification & conservation status

The mapped *PCT 3250* and *DOF01* are reasonable are reasonable representations of the site vegetation community. Neither map category is classified as a community of conservation concern.

Exotic and introduced trees and shrubs

Exotic and introduces tree and shrub plantings are mostly confined to gardens on slopes and batters south of the childcare centre buildings

They include mature single specimens of the introduced Cadagi *Corymbia torelliana* and Lemon-scented gum *Corymbia citriodora,* and a boundary planting of *Callistemon spp* cultivars.

Exotics include large specimens of Jacaranda *J. mimosifolia*, Poinciana *Delonix regia* and Golden rain tree *Koelreuteria elegans*. Golden rain tree is listed under the NSW *Biosecurity Act* as a species requiring control for Asset Protection and there are numerous seedlings establishing in the gardens. The large shrubs Griffiths ash *Fraxinus griffithsii and* Sweet viburnum *V. odoratissimum* are common plantings; both are listed under the *Biosecurity Act* as Watchlisted species in expectation of their weed potential. Numerous saplings of Griffiths ash occur in the gardens.

Ground layer vegetation in the gardens is mostly the weedy Singapore daisy *Sphagneticola trilobata*, occasional large clumps of Lomandra and ornamental Date palm *Phoenix spp*.

Much of the exotic shrub and ground layer vegetation will be removed to meet bushfire APZ requirements.

Fauna habitat Elements

- Watercourses, dams soaks *etc.* absent.
- Large trees and old trees were absent, with the largest trees approaching 1 metre diameter also being the oldest. These trees were in the mature growth stage and without hollows.
- Fruiting trees, except for the listed weeds Golden rain tree and Sweet viburnum, are absent.
- Large woody debris was confined to one large decayed stump and an associated large log with a very large hollow (**Photo 4**).
- A litter layer is absent.
- KPoM listed Koala feed tree species are limited to four Forest Red Gum trees.
- No dens, roosts, nests, dense ground layer vegetation or nectar sources were detected.

Discussion

Likelihood of occurrence of threatened biodiversity

The likelihood of occurrence on the site of threatened biodiversity known to occur in the locality was assessed on the basis of the occurrence and condition of vegetation types and habitat elements on the subject site (**Table 1, Table 2**).

Assessment considered the presence, number and currency of species records in the locality, the species habitat requirements and habitat elements present in the study area, the comprehensiveness of survey cover, the detectability of the species and its occurrence in plant community types as outlined in the relevant Threatened Species profiles.

Potential Impacts of the proposal

The direct impacts are:

- Removal or pruning of exotic and introduced trees and shrubs from the area adjoining the existing childcare buildings on proposed Lot 1 (see **Figure 2)**.
- Removal of a clump of Swamp oak (**Photo 2**) and one mature Grey ironbark tree (**Photo 3**) for asset protection zone and stormwater easement, and
- Removal of one mature Blackbutt tree (approximately 300m^2) from mapped Koala habitat (**Photo 3**) for stormwater easement.

Indirect impacts are likely to be limited to those associated with occupation of proposed Lot 2 and may include eventual loss of a mature Blackbutt tree on the eastern (downslope) edge of the primary effluent management area (EMA) resulting from changes to soil drainage and fertility.

Table 1. Likelihood of fauna occurrence assessment (excluding species of marine and estuarine habitats)

Class	Scientific Name	Common Name	NSW status	Comm. status	No of Records	Breeding habitat	Foraging habitat	Likelihood of occurrence
Amphibia	*Crinia tinnula*	Wallum Froglet	V,P		7	Moist microhabitats in swamps, or wet or dry heaths, or sedge grasslands or swamps	As per breeding habitat	Unlikely
Amphibia	*Mixophyes iteratus*	Giant Barred Frog	E1,P,2	E	42	Second order or higher streams with some riparian vegetation present.	Streamside vegetation mostly in subtropical or cool temperate forests, or wet sclerophyll forests.	Nil
Reptilia	*Hoplocephalus stephensii*	Stephens' Banded Snake	V,P		1	Bbetween loose bark and tree trunks, amongst vines, or in hollow trunks limbs, rock crevices or under slabs	Rainforest and eucalypt forests and rocky areas up to 950 m in altitude	Unlikely
Aves	*Anthochaera phrygia*	Regent Honeyeater	E4A,P,2	CE	5	Box-Ironbark and other temperate woodlands and riparian gallery forest dominated by River Sheoak	nectar from a wide range of eucalypts and mistletoes. Key eucalypt species include Swamp Mahogany	Unlikely
Aves	*Artamus cyanopterus cyanopterus*	Dusky Woodswallow	V,P		2	in shrubs or low trees in dry, open eucalypt forests, woodlands with an open understorey of eucalypt saplings, acacias and other shrubs, and ground-cover of grasses or sedges and fallen woody debris	As for breeding habitat	Unlikely
Aves	*Burhinus grallarius*	Bush Stone-curlew	E1,P		2	open forests and woodlands with a sparse grassy groundlayer and fallen timber	As for breeding habitat	Unlikely
Aves	*Callocephalon fimbriatum*	Gang-gang Cockatoo	V,P,3	E	1	Not known in region	Not known in region	Nil
Aves	*Calyptorhynchus lathami lathami*	South-eastern Glossy Black-Cockatoo	V,P,2	V	33	large hollow-bearing eucalypts	open forest and woodlands of the coast and the Great Dividing Range up to 1000 m in which stands of She-oak species occur	Nil
Aves	*Climacteris picumnus victoriae*	Brown Treecreeper (eastern subspecies)	V,P		2	Live trees, dead standing or fallen timber, stumps or posts with hollows greater than 6 cm diameter.	Grassy woodlands, wet & dry sclerophyll forests and forested wetlands, mostly west of the Great Divide	Unlikely
Aves	*Coracina lineata*	Barred Cuckoo-shrike	V,P		2	Unknown	Fruiting tree species in rainforest, wet sclerophyll forest, vegetation remnants or isolated trees	Nil
Aves	*Daphoenositta chrysoptera*	Varied Sittella	V,P		12	cup-shaped nest of plant fibres and cobwebs in an upright tree fork high in the living tree canopy	eucalypt forests and woodlands, especially those containing rough-barked species and mature smooth-barked gums with dead branches	Possible foraging
Aves	*Ephippiorhynchus asiaticus*	Black-necked Stork	E1,P		19	Live or dead tree within or near foraging habitat. Usually isolated, live, paddock trees in NSW, but also in paperbarks and occasionally low shrubs within wetlands.	Shallow open freshwater or saline wetlands and estuarine habitats, including swamps, floodplains, watercourses, wet heathland, wet meadows, farm dams, saltmarsh, mud- and sand-flats, mangroves	Nil

Class	Scientific Name	Common Name	NSW status	Comm. status	No of Records	Breeding habitat	Foraging habitat	Likelihood of occurrence
Aves	*Glossopsitta pusilla*	Little Lorikeet	V,P		9	Hollow-bearing trees. Typically but not solely large old Eucalyptus, often smooth barked species.	Tree canopies. Typically nectar and pollen from Eucalyptus but also other tree species such as Angophora and Melaleuca plus native fruits such as mistletoe	Possible foraging
Aves	*Grantiella picta*	Painted Honeyeater	V,P	V	1	Boree, Brigalow and Box-Gum Woodlands and Box-Ironbark Forests with greater than 5 mistletoes per hectare	As for breeding habitat	Unlikely
Aves	*Grus rubicunda*	Brolga	V,P		2	Shallow (< 50 cm) wetlands and margins of deeper waterbodies with emergent vegetation	wetlands, mudflats, grasslands, cultivated areas or stubble	Nil
Aves	*Haliaeetus leucogaster*	White-bellied Sea-Eagle	V,P		53	mature tall open forest, open forest, tall woodland, and swamp sclerophyll forest close to foraging habitat; nest trees are large emergent eucalypts often with emergent dead branches or large dead trees nearby	bays and inlets, beaches, reefs, lagoons, estuaries and mangroves, saltmarsh, freshwater swamps, lakes, reservoirs, billabongs	Nil
Aves	*Hieraaetus morphnoides*	Little Eagle	V,P		1	a large stick nest in tall living trees within a remnant patch	eucalypt forest, woodland or open woodland	Unlikely
Aves	*Hirundapus caudacutus*	White-throated Needletail	P	V,C,J,K	31	None in Australia	Aerial	Unlikely
Aves	*Irediparra gallinacea*	Comb-crested Jacana	V,P		32	Floating aquatic vegetation, or fringing vegetation, of permanent, slow-moving or still freshwater wetlands.	Floating aquatic vegetation, or fringing vegetation, of permanent, slow-moving or still freshwater wetlands.	Nil
Aves	*Lathamus discolor*	Swift Parrot	E1,P	CE	3	Nil in NSW	where winter flowering species are flowering profusely or where there are abundant lerp infestations	Possible foraging
Aves	*Lophoictinia isura*	Square-tailed Kite	V,P,3		12	generally located along or near watercourses, in a fork or on large horizontal limbs	variety of timbered habitats including dry woodlands and open forests	Unlikely
Aves	*Ninox connivens*	Barking Owl	V,P,3		2	hollows of large, old trees	woodland and open forest	Unlikely
Aves	*Ninox strenua*	Powerful Owl	V,P,3		4	Hollows >45 cm diameter that are 6 m or more above the ground in living or dead trees	range of vegetation types, from woodland and open sclerophyll forest to tall open wet forest and rainforest	Unlikely
Aves	*Oxyura australis*	Blue-billed Duck	V,P		1	Wetlands with emergent aquatic vegetation (e.g. with dense Typha, Phragmites or Lignum)	Deep open waterbodies > 1 metre	Nil
Aves	*Pandion cristatus*	Eastern Osprey	V,P,3		86	Emergent living or dead trees or artificial towers within 3 km of foraging habitat	Open protected water	Nil
Aves	*Petroica boodang*	Scarlet Robin	V,P		1	Grassy woodland and dry open forest	Grassy woodland and dry open forest	Unlikely

Class	Scientific Name	Common Name	NSW status	Comm. status	No of Records	Breeding habitat	Foraging habitat	Likelihood of occurrence
Aves	*Pomatostomus temporalis temporalis*	Grey-crowned Babbler (eastern subspecies)	V,P		1	Grassy woodlands, wet & dry sclerophyll forests and forested wetlands	Grassy woodlands, wet & dry sclerophyll forests and forested wetlands	Unlikely
Aves	*Ptilinopus magnificus*	Wompoo Fruit-Dove	V,P		102	Rainforests or wet sclerophyll forest with foraging habitat nearby	Fruiting plants, including introduced species, within vegetation types. Fruit between 5-30 mm diameter	Unlikely
Aves	*Ptilinopus regina*	Rose-crowned Fruit-Dove	V,P		28	Wet sclerophyll forest or rainforest including remnants dominated by camphor laurel. Requires foraging habitat nearby.	Plants with fleshy fruits 5-25mm in size, including introduced species	Unlikely
Aves	*Ptilinopus superbus*	Superb Fruit-Dove	V,P		6	Wet sclerophyll forest or rainforest including remnants dominated by camphor laurel. Requires foraging habitat nearby.	Plants with fleshy fruits 5-25mm in size, including introduced species	Unlikely
Aves	*Tyto longimembris*	Eastern Grass Owl	V,P,3		1	Heaths and swamps witrh vegetation <2 m high and >90 % projected foliage cover	Open, treeless habitats or marshy ground vegetated with tussocks of grass or low heath or recently harvested paddocks or cane fields	Nil
Aves	*Tyto novaehollandiae*	Masked Owl	V,P,3		4	Living or dead trees with hollows >40 cm diameter, cliffs or caves	Most	Unlikely
Aves	*Tyto tenebricosa*	Sooty Owl	V,P,3		5	Hollows >30 cm diameter that are >10 m above the ground in live or dead trees, or in caves	Most forests	Unlikely
Mammalia	*Chalinolobus nigrogriseus*	Hoary Wattled Bat	V,P		1	Hollows in dead or alive trees	dry open eucalypt forests with naturally sparse understorey layers	Unlikely
Mammalia	*Dasyurus maculatus*	Spotted-tailed Quoll	V,P	E	3	Hollow-bearing trees, fallen logs, small caves, rock crevices, boulder piles, rocky-cliff faces or animal burrows	mostf habitat types from the sub-alpine zone to the coastline	Possible foraging
Mammalia	*Micronomus norfolkensis*	Eastern Coastal Free-tailed Bat	V,P		1	Hollows in dead or alive trees	Most	Unlikely
Mammalia	*Miniopterus australis*	Little Bent-winged Bat	V,P		15	Caves	Moist eucalypt forest, rainforest or dense coastal banksia scrub	Unlikely
Mammalia	*Miniopterus orianae oceanensis*	Large Bent-winged Bat	V,P		6	Maternity caves with very specific temperature and humidity regimes.	forested areas, catching moths and other flying insects above the tree tops	Unlikely
Mammalia	*Myotis macropus*	Southern Myotis	V,P		1	close to water in caves, mine shafts, hollow-bearing trees, storm water channels, buildings, under bridges and in dense foliage	waterbodies (including streams, or lakes or reservoirs) and fringing areas of vegetation	Unlikely
Mammalia	*Nyctophilus bifax*	Eastern Long-eared Bat	V,P		2	Dense tree foliage, under bark, in tree hollows	Lowland subtropical rainforest and wet and swamp eucalypt forest, extending into adjacent moist eucalypt forest	Unlikely
Mammalia	*Petauroides volans*	Southern Greater Glider	E1,P	E	1	Large trees with hollows > 10cm diameter	tall moist eucalypt forests with relatively old trees and abundant hollows	Unlikely

Class	Scientific Name	Common Name	NSW status	Comm. status	No of Records	Breeding habitat	Foraging habitat	Likelihood of occurrence
Mammalia	*Petaurus australis*	Yellow-bellied Glider	V,P	V	34	Large trees with hollows > 10cm diameter	favoured food trees in tall mature eucalypt forest generally in areas with high rainfall and nutrient rich soils	Unlikely
Mammalia	*Petaurus norfolcensis*	Squirrel Glider	V,P		17	Tree hollows or fissures >2 cm diameter/width in eucalypt forests and woodlands	Blackbutt-Bloodwood forest with heath understorey and abundant hollows	Unlikely
Mammalia	*Phascogale tapoatafa*	Brush-tailed Phascogale	V,P		1	Tree hollows, logs or stumps with entrances > 2.5 cm wide	Prefer dry sclerophyll open forest with sparse groundcover of herbs, grasses, shrubs or leaf litter.	Unlikely
Mammalia	*Phascolarctos cinereus*	Koala	E1,P	E	36	eucalypt woodlands and forests	Feed on the foliage of more than 70 eucalypt species and 30 non-eucalypt species; in any one area will select preferred browse species	Possible foraging
Mammalia	*Phoniscus papuensis*	Golden-tipped Bat	V,P		1	Tree hollows or nests of Yellow-throated Scrubwren or Brown Gerygone	Rainforest gullies or sclerophyll forest on mid to upper slopes, within 2km radius of roost	Unlikely
Mammalia	*Planigale maculata*	Common Planigale	V,P		7	Hollow logs, under bark, rocks, cracks in soil, grass tussocks or building debris	Coastal heaths, scrubs, woodlands, open forests and rainforests providing cover in the form of dense ground layers	Unlikely
Mammalia	*Pteropus poliocephalus*	Grey-headed Flying-fox	V,P	V	45	Canopy trees associated with rainforest, or coastal scrub or riparian or estuarine communities and with sufficient forage resources available within 40km.	Most	Possible foraging
Mammalia	*Saccolaimus flaviventris*	Yellow-bellied Sheathtail-bat	V,P		1	Live and dead hollow-bearing trees	Most	Unlikely
Mammalia	*Scoteanax rueppellii*	Greater Broad-nosed Bat	V,P		3	Live or dead hollow-bearing trees, under exfoliating bark, or in buildings	Forests woodlands and wetlands	Unlikely
Mammalia	*Syconycteris australis*	Common Blossom-bat	V,P		7	Rainforest or vine thickets within proximity to foraging habitat.	heathland and paperbark swamps	Unlikely

Table 2. Likelihood of occurrence of flora species

Scientific Name	Common Name	NSW status	Comm. status	No of Records	Habitat	Likelihood of occurrence
Chamaesyce psammogeton	Sand Spurge	E1		3	Foredunes and exposed headlands	Nil
Hicksbeachia pinnatifolia	Red Boppel Nut	V	V	2	subtropical rainforest, regrowth rainforest and moist eucalypt or Brush Box forest, can persist in disturbed areas including roadsides	Nil
Lindsaea incisa	Slender Screw Fern	E1,3		20	Waterlogged or poorly drained sites in dryclerophyll forest or heathland	Nil
Macadamia tetraphylla	Rough-shelled Bush Nut	V	V	1	subtropical rainforest, regrowth rainforest or remnant rainforest, north of Coraki	Nil
Marsdenia longiloba	Slender Marsdenia	E1	V	30	Subtropical and warm temperate rainforest, moist eucalypt forest adjoining rainforest, and rock outcrops	Nil
Niemeyera whitei	Rusty Plum, Plum Boxwood	V		193	Rainforest and the adjacent understorey of moist eucalypt forest	Nil
Pultenaea maritima	Coast Headland Pea	V		13	Exposed coastal headlands	Nil
Quassia sp. Moonee Creek	Moonee Quassia	E1	E	286	Shrubby layer below tall moist eucalypt forest and tall dry eucalypt forest	Unlikely
Rhodamnia rubescens	Scrub Turpentine	E4A	CE	28	littoral, warm temperate and subtropical rainforest and wet sclerophyll forest	Unlikely
Rhodomyrtus psidioides	Native Guava	E4A	CE	19	littoral, warm temperate and subtropical rainforest and wet sclerophyll forest often near creeks and drainage lines	Unlikely
Senna acclinis	Rainforest Cassia	E1		3	In or on the edges of subtropical and dry rainforest	Nil
Sophora tomentosa	Silverbush	E1		1	Coastal sand dunes	Nil
Thesium australe	Austral Toadflax	V	V	12	Grassland, grassy open forest or woodland on fertile or moderately fertile soils and coastal headlands, often in association with Kangaroo Grass	Unlikely
Zieria prostrata	Headland Zieria	E1	E	29	Exposed coastal headlands	Nil

BC Act Assessment of impacts

No threatened flora species or communities were identified as possible occurrences in the study area.

The following fauna species and groups are identified as having foraging habitat in the study area and are therefore subject species for the *Biodiversity Conservation Act* (*BC Act*) 5-part test.

Species grouped as Highly mobile nectar-dependent aerial fauna:

- Grey-headed Flying-fox *Pteropus poliocephalus*
- Little Lorikeet *Glossopsitta pusilla*
- Swift Parrot *Lathamus discolor*

Sedentary arthropod-dependent aerial fauna:

- Varied Sittella *Daphoenositta chrysoptera*

Sedentary arboreal marsupial folivore:

- Koala *Phascolarctos cinereus*

Terrestrial carnivorous marsupial with a home range of at least 200ha:

- Spotted-tailed Quoll *Dasyurus maculates*

Biodiversity Offset Clearing Threshold

The maximum likely area of clearing is 600m^2 (0.06ha), which is less than the 0.5ha required for entry to the biodiversity offset scheme (BOS).

No vegetation would be cleared from an area mapped as High Biodiversity Value.

5-part test

(a) in the case of a threatened species, whether the proposed development or activity is likely to have an adverse effect on the life cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction,

Highly mobile nectar-dependent aerial fauna

There would be no impact on breeding habitat for Little Lorikeet or Swift Parrot (tree hollows), or for Flying-fox (a colony).

Impact on foraging habitat is limited to removal of one Blackbutt and one Grey ironbark. These species are very common in the locality

Impacts of the proposal are assessed as unlikely to be of sufficient magnitude or extent to affect the life cycle of the species such that a viable local population of that species would be placed at risk of extinction.

Varied Sittella

Varied sittellas were not resident in the study area at the time of survey. Local records are sparse, one from 2018, the remainder 1007 or earlier.

Impact on foraging habitat is limited to removal of a stand of young Swamp oak, one Blackbutt and one Grey ironbark. These species are very common in the locality

Impacts of the proposal are assessed as unlikely to be of sufficient magnitude or extent to affect the life cycle of the species such that a viable local population of that species would be placed at risk of extinction.

Koala

No Koala scats were detected by a SPOT test, indicating that the habitat is in the low use category and does not support a breeding population, although it is likely to be used on occasion for foraging or transit.

The Grey ironbark and Blackbutt trees to be removed are *Rank 3 significant use* and *Rank 4 irregular or low use (feed or shelter)* respectively. Removal of these trees is likely to stimulate growth of adjoining trees and impacts on foraging habitat are likely to be temporary and minor.

Impacts of the proposal are assessed as unlikely to be of sufficient magnitude or extent to affect the life cycle of the species such that a viable local population of that species would be placed at risk of extinction.

Spotted-tailed Quoll

There would be no impacts on Spotted-tailed Quoll breeding habitat, and impacts on foraging habitat are likely to be insignificant.

In this case, impacts of the proposal are assessed as unlikely to be of sufficient magnitude or extent to affect the life cycle of Spotted-tailed Quoll such that a viable local population of that species would be placed at risk of extinction.

(b) in the case of an endangered ecological community or critically endangered ecological community, whether the proposed development or activity:

(i) is likely to have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction, or

(ii) is likely to substantially and adversely modify the composition of the ecological community such that its local occurrence is likely to be placed at risk of extinction,

Not applicable – threatened ecological communities do not occur in or adjoining the study area.

(c) in relation to the habitat of a threatened species or ecological community:

(i) the extent to which habitat is likely to be removed or modified as a result of the proposed development or activity, and

(ii) whether an area of habitat is likely to become fragmented or isolated from other areas of habitat as a result of the proposed development or activity, and

(iii) the importance of the habitat to be removed, modified, fragmented or isolated to the long-term survival of the species or ecological community in the locality,

Highly mobile nectar-dependent aerial fauna

There would be no impact on breeding habitat, and impact on foraging habitat is limited to removal of one Blackbutt (approximately 300m^2) and one Grey ironbark (200m^2).

Habitat would not be fragmented or isolated. Retained areas of adjacent forest vegetation would continue to provide foraging and dispersal resources. The Proposal is therefore unlikely to impact the long-term survival of the species in the locality.

Varied Sittella

Impact on foraging habitat is limited to removal of a stand of young Swamp oak, one Blackbutt and one Grey ironbark (total extent approximately 600m^2). These species are very common in the locality

Habitat would not be fragmented or isolated. Retained areas of adjacent forest vegetation would continue to provide foraging and dispersal resources. The Proposal is therefore unlikely to impact the long-term survival of the species in the locality.

Koala

The Grey ironbark and Blackbutt trees to be removed are *Rank 3 significant use* and *Rank 4 irregular or low use (feed or shelter)* respectively. Removal of these trees is likely to stimulate growth of adjoining trees and impacts on foraging habitat are likely to be temporary and minor.

Habitat would not be fragmented or isolated. Retained areas of adjacent forest vegetation would continue to provide foraging and dispersal resources. The Proposal is therefore unlikely to impact the long-term survival of the species in the locality.

Spotted-tailed Quoll

Impacts on foraging habitat are unpredictable as Quolls may use human habitation as a resource and the loss of 600m2 of forest vegetation is unlikely to significantly reduce the extent of foraging habitat.

Habitat would not be fragmented or isolated. Retained areas of adjacent forest vegetation would continue to provide foraging and dispersal resources. The Proposal is therefore unlikely to impact the long-term survival of the species in the locality.

(d) whether the proposed development or activity is likely to have an adverse effect on any declared area of outstanding biodiversity value (either directly or indirectly),

No declared area of outstanding biodiversity value occurs in the region.

(e) whether the proposed development or activity is or is part of a key threatening process or is likely to increase the impact of a key threatening process.

The proposal may possibly contribute to the impact of the key threatening processes *Clearing of native vegetation* and *Anthropogenic Climate Change*. The degree to which the Proposal would contribute to any threatening process is small and not considered likely to place the local population of any of the subject species at significant risk of extinction.

EPBC Act significant impacts.

The following fauna species and groups are identified as having foraging habitat in the study area and are therefore subject species for the *EPBC Act:.*

- Swift parrot (Critically endangered)
- Spotted-tail quoll and Koala (Endangered) and
- Grey-headed flying-fox (Vulnerable).

EPBC Act Significant Impact Guidelines indicate that, for critically endangered and endangered species, an action is likely to have a significant impact if there is a real chance or possibility that it will:

- lead to a long-term decrease in the size of a population
- reduce the area of occupancy of the species
- fragment an existing population into two or more populations
- adversely affect habitat critical to the survival of a species
- disrupt the breeding cycle of a population
- modify, destroy, remove, isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline
- result in invasive species that are harmful to a critically endangered or endangered species becoming established in the endangered or critically endangered species' habitat
- introduce disease that may cause the species to decline, or
- interfere with the recovery of the species.

In the local context of extensive areas of similar habitat nearby, the habitat to be removed is foraging habitat only, the 600m^2 of vegetation that would be removed by the proposal is general foraging habitat that represents a very small part of the home range of the species and is not critical to the survival of the species. The proposal would thereforebe unlikely to modify, destroy, remove, isolate or decrease the availability or quality of habitat to the extent that it would reduce the area of occupancy of a species or the size of a population. Nor would the proposal be likely to result in invasive species that are harmful to a critically endangered or endangered species becoming

established, or introduce disease, or by any other means lead to a long-term decrease in the size of a population, reduce its area of occupancy, fragment the population, adversely affect critical habitat or disrupt its breeding cycle.

Coffs Harbour Koala Plan of Management (1999)

The requirements of the Coffs Harbour Koala Plan of Management (1999) at https://www.coffsharbour.nsw.gov.au/environment/Plants-and-Animals/Documents/KPOM_a.pdf state that:

The consent authority shall not grant consent to the carrying out of development on areas identified as Secondary Koala Habitat which will remove the following tree species:

Tallowwood Eucalyptus microcorys, Swamp Mahogany E. robusta, Flooded Gum E. grandis (except when part of a forest plantation), Forest Red Gum E. tereticornis, or Smallfruited Grey Gum E. propinqua, unless the development will not significantly destroy, damage or compromise the values of the land as koala habitat

and also that

The consent authority shall not grant consent to the carrying out of development in areas identified as Secondary Koala Habitat unless it is satisfied that:

- *the proposal will not result in significant barriers to koala movement;*
- *boundary fencing does not prevent the free movement of koalas;*
- *lighting and koala exclusion fencing is provided where appropriate on roadways adjacent to koala habitat;*
- *tree species listed above under Secondary Koala Habitat are retained, where possible;*
- *new local roads are designed to reduce traffic speed to 40 kph in potential koala blackspots;*
- *preferred koala trees are used in landscaping where suitable;*
- *threats to koalas by dogs have been minimised ie. banning of dogs or confining of dogs to koala proof yards;*
- *fire protection zones, including fuel reduced zones and radiation zones, are provided generally outside of Secondary Koala Habitat.*

The Proposal would not remove any of the tree species listed above.

The proposal has the potential to be a barrier to Koala movement but this issue can be addressed by requiring that boundary fencing of proposed Lot 2 be Koala-permeable as a condition of consent. Similarly, Dot point 7 should be addressed by requiring that any dog resident on the property is confined to a dog-proof yard located outside of mapped Koala habitat except when under the control of the owner.

Dot points 3-6 are not applicable.

The proposal complies with Dot point 8.

Recommendations & Conclusions

It is recommended that consent includes conditions that boundary fencing of proposed Lot 2 be Koala-permeable, and any dog resident on the property is confined to a dog-proof yard located outside of mapped Koala habitat except when under the control of the owner. These conditions may be necessary to meet the requirements of the KPoM (1999).

The direct impact of the proposal on native vegetation includes the removal of one Blackbutt tree, on Grey ironbark tree and a clump of Swamp oaks, total area approximately 600m^2 (0.06ha). The potential for indirect impact is limited to the possible eventual loss of a mature Blackbutt tree (100m^2) downslope of the proposed effluent management area as a result of long-term changes to soil fertility and drainage.

BC Act assessment of impacts found that significant impacts on Threatened fauna or their habitat are unlikely. The proposal does not exceed the Biodiversity Offset Clearing Threshold, or occur in an area mapped as High Biodiversity Value. Significant impact on threatened species or ecological communities or their habitats is unlikely. Entry to the Biodiversity Offsets Scheme would not therefore be required.

The EPBC Act Significant Impact Guidelines indicate that the proposal is unlikely to have a significant impact and referral to the Minister is not required.

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Appendices

Flora species inventory

Scientific name	Common name	pfc	status
Canopy trees			
Angophora costata	Rusty gum	1	n
Corymbia intermedia	Pink bloodwood	1	n
Eucalyptus carnea	Broadleaved white mahogany	3	n
Eucalyptus globoidea	White stringybark	1	n
Eucalyptus pilularis	Blackbutt	10	n
Eucalyptus siderophloia	Grey ironbark	2	n
Eucalyptus tereticornis	Forest red gum	3	n
Midstratum trees			
Casuarina glauca	Swamp oak	2	n
Lophostemon suaveolens	Swamp box	2	n
Melaleuca quinquenervia	Broadleaved paperbark	1	n
Midstratum shrubs			
Breynia oblongifloia	Dwarves apple	0.1	n
Pittosporum revolutum	Rough-fruited pittosporum	0.1	n
Polyscias sambucifolius	Elderberry panax	0.1	n
Pultenea retusa	Bacon and eggs	0.1	n
Ground layer			
Ageratina adenophora	Crofton weed	0.1	e, A
Ageratum houstonianum	Billygoat weed	1	e
Asparagus aethiopicus	Asparagus fern	0.1	e, A
Calochlaena dubia	Rainbow fern	0.1	n
Dianella longifolia	Flax lily	0.1	n
Dichondra repens	Kidney weed	1	n
Gamochaeta americana	Cudweed	1	e
Geitonoplesium cymosum	Scrambling lily	0.1	n
Hardenbergia violacea	Happy wanderer	0.1	n
Hibbertia vestita	Hairy guinea-flower	0.1	n
Hypochoeris radicata	Cats ear	2	e
Imperata cylindrica	Blady grass	0.1	n
Lepidosperma laterale	Sword sedge	0.1	n
Lilium formosanum	Formosan lily	0.1	e
Lolium spp	Rye grass	5	e
Lomandra filiformis	Slender mat-rush	0.1	n
Lomandra longifolia	Spiny-headed mat-rush	0.1	n
Modiola caroliniana	Red flowered mallow	0.1	e
Oplismenus aemulus	Beard grass	1	n
Paspalum mandiocanum	Broadleaved paspalum	50	e
Passiflora suberosa	Corky passionfruit	0.1	e
Plantago major	Plantago	1	e
Scleria tricuspidata	A sedge	0.1	n
Sporobolus fertilis	Giant parramatta grass	5	e, A
Stephania japonica	Snake vine	0.1	n
Themeda triandra	Kangaroo grass	0.1	n
Verbena bonariensis	Purpletop	0.1	e

Koala scat search results

Tree #	Name	diam (m)	0/1
1	Blackbutt	0.7	0
2	Forest Red Gum	0.4	0
3	Swamp Oak	0.3	0
4	Swamp Oak	0.3	0
5	Swamp Box	0.4	0
6	Forest Red Gum	0.2	0
7	Swamp Box	0.3	0
8	Grey Ironbark	0.6	0
9	Blackbutt	0.8	0
10	Forest Red Gum	0.7	0
11	Blackbutt	0.8	0
12	Forest Red Gum	0.6	0
13	Blackbutt	0.6	0
14	Blackbutt	0.8	0
15	Blackbutt	0.5	0
16	Blackbutt	0.7	0
17	Grey Ironbark	0.5	0
18	Blackbutt	0.4	0
19	Blackbutt	0.9	0
20	Pink Bloodwood	0.3	0
21	White Stringybark	0.7	0
22	White Mahogany	0.4	0
23	Broadleaved Paperbark	0.5	0
24	Blackbutt	0.9	0
25	White Mahogany	0.6	0
26	Blackbutt	0.5	0
27	Blackbutt	0.7	0
28	Blackbutt	0.6	0
29	Grey Ironbark	0.6	0
30	Blackbutt	0.7	0

Tree species Koala use regional ranking, North Coast

Scientific name	**Common name**	**Koala use regional ranking NC**
Corymbia intermedia	Pink bloodwood	4
Eucalyptus carnea	Broadleaved White mahogany	4
Eucalyptus globoidea	White stringybark	3
Eucalyptus pilularis	Blackbutt	4
Eucalyptus siderophloia	Grey ironbark	3
Eucalyptus tereticornis	Forest red gum	1
Melaleuca quinquenervia	Broadleaved paperbark	4

Rankings:

- *Rank 1 = high preferred use (feed trees)*
- *Rank 2 = high use (feed trees)*
- *Rank 3 = significant use (feed or shelter trees)*
- *Rank 4 = irregular or low use (feed or shelter trees).*

Photographs

Photo 1. Native forest remnant in north-western corner of proposed Lot 1 adjoining existing childcare centre

Photo 2. Native forest remnant in north-western corner of proposed Lot 2 showing Swamp oak trees for removal

Photo 3. View along access road from north-western corner of proposed Lot 2 showing Grey ironbark & Blackbutt trees identified for removal

Photo 4. View back along road from north-eastern corner of proposed Lot 2 showing large hollow log.

LCA for 35 Saye Close Sandy Beach

22 December 2021

For: Brett Chapman: Brett Chapman

Authored by: Strider Duerinckx

Ref	Ver	Date	Distribution
2122-027	A	22/12/21	Client

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Appendices

Appendix A Borehole Logs

Appendix B Soil Chemistry

Appendix C Water and Nutrient Balance Calculation

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1 Introduction

Earth Water Consulting Pty Limited (EWC) were engaged by Brett Chapman to undertake a Land Capability Assessment (LCA) for the proposed subdivision of 35 Saye Close Sandy Beach (Lot 21 Deposited Plan No: 831915) (the 'Site'), as shown on Figure 1.

The purpose of the LCA is to show that wastewater from an On-site Sewage Management System (OSMS) can be sustainably applied on the proposed lots.

2 Proposed Development

Based on plans of the proposed subdivision layout (Ref: Newham Karl Weir. Plan of Proposed Subdivision. Dated: November 2021), it is understood that the Site is proposed to be subdivided from one into two (2) lots.

Proposed Lot 1 will include the existing childcare centre and ancillary infrastructure and be 5,012m^2 and Proposed Lot 2 will have a new building entitlement and be 5,012m^2 (Figure 2).

3 Scope of Work

The LCA was undertaken by Arthur Schultz and Strider Duerinckx of EWC. The study methodology included:

- A desktop review of Site conditions including geology, hydrogeology, soils, and landscape features;
- A site inspection to map site and soil constraints plus an audit of the existing dwelling OSMS in relation to the proposed subdivision boundary;
- Drilling of two boreholes and an additional cutting assessment, to assess soil conditions across the Site;
- Assessment of a range of site constraints including landform, slope, aspect, drainage, flooding and proximity to sensitive environments;
- Analysis of selected soil sample for a range of chemical properties including pH, EC, dispersibility, PSorp, CEC and ESP;
- Estimation of likely wastewater loads (quantity and quality) from the existing childcare centre and future dwellings on the proposed lost, and undertaking water and nutrient balance modelling to size suitable land application areas;
- Determining an appropriate level of wastewater treatment and the preferred method of land application of effluent to overcome the constraints on the proposed lots;
- Outlining any land improvement works or mitigation measures required to address particular constraints in the land application areas;
- For the childcare centre due to a failing OSMS, setting out and provision of schematic drawings for upgrade of the OSMS;
- Provision of a written report, including site plans, describing the results and recommendations from our investigations.

4 Site Details

The Site is located on the eastern side of Saye Close, with Sandy Beach Primary School adjacent along the northern property boundary, and the eastern point of the property connecting to the western side of Solitary Islands Way (Figure 1). The Site is zoned R5 Large Lot Residential, and is approximately 10,024m^2, with the western half of the property containing a childcare centre and ancillary sheds and carpark, and the eastern half currently undeveloped, with only driveway access from Solitary Islands Way.

The Site is located on a northeast facing slope which is positioned on the northern side of a generally east facing ridgeline. The ground surface slopes gently towards the road edge at Solitary Islands Way, with a mapped intermittent drainage approximately 100m to the southeast of the eastern corner of the property. This drainage subsequently drains to swampland in the Moonee Beach Nature Reserve. The property has a small amount of Eucalypt and Casuarina vegetation at the eastern end, with cleared ground and ornamental trees and shrubs on the more elevated western portions.

4.1 Existing OSMS

The OSMS that services the existing child-care centre consists of a round concrete septic tank and a single absorption trench of unknown length and dimensions (Figure 3). The septic tank is positioned beneath a storage shed at the rear eastern end of the child-care facility, and the trench system is positioned northeast of this along the northern fenceline located to the northeast of the carpark.

The septic tank is a completely sealed and could be inspected though diameter of the lid are such that it is expected to be 2.4kL in volume. The absorption trench is failing and wastewater is visible at the surface at the eastern end. As such, the OSMS will require an upgrade as part of the subdivision.

Photograph 1 – Looking east across the proposed Lot 2.

Photograph 2 – Looking southwest over the existing absorption trenches with the carpark and child-care facility behind.

Photograph 3 – Looking west upslope over the proposed OSMS.

4.2 Site Constraints

Table 1 summarises the Site constraints for the primary and reserve EMAs for each of the proposed lots. These are discussed in terms of the degree of limitation they present (i.e. minor, moderate or major limitation) for on-site effluent application. Reference is made to the rating scale described in Table 4 of DLG (1998). Site features are presented in Figures 3 and 4.

Table 1: Site Constraints

Constraint	Degree of Limitation
Landform: Waxing divergent midslope location.	Minor
Exposure: Good exposure. Minimal trees near the proposed EMAs.	Minor
Slope: Moderate slope of 14-18% to the northeast and east.	Moderate
Rocks and Rock Outcrops: No rock outcrops were observed on the Site.	Minor
Erosion Potential: Erosion potential is expected to be low due to the slope and soils.	Minor
Climate: The Site experiences a sub-tropical-temperate climate, typical of north-eastern NSW.	Minor
Vegetation: Open grassland with minimal trees and shrubs.	Minor
Fill: None noted	Minor
Surface Waters: Both EMAs are over 100m of the mapped intermittent drainage to the southeast of the property boundary.	Minor
Groundwater: (NSW Office of Water: Groundwater Bore Search) There are two registered groundwater bores within 500m of the proposed EMAs for both Lots. The closest registered domestic bore is located approximately 350 metres to the north, and is positioned on the Sandy Beach Primary School grounds (GW302322). The bore was drilled to a final depth of 30 metres, however no information exists on standing water level or groundwater depths. A second bore is located at 8 Casuarina Court, approximately 390 metres to the southeast (GW304249). The bore is 36m deep, with the standing water level at 3m and a water bearing zone at 15-30m in grey shale or quartz. Groundwater vulnerability? Clay subsoil, distance and deep groundwater depth indicate that the risk to groundwater would be minimal.	Minor
Stormwater run-on and upslope seepage: The midslope position of the proposed EMAs would have moderate run-on from upslope areas.	Moderate
Flood Potential:	Minor

Constraint	Degree of Limitation
The Site is not impacted by 1:100 year flood extents on the CHCC flood mapping and both proposed EMA's are >12m above flood mapping contours.	
Available Effluent Application Area Both lots have sufficient area available for the application of effluent, and reserve EMAs.	Minor

4.3 Soil Survey and Description

4.3.1 Regional Soils

We reviewed the Soil Landscapes of the Coffs Harbour 1:100,000 Sheet (Milford, 1999) which indicates that the Site is part of the Megan Soil Landscape, which is an erosional landscape located on rolling low hills to hills on late Carboniferous metasediments of the Coffs Harbour association in the Coast Range and the Gleniffer-Bonville HIlls. Soils are moderately deep to deep, well-drained structured Red and Brown Earths and Red and Brown Podzolic Soils, moderately deep to deep, well-drained structured Yellow Earths and Yellow Podzolic Soils in drier situations, and moderately deep to deep (>120cm) well-drained Krasnozems in the moistest sites.

Limitations include strongly acid, stony soils with high erodibility, aluminium toxicity potential and low subsoil permeability. The soil is characterised by dark clay loam topsoil (up to 400mm) and dull reddish brown clay loam deep topsoil (up to 150mm) underlain by reddish brown moderately to strongly pedal light clay (up to 700mm) underlain by reddish brown to orange, massive to moderately pedal silty clay loam to silty clay. Bedrock is typically greater than 1.2m depth.

4.3.2 Site Soils

Site soils were assessed by drilling two (2) boreholes using a power auger (Figure 3) to 1.1m depth. Additionally, soil landscape was examined to greater than 1.5m depth using a large emergent cutting on the property. In general, these soils comprised:

- Approximately 200-300mm of clay loam topsoil, dark brown to black, red and orange mottling, with strong structure and no gravel or up to 5% hard red coarse fragments; overlying
- Approximately 0-200mm of clay loam, light brown, with orange and red mottling increasing with depth, strong structure, overlying
- Approximately 700-800mm of light to medium clay, pale orange brown to yellow grey, with slight orange mottling increasing with depth, strong structure; overlying
- At least 100mm of extremely weathered bedrock, white to pale yellow, grading to highly weathered bedrock with depth.

Competent bedrock was not encountered in the boreholes. The borehole logs are provided in Appendix A.

Photograph 3 **– BH1 soil profile.**

Table 2 summarises the key soil physical and chemical assessments. Reference is made to the rating scale described in Table 6 of DLG (1998). Borehole logs are presented in Appendix A and soil chemistry in Appendix B.

Table 2: Soil Assessment

Parameter	Constraint
Depth to bedrock or hardpan (m): The borehole was terminated at 1.1m depth in medium clay. Competent bedrock was not found in the exposed cut. It is believed that competent bedrock will be located at >1.5m based on soil landscape and position.	Moderate
Depth to high soil watertable: The depth of the vadose zone (i.e. non-saturated soil material above watertable) was greater than 1.1m at the time of the investigation. The depth to the permanent groundwater aquifer is expected to be more than 20m depth based on local groundwater bores.	Minor
Coarse Fragments (%): The borehole contained 5% coarse fragments.	Minor
Hydraulic loading rate: Soil structure: Strong Soil texture: Light clay 0.55/0.7-1.1m **Permeability category:** Category 5a Hydraulic loading recommended: 8mm/day for primary, and 12 mm/day secondary treated effluent into an absorption bed field and 3mm/day for SSI. Reasons for the hydraulic loading recommendation: Strongly structured light clay subsoils.	Moderate

Parameter	Constraint
pH: 4.40 pH Units from BH1 0.4-0.7m. Strongly acidic soils.	Major
Electrical Conductivity (dS/m): 0.748dS/m from BH1 0.4-0.7m. Not saline.	Minor
Dispersiveness: The Emerson Aggregate Test is a measure of soil dispersibility and susceptibility to erosion and structural degradation. It assesses the physical changes that occur in a single ped of soil when immersed in water, specifically whether the soil slakes and falls apart or disperses and clouds the water. An EAT was recorded as Class 3/6 (Slake 2) for BH1 0.4-0.7m. The instability of these aggregates is expected to increase slightly with the application of effluent.	Moderate
Sodicity (ESP): The ESP is a measure of how readily the soils allow sodium from wastewater to be substituted in the soil lattice for other cations. Once accepted, the weak sodium bonds allow increased structural degradation of the soil, increasing the erosion risk. The ESP of BH1 0.4-0.7m was 5.7%. The ESP infers a minimal potential for structural degradation due to sodium salts already present.	Minor
Cation Exchange Capacity: Like ESP, the CEC is a measure of how easily the soils hold and exchange excess cations from the effluent. These cations, such as potassium, magnesium and calcium are used by plants as a nutrient source. The higher the CEC the more likely plant growth will be aided by the application of effluent. CEC was measured in BH1 0.4-0.7m at 9.5 cmol/kg, which indicates that this soil type has low ability to accept and release excess nutrients from effluent.	Moderate
Phosphorus Adsorption: Phosphorus is a cation present in effluent. It is required only to a limited extent by plants as a trace nutrient, but if there is an excess of phosphorus in environments where other limiting factors are not present (such as waterways), excess phosphorus can result in very high plant growth. Typically, on land, excess phosphorus is taken up by soil adsorption, or is flushed out of the soil into groundwater or surface water bodies. The Site soils in BH1 0.4-0.7m has a Psorp of 788/kg (8,562kg/ha) in the subsoil.	Minor

5 Minimum Lot Size (MLS) Analysis

A minimum lot size analysis and modelling were completed to determine the maximum lot density suitable for subdivision on the Site.

5.1 Methodology

When considering the suitability for a lot to sustainably manage wastewater on-site, we typically refer to ‘available effluent management area’. This broadly refers to available areas (i.e. not built

out or used for a conflicting purpose) where OSMS will not be unduly constrained by site and soil characteristics. Available area on a developed a lot is determined by the following factors:

- total building area (including dwellings, sheds, pools etc.) which includes a defined building envelope but may extend beyond with additional improvements to a property, such as driveways and paths (impervious areas), and gardens/vegetated areas unsuitable for effluent reuse;
- dams, intermittent and permanent watercourses running through lots;
- maintenance of appropriate buffer distances from property boundaries, buildings, driveways and paths, dams and watercourses;
- flood prone land;
- excessive slope;
- excessively shallow soils;
- heavy (clay) soils with low permeability;
- excessively poor drainage, shallow groundwater and/or stormwater run-on; and
- excessive shading by vegetation.

The residual areas (areas not otherwise occupied by improvements, buffers, restrictions or conservation vegetation) were then calculated for the selected lots (Figure 4), and the available area compared to the wastewater envelope required.

5.2 MLS Buffer Distances

Buffer distances from EMAs are typically enforced to minimise risk to public health, maintain public amenity and protect sensitive environments. Generally, adopted environmental buffers for primary treated effluent land applied into absorption trenches/ beds based on DLG (1998) are:

- 250m from domestic groundwater bores;
- 100m from permanent watercourses;
- 40m from intermittent watercourses and dams;
- 12m from downslope property boundaries and 6m from upslope property boundaries; and
- 6m from downslope buildings and 3m from upslope buildings.

Secondary treatment further reduces the buffers to property boundaries to 6m from downslope boundaries and 3m from upslope boundaries.

In addition, ASNZS1547:2012 provides suggested buffer distances that include buffers to inground water tanks and swimming pools, cuttings and recreation areas. In the comparative lot assessment by EWC these additional land use situations were also buffered.

5.3 MLS Comparative Lots Assessed

Four, nearby R5 zoned, representative lots were selected that have already been subdivided (Table 3) (Figure 4).

Table 3: Comparative Lots Assessed

MLS No.	Lot	DP	Address	Lot Area (m^2)
MLS 1	6	841652	4 Casuarina Close Sandy Beach	3,000
MLS 2	11	1169460	6 Casuarina Close Sandy Beach	3,135
MLS 3	11	1178153	9 Emerald Heights Drive Emerald Beach	5,681
MLS 4	12	1178153	5 Emerald Heights Drive Emerald Beach	5,593

The properties typically included a dwelling, garage/shed, landscaped trees, shrubs and gardens, driveways, water tanks, and recreational space. This development style will be similar to that proposed for the Site and therefore minimum lot size and development potential should be consistent.

MLS Assessed Available EMA

Table 4 shows the assessment of available effluent management areas for each of the four lots. As is evident, the variability of lot sizes and on-lot improvements and restrictions of developed lots makes selection of a "typical" lot difficult, however comparison of the four lots with site and soil constraints at the Site indicates that lot size is a greater issue on the three comparative lots assessed than at the Site.

From the sample selection of lots investigated (**Table 4**), two of the lots are significantly smaller than the nominated minimum 5,000m^2 lot size, being 3,000-3,135m^2 (MLS 1 and 2) while MLS 3 and 4 are marginally larger than the nominated Lot size, being 5,593-5,681m^2.

In order to assess the required Effluent Management Area (EMA) footprint, the modelling for secondary treated effluent and subsurface irrigation was undertaken as required for Lot 2 on the Site. When considering the required EMA footprint for secondary treated effluent, all four of these MLS Lots have sufficient available effluent application area to accommodate the 630m^2 required.

Table 4: Minimum Lot Size Assessment Results

MLS No.	Lot Area (m^2)	Total Restricted Area (m^2)	Available Eff. Application Area (m^2)	Percent of Lot Available for Eff. Disposal (%)	>630m^2 Area Available for Secondary Treatment?
1	3,000	1,681	1,319	43	Yes
2	3,135	2,016	1,119	36	Yes
3	5,681	3,895	1,786	40	Yes
4	5,593	4,036	1,577	28	Yes

5.4 Discussion

A comparison of nearby properties suggests that:

- Percent of lot area available for effluent disposal is variable depending on site and soil constraints, ranging between 28-43%, equating t about 1,100-1,500m^2 available area for effluent land application;
- The larger lot size proposed on the Site compared to the adjacent lots will significantly increases the percentage of the lot available for effluent disposal;
- The minimum required 630m^2 footprint for application of secondary treated effluent is available on the assessed lots down to 3,000m^2.
- A minimum lot size of 5,000m^2 is considered suitable for the proposed subdivision of the Site.

6 Recommended OSMS Combination

Due to the cost of reticulated sewerage provision by Council, it is expected that the Site will not be sewered in the foreseeable future.

Based on the site and soil constraints and subdivision boundaries, the minimum treatment and land application combination selected for Proposed Lot 1 and 2 are:

- Lot 1 – given the size of the Lot and buffer restrictions, if a primary and reserve EMA are to be allocated to the proposed Lot 1, treatment to a secondary standard with subsurface application into an appropriately sized absorption bed field would be required; and
- Lot 2 – due to restrictions with vegetation and the water easement, treatment to a secondary level with subsurface absorption will be necessary. If vegetation removal is possible, treatment to a primary level and land application by subsurface absorption would be possible.

7 Effluent Management Areas

7.1 Design Hydraulic Load

7.1.1 Proposed Lot 1

The Client provided occupancy information on the childcare centre, including maximum four staff and 29 children five days per week (weekdays 7.30am to 5.30pm).

AS/NZS1547:2012 recommends that a wastewater generation load of 15-30L per person per day for staff and students at schools supplied by reticulated town water be used as a basis for wastewater system design.

The Client provided a year's worth of water meter readings from August 2020 to August 2021. The water rates demonstrate that the average usage for the centre is between 576L/day and 645L/day, equating to an average 18.3L/p/day. As such the average daily water consumption fits within the published 15-30L/p/day range. A value of 20L/p/day was adopted for modelling, providing an extra factor of safety in the model. Calculations are based on the following:

- Weekday peak occupancy through school term time. As it is unlikely that all 33 occupants will be present throughout this entire timeframe, this estimate is conservative;

- Shoulder season will have a reduced occupancy rate (conservatively estimated to be 75% of peak capacity), considered to be during school holiday season. This is calculated as being 10 weeks per year;
- Two weeks per year the centre is closed, during the Christmas and New Year period; and
- Weekends will have zero occupants year round.

A general assumption that water consumption equates to wastewater production, which is conservative as water wastage for garden watering, playground usage and outdoor taps would be expected to account for between 10-50% of the water consumption. The modelled wastewater generation values are presented in **Table 5** and **Graph 1**.

Table 5: Proposed Design Hydraulic Load for Lot 1

No. of Occupants	Season	Design Wastewater Load (L/day)
33	Normal Weekday	660
0	Normal Weekend	0
24.75	School Holidays Weekday	495
0	School Holidays Weekend	0
0	Christmas Weekday	0
0	Christmas Weekend	0

Graph 1: Modelled Wastewater Production

7.1.2 Proposed Lot 2

For hydraulic loading purposes a proposed dwelling of four bedrooms on reticulated town water was assumed for proposed Lot 2.

AS/NZS1547:2012 recommends that a wastewater generation load of 150L/p/day for households supplied by reticulated town water be used as a basis for wastewater system design. The design hydraulic loading for a four bedroom dwelling under full occupancy is presented in **Table 6Error! Reference source not found.**.

Table 6: Proposed Design Hydraulic Load for Lot 2

No. of Bedrooms	Design Wastewater Load (L/day)
4	900

7.2 Sizing of Effluent Management Areas

Water balance modelling was undertaken to determine sustainable effluent application rates, and from this estimate the necessary size of the EMA required for effluent to be applied from a secondary treatment system trench or beds. The procedures used in the water balance generally follow the *AS/NZS 1547:2012* standard and DLG (1998) Guideline. The water balance used is a monthly nominated area model. These calculations determined minimum EMAs for given effluent loads for each month of the year. The water balance can be expressed by the following equation:

Precipitation + Effluent Applied = Evapotranspiration + Percolation + Storage

Mean monthly rainfall data was conservatively utilised in the modelling. Mean data has a higher rainfall than median data typically adopted for domestic wastewater investigations. The water balance conservatively assumes a retained rainfall coefficient of 0.9; that is, generally 90% of rainfall will percolate into the soil and 10% will run off. Given the slopes and groundcover at the Site this is considered a conservative value. The rainfall hydraulic load is incorporated into the water balance to ensure that runoff from the EMA will not occur under typical (design) climate conditions.

The modelling input data for secondary treated wastewater and land application into a trench are presented in Table 7, and calculation sheets included in Appendix C.

A conservative nutrient balance was also undertaken, which calculates the minimum buffer around a trench or bed to enable nutrients to be assimilated by the soils and vegetation. The nutrient balance used here is based on the simplistic DLG (1998) methodology, but improves this by more accurately accounting for natural nutrient cycles and processes. It acknowledges that a proportion of nitrogen will be retained in the soil through processes such as ammonification (the conversion of organic nitrogen to ammonia) and a certain amount will be lost by denitrification, microbial digestion and volatilisation (Patterson, 2003). Patterson (2002) estimates that these processes may account for up to 40% of total nitrogen loss from soil. In this case, a more conservative estimate of 20% is adopted for the nitrogen losses due to soil processes. A summary of the nutrient balance is provided in Table 7.

Table 7: Inputs for Secondary Treatment Modelling

Data Parameter	Units	Value	Comments
Hydraulic load	L/day	495-600 900	33 persons usage at childcare 6 persons occupancy at residence.
Precipitation	mm/month	Woolgoolga	BoM, mean monthly.
Pan Evaporation	mm/month	Coffs Harbour MO	BoM, mean monthly.
Retained rainfall	unitless	0.9	Proportion of rainfall that remains onsite and infiltrates the soil, allowing for 10% runoff.
Crop Factor	unitless	0.6-0.8	Expected annual range for vegetation based on monthly values.
Design Loading Rate (DLR) - Secondary	mm/day	12	Maximum rate for design purposes, based on strongly structured light clay subsoils.
Effluent total nitrogen concentration	mg/L	30	Target effluent quality for secondary treatment systems.
Nitrogen lost to soil processes (denitrification and volatilisation)	annual percentage	20	Patterson (2002).
Effluent total phosphorus concentration	mg/L	10	Target effluent quality for primary treatment systems.
Soil phosphorus sorption capacity	mg/kg	8,526	Value based on soil testing.
Nitrogen uptake rate by plants	kg/Ha/yr	250	Conservative estimated value.
Phosphorus uptake rate by plants	kg/Ha/yr	25	Conservative estimated value.
Design life of system (for nutrient management)	years	50	Reasonable minimum service life for system.

Table 8: Hydraulic Sizing for Secondary Treatment Modelling – Lot 1

Hydraulic Loading (m^2)	Area (m^2)
Minimum primary treatment trench/ bed basal area for hydraulic load (m2)	$42m^2$ ($95m^2$ absorption trench field footprint)
Minimum primary treatment trench/ bed area for total phosphorus load, without off-site export	$150m^2$
Minimum primary treatment trench/ bed area for total nitrogen load, without off-site export	$103m^2$

Based on monthly water balance calculations, a default/primary EMA and reserve EMA of $150m^2$ each have been nominated for the existing childcare centre on proposed Lot 1. The locations of the EMAs are shown in Figure 5 and Figure 6.

Table 9: Hydraulic Sizing for Secondary Treatment Modelling – Lot 2

Hydraulic Loading (m^2)	Area (m^2)
Minimum primary treatment trench/ bed basal area for hydraulic load (m2)	$79m^2$ ($178m^2$ absorption trench field footprint)
Minimum primary treatment trench/ bed area for total phosphorus load, without off-site export	$258m^2$
Minimum primary treatment trench/ bed area for total nitrogen load, without off-site export	$315m^2$

Based on modelling a primary and reserve EMA of $315m^2$ each have been nominated for a four bedroom dwelling for Proposed Lot 2. The proposed locations of the EMA is shown on Figure 5.

The actual size and configuration of the EMAs will be dependent on a wastewater management plan at the time of dwelling development planning and application to install or upgrade an OSMS.

8 Lot 1 Recommended OSMS Upgrade

8.1 Treatment System

Based on the monthly average and peak wastewater generation, and the proposed lot site and soil constraints, it is recommended that a NSW health accredited Aerated Wastewater Treatment System (AWTS) capable of treating 1,500L/day be installed.

Wastewater polishing and disinfection from the AWTS will provide an improved effluent quality for additional factor of safety in case of unplanned failure of the upgrade EMA.

The existing septic tank is to be decommissioned in accordance with NSW Health requirements.

A pumpwell will be required for transfer of wastewater from the AWTS to the absorption bed field, which is uphill of the treatment tank. Pump irrigation calculations (Appendix D) suggest a Claytech 30 submersible pump would provide sufficient head for orifice pressurisation.

8.2 Land Application System Specification

The absorption bed field should be constructed in general accordance with Appendix L of AS/NZS1547:2012. A schematic of absorption bed design is included in Fig 7 and arrangement in Figure 6. The application area will consist of:

- Equal distribution to absorption beds using an indexing valve (K-Rain or similar) with four outlets;
- Construction of four pressured dosed beds 11.7m long and 0.9m in wide, 0.6m deep;
- Gypsum should be applied to the base of the bed before backfilling to offset the acidic soil characteristics. The recommended application rate for gypsum is 0.5kg/m2. Lime should be incorporated into topsoils during filling to stimulate healthy grass growth;
- Excess stormwater will be prevented from running onto the EMA by construction of an upslope stormwater diversion berm;

- The application system should be installed by a plumber experienced in wastewater applications, ensuring that effluent is distributed evenly across the entire area serviced; and
- Access to the EMA after construction by vehicles should be restricted. Limited access for mowing only is recommended.

9 Buffers

Buffer distances or setbacks from EMAs are required to minimise risk to public health, maintain public amenity and protect sensitive environments. The buffers from DLG (1998) are presented in 10 below.

Table 10: Available Buffers

Site Feature	DLG (1998) Buffer	Achievable?
Intermittent watercourses, drainage channels and dams	40m	**Yes**
Permanent waterways	100m	**Yes**
Domestic groundwater bore	250m	**Yes**
Property boundary	Secondary - 3m downslope and sideslope, 6m upslope	**Yes**
Driveway and building	6m downslope of / 3m upslope	**Yes**

10 Conclusions & Recommendations

Having undertaken a land capability assessment for the proposed subdivision of 35 Saye Close Sandy Beach, EWC consider that there is the opportunity for the sustainable application of wastewater following subdivision of the existing lot into Proposed Lots 1-2.

We recommend that:

- A minimum lot size of 5,000m^2 is suitable for the subdivision to allow for all reasonable development configurations (dwelling, shed, swimming pool, recreation areas, driveways etc) and sustainable wastewater application;
- Proposed Lot 1 – The existing OSMS is to be decommissioned and a new AWTS and absorption bed field is to be installed to service the existing childcare facility. A NSW health accredited AWTS is to replace the existing septic tank, and four (4) pressure dosed absorption beds 11.7m long, 0.9m wide and 0.6m deep are to be installed in the location recommended in Figure 6. Additionally, a reserve EMA of 150m^2 has been allocated to the proposed Lot;
- Proposed Lot 2 - Wastewater be treated to a secondary level with subsurface soil absorption land application. A primary and reserve EMA of 315m^2 minimum each has been nominated for a four bedroom dwelling, with final details to be confirmed during application for individual dwelling construction. F or any future system we recommend that a dwelling specific OSMS should be designed by an experienced professional, taking into account the assumptions and recommendations contained in this report; and

We also recommend that any OSMS be installed by a suitably qualified plumber, ensuring that effluent is distributed evenly across the entire area serviced.

11 References

Coffs Harbour City Council (2015) *On-site Sewage Management Strategy 2015*, Coffs Harbour.

Department of Local Government et al. (1998). *Environment & Health Protection Guidelines: On-site Sewage Management for Single Households*.

Milford, H. B., (1999) *Soil Landscapes of the Coffs Harbour 1:100 000 Sheet*, Department of Land and Water Conservation Soil Landscape Series.

Patterson, R.A. (2002). *'Workshop 2 – Calculations for Nutrient Balances.' In Evaluating Site and Soil Assessment Reports for On-site Wastewater Systems*. A one-day training course held in Fairfield, Sydney. Centre for Environment Training, Cardiff Heights NSW. March 2002.

Patterson, R.A. (2003). *Nitrogen in Wastewater and its Role in Constraining On-Site Planning*. In Patterson & Jones (Eds.) Proceedings of On-site '03 Conference: *Future Directions for On-site Systems: Best Management Practice*. Lanfax Laboratories, Armidale.

Standards Australia / Standards New Zealand (2012*). AS/NZS 1547:2012 On-site Domestic-wastewater Management*.

FIGURES

0 50 100 150

Horizontal Scale (metres) 1:3000

EARTH WATER CONSULTING

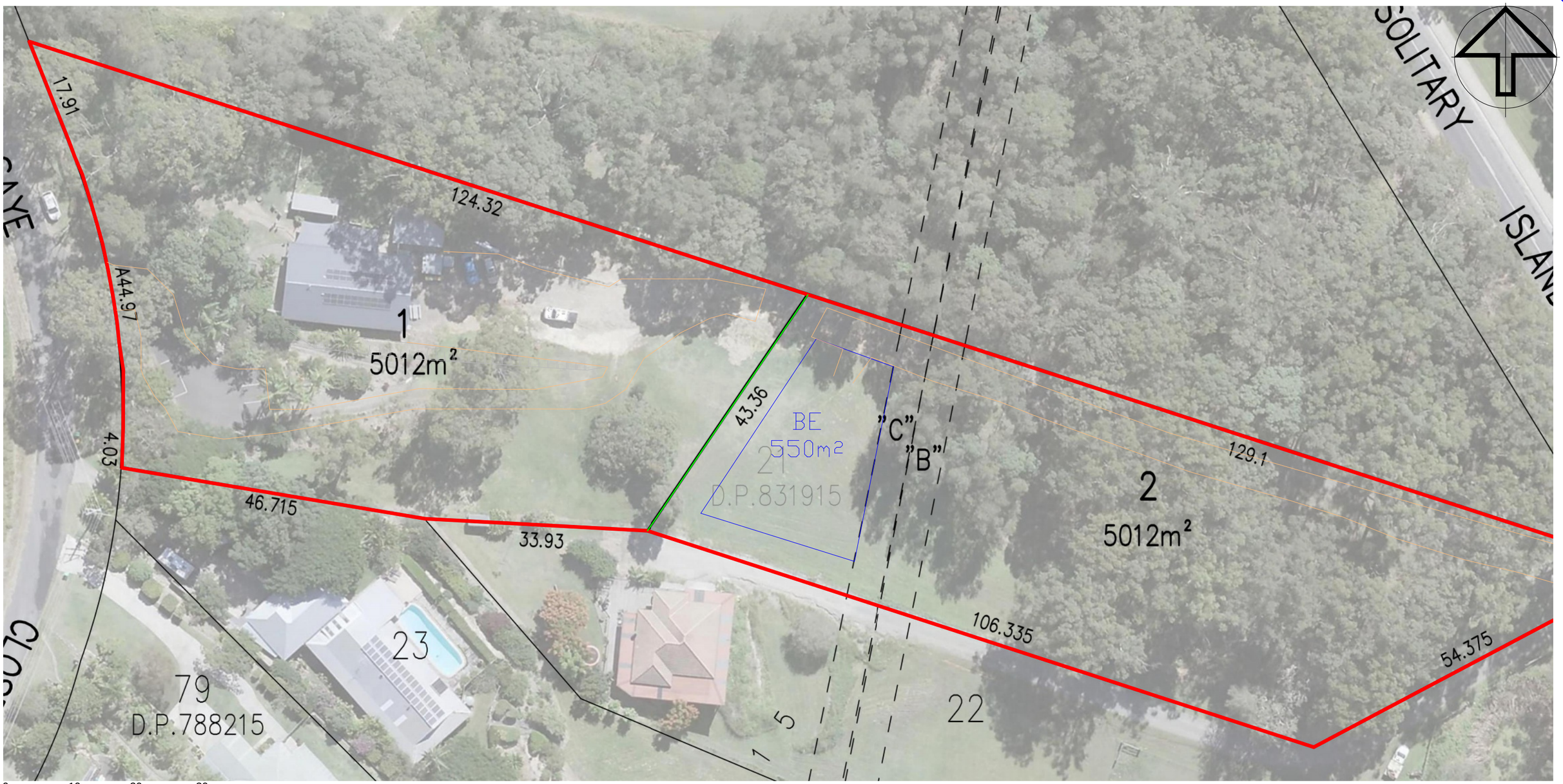
LEGEND

Property Boundary

Contour (10m)

Drainage Alignment

TITLE: Site Location			PROJECT: LCA for 35 Saye Close Sandy Beach		CLIENT: Brett Chapman
FIGURE: Figure 1					
SHEET: 1 OF 1	ISSUE: A	AUTHOR: SD	DATE: 8/12/21	SCALE: 1:3000	PROJECT: 2122-027



0 10 20 30

Horizontal Scale (metres) 1:600

EARTH WATER CONSULTING

LEGEND

- Property Boundary
- Subdivison Boundary
- Proposed Building Envelope

TITLE: Proposed Development Layout			FIGURE: Figure 2
			SHEET: 1 OF1 ISSUE: A
PROJECT: LCA for 35 Saye Close Sandy Beach			CLIENT: Brett Chapman
AUTHOR: SD	DATE: 8/12/21	SCALE: 1:600	PROJECT: 2122-027

0 10 20 30

Horizontal Scale (metres) 1:500

EARTH WATER CONSULTING

LEGEND

- Property Boundary
- Proposed Subdivision Boundary
- Proposed Building Envelope
- Drainage Alignment
- Existing Building
- Existing OSMS
- Contour Line (1m)
- Slope % Slope Direction and Extent
- Approximate Borehole Location

TITLE: Existing Site Layout			FIGURE: Figure 3
			SHEET: 1 OF1 ISSUE: A
PROJECT: LCA for 35 Saye Close Sandy Beach			CLIENT: Brett Chapman
AUTHOR: SD	DATE: 8/12/21	SCALE: 1:500	PROJECT: 2122-027

Inset A - 5 & 9 Emerald Heights Drive, Emerald Beach

Inset B - 4 & 6 Casuarina Close Emerald Beach

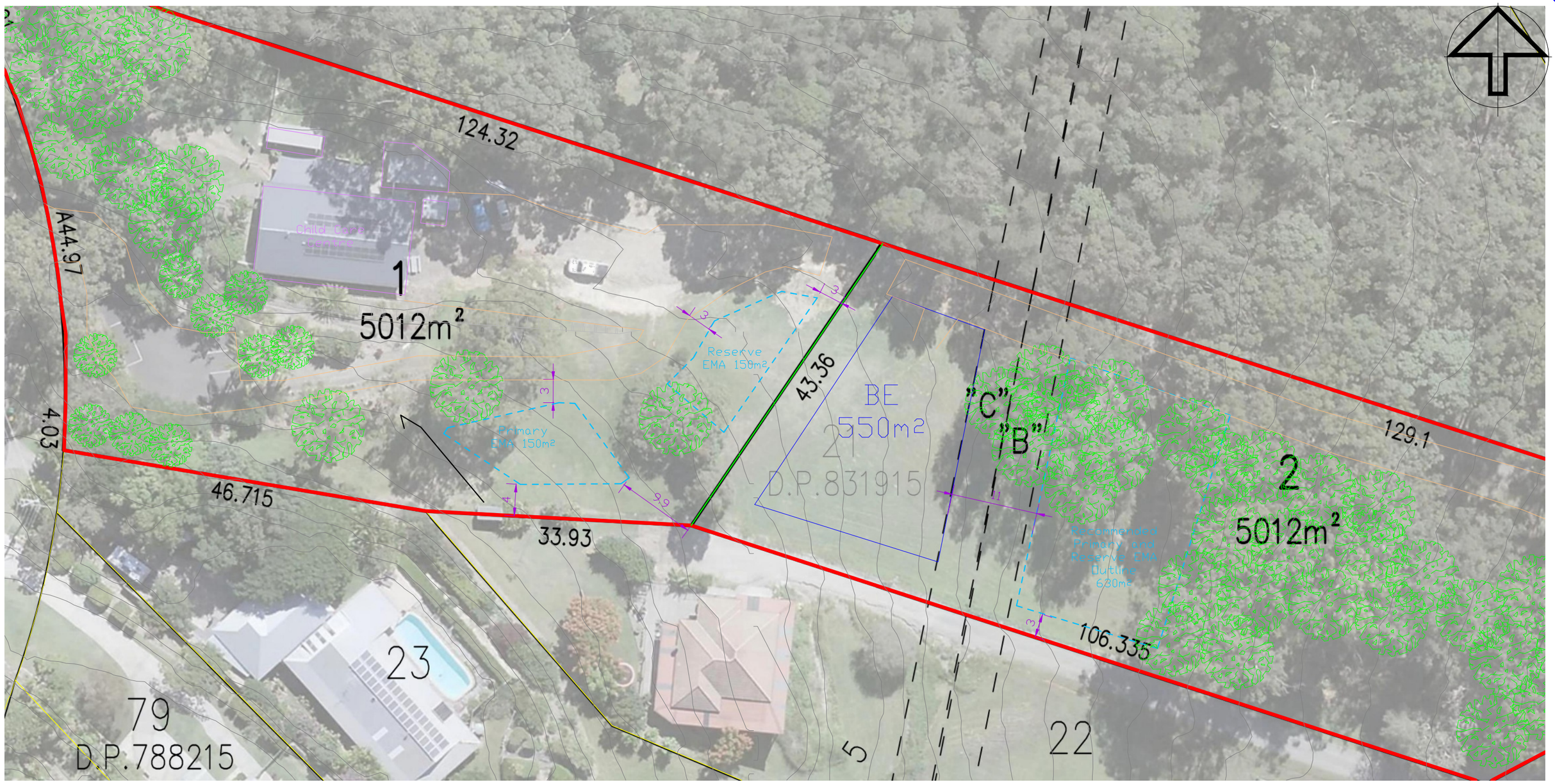
0 20 30 40

Horizontal Scale (metres) 1:1000

LEGEND

- Property Boundary
- Adjacent Lot
- EMA Restricted Area
- EMA Available Area

TITLE: Comparative Lot Size Constraints			FIGURE: Figure 4
			SHEET: 1 OF1 ISSUE: A
PROJECT: LCA for 35 Saye Close Sandy Beach			CLIENT: Brett Chapman
AUTHOR: SD	DATE: 8/12/21	SCALE: 1:2000	PROJECT: 2122-027



0 10 20 30

Horizontal Scale (metres) 1:500

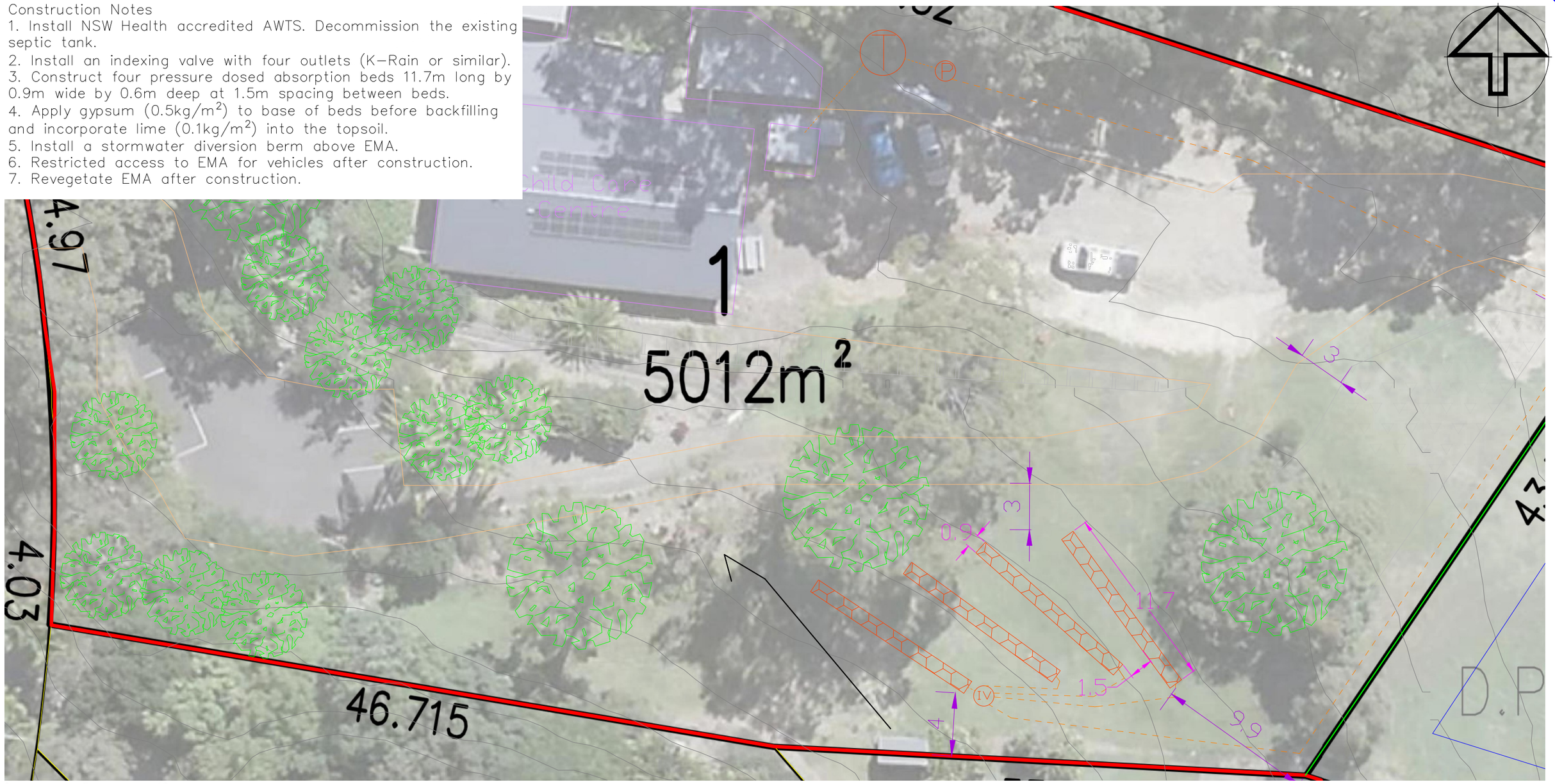
EARTH WATER CONSULTING

LEGEND

- Property Boundary
- Proposed Subdivision Boundary
- Proposed Building Envelope
- Recommended EMA Outline

TITLE: Recommended Effluent Management Areas			FIGURE: Figure 5
			SHEET: 1 OF1 ISSUE: A
PROJECT: LCA for 35 Saye Close Sandy Beach			CLIENT: Brett Chapman
AUTHOR: SD	DATE: 8/12/21	SCALE: 1:500	PROJECT: 2122-027

Construction Notes
1. Install NSW Health accredited AWTS. Decommission the existing septic tank.
2. Install an indexing valve with four outlets (K–Rain or similar).
3. Construct four pressure dosed absorption beds 11.7m long by 0.9m wide by 0.6m deep at 1.5m spacing between beds.
4. Apply gypsum (0.5kg/m^2) to base of beds before backfilling and incorporate lime (0.1kg/m^2) into the topsoil.
5. Install a stormwater diversion berm above EMA.
6. Restricted access to EMA for vehicles after construction.
7. Revegetate EMA after construction.



0 5 10
Horizontal Scale (metres) 1:250

LEGEND
- Property Boundary
- Contour Line (1m)
- Existing Building
- Recommended Treatment Tank
- Recommended Primary EMA
- Recommended Reserve EMA
- Indexing Valve
- Plumbing Pipework
- Stormwater Diversion Berm
- 10.3 Buffer

EARTH WATER CONSULTING

TITLE: Recommended On-Site Sewage Management System			FIGURE: Figure 6
			SHEET: 1 OF1 ISSUE: A
PROJECT: LCA for Lot 1 35 Saye Close Sandy Beach			CLIENT: Brett Chapman
AUTHOR: SD	DATE: 8/12/21	SCALE: 1:250	PROJECT: 2122-027

Pressurised Bed Construction

A The base of the bed must be level to ensure even distribution of effluent (check with a dumpy / laser level).

B 25-32mm uPVC PN9 pipe with 6mm holes drilled (deburred) at 400mm centres.

C 90-100mm slotted PVC pipe or ag-drain pipe shroud. Closed at the ends to limit bypass.

D 20-40mm distribution aggregate.

E Geotextile filter cloth.

F 100mm Clean local or imported topsoil (sandy loam to clay loam).

G Grass must be established across the bed as soon as possible.

H Inspection port one per bed. Made from 50-100mm PVC pipe with perforations in the aggregate level of the bed.

I Individual flush points for each lateral. May be a screw cap fitting on a 90 -degree elbow level with the surface or a pressure controlled flush valve (such as those used for subsurface irrigation systems) inside an irrigation control box.

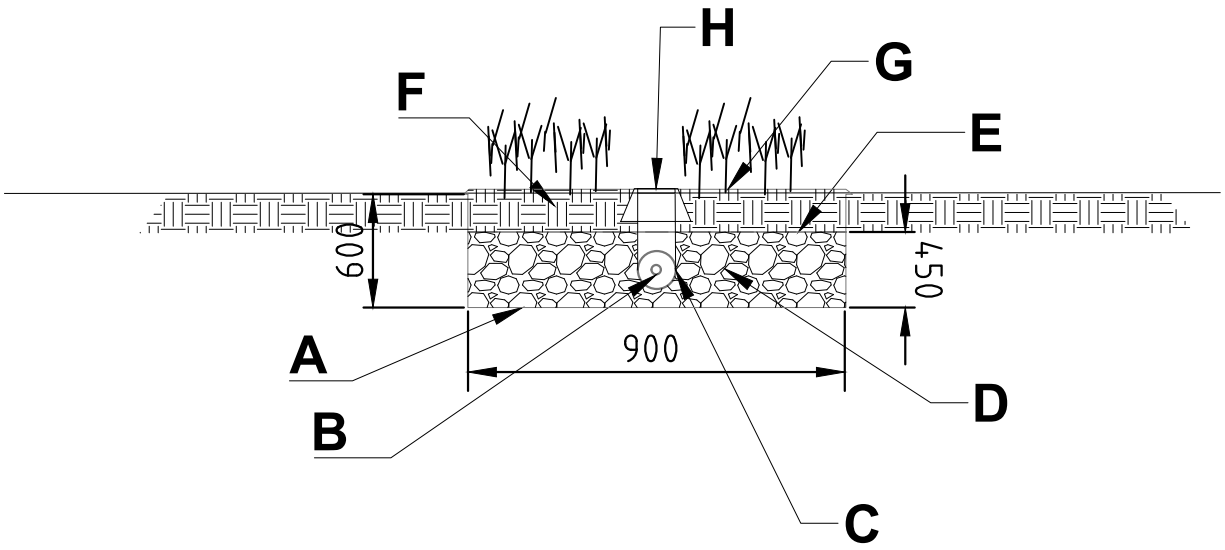
J Pump dosed effluent from treatment system. The pump must be capable of delivering the total flow rate required for all laterals whilst providing a 1.5m residual head (i.e. squirt height) at the highest orifice (with no more than 15% variation in squirt height across the whole bed). A flow rate of about 4 L/min/lineal metre is assumed.

K Upslope stormwater diversion drain.

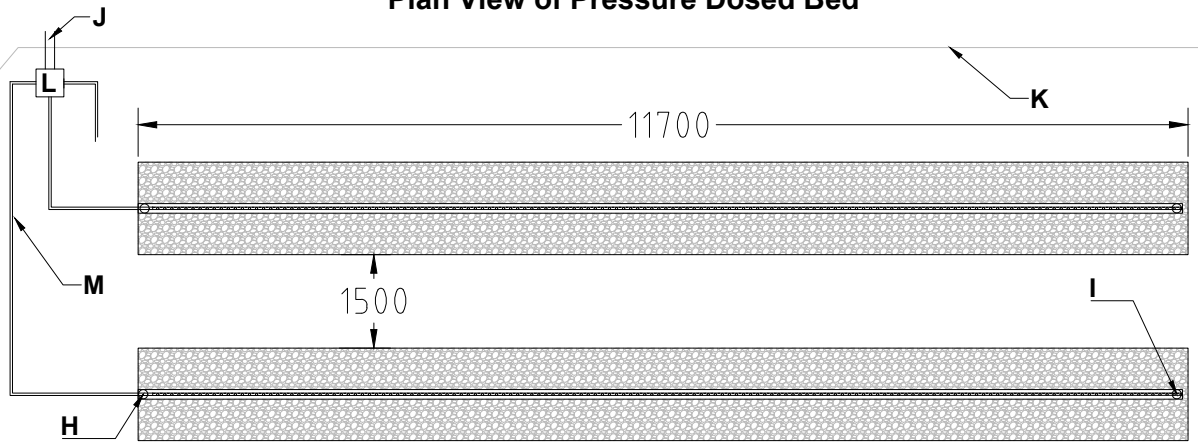
L Indexing valve.

M 25-32mm polyethylene or PVC dosing manifold.

Cross-Section of Bed



Plan View of Pressure Dosed Bed



TITLE: Pressure Absorption Bed Schematic			PROJECT: WWMP for Lot 1 35 Saye Close Sandy Beach		CLIENT: Brett Chapman
FIGURE: Figure 5					
SHEET: 1 OF 1	ISSUE: A	AUTHOR: SD	DATE: 14/12/21	SCALE: NTS	PROJECT: 2122-027

APPENDIX A

Soil Borelog

Borehole No:	**BH1**
Logged by:	AS
Drilling date:	8/11/2021
Drilling method:	Power Auger
Borehole location:	Figure 2
Borehole coords:	518010, 6663991

Project ref:	2122-027
Client:	Keiley Hunter
Address:	35 Saye Close Sandy Beach

PROFILE DESCRIPTION

Depth (m)	Sampling depth/name	Graphic Log	Horizon	Texture	Structure	Colour	Mottles	Coarse Fragments	Moisture Condition	Comments
0.1			A1	Clay Loam	Strong	Grey Black	Red and Orange	< 5%	M	Topsoil Hard red fragments
0.2										
0.3										
0.4			B1	Light Clay	Strong	Grey Yellow	Orange	< 5%	VM	Residual
0.5										
0.6	S		B2	Light Clay	Strong	White and Grey	Yellow	Nil	VM	Residual
0.7										
0.8										
0.9										
1.0										
1.1			B3	Medium Clay	Moderate	Yellow	Nil	Nil	SM	Sandy
1.2			Borehole refusal at 1.1m on XW Bedrock							
1.3										
1.4										
1.5										

Moisture condition

D	Dry	M	Moist	W	Wet / saturated
SM	Slightly moist	VM	Very moist		

Soil Borelog

Borehole No:	**BH2**
Logged by:	SD
Drilling date:	12/11/2021
Drilling method:	Power Auger
Borehole location:	Figure 2
Borehole coords:	517953, 6663984

Project ref:	2122-027
Client:	Keiley Hunter
Address:	35 Saye Close Sandy Beach

PROFILE DESCRIPTION Large emergent cutting soil examination.

Depth (m)	Sampling depth/name	Graphic Log	Horizon	Texture	Structure	Colour	Mottles	Coarse Fragments	Moisture Condition	Comments
0.1			A1	Clay Loam	Strong	Dark Brown	Red and Orange	< 5%	M	Topsoil Hard red fragments
0.2										
0.3				Clay Loam	Strong	Pale Brown	Red and Orange	< 5%	M	Transferral
0.4										
0.5			B1	Light Clay	Strong	Pale Orange Brown			SM	Residual
0.6										
0.7	S									
0.8										
0.9										
1.0										
1.1										
1.2					Borehole refusal at 1.1m on XW Bedrock					
1.3										
1.4										
1.5										

Moisture condition

D	Dry	M	Moist	W	Wet / saturated
SM	Slightly moist	VM	Very moist		

Soil Borelog

Borehole No:	**C-1**
Logged by:	SD
Drilling date:	12/11/2021
Drilling method:	Power Auger
Borehole location:	Figure 2
Borehole coords:	517965, 6664002

Project ref:	2122-027
Client:	Keiley Hunter
Address:	35 Saye Close Sandy Beach

PROFILE DESCRIPTION Large emergent cutting soil examination.

Depth (m)	Sampling depth/name	Graphic Log	Horizon	Texture	Structure	Colour	Mottles	Coarse Fragments	Moisture Condition	Comments
0.1			A1	Clay Loam	Strong	Dark Brown	Red and Orange	< 5%	M	Topsoil Hard red fragments
0.2										
0.3				Clay Loam	Strong	Pale Brown	Red and Orange	< 5%	M	Transferral
0.4										
0.5			B1	Light Clay	Strong	Pale Orange Brown			SM	Residual
0.6										
0.7	S									
0.8										
0.9										
1.0										
1.1										
1.2			B2	Extremely Weathered Bedrock		Grading to Highly Weathered Bedrock				up to 700mm XWB grading to HWB
1.3										
1.4										
1.5										

Moisture condition

D	Dry	M	Moist	W	Wet / saturated
SM	Slightly moist	VM	Very moist		

APPENDIX B

WASTEWATER DISPOSAL SOIL ASSESSMENT

1 sample supplied by Earth Water Consulting Pty Limited on 16/11/2021 - Lab Job No. M3542
Analysis requested by Strider Duerinckx. - **Customer Reference: 2122-027**
PO Box 50 BELLINGEN NSW 2454

	SAMPLE 1 BH1 400-700mm
Job No.	*M3542/1*
Description	Medium Clay
Moisture Content (% moisture)	21
Emerson Aggregate Stability Test (SAR 5 Solution) note 12	EAST Class *3/6, Slake 2[see note 12]
Soil pH (1:5 $CaCl_2$)	4.40
Soil Conductivity (1:5 water dS/m)	0.087
Soil Conductivity (as EC_e dS/m)[note 10]	0.748
Native NaOH Phosphorus (mg/kg P)	6.40
Residual phosphorus remaining in solution from the initial phosphate phosphorus	
Initial Phosphorus concentration (ppm P)	**28.0**
72 hour - 3 Day (ppm P)	14.21
120 hour - 5 Day (ppm P)	13.55
168 hour - 7 Day (ppm P)	13.08
Equilibrium Phosphorus (ppm P)	12.32
EXCHANGEABLE CATIONS	
Calcium ($cmol_+$/kg)	1.13
Magnesium ($cmol_+$/kg)	5.33
Potassium ($cmol_+$/kg)	0.22
Sodium ($cmol_+$/kg)	0.54
Aluminium ($cmol_+$/kg)	1.12
Hydrogen ($cmol_+$/kg)	1.17
ECEC (effective cation exchange capacity)($cmol_+$/kg)	9.5
Exchangeable Calcium %	11.8
Exchangeable Magnesium %	56.0
Exchangeable Potassium %	2.3
Exchangeable Sodium % (ESP)	5.7
Exchangeable Aluminium %	11.8
Exchangeable Hydrogen %	12.3
Calcium/ Magnesium Ratio	0.21

Notes:

1: ECEC = Effective Cation Exchange Capacity = sum of the exchangeable Mg, Ca, Na, K, H and Al

2: Exchangeable bases determined using standard Ammonium Acetate extract (Method 15D3) with no pretreatment for soluble salts. When Conductivity ≥0.25 dS/m soluble salts are removed (Method 15E2).

3. ppm = mg/kg dried soil
4. Insitu P determined using 0.1 M NaOH and shaking for 24 h before determining phosphate
5. Soils were crushed using a ceramic grinding head and mill; five 1 g subsamples of each soil were used to which 40 mL of 0.1 M NaCl with 30 ppm phosphorus was added to each. The samples were shaken on an orbital shaker
6. Exchangeable sodium percentage (ESP) is calculated as sodium ($cmol_+$/kg) divided by ECEC
7. All results as dry weight DW - soils were dried at 60°C for 48 h prior to crushing and analysis.
8. Phosphorus Capacity method from Ryden and Pratt, 1980.
9. Aluminium detection limit is 0.05 $cmol_+$/kg; Hydrogen detection limit is 0.1 $cmol_+$/kg. However for calculation purposes a value of 0 is used.
10. For conductivity 1 dS/m = 1 mS/cm = 1000 µS/cm; EC_e conversions: sand loam 14, loam 9.5; clay loam 8.6; heavy clay 5.8
11. 1 $cmol_+$/kg = 1 meq/100g
12. Emerson Aggregate Stability Test (EAST) for Wastewater applications (see Sheet 3 - Patterson, 2015). EAST Class 1: Slaking, complete dispersion; Class 2: Slaking, some dispersion; Class 3-6*: Slaking 1 slight to 3 complete, No dispersion; Class 7: No slaking, yes swelling; Class 8: No slaking, no swelling.
13. Analysis conducted between sample arrival date and reporting date.
14. .. Denotes not requested.
15. This report is not to be reproduced except in full.
16. All services undertaken by EAL are covered by the EAL Laboratory Services Terms and Conditions (refer scu.edu.au/eal or on request).
17. This report was issued on XX

NATA
WORLD RECOGNISED ACCREDITATION
Accreditation No. 14960
Accredited for compliance with ISO/IEC 17025 - Testing

Checked:.....

PHOSPHORUS SORPTION TRIAL

1 sample supplied by Earth Water Consulting Pty Limited on 16/11/2021 - Lab Job No. M3542

Analysis requested by Strider Duerinckx. - Customer Reference: 2122-027

PO Box 50 BELLINGEN NSW 2454

Calculations for Equilibrium Absorption Maximum for Soil provided

I.D.	JOB NO.	Equilibrium P mg P/L (in solution)	Added P mg P/L	P Sorb at Equil. mg P/kg	Native P mg P/kg	Equilibrium P Sorption Level µg P/g soil	Divide Θ (from Table)	Equilibrium Absorption Maximum (B) µg P/g soil
BH1 400-700mm	**M3542/1**	12.3	28.02	628	6	634	0.80	**788**

Calculations for phosphorus sorption capacity

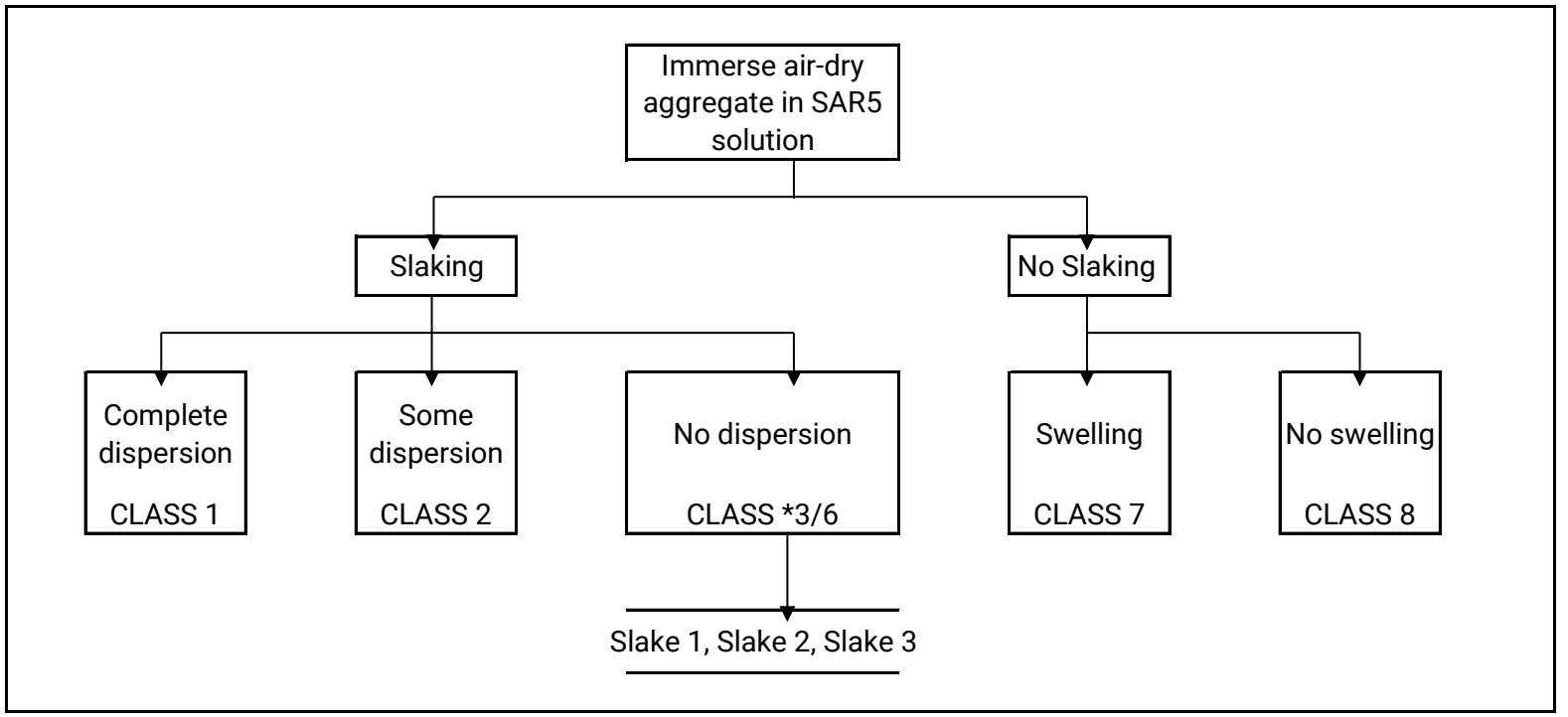
	JOB NO.	Equilibrium Absorption Maximum (B) µg P/g soil	multiply by theta of wastewater to be applie (=X)	minus the native P (=Y)	**kg P sorption / hectare (to a depth of 15 cm)** (1.95 is a correction factor for density, etc)	**kg P sorption / hectare (to a depth of 100 cm)** (1.95 is a correction factor for density, etc)
BH1 400-700mm	*M3542/1*	788	(=B x theta)	(=X -native P)	(=Y x 1.95)	(=Y x 1.95 x 100/15)

EXAMPLE 1 - Calculations for phosphorus sorption capacity using a wastewater phosphorus of 15 mg/L P

	JOB NO.	Equilibrium Absorption Maximum (B) µg P/g soil	multiply by theta of wastewater to be applie (ie. 0.84)	minus the native P (=Y)	**kg P sorption / hectare (to a depth of 15 cm)** (1.95 is a correction factor for density, etc)	**kg P sorption / hectare (to a depth of 100 cm)** (1.95 is a correction factor for density, etc)
BH1 400-700mm	*M3542/1*	788	662	656	**1,279**	**8,526**

Checked:.....

Emerson Aggregate Stability Test for Wastewater



CLASS 1 : severe dispersion, maybe related to high sodicity which forces the clay particles apart in water. Amerlioration with lime or gypsum may improve structural stability by increasing EC. Class 1 soils have a major limitation to wastewater application because of reduced permeability and potential to compact as the pores block.

CLASS 2 : moderate dispersion, maybe related to high sodicity. Amelioration may be effective by increasing EC. Without amelioration, this class has a major limitation to wastewater application as for Class 1.

CLASS *3/6 : remoulding, and 1:5 soil:water suspension tests are irrelevant to wastewater assessment, but can be reported as Slake 1 (slight), Slake 2 (moderate) or slake 3 (completely slumped). Slake 1,2 or 3 - no limitation to wastewater application, but may benefit from additional organic matter fr surface irrigated soils.

CLASS 7 : these soils are water stable, but may swell. There is no limitation to wastewater application.

CLASS 8 : these soils retain their original size and shape. There is no limitation to wastewater application.

Method reference: Patterson, R. 2015. *Emerson aggregate stability test for wastewater.* Lanfax Laboratories: Armidale.

APPENDIX C

Nominated Area Water Balance & Storage Calculations

Site Address: **35 Saye Close Childcare Centre**

Proj Ref: 2122-027

Notes:

Flow Allowance			l/p/d
No. of bedrooms			bdr
Occupancy			p/room
Design Wastewater Flow	Q		L/day
Daily DLR		12.0	mm/day
Crop Factor	C	0.6-0.8	unitless
Retained Rainfall Coefficient	RRc	0.8	untiless
Void Space Ratio	V	0.3	unitless
Nominated Land Application Area	N	42	sqm
Trench/Bed wetted thickness	Ww	0.15	m
Rainfall Data	Woolgoolga Rainfall Data (monthly median)		
Evaporation Data	Coffs Harbour MO- Average		

Design Wastewater Flow	Q			341	471	490	407	468	484	394	490	484	394	484	255

Parameter	Symbol	Formula	Units	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Days in month	D	\	days	31	28	31	30	31	30	31	31	30	31	30	31	**365**
Median Rainfall	R	\	mm/month	129.5	150.9	172.3	122.8	106.9	85.4	54.2	47.4	48.5	72.7	92.8	106.6	1449.8
Average Evaporation	E	\	mm/month	192.2	156.8	148.8	117	86.8	69	77.5	105.4	135	161.2	171	192.2	**0**
Crop Factor	C			0.80	0.80	0.80	0.70	0.70	0.60	0.60	0.60	0.70	0.70	0.80	0.80	
OUTPUTS																
Evapotranspiration	ET	ExC	mm/month	154	125	119	82	61	41	47	63	95	113	137	154	**1189.94**
Percolation	B	DLRxD	mm/month	372.0	336	372.0	360.0	372.0	360.0	372.0	372.0	360.0	372.0	360.0	372.0	**4380.0**
Outputs		ET+B	mm/month	525.8	461.44	491.0	441.9	432.8	401.4	418.5	435.2	454.5	484.8	496.8	525.8	**5569.9**
INPUTS																
Retained Rainfall	RR	R*RRc	mm/month	103.6	120.72	137.84	98.24	85.52	68.32	43.36	37.92	38.8	58.16	74.24	85.28	**952**
Effluent Irrigation	W	(QxD)/L	mm/month	251.4	314.3	361.4	290.7	345.7	345.7	290.7	361.4	345.7	290.7	345.7	188.6	**3732.1**
Inputs		RR+W	mm/month	355.0	435.0	499.3	389.0	431.2	414.0	334.1	399.3	384.5	348.9	420.0	273.9	**4684.1**
STORAGE CALCULATION																
Storage remaining from previous month			mm/month		0.0	0.0	27.4	0.0	0.0	42.1	0.0	0.0	0.0	0.0	0.0	
Storage for the month	S	(RR+W)-(ET+B)	mm/month	-569.1	-88.1	27.4	-176.5	-5.1	42.1	-281.4	-119.6	-233.3	-453.2	-256.2	-839.7	**-601.2**
Cumulative Storage	M		mm	0.0	0.0	27.4	0.0	0.0	42.1	0.0	0.0	0.0	0.0	0.0	0.0	**69.5**
Maximum Bed Storage Depth for Area	BS		mm	**42.11**	Is the calculated storage acceptable?			Yes, storage is conservative								

Nominated trench width	0.9	
Total length based on nominated width	46.7	
No. of beds	4	
Individual bed lengths	11.7	
Individual Bed footprints	10.5	
Spacing between beds	1.5	
Total bed area	95	
Nutrient uptake zone	190	2m buffer nutrient uptake allowance

Nutrient Balance

Site Address:

35 Saye Close Childcare Centre

Please read the attached notes before using this spreadsheet.

SUMMARY - LAND APPLICATION AREA REQUIRED BASED ON THE MOST LIMITING BALANCE = **150 m^2**

INPUT DATA [1]

Wastewater Loading			Nutrient Crop Uptake					
Hydraulic Load	**429**	L/Day	Crop N Uptake	**250**	kg/ha/yr	which equals	**68**	$mg/m^2/day$
Effluent N Concentration	**30**	mg/L	Crop P Uptake	**25**	kg/ha/yr	which equals	**7**	$mg/m^2/day$
% Lost to Soil Processes (Geary & Gardner 1996)	**0.2**	Decimal	**Phosphorus Sorption**					
Total N Loss to Soil	**2577**	mg/day	P-sorption result	**609**	mg/kg	which equals	**8526**	kg/ha
Remaining N Load after soil loss	**10307**	mg/day	Bulk Density	**1.4**	g/cm^2			
Effluent P Concentration	**10**	mg/L	Depth of Soil	**1**	m			
Design Life of System	**50**	yrs	% of Predicted P-sorp. [2]	**0.75**	Decimal			

METHOD 1: NUTRIENT BALANCE BASED ON ANNUAL CROP UPTAKE RATES

Minimum Area required with zero buffer		
Nitrogen	**150**	m^2
Phosphorus	**103**	m^2

Determination of Buffer Zone Size for a Nominated Land Application Area (LAA)		
Nominated LAA Size	**150**	m^2
Predicted N Export from LAA	**0.01**	kg/year
Predicted P Export from LAA	**-0.73**	kg/year
Phosphorus Longevity for LAA	**80**	Years
Minimum Buffer Required for excess nutrient	**0**	m^2

PHOSPHORUS BALANCE

STEP 1: Using the nominated LAA Size

Nominated LAA Size	**150**	m^2				
Daily P Load	0.00429452	kg/day	→	Phosphorus generated over life of system	78.375	kg
Daily Uptake	0.0010274	kg/day	→	Phosphorus vegetative uptake for life of system	0.125	kg/m^2
Measured p-sorption capacity	0.8526	kg/m^2				
Assumed p-sorption capacity	0.639	kg/m^2	→	Phosphorus adsorbed in 50 years	0.639	kg/m^2
Site P-sorption capacity	95.92	kg	→	Desired Annual P Application Rate	2.293	kg/year
				which equals	0.00628	kg/day
P-load to be sorbed	1.19	kg/year				

NOTES

[1]. Model sensitivity to input parameters will affect the accuracy of the result obtained. Where possible site specific data should be used. Otherwise data should be obtained from a reliable source such as,

- *Environment and Health Protection Guidelines: Onsite Sewage Management for Single Households*
- *Appropriate Peer Reviewed Papers*
- *EPA Guidelines for Effluent Irrigation*
- *USEPA Onsite Systems Manual.*

[2]. A multiplier, normally between 0.25 and 0.75, is used to estimate actual P-sorption under field conditions which is assumed to be less than laboratory estimates.

Nominated Area Water Balance & Storage Calculations

Site Address: **35 Saye Close Lot 2**

Proj Ref: 2122-027

Notes:

Flow Allowance		150	l/p/d
No. of Persons		4	p
Occupancy		1.5	p/room
Design Wastewater Flow	Q	900	L/day
Daily DLR		12.0	mm/day
Crop Factor	C	0.6-0.8	unitless
Retained Rainfall Coefficient	RRc	0.8	untiless
Void Space Ratio	V	0.3	unitless
Nominated Land Application Area	N	79	sqm
Trench/Bed wetted thickness	Ww	0.15	m
Rainfall Data	Woolgoolga Rainfall Data (monthly median)		
Evaporation Data	Coffs Harbour Evap Data (monthly average)		

Parameter	Symbol	Formula	Units	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Days in month	D	\	days	31	28	31	30	31	30	31	31	30	31	30	31	**365**
Median Rainfall	R	\	mm/month	129.5	150.9	172.3	122.8	106.9	85.4	54.2	47.4	48.5	72.7	92.8	106.6	1449.8
Average Evaporation	E	\	mm/month	192.2	156.8	148.8	117	86.8	69	77.5	105.4	135	161.2	171	192.2	**0**
Crop Factor	C			0.80	0.80	0.80	0.70	0.70	0.60	0.60	0.60	0.70	0.70	0.80	0.80	
OUTPUTS																
Evapotranspiration	ET	ExC	mm/month	154	125	119	82	61	41	47	63	95	113	137	154	**1189.94**
Percolation	B	DLRxD	mm/month	372.0	336	372.0	360.0	372.0	360.0	372.0	372.0	360.0	372.0	360.0	372.0	**4380.0**
Outputs		ET+B	mm/month	525.8	461.44	491.0	441.9	432.8	401.4	418.5	435.2	454.5	484.8	496.8	525.8	**5569.9**
INPUTS																
Retained Rainfall	RR	R*RRc	mm/month	103.6	120.72	137.84	98.24	85.52	68.32	43.36	37.92	38.8	58.16	74.24	85.28	**952**
Effluent Irrigation	W	(QxD)/L	mm/month	353.2	319.0	353.2	341.8	353.2	341.8	353.2	353.2	341.8	353.2	341.8	353.2	**4158.2**
Inputs		RR+W	mm/month	456.8	439.7	491.0	440.0	438.7	410.1	396.5	391.1	380.6	411.3	416.0	438.4	**5110.2**
STORAGE CALCULATION																
Storage remaining from previous month			mm/month		0.0	0.0	0.0	0.0	19.7	48.7	0.0	0.0	0.0	0.0	0.0	
Storage for the month	S	(RR+W)-(ET+B)	mm/month	-230.0	-72.4	-0.1	-6.3	19.7	29.0	-73.3	-147.2	-246.4	-245.1	-269.3	-291.1	**-250.6**
Cumulative Storage	M		mm	0.0	0.0	0.0	0.0	19.7	48.7	0.0	0.0	0.0	0.0	0.0	0.0	**68.5**
Maximum Bed Storage Depth for Area	BS		mm	**48.72**	Is the calculated storage acceptable?			Yes, storage is conservative								

Nominated trench width	0.9				
Total length based on nominated width	87.8	70	17.8	35	
No. of beds	4		1		
Individual bed lengths	21.9		17.7777778		
Individual Bed footprints	19.8				
Spacing between beds	1.5				
Width of bed area	8.1				
Total bed area	178				
Nutrient uptake zone	314	2m buffer nutrient uptake allowance			

Nutrient Balance

Proj Ref: 2122-027

Site Address: 35 Saye Close Lot 2

Notes: Dwelling

INPUT DATA

Hydraulic Load		900	L/Day	
Effluent N Concentration		30	mg/L	
% Lost to Soil Processes		0.2	Decimal	
Total N Loss to Soil		5400	mg/day	
Effluent P Concentration		10	mg/L	
Design Life of System		50	yrs	
Crop N Uptake	250	kg/ha/yr =	68	$mg/m^2/day$
Crop P Uptake	25	kg/ha/yr =	7	$mg/m^2/day$
P-sorption analytical result in soil		8526	kg/ha	
% of Predicted P-sorp		0.75	Decimal	

Nitrogen Balance

Nitrogen uptake ability in vegetation	68	$mg/m^2/day$
Nitrgen loading in wastewater	21600	mg/day
Area required for nitrogen	**315**	m^2

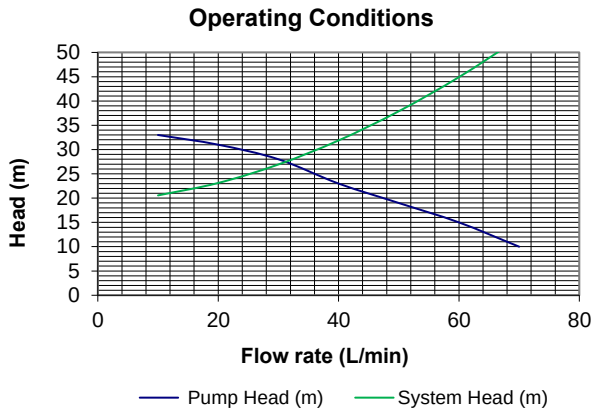
Phosphorus Balance

P adsorbed	0.63945	kg/m^2
P uptake	0.125	kg/m^2
P generated	164.25	kg
Area required for Phosphorus	**215**	m^2

APPENDIX D

PVC Dosing System Specifications

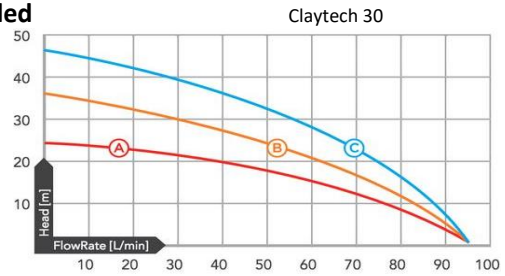
Item	Parameter	Value	Comments
Property	Site address	35 Saye Close	
	Owner	Brett Chapman	
	Proj	2122-027	
Field	Size of dosing area (m sq.)	10.5	
	Height difference between pump and irrigation area (m)	7.5	
Irrigation System	No. of filters	1	
	Delivery line length (m)	103	
	Delivery line ID (mm)	25	
	No. of distribution valves	1	
	Distribution line to trench length (m)	16	
	Distribution line ID (mm)	25	
	Laterals ID (mm)	25	
	Number of laterals per trench	1	
	Lateral spacing in trench (m)	1.0	
	Laterals length (m)	11.0	
	Total laterals length per trench (m)	11.0	
Flow Rates	Total effluent volume (L/day)	720	
	Dose volume (L)	150	
	Number of doses per day	4.8	
	Dose time (min)	5.2	
	Type of lateral line	uPVC 25mm ID PN9	
	Flow rate of orifice (L/hr)	47	
	No. of orifices per trench	37	
	Orifice spacing (m)	0.3	
	Orifice diameter (mm)	6	
	Flushing velocity (m/sec)	1.0	

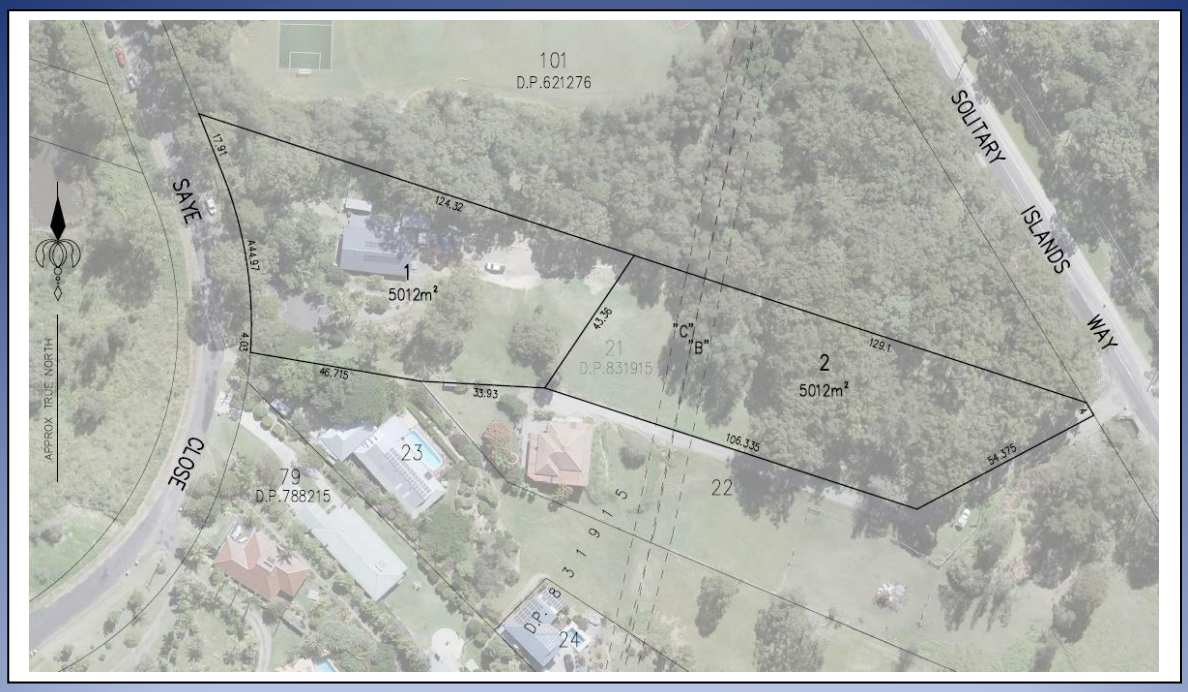


Pump Sizing

Operating head loss (HL) (m)	29
Operating flow rate (Q) (L/min)	29

Pump recommended





Bushfire Subdivision & Infill Assessment Report

Proposed Lots 1 and 2, of Lot 21, 35 Saye Close Sandy Beach NSW

Prepared by Anthony Hulbert BSc MFireSafeEng MIFireE

Fire Engineer

APH Fire / Fire Engineering and More

Ref: APH 1305/23 | Version 1 13/05/23 | Version 2 27/06/23

ABN 12427393792

NSW Reg. no. BDC2216

Revision History

Revision No.	Prepared By	Description	Date
1	Anthony Hulbert	Bushfire Subdivision & Infill Development Report	13/05/23
2	Anthony Hulbert	Bushfire Subdivision & Infill Development Report	27/06/23

Document Acceptance

Action	Name	Signature	Date
Prepared by	Anthony Hulbert		13/05/23
Reviewed by			
Verified by			
Approved by	Anthony Hulbert		13/05/23
On behalf of	Brett Chapman		

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1.0 General Description

A site assessment was carried out on 23rd of April 2023 for the purpose of preparing a Residential Subdivision and infill Development Assessment Report as required by the Environmental Planning and Assessment Act 1979 and Rural Fires Act 1997 to enhance bush fire protection through the development assessment process and submitted under Section 4.14 of the EP&A Act for the proposed development.

The aim of this report will be to establish whether the development application is satisfied to the specifications and requirements of the Planning for Bushfire Protection 2019 (PBP 2019). Ultimately the building will be designed with regard to these threats and constraints.

The proposed subdivision to Lots 1 and 2 from Lot 21 (DP 831915) at 35 Saye Close, Sandy Beach, is an existing Class 9 childcare centre Lot 1 (see Bushfire Report No. 2404/23 for meeting BAL 29); the land zoning is Large Lot Residential (R5). The site is located adjacent a Category 1 and Category 3 bushfire prone area where Category 1 requires a 100m buffer zone. See figures 1 and 2 below.

The Bushfire Prone Land mapping revealed the area of the site is adjacent Category 1 bushfire prone land. Category 1 is considered the highest bushfire risk, greater than Category 2 and Category 3. It is represented as red on a bush fire prone land map and requires a 100 metre buffer. This type of vegetation is considered the vegetation with the highest combustibility and likelihood of forming a fully developed fire.

Vegetation Category 1

By definition - Vegetation Category 1 is considered to be the highest risk for bushfire. It is represented as red on the bushfire prone land map and will be given a 100m buffer (see figure 2). This vegetation category has the highest combustibility and likelihood of forming fully developed fires including heavy ember production. Vegetation Category 1 consists of:

- Areas of forest, woodlands, heaths (tall and short), forested wetlands and timber plantations.

Vegetation Category 2

By Definition - Vegetation Category 2 is a lower bushfire risk than Category 1 and Category 3 but higher than the excluded areas. It is represented as light orange on a bush fire prone land map and will be given a 30 metre buffer. This vegetation category has lower combustibility and/or limited potential fire size due to the vegetation area shape and size, land geography and management practices. Vegetation Category 2 consists of:

- Rainforests.
- Lower risk vegetation parcels. These vegetation parcels represent a lower bush fire risk to surrounding development and consist of:
  - Remnant vegetation;
  - Land with ongoing land management practices that actively reduces bush fire risk. These areas must be subject to a plan of management or similar that demonstrates that the risk of bush fire is offset by strategies that reduce bush fire risk; AND include:
    - Discrete urban reserve/s;
    - Parcels that are isolated from larger uninterrupted tracts of vegetation and known fire paths;
    - Shapes and topographies which do not permit significant upslope fire runs towards development;
    - Suitable access and adequate infrastructure to support suppression by firefighters;
    - Vegetation that represents a lower likelihood of ignitions because the vegetation is surrounded by development in such a way that an ignition in any part of the vegetation has a higher likelihood of detection.

Vegetation Category 3

Vegetation Category 3 is considered medium bushfire risk vegetation. It is higher in bush fire risk than category 2 (and the excluded areas) but lower than Category 1. It is represented as dark orange on a Bush Fire Prone Land map and will be given a 30 metre buffer. This category consists of:

- Grasslands, freshwater wetlands, semi-arid woodlands, alpine complex and arid shrublands.

Low Threat Vegetation - Exclusions

Modified landscapes, coastal wetlands and riparian areas vary significantly in structure and composition, but are generally considered as bush fire hazards, with the exception of saline wetlands. The following exclusions of AS 3959 apply, and are not required to be considered for the purposes of PBP, as detailed below:

- Single areas of vegetation less than 1 hectare in area and greater than 100 metres separation from other areas of Category 1 or 2 vegetation.
- Multiple areas of vegetation less than 0.25 hectares in area and not within 20m of the site, or each other or of other areas of vegetation being classified vegetation.
- Strips of vegetation less than 20 metres in width (measured perpendicular to the elevation exposed to the strip of vegetation) regardless of length and not within 20m of the site or 2 each other, or other areas of vegetation being Category 1, 2 or 3 vegetation.

- Vegetation regarded as low threat due to factors such as flammability, moisture content or fuel load, including grassland managed in a minimal fuel condition, mangroves and other saline wetlands, maintained lawns, golf courses such as playing areas and fairways, maintained public reserves and parklands, sporting fields, vineyards, orchards, banana plantations, market gardens and other non-curing crops, cultivated gardens, arboretums, commercial nurseries, nature strips and windbreaks. Note: 1. Minimal fuel condition means there is insufficient fuel available to significantly increase the severity of the bush fire attack (recognizable as short cropped grass for example, to a nominal height of 100 mm). 2. A windbreak is considered a single row of planted trees located on a boundary and used as a screen or to reduce the effect of wind on the leeward side of the trees.
- Existing areas of managed gardens and lawns within curtilage of buildings.
- Non-vegetated areas, including waterways, roads, footpaths, buildings and rocky outcrops.

2.0 Environmental Impacts

Additional information should be sought from the local council for tree clearing purposes. Secondary and tertiary koala habitats in surrounding areas.

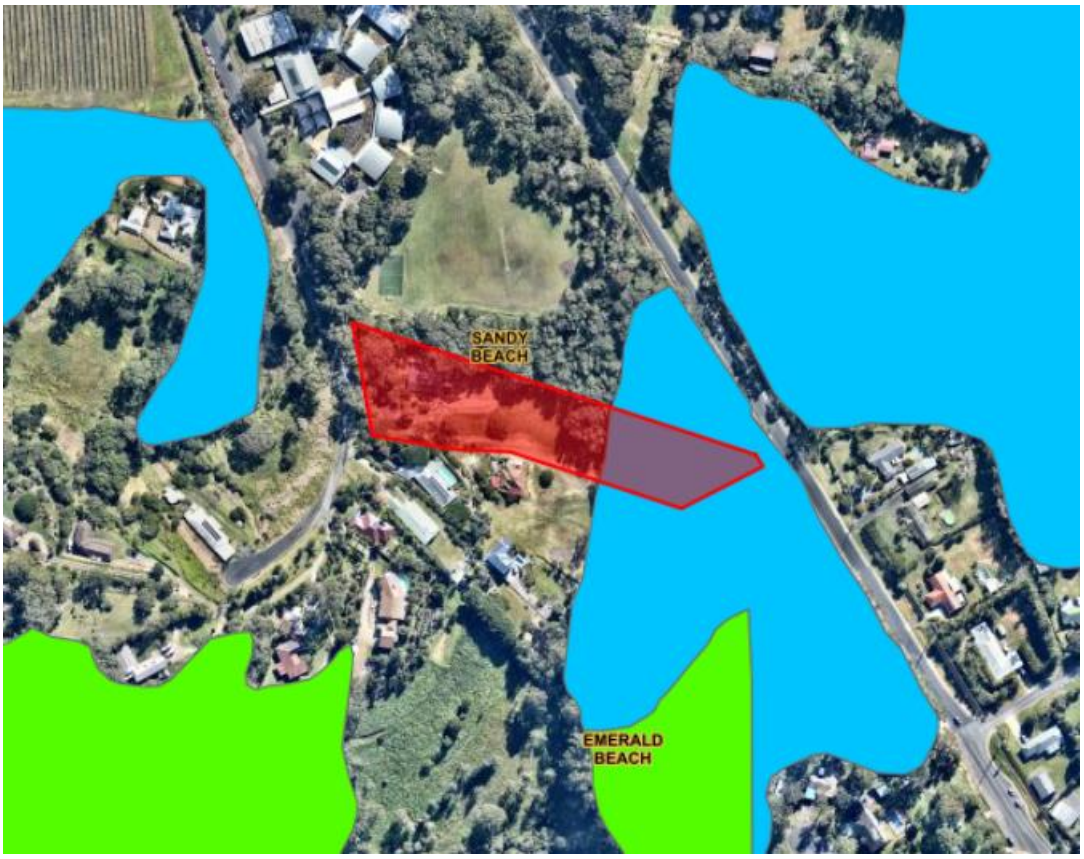


Figure 1: *Secondary & tertiary koala habitat (CHCC)*

3.0 Vegetation Assessment

The procedure adopted for the site assessment follows the site assessment methodology of Appendix 1 in ***Planning for Bushfire Protection-2019 (PBP-2019)***. The methodology is outlined below.

A1.1 Application
Identify APZs ➢ Determine vegetation formation in all directions around the building to a distance of 140 metres (refer to A1.2); ➢ Determine the effective slope of the land from the building for a distance of 100 metres (refer to A1.4 and A1.5); ➢ Determine the relevant FFDI for the council area in which the development is to be undertaken (refer to A1.6); and ➢ Match the relevant FFDI, vegetation formation and effective slope to determine the APZ required from the appropriate table of this Appendix (refer to A1.7). **Identify construction requirements** ➢ Follow steps 1 - 3 above; ➢ Determine the separation distance by measuring from the edge of the unmanaged vegetation to the closest external wall; ➢ Match the relevant FFDI, appropriate vegetation, distance and effective slope to determine the appropriate BAL using the relevant tables at the end of this section (A1.12.5, A1.12.6 and A1.12.7); and ➢ Refer to Section 3 in AS 3959 and NASH Standard to identify appropriate construction requirements for the calculated BAL.

Figure 1a: *Local zoning and site location (CHCC)*

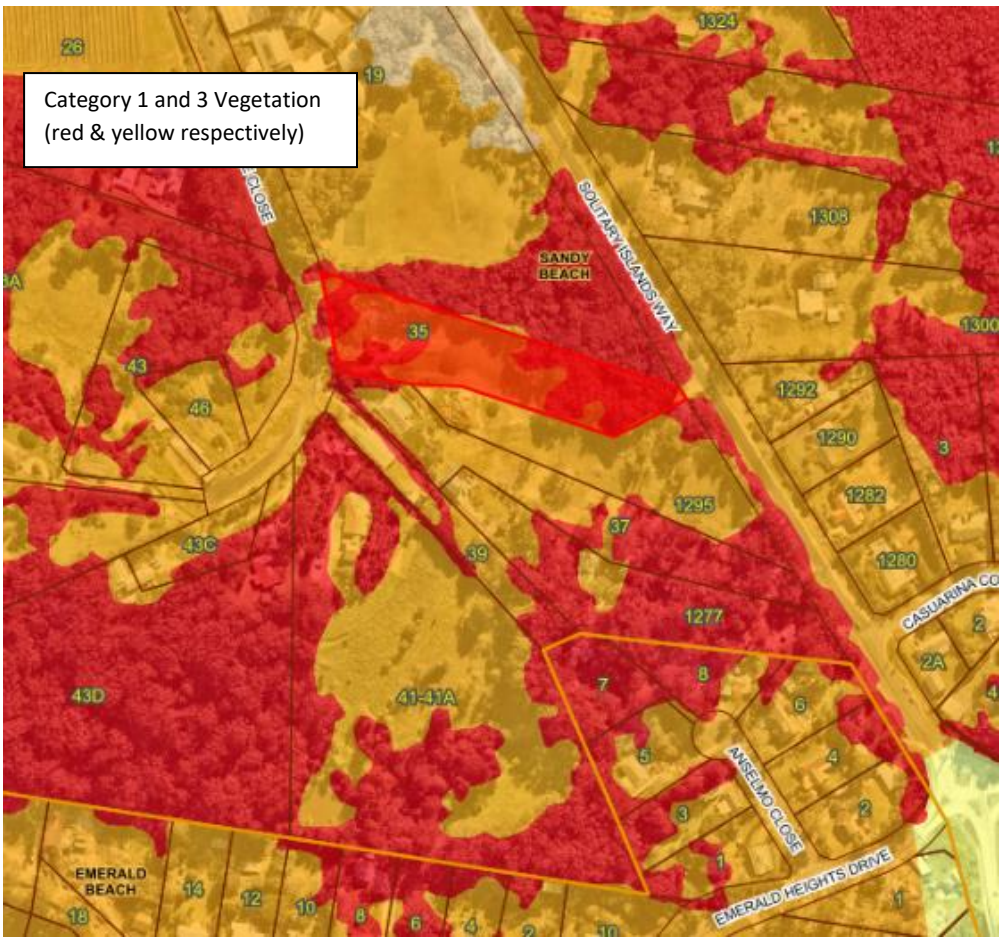


Figure 2: *Bushfire prone land (Category 1 & 3) and site location (CHCC)*

Figure 3: *Bushfire prone land (Category 1) to site location (CHCC)*

Figure 4: *Aerial view of site and surrounding vegetation (CHCC)*

Determining the vegetation formation in all directions around the proposed development site up to 140 metres.

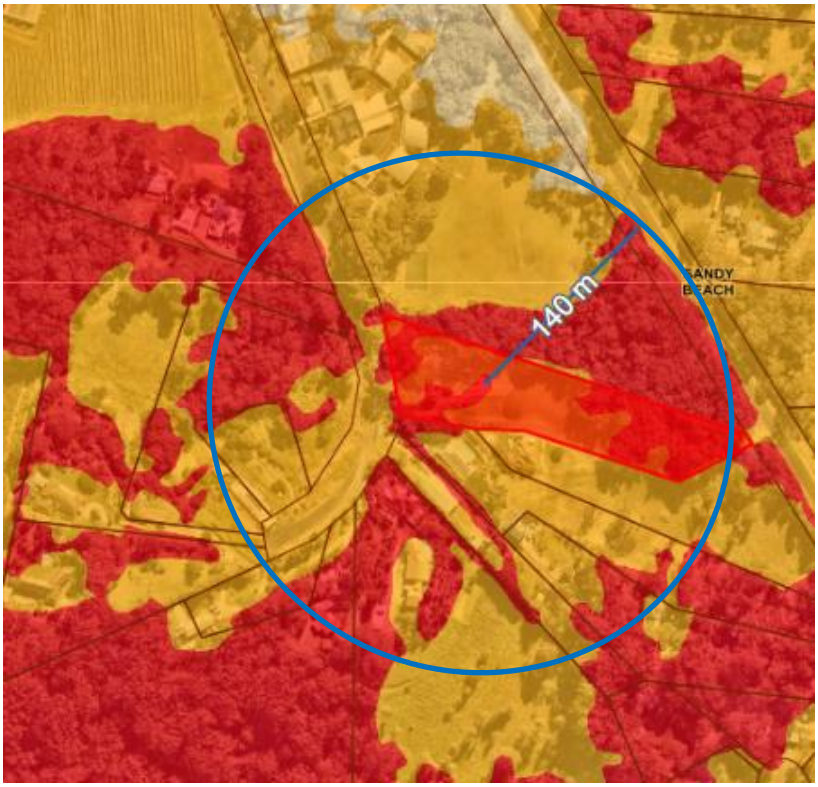


Figure 5: *Site and vegetation up to 140m in all directions (CHCC)*

Figure 6: *Category 1 vegetation*

Figure 7: *Category 1 vegetation far and managed land near*

Figure 8: *Managed land to the southeast*

Figure 9: *Managed land south*

Figure 10: *Category 1 vegetation far and proposed carpark near (back of Childcare)*

Figure 11: *Category 1 vegetation to the north*

Figure 12: *Category 1 vegetation to the northeast*

The vegetation up to 140m around the site was assessed and determined as Category 1 (FOREST) vegetation north. All other aspects are considered existing areas of managed gardens and lawns within the curtilage of buildings including the Childcare centre.

Vegetation Category 1 is the highest risk for bushfire. It is represented as red on the bushfire prone land map and will be given a 100m buffer. This vegetation category has the highest combustibility and likelihood of forming fully developed fires including heavy ember production.

4.0 Slope Assessment

The PBP 2019 Method 1 was utilised to determine the slopes for the subdivision development.

Figure 10: *Worst case slope determined ratio 1:9 or 6 degrees from the northeast*

4.1 Effective Slope Summary

Elevation	Degrees	Vegetation
North	Cross slope or 0 degrees	Forest
South	Cross slope	Managed Land
East	7 degrees downslope	Forest
West	Cross slope	Managed Land

5.0 Residential Subdivision & Infill Development Assessment

5.1 Planning for Bushfire Protection 2019 Assessment

The proposed site was assessed through Appendix 1 of the BPB 2019. The FFDI for the Sand Beach is 80.

5.1.2 Residential Subdivision

The following bushfire assessment considers Chapter 5 PBP 2019 Table 5.3a Performance Criteria and Acceptable Solutions for Residential Subdivisions.

Intent of measures: to provide sufficient space and maintain reduced fuel loads to ensure radiant heat levels at the buildings are below critical limits and prevent direct flame contact.

Performance criteria and acceptable solution for APZs for residential subdivisions	
Performance Criteria	Acceptable Solution
Asset Protection Zones	
Potential building footprints must not be exposed to radiant heat levels exceeding 29 kW/m² for the proposed lots. Table A1.12.3 referenced.	To achieve an APZ (< 29kW/m^2) the following APZs will be required (FOREST): NORTH: 20m (0 degrees) SOUTH: N/A (gardens & lawns) EAST: 31m (5-10 degrees) WEST: N/A (gardens & lawns) BAL < 29 is achievable.
APZs are managed and maintained to prevent the spread of a fire to the building.	The APZ will be considered low threat vegetation consisting of the road, power easement and council maintained areas. see Appendix A & B of this report.
The APZ provided within the boundaries and in perpetuity. APZ maintenance is practical, soil stability is not compromised and the potential for crown fires is minimised.	APZs within the lot boundaries maintained to IPA, see Appendix B.
Landscaping	
Landscaping is designed and managed to minimise flame contact and radiant heat to buildings, and the potential for wind-driven embers to cause ignitions.	Lawns and gardens are to be maintained as an IPA. See Appendix B for IPA APZ requirements.
Access (General Requirements)	
Firefighting vehicles are provided with safe, all-weather access to structures and hazard vegetation.	Required, see recommendations.
The capacity of access roads is adequate for firefighting vehicles.	Required, see recommendations.
There is appropriate access to water supply.	Required, see recommendations.
Perimeter Roads	

Access roads are designed to allow safe access and egress for firefighting vehicles while residents are evacuating as well as providing a safe operational environment for emergency service personnel during firefighting and emergency management on the interface.	See recommendations.
Non-Perimeter Roads	
Access roads are designed to allow safe access and egress for firefighting vehicles while residents are evacuating.	See recommendations.
Property Access	
Firefighting vehicles can access the dwelling and exit the property safely.	Required, see recommendations.
Water Supplies	
An adequate water supply is provided for firefighting purposes.	Static water required, see recommendations.
Water supplies are located at regular intervals; and The water supply is accessible and reliable for firefighting operations.	Static water required, see recommendations.
Flows and pressure are appropriate.	Static water required, see recommendations.
The integrity of the water supply is maintained.	➢ All above-ground water service pipes are metal, including and up to any taps; and ➢ above-ground water storage tanks shall be of concrete or metal.
Electricity Services	
Location of electricity services limits the possibility of ignition of surrounding bush land or the fabric of buildings.	➢ Existing above ground powerline.
Gas Services	
Location and design of gas services will not lead to ignition of surrounding bushland or the fabric of buildings.	Gas facilities shall comply with the following ➢ reticulated or bottled gas is installed and maintained in accordance with AS/NZS 1596:2014 - The storage and handling of LP Gas, the requirements of relevant authorities, and metal piping is used; ➢ all fixed gas cylinders are kept clear of all flammable materials to a distance of 10m and shielded on the hazard side; ➢ connections to and from gas cylinders are metal; ➢ polymer-sheathed flexible gas supply lines are not used; and ➢ above-ground gas service pipes are metal, including and up to any outlets.

Conclusion Subdivision Assessment

Proposed Lots 1 and 2

Building Elevation (separation distance to bushfire hazard)	Min. distance for BAL < 29 (degrees) Assessment Vegetation	Acceptable Solution (BAL < 29)
North (min. 20m)	20m (cross slope or 0 degrees) Forest	Yes, achieved within the northern boundary
South (N/A)	N/A, Managed land	N/A
East (min. 31m)	Min. 31m (5-10 degrees) Forest	Yes, achieved through the eastern boundary
West (N/A)	N/A, Managed land	N/A

The subdivision assessment will meet the acceptable solution for residential subdivisions to a BAL rating less than 29.

The existing childcare on proposed Lot 1 has been assessed and can meet a BAL rating less than 29 to provide better bushfire outcomes for that existing building. A bushfire report has been completed and can be referenced in conjunction with this report on how it can achieve better bushfire outcomes.

5.1.2 Residential Infill Assessment

The following bushfire assessment considers Chapter 7 PBP 2019 Table 7.4a Performance Criteria and Acceptable Solutions for Residential Infill Developments.

Intent of measures: to minimise the risk of bush fire attack and provide protection for emergency services personnel, residents and others assisting firefighting activities

Performance criteria and acceptable solution for residential infill development	
Performance Criteria	Acceptable Solution
Asset Protection Zones	
APZs are provided commensurate with the construction of the building; and A defendable space is provided.	To achieve an APZ (< 29kW/m^2) the following will be required (for FOREST); NORTH; 20m SOUTH; N/A (gardens and lawns) EAST; 31m WEST; N/A (gardens and lawns) See Appendix A Defendable spaces can be achieved.
APZs are managed and maintained to prevent the spread of a fire to the building.	APZs are to be formed within the Lot boundaries as IPA. See Appendix B in this report.
The APZ is provided in perpetuity. APZ maintenance is practical, soil stability is not compromised and the potential for crown fires is minimised.	The APZ will be considered low threat vegetation including a road, power easement and council-maintained areas. Within the Lot boundaries to be maintained as gardens and lawns.
Home-based childcare: the building must not be exposed to radiant heat levels exceeding 29kW/m^2 (1090K).	N/A
Access	
Firefighting vehicles are provided with safe, all-weather access to structures and hazard vegetation.	Required, see recommendations.
The capacity of access roads is adequate for firefighting vehicles.	Required, see recommendations.
There is appropriate access to water supply.	Required, see recommendations.
Firefighting vehicles can access the dwelling and exit the property safely.	Required, see recommendations.
Water Supplies	
An adequate water supply is provided for firefighting purposes.	Required, see recommendations.
Water supplies are located at regular intervals; and the water supply is accessible and reliable for firefighting operations.	Required, see recommendations

Flows and pressure are appropriate.	Static water required, see recommendations.
The integrity of the water supply is maintained.	All above ground water service must be metal/copper including taps.
A static water supply is provided for firefighting purposes in areas where reticulated water is not available.	Required, see recommendations.
Electricity Services	
Location of electricity services limits the possibility of ignition of surrounding bush land or the fabric of buildings.	Aboveground power lines exist.
Gas Services	
Location and design of gas services will not lead to ignition of surrounding bushland or the fabric of buildings.	Gas facilities shall comply with the following ➢ reticulated or bottled gas is installed and maintained in accordance with AS/NZS 1596:2014 - *The storage and handling of LP Gas*, the requirements of relevant authorities, and metal piping is used; ➢ all fixed gas cylinders are kept clear of all flammable materials to a distance of 10m and shielded on the hazard side; ➢ connections to and from gas cylinders are metal; ➢ polymer-sheathed flexible gas supply lines are not used; and ➢ above-ground gas service pipes are metal, including and up to any outlets.
Construction Standards	
The proposed building can withstand bush fire attack in the form of embers, radiant heat and flame contact.	APZ Assessment for Construction The following setback distances must be achieved and maintained for FOREST: **BUILDING ELEVATIONS** NORTH; BAL 29 APZ min. 20m-29m SOUTH; BAL 19 (through shielding) EAST; BAL 29 APZ min. 31m-43m WEST; BAL 19 (through shielding) ROOF: BAL 29 See Appendix C for allowable shielding.
Proposed fences and gates are designed to minimise the spread of bush fire.	All fences and gates in bushfire prone areas must be of hardwood or non-combustible materials however only non-combustible materials (steel fencing) are acceptable within 6m of a dwelling or in an area with a BAL 29 or greater.
Proposed Class 10a buildings are designed to minimise the spread of bush fire.	There are no construction requirements for sheds, carports and garages greater than 6m from a building otherwise they must be construction in accordance with NCC (Building Code of Australia).
Home-based childcare: the proposed building can withstand bush fire attack in the form of wind, localised smoke, embers and expected levels of radiant heat.	N/A
Landscaping	
Landscaping is designed and managed to minimise flame contact and radiant heat to buildings, and the potential for wind-driven embers to cause ignitions.	Areas within the lot boundaries are to be maintained as lawns and gardens, see Appendix B for IPA.
Emergency Management	
Home-based childcare: a bush fire emergency and evacuation management plan is prepared.	N/A

6.0 Conclusion / Recommendations

This report, undertaken in accordance with the ***Planning for Bushfire Protection-2019*** for a residential subdivision and infill development under the Rural Fires Act 1997 and the Environmental Planning & Assessment Act, concludes on the preceding assessment and the following recommendations:

The proposed subdivision sites at 35 Saye Close Sandy Beach will meet the PBP 2019 acceptable solutions for a Subdivision Development achieving a BAL < 29 and Infill Developments for Lot 2. Recommendations for Lot 1, existing childcare centre, providing better bushfire outcomes has been provided in Bushfire Report No. APH 2404/23.

The recommendations of this report are achieved through a combination of measures:

1. Provide BAL 29 and BAL 19 construction to Section 3, Section 6 clauses 6.2 to 6.8 and Section 7 clauses 7.2 to 7.8 to AS 3959:2018 as per elevations recommended below with the proposed APZs,
2. NSW Sate variations
3. Water for fighting
4. Firefighting vehicle access
5. Leaf gutter protection; and
6. Gas services.

Consult tables above for additional information.

1) The minimum setback distances provided (APZ) and construction elevation BAL ratings for FOREST;

Lot 2

NORTH ELEVATION:	BAL 29 with APZ minimum 20m-29m
SOUTH ELEVATION:	BAL 19 one BAL lower from shielding
EAST ELEVATION:	BAL with APZ minimum 31m-43m
WEST ELEVATION:	BAL 19 one BAL lower from shielding
ROOF:	BAL 29

See Appendix A for minimum APZ or setback distance for achieving an APZ.

2) To ensure the performance criteria for construction standards given in section 7.4 can be met, PBP adopts additional measures over and above AS 3959 and NASH Standard as follows:

- construction measures for ember protection at BAL-12.5 and BAL-19 provided by AS 3959;
- construction measures for development in BAL-FZ; and
- requirements over and above the performance criteria contained within AS 1530.8.1 and AS 1530.8.2 apply in regards to flaming.

Based on the findings from the 2009 Victorian Bush Fires Royal Commission, PBP aims to maintain the safety levels previously provided by AS 3959:1999 in relation to ember

protection at lower Bush Fire Attack Levels. In particular, the areas addressed are in relation to:

- sarking;
- subfloor screening;
- floors;
- verandas, decks, steps, ramps and landings;
- timber support posts and beams; and
- fascias and bargeboards.

NSW State Variations under G5.2(a) (i) and 3.10.5.0(c)(i) of the NCC

Certain provisions of AS 3959 are varied in NSW based on the findings of the Victorian Bush Fires Royal Commission and bush fire industry research. The following variations to AS 3959 apply in NSW for the purposes of NSW G5.2 (a)(i) of Volume One and NSW 3.10.5.0 (c)(i) of Volume Two of the NCC;

- clause 3.10 of AS 3959 is deleted and any sarking used for BAL-12.5, BAL-19, BAL-29 or BAL-40 shall:
    - be non-combustible; or
    - comply with AS/NZS 4200.1, be installed on the outside of the frame and have a flammability index of not more than 5 as determined by AS 1530.2; and
- clause 5.2 and 6.2 of AS 3959 is replaced by clause 7.2 of AS 3959, except that any wall enclosing the subfloor space need only comply with the wall requirements for the respective BAL; and
- clause 5.7 and 6.7 of AS 3959 is replaced by clause 7.7 of AS 3959, except that any wall enclosing the subfloor space need only comply with the wall requirements for the respective BAL; and
- fascias and bargeboards, in BAL-40, shall comply with: clause 8.4.1(b) of AS 3959; or clause 8.6.6 of AS 3959; and

3) Static water supply for firefighting:

- 10 000L/dwelling non-combustible water tank;
- a connection for firefighting purposes is located within the IPA or non-hazard side and away from the structure;
- 65mm Storz outlet with a ball valve is fitted to the outlet;
- ball valve and pipes are adequate for water flow and are metal;
- supply pipes from tank to ball valve have the same bore size to ensure flow volume;
- underground tanks have an access hole of 200mm to allow tankers to refill direct from the tank;
- a hardened ground surface for truck access is supplied within 4m;
- above-ground tanks are manufactured from concrete or metal;
- raised tanks have their stands constructed from non-combustible material or bush fire-resisting timber (see Appendix F of AS 3959);
- unobstructed access can be provided at all times;
- underground tanks are clearly marked; tanks on the hazard side of a building are provided with adequate shielding for the protection of firefighters;
- all exposed water pipes external to the building are metal, including any fittings;

- where pumps are provided, they are a minimum 5hp or 3kW petrol or diesel-powered pump, and are shielded against bush fire attack;
- any hose and reel for firefighting connected to the pump shall be 19mm internal diameter; and
- fire hose reels are constructed in accordance with AS/NZS 1221:1997, and installed in accordance with the relevant clauses of AS 2441:2005.

4) Firefighting vehicle access;
- minimum 4m carriageway width;
- a minimum vertical clearance of 4m to any overhanging obstructions, including tree branches;
- curves have a minimum inner radius of 6m and are minimal in number to allow for rapid access and egress;
- the minimum distance between inner and outer curves is 6m if applicable;
- the cross fall is not more than 10 degrees;
- maximum grades for sealed roads do not exceed 15 degrees and not more than 10 degrees for unsealed roads; and

Note: Some short constrictions in the access may be accepted where they are not less than 3.5m wide, extend for no more than 30m and where the obstruction cannot be reasonably avoided or removed. The gradients applicable to public roads also apply to community style development property access roads in addition to the above.

5) Provide non-combustible leaf gutter protection for all gutters for the proposed subdivision developments.

6) Gas facilities shall comply with the following;
- Bottled gas installed and maintained in accordance with AS/NZS 1596:2014 - The storage and handling of LP Gas, the requirements of relevant authorities, and metal piping is used;
- all fixed gas cylinders are kept clear of all flammable materials to a distance of 10m and shielded on the hazard side;
- connections to and from gas cylinders are metal;
- polymer-sheathed flexible gas supply lines are not used; and
- above-ground gas service pipes are metal, including and up to any outlets

7.0 References

1. International Fire Safety Engineering Guidelines, Fire Code Reform Centre, Australia, March 2005.

2. Building Code of Australia, Volume One, Australian Building Code Board, 2019

3. Guide to the Building Code of Australia, Volume One, Australian Building Code Board, 2019

4. Australian Standards, Construction of buildings in bushfire prone areas, AS 3959:2018, 14 November 2018

5. Planning for bushfire Protection (PBP 2019), A guide to councils, planners, Fire authorities and developers, November 2019

8.0 Limitations

Due to a range of limitations, the measures contained in this document (PBP 2019) do not guarantee that loss of life, injury and/or property damage will not occur during a bush fire event. Limitations of the PBP 2019 include, but are not limited to uncertainties in the following areas: Fire Danger Index; fuel loads; existing developments; human behaviour; and maintenance.

7.1 Fire Danger Index

It may be possible that days of higher Fire Danger Index (FDI) may be experienced than the FDI levels used in this document. This may result in fire situations where conditions challenge survivability of buildings and their occupants.

7.2 Fuel loads

Fuel loads and vegetation classes used in this document are specific to NSW. PBP 2019 has adopted a system of assessing fuel accumulation rates based on vegetation formations and time since last fire (Forestry Commission of NSW, 1991). This has also been supported by published literature on fuel loads (i.e. Good, 1994, Watson, 2005, Cheney and Sullivan, 1997). In some instances fuel loads in an area may be higher than those used in this document. This can influence bush fire behaviour and the potential impact on property.

7.3 Existing developments

The requirement to consider BPMs for development in bush fire prone areas was introduced on 1 August 2002. Existing developments that were built prior to August 2002, may have limited or no BPMs incorporated into the design of the building. This also presents major challenges for the design of alterations and additions to existing buildings.

7.4 Human behaviour

A person's behaviour in times of bush fire may be unpredictable. A person may have good intentions to stay and defend their property from bush fire, but may change their mind once they experience the stress and anxiety associated with the heat, noise, flames and burning embers. Even where a development can comply with PBP 2019, unpredictable human behaviour can be a limiting factor and may result in injury, death or loss of property. All occupants in a bush fire prone area are advised to prepare a Bush Fire Survival Plan, available to download at NSW RFS website www.rfs.nsw.gov.au.

7.5 Maintenance

An unprepared property is not only a risk to the building owner/occupant, but may also present an increased danger to neighbouring buildings and firefighters. Even buildings which are built to comply with PBP are placed at risk through poor maintenance. Post bush fire research recorded by the New South Wales Rural Fire Service (NSW RFS) indicates that proper maintenance of dwellings and their curtilage significantly improves the survivability of structures. Advice regarding the maintenance and protection of existing buildings can be found on the NSW RFS website at www.rfs.nsw.gov.au.

Appendix A

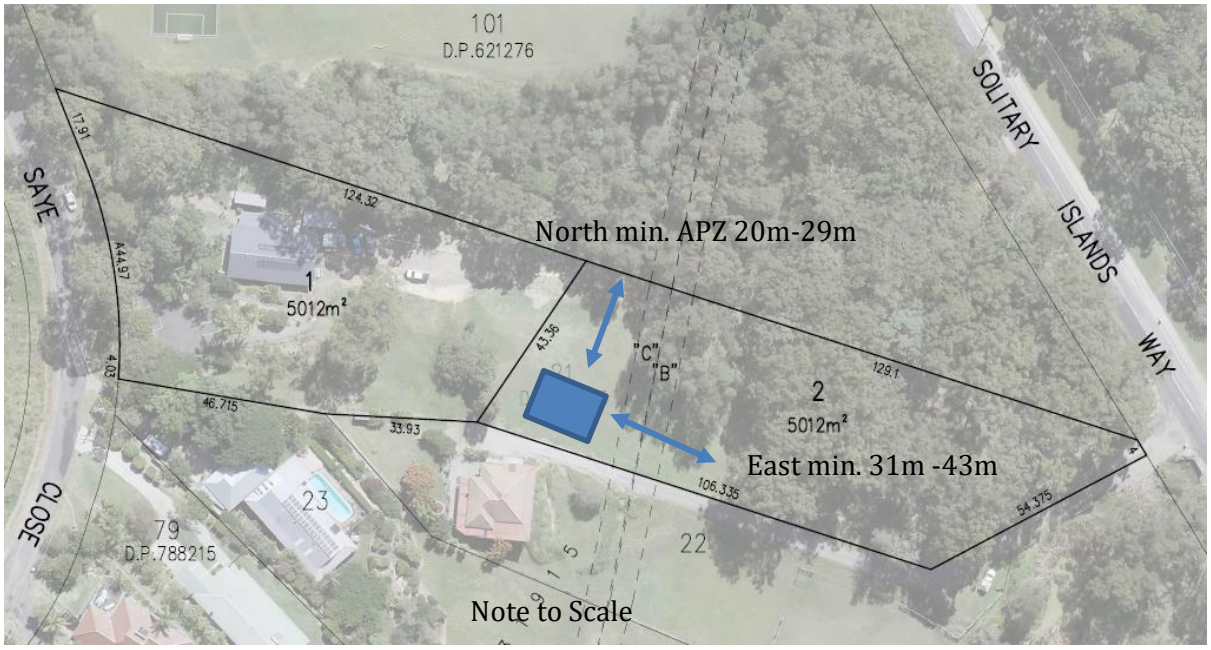


Figure 12: *Minimum setback for achieving BAL 29*

Appendix B

In combination with appropriate construction measures, a bushfire hazard can be reduced by implementing simple steps to reduce vegetation levels. This can be done by designing and managing landscaping to implement an APZ around the property. Careful attention should be paid to species selection, their location relative to their flammability, minimising continuity of vegetation (horizontally and vertically), and ongoing maintenance to remove flammable fuels (leaf litter, twigs and debris).

An APZ is a fuel-reduced area surrounding a building or structure. It is located between the building or structure and the bush fire hazard. For a complete guide to APZs and landscaping, download the NSW RFS document Standards for Asset Protection Zones at the NSW RFS Website www.rfs.nsw.gov.au.

An APZ provides:

- a buffer zone between a bush fire hazard and an asset;
- an area of reduced bush fire fuel that allows for suppression of fire;
- an area from which back burning or hazard reduction can be conducted; and
- an area which allows emergency services access and provides a relatively safe area for firefighters and home owners to defend their property.

Bushfire fuels should be minimised within an APZ. This is so that the vegetation within the zone does not provide a path for the spread of fire to the building, either from the ground level or through the tree canopy. An APZ, if designed correctly and maintained regularly, will reduce the risk of:

- direct flame contact on the building;
- damage to the building asset from intense radiant heat; and
- ember attack.

The methodology for calculating the required APZ distance is contained within PBP 2019 Appendix 1. The width of the APZ required will depend upon the development type and bush fire threat. APZs for new development are set out within Chapters 5, 6 and 7 of this document.

In forest vegetation (only), the APZ can be made up of an Inner Protection Area (IPA) and an Outer Protection Area (OPA).

A4.1.1 Inner Protection Areas (IPAs)

The IPA is the area closest to the building and creates a fuel-managed area which can minimise the impact of direct flame contact and radiant heat on the development and act as a defendable space. Vegetation within the IPA should be kept to a minimum level. Litter fuels within the IPA should be kept below 1cm in height and be discontinuous.

In practical terms the IPA is typically the curtilage around the building, consisting of a mown lawn and well maintained gardens.

When establishing and maintaining an IPA the following requirements apply:

Trees

- tree canopy cover should be less than 15% at maturity;
- trees at maturity should not touch or overhang the building;

- lower limbs should be removed up to a height of 2m above the ground;
- tree canopies should be separated by 2 to 5m;
- and preference should be given to smooth barked and evergreen trees.

Shrubs

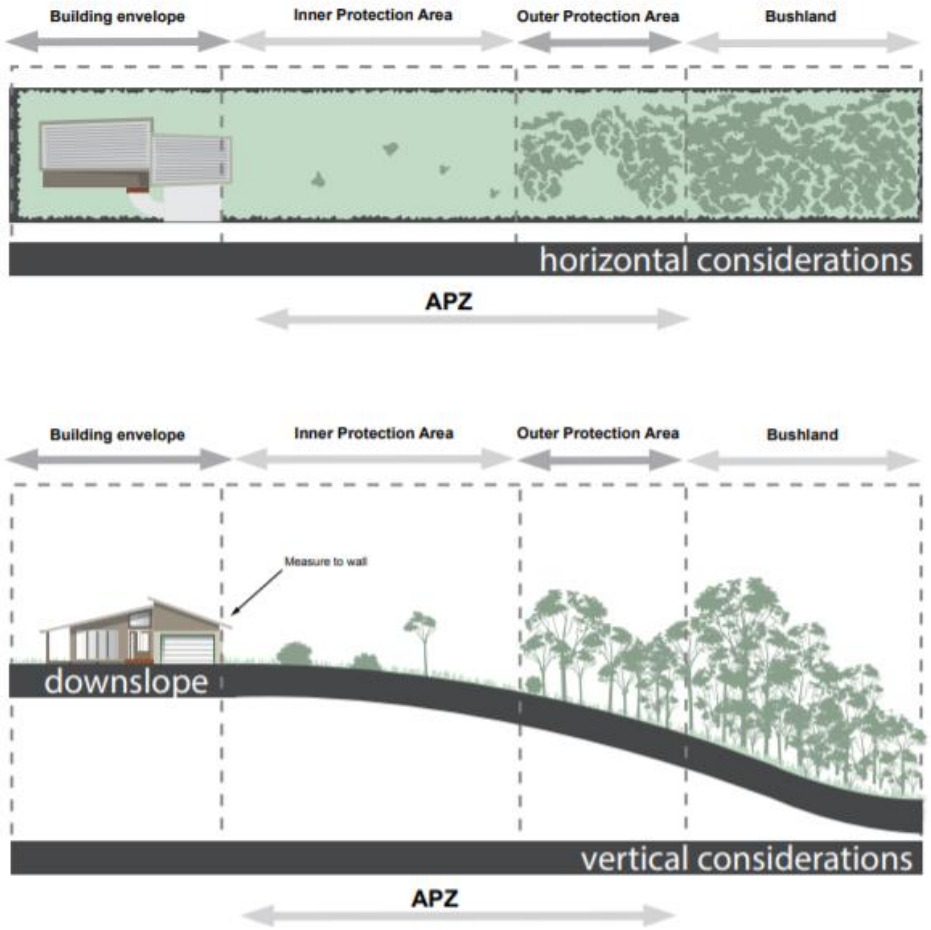
- create large discontinuities or gaps in the vegetation to slow down or break the progress of fire towards buildings should be provided;
- shrubs should not be located under trees;
- shrubs should not form more than 10% ground cover;
- and clumps of shrubs should be separated from exposed windows and doors by a distance of at least twice the height of the vegetation.

Grass

- grass should be kept mown (as a guide grass should be kept to no more than 100mm in height);
- and leaves and vegetation debris should be removed.

Figure A4.1

Typical Inner and Outer Protection Areas.



Appendix C

Where an elevation is shielded from direct radiant heat arising from bush fire attack, then the construction requirements for that elevation can be reduced to the next lower BAL.

Proposals to apply radiant heat shielding from another structure must be accompanied by a detailed performance based solution addressing siting, view factor exposure and consideration of the potential fire spread from adjoining structures.

An elevation is considered to not be exposed to the source of bush fire attack if the line of sight between that elevation and the source of bush fire attack are obstructed by another part of the building.

The shielding of an elevation shall apply to all the elements of the wall but shall not apply to subfloors or roofs. The construction requirements for a shielded elevation shall not be less than that required for BAL-12.5. Reduced construction requirements do not apply where any elevation is BAL-FZ unless justified with an appropriate performance based demonstration of the shielding.

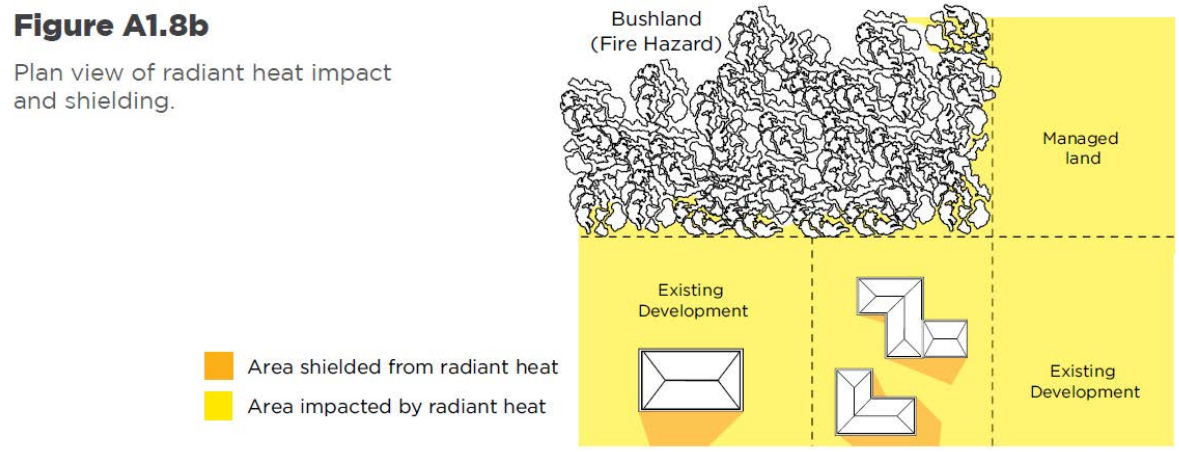


Figure 13 - *showing the concept of shielding*

AHIMS Web Services (AWS)
Search Result

Your Ref/PO Number : Chapman

Client Service ID : 801436

Keiley Hunter

115 Victoria
Coffs Harbour New South Wales 2450

Attention: Keiley Hunter

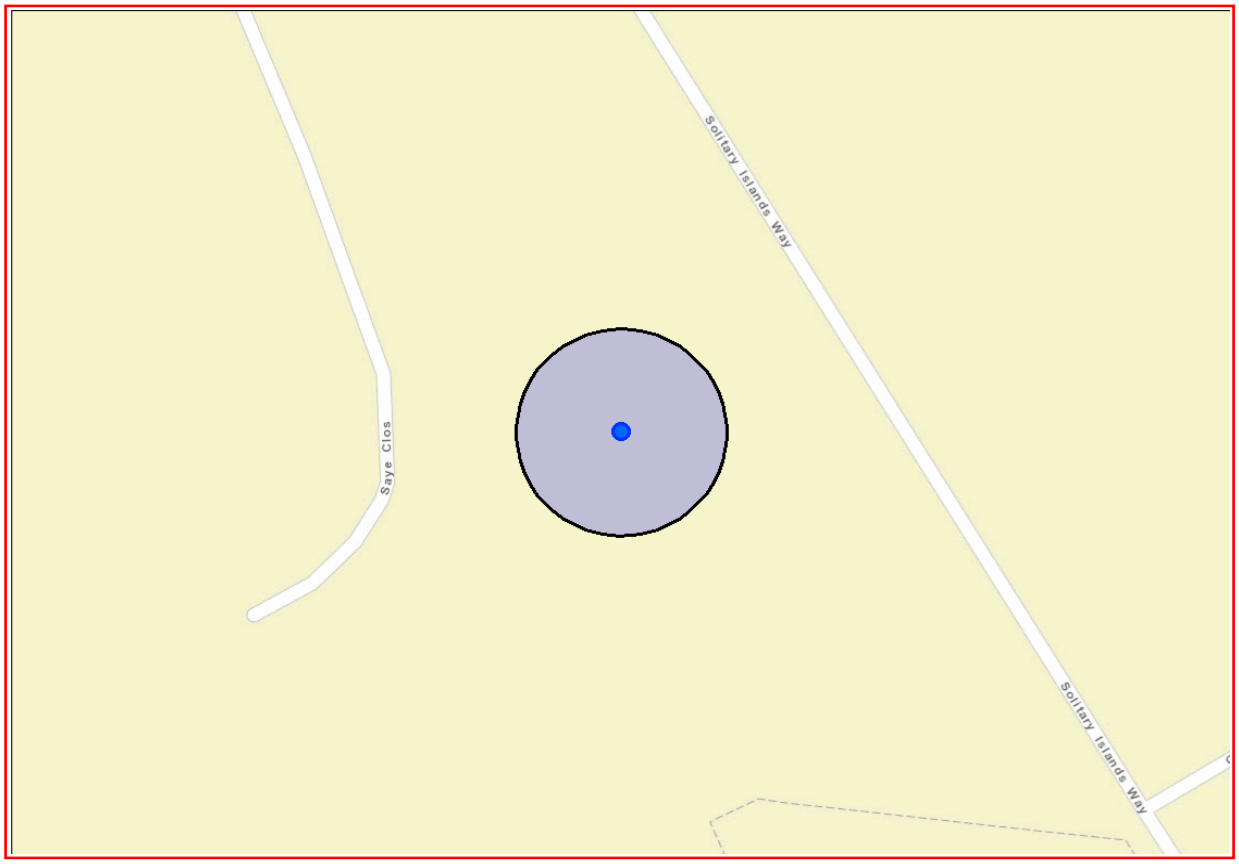
Email: keiley@keileyhunter.com.au

Date: 18 July 2023

Dear Sir or Madam:

AHIMS Web Service search for the following area at Address : 35 SAYE CLOSE SANDY BEACH 2456 with a Buffer of 50 meters, conducted by Keiley Hunter on 18 July 2023.

The context area of your search is shown in the map below. Please note that the map does not accurately display the exact boundaries of the search as defined in the paragraph above. The map is to be used for general reference purposes only.



A search of Heritage NSW AHIMS Web Services (Aboriginal Heritage Information Management System) has shown that:

0	Aboriginal sites are recorded in or near the above location.
0	Aboriginal places have been declared in or near the above location. *

If your search shows Aboriginal sites or places what should you do?

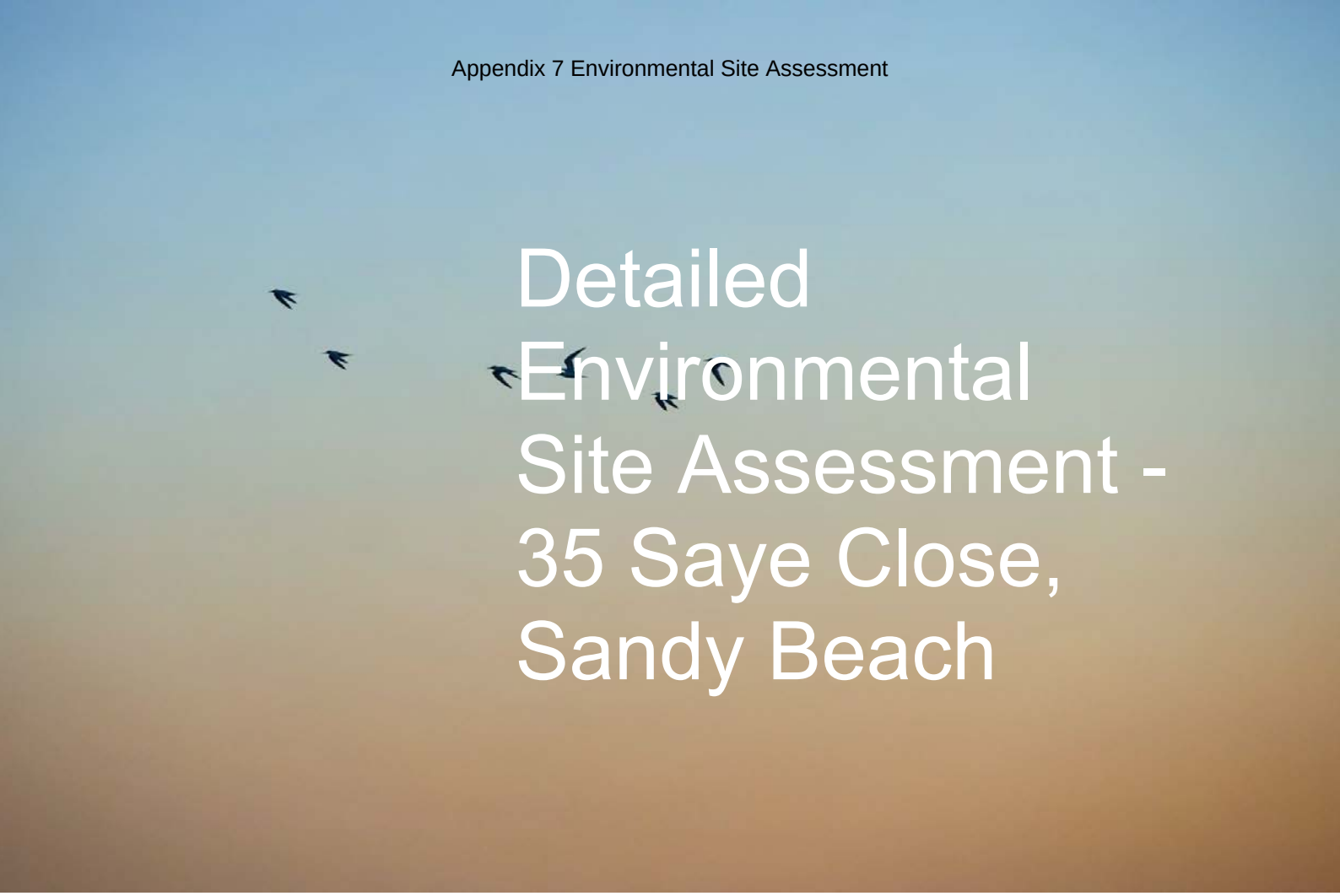
- You must do an extensive search if AHIMS has shown that there are Aboriginal sites or places recorded in the search area.
- If you are checking AHIMS as a part of your due diligence, refer to the next steps of the Due Diligence Code of practice.
- You can get further information about Aboriginal places by looking at the gazettal notice that declared it. Aboriginal places gazetted after 2001 are available on the NSW Government Gazette (https://www.legislation.nsw.gov.au/gazette) website. Gazettal notices published prior to 2001 can be obtained from Heritage NSW upon request

Important information about your AHIMS search

- The information derived from the AHIMS search is only to be used for the purpose for which it was requested. It is not be made available to the public.
- AHIMS records information about Aboriginal sites that have been provided to Heritage NSW and Aboriginal places that have been declared by the Minister;
- Information recorded on AHIMS may vary in its accuracy and may not be up to date. Location details are recorded as grid references and it is important to note that there may be errors or omissions in these recordings,
- Some parts of New South Wales have not been investigated in detail and there may be fewer records of Aboriginal sites in those areas. These areas may contain Aboriginal sites which are not recorded on AHIMS.
- Aboriginal objects are protected under the National Parks and Wildlife Act 1974 even if they are not recorded as a site on AHIMS.
- This search can form part of your due diligence and remains valid for 12 months.

Level 6, 10 Valentine Ave, Parramatta 2150
Locked Bag 5020 Parramatta NSW 2124
Tel: (02) 9585 6345

ABN 34 945 244 274
Email: ahims@environment.nsw.gov.au
Web: www.heritage.nsw.gov.au



Detailed Environmental Site Assessment - 35 Saye Close, Sandy Beach

7 August 2023

For: Brett Chapman

Authored by: Strider Duerinckx

Ref	Ver	Date	Distribution
2122-027-06	A	7 August 2023	Client, Planner

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Attached Tables

Table LR1. Summary of Soil Analytical Results

Table LR2. Summary of Soil Quality Assurance Results

Figures

Figure 1 Site Location

Figure 2 Proposed Development Layout

Figure 3 Site Layout and Sample Locations

Appendices

Appendix A Aerial Photographs

Appendix B Historical Ownership

Appendix C Laboratory Report

1 Introduction

Earth Water Consulting Pty Limited (EWC) was engaged by Brett Chapman (the "Client") to undertake a Detailed Environmental Site Assessment (DESA) at 35 Saye Close, Sandy Beach) (the "Site") (Figure 1).

1.1 Objectives

The objective of this investigation was to undertake an assessment of the property to ensure that potential soil contamination as a result of historical landuses do not limit the proposed residential subdivision.

1.2 Suitability to Undertake Works

Strider Duerinckx has project managed and signs off on this investigation. Strider is an environmental geologist with 25 years experience in contaminated sites investigations including numerous banana plantation assessments. Strider is a CEnvP (Site Contamination Specialist) accredited.

2 Proposed Development

Based on plans of the proposed subdivision layout (Ref: Newham Karl Weir. Plan of Proposed Subdivision. Dated: November 2021), it is understood that the Site is proposed to be subdivided from one into two (2) lots.

Proposed Lot 1 will include the existing childcare centre and ancillary infrastructure and be 5,012m^2. Proposed Lot 2 will have a new building entitlement and also be 5,012m^2 in area (Figure 2).

3 Scope of Work

The scope of work included:

- A desktop review of historical aerial photographs, NSW EPA notices, CHCC LEP Mapping, Previous ownership to at least 1950, and Interviews if available with previous owners/employees;
- A desktop review of topographical and geological conditions;
- A site walkover of the property to visually assess the current site layout and surface conditions;
- Development of a Conceptual Site Model;
- In accordance with the NSW EPA Banana Plantation Guidelines, collection of 30 samples over the 1ha property and analysis of 12 samples for arsenic, lead and OCP pesticides;
- Preparation of a this DESA report detailing the results of the desktop review and site walkover, analytical results in comparison to guidelines, and assessment of contamination risks, conclusions regarding the contamination status of the Site, and recommendations for further investigations (if required).

4 Site Description

4.1 Site Identification

The Site is known as 35 Saye Close, Sandy Beach (Lot 21 DP831915) and is approximately 1.002Ha in area.

4.2 Location and Features

The Site is located on the eastern side of Saye Close, with Sandy Beach Primary School adjacent along the northern property boundary, and the eastern point of the property connecting to the western side of Solitary Islands Way (Figure 1). The Site is zoned R5 Large Lot Residential, and is approximately 10,024m^2, with the western half of the property containing a childcare centre and ancillary sheds and carpark, and the eastern half currently undeveloped, with only driveway access from Solitary Islands Way.

The Site is located on a northeast facing slope which is positioned on the northern side of a generally east facing ridgeline. The ground surface slopes gently towards the road edge at Solitary Islands Way, with a mapped intermittent drainage approximately 100m to the southeast of the eastern corner of the property. This drainage subsequently drains to swampland in the Moonee Beach Nature Reserve. The property has a small amount of Eucalypt and Casuarina vegetation at the eastern end, with cleared ground and ornamental trees and shrubs on the more elevated western portions.

Photograph 1 – Looking northwest towards the existing childcare centre across the proposed subdivision boundary.

Photograph 2 – Looking northeast across the proposed subdivision building envelope.

Photograph 3 – Looking southeast across the lower eastern portion of the Site.

Photograph 4 – Looking northeast across the former BP cultivation area.

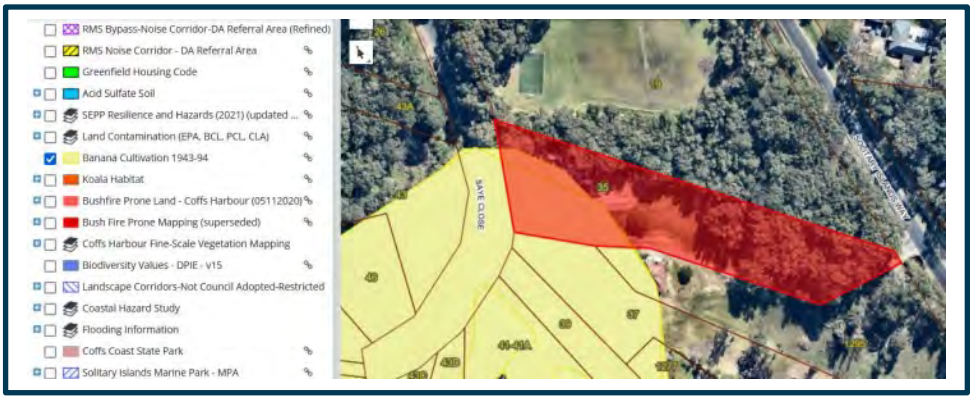
4.3 Surrounding Land Use

The surrounding land use includes Sandy Beach Primary School to the north, large lot residential to the east and south and mostly undeveloped residential land to the west.

5 Site History

5.1 Mapped BP Land

A review of the Coffs Harbour City Council LEP mapping indicates that the Site and surrounds are mapped as having been under banana cultivation between 1943 and 1994 in the upper southwestern corner, and as a result the Site is coded BCL1 which means potentially contaminated from banana farms and not yet assessed.



Photograph 5 – CHCC mapping showing extent of historical banana cultivation.

Photograph 6 – CHCC mapping showing the target property within BCL1 zone.

5.2 Previous Environmental Investigations

No previous environmental investigations are known to have been undertaken on the Site.

5.3 Aerial Photographs

A review of aerial photographs from 1943-2022 (Appendix A) indicate that the southwestern corner of the Site was under banana cultivation area between at least 1964 and 1974 (with cessation by 1979). No sheds associated with banana cultivation were present on the Site.

A dwelling and shed were constructed in the middle of the Site as part of rural-residential development in the early 1980's, with the dwelling demolished and replaced with the current childcare centre building by 1994. The shed was demolished by 2004. Earthworks for the carpark near the eastern edge of the childcare centre were undertaken around 2011 and 2022.

5.4 NSW EPA Records

A search of the NSW EPA's contaminated land record revealed no investigation or remediation notices have been issued on the Site or adjacent properties for contamination or 'significant risk of harm' under Section 58 of the Contaminated Land Management Act 1997.

A search of the public register under Section 308 of the Protection of the Environment Operations Act indicated that no current and recently surrendered licenses have been held for potentially contaminating activities on the Site or adjacent properties.

5.5 Other Contaminating Sites

Based on the Lotsearch P/L statewide database, no service stations, defense sites, former gasworks, PFAS contaminated, cattle tick dip, dry cleaners, fire rescue, gas terminals, liquid fuel depots, active mines or quarries, derelict mines, power stations, electrical substations, telephone exchanges, active or historical waste management facilities (landfills) or wastewater treatment facilities are known to be or have been present in the vicinity.

5.6 Interview

The property owner was interviewed at the day of the inspection and had no knowledge of the historical activities on the Site.

5.7 Historical Ownership

A search of historical owners was undertaken of the Site. These are summarised in **Table 1** and raw data is included in Appendix B.

Table 1: Historical Ownership

Date	Detail
03.08.1920 (1920 to 1921)	John Cowling (Farmer)
23.02.1921 (1921 to 1948)	Alfred Johnson (Mill Manager)
22.03.1948 (1948 to 1981)	Alfred William Allen Johnson (Banana Grower)
31.03.1981 (1981 to 1989)	Neil Leonard Lawrence (Salesman) Gwendoline Dorothy Lawrence (Married Woman)
27.02.1989 (1989 to 1994)	Horace Emerson Hay Marion Emma Hay
30.06.1994 (1994 to 2002)	Bruce Anthony Lumb Kerrie Ann Lumb
09.10.2002 (2002 to 2017)	Andrew David Herman Leslie Lorraine Herman
31.10.2017 (2017 to Date)	# Coffschap Pty Ltd

5.8 Summary of Site History

The historical review confirmed that the property was owned by a farmer and then a mill manager from 1920 to 1948 with no apparent agricultural activities at the Site. The property was purchased by a banana grower in 1948 and the historical photographs indicate that banana cultivation occurred on the western portion of the property from at least 1964 until at least 1974. The property changed hands in 1981, at which time the historical photographs show a cessation of banana cultivation from at least two years prior. A dwelling and garage / shed were constructed in the early 1980s. The Site underwent little change until at least 2004, when the current childcare centre building was constructed.

6 Potential Areas and Contaminants of Concern

Based on the site history and a walkover, Areas of Environmental Concern (AECs) and associated Contaminants of Concern (CoC) were identified for the Site. These are presented in Table 2.

Table 2: Potential AEC and CoC

AEC	Potential Contaminating Activity	CoC	Likelihood of Contamination	Comment
1	Broadscale shallow contamination from banana cultivation	OCP (Aldrin, dieldrin and DDT), heavy metals (arsenic and lead)	Moderate for OCP (dieldrin) and metals (arsenic and lead)	In 1994, the NSW EPA, Department of Agriculture and Coffs Harbour City Council undertook a study of banana plantations in the Coffs Harbour area, and developed a specific set of guidelines to assess these former agricultural properties. A number of typical CoC were identified and contaminant distribution models developed.
2	Building wastes from demolition	Aesthetic and asbestos.	Low	Inspections of the groundsurface show no relic building refuse evident.
Notes **OCP = Organochlorine Pesticides**				

7 Investigation Criteria

The soil investigation levels for banana plantation contamination (OCP, arsenic and lead) were adopted from the NSW EPA (1997) Guidelines. These are comparable to health-based investigation levels for residential sites with access to soil for home grown vegetables at less than the 10% of the daily intake, that are provided in NEPM (NEPC 2013) Guidelines. The investigation criteria are shown in the attached Table LR1.

8 Sampling Program

The sampling program was based on the NSW EPA (1997) Guidelines which were developed specifically for former banana plantation properties. Sampling was undertaken on 27 June 2023 by a trained EWC environmental scientist.

In accordance with s2.1.2 for areas subsequently disturbed, a minimum of 5 samples are required to be collected. 6 samples were collected around the childcare centre for discrete analysis, exceeding the guideline recommendation.

In accordance with s2.1.1, 30 samples are recommended for a property up to 10,000m^2. Allowing for the 6 discrete collected, 24 samples were collected in an 18.3m grid over the residual area and composited into 6 composites for analysis.

All samples were analysed for Arsenic (As), Lead (Pb) and OCP pesticides.

9 Results

9.1 Sample Descriptions

The sampling locations are presented in Figure 2, with sample details provided in Table 3.

Table 3: Sample Descriptions

Sample ID	Depth	Description	Composite ID
S-1	0-75mm	Topsoil	Discrete
S-2	0-75mm	Topsoil	Discrete
S-3	0-75mm	Topsoil	Discrete
S-4	0-75mm	Topsoil	Discrete
S-5	0-75mm	Topsoil	Discrete
S-6	0-75mm	Topsoil	Discrete
S-7	0-75mm	Topsoil	C-1
S-8	0-75mm	Topsoil	C-1
S-9	0-75mm	Topsoil	C-1
S-10	0-75mm	Topsoil	C-1
S-11	0-75mm	Topsoil	C-2
S-12	0-75mm	Topsoil	C-2
S-13	0-75mm	Topsoil	C-2
S-14	0-75mm	Topsoil	C-2
S-15	0-75mm	Topsoil	C-3
S-16	0-75mm	Topsoil	C-3
S-17	0-75mm	Topsoil	C-3
S-18	0-75mm	Topsoil	C-3
S-19	0-75mm	Topsoil	C-4
S-20	0-75mm	Topsoil	C-4
S-21	0-75mm	Topsoil	C-4
S-22	0-75mm	Topsoil	C-4
S-23	0-75mm	Topsoil	C-5

Sample ID	Depth	Description	Composite ID
S-24	0-75mm	Topsoil	C-5
S-25	0-75mm	Topsoil	C-5
S-26	0-75mm	Topsoil	C-5
S-27	0-75mm	Topsoil	C-6
S-28	0-75mm	Topsoil	C-6
S-29	0-75mm	Topsoil	C-6
S-30	0-75mm	Topsoil	C-6
Q-1	0-75mm	Topsoil	Quality Assurance
Q-2	0-75mm	Topsoil	Quality Assurance

9.2 Analytical Results

Samples were forwarded under Chain of Custody conditions at Eurofins Laboratory for analysis. The laboratory reports are included in Appendix A and the soil analytical results are summarised in the attached Table LR1.

Comparison of discrete and composite sample results to the investigation criteria indicated that:

- Concentrations of OCP were reported below the laboratory Limit of Reporting (LOR) for all samples analysed; and
- Concentrations of arsenic and lead were reported below the Investigation Criteria for all samples analysed.

95% Upper Confidence Limits (UCLs) were not required to be calculated as all results were reported to less than the Investigation Criteria.

9.3 Quality Assurance and Quality Control

9.3.1 Field Quality Control

Environmental sampling activities were based on industry accepted standard practices.

The sampling equipment was decontaminated between sampling locations by washing with detergent and rinsing with clean water. A new pair of disposable gloves was used when handling each soil sample. Samples were collected in laboratory supplied jars and shipped in a chilled esky to the laboratory.

Two field duplicates were collected and analysed. The results are reported in the attached Table LR2. Relative Percentage Difference (RPD) calculations were undertaken and confirm reliability of the analytical results.

9.3.2 Laboratory Quality Control

Primary samples were submitted to Eurofins Laboratory, which is a national laboratory that undertakes analyses to NATA accredited analytical methodologies, and participates in NATA endorsed laboratory round robin analyses. Laboratory Quality Control included testing and reporting of reagent blanks, laboratory control samples (LCS), matrix spikes and surrogates spikes, and laboratory duplicates to assess laboratory quality control.

The laboratory quality assurance results are included within the laboratory reports attached in Appendix C. No exceptions to the laboratory quality control reportable limits were noted.

9.3.3 Data Quality Check

The quality assurance and quality control of the field and laboratory methods is considered sufficiently robust for the investigation undertaken. Given this it is concluded that the analytical results dataset reliably represents soil concentrations in the field as sampled.

10 Conclusions and Recommendations

The desktop review confirmed historical banana plantation activities in the upper southwestern corner of the Site. Analytical results of the detailed sampling undertaken confirm that historical usage of the property as a banana plantation has not resulted in any significant arsenic, lead or OCP contamination on the Site. All results were well below the acceptable threshold for contamination.

As such no further investigations or remediation of soils is required for the residential use of the entire 1ha portion.

11 References

Coffs Harbour City Council. 2017. Contaminated Land Management Policy

Coffs Harbour City Council. 2018. Contaminated Land Management Procedure

Coffs Harbour City Council Local Environmental Plan 2013.

NEPC. 2013. National Environment Protection (Assessment of Site Contamination) Measure. Schedule B1- Schedule B1 Guideline on Investigation Levels For Soil and Groundwater. National Environment Protection Council.

NSW EPA. 1997. Guidelines for Assessing Banana Plantation Sites. Reprinted 2003.

TABLES

Table LR1: Summary of Soil Discrete Analytical Results

Sample ID		LOR	Investigation Criteria			S-1	S-2	S-3	S-4	S-5	S-6	C-1	C-2	C-3	C-4	C-5	C-6
Type of Sample						Discrete						Composite					
Date Collected			NSW EPA	NEPM		27/07/2023											
Depth Collected	Units	Eurofins	BP	HIL (A)	EIL	0-75	0-75	0-75	0-75	0-75	0-75	0-75	0-75	0-75	0-75	0-75	0-75
% Moisture	%	1		-	-	21	14	28	14	13	11	18	25	24	14	22	39
Heavy Metals																	
Arsenic	mg/kg	2	100	100	100	5.5	11	3.7	7.5	12	13	20	9.8	14	4.4	3.5	6.6
Lead	mg/kg	5	300	300	1100	8.4	15	< 5	22	17	19	14	57	22	12	9.8	19
Organochlorine Pesticides																	
4.4'-DDD	mg/kg	0.05	-	-	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDE	mg/kg	0.05	-	-	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDT	mg/kg	0.05	50	-	180	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
a-BHC	mg/kg	0.05	-	-	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	mg/kg	0.05	-	-	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin and Dieldrin (Total)*	mg/kg	0.05	10	6	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
b-BHC	mg/kg	0.05	-	-	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Chlordanes - Total	mg/kg	0.1	-	50	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
d-BHC	mg/kg	0.05	-	-	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	mg/kg	0.05	-	240	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	mg/kg	0.05	-	-	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	mg/kg	0.05	-	270	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	mg/kg	0.05	-		-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	mg/kg	0.05	-	-	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	mg/kg	0.05	-	10	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	mg/kg	0.05	-	-	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	mg/kg	0.05	-	-	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
g-BHC (Lindane)	mg/kg	0.05	-	-	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	mg/kg	0.05	-	6	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	mg/kg	0.05	-	-	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene (HCB)	mg/kg	0.05	-	10	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	mg/kg	0.05	-	300	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Toxaphene	mg/kg	0.5	-	20	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5

Notes

Indicates sample concentration exceeds investigation criteria value

Indicates sample concentration exceeds investigation criteria value by >250%

EILs based on assumed background concentrations and adopted pH and CEC

Table LR2: Summary of Soil Quality Assurance Results

Sample ID		LOR	S-2	Q-1	RPD	S-3	Q-2	RPD
Type of Sample			Discrete	Dup	%	Discrete	Dup	%
Date Collected			27/07/2023					
Depth Collected	Units	Eurofins	0-75	0-75		0-75	0-75	
% Moisture	%	1	14	15		28	28	
Heavy Metals								
Arsenic	mg/kg	2	11	10	10	3.7	3.6	3
Lead	mg/kg	5	15	13	14	<5	< 5	NA
Organochlorine Pesticides								
4.4'-DDD	mg/kg	0.05	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA
4.4'-DDE	mg/kg	0.05	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA
4.4'-DDT	mg/kg	0.05	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA
a-BHC	mg/kg	0.05	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA
Aldrin	mg/kg	0.05	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA
Aldrin and Dieldri	mg/kg	0.05	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA
b-BHC	mg/kg	0.05	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA
Chlordanes - Tota	mg/kg	0.1	< 0.1	< 0.1	NA	< 0.1	< 0.1	NA
d-BHC	mg/kg	0.05	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA
DDT + DDE + DDD	mg/kg	0.05	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA
Dieldrin	mg/kg	0.05	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA
Endosulfan I	mg/kg	0.05	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA
Endosulfan II	mg/kg	0.05	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA
Endosulfan sulpha	mg/kg	0.05	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA
Endrin	mg/kg	0.05	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA
Endrin aldehyde	mg/kg	0.05	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA
Endrin ketone	mg/kg	0.05	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA
g-BHC (Lindane)	mg/kg	0.05	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA
Heptachlor	mg/kg	0.05	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA
Heptachlor epoxic	mg/kg	0.05	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA
Hexachlorobenzer	mg/kg	0.05	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA
Methoxychlor	mg/kg	0.05	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA
Toxaphene	mg/kg	0.5	< 0.5	< 0.5	NA	< 0.5	< 0.5	NA

Notes

Indicates sample concentration exceeds investigation criteria value

Indicates sample concentration exceeds investigation criteria value by >250%

EILs based on assumed background concentrations and adopted pH and CEC soil values

FIGURES

0 50 100 150

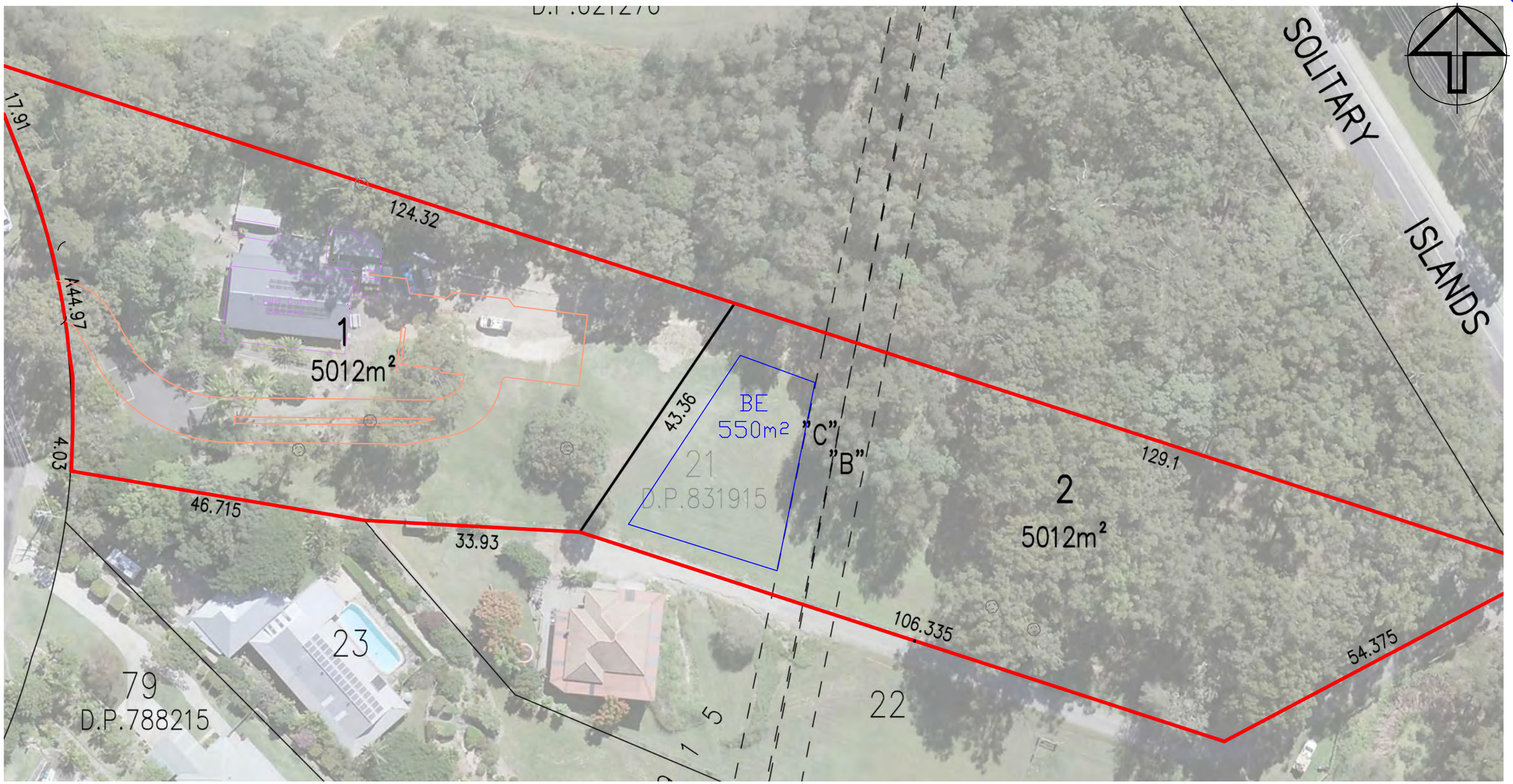
Horizontal Scale (metres) 1:3000

EARTH WATER CONSULTING

LEGEND

- Property Boundary
- Contour (10m)
- Drainage Alignment
- Proposed Building

TITLE: Site Location			PROJECT: DESA for 35 Saye Close Sandy Beach		CLIENT: Brett Chapman
FIGURE: Figure 1					
SHEET: 1 OF 1	ISSUE: A	AUTHOR: SD	DATE: 03/08/23	SCALE: 1:3000	PROJECT: 2122-027



0 10 20 30

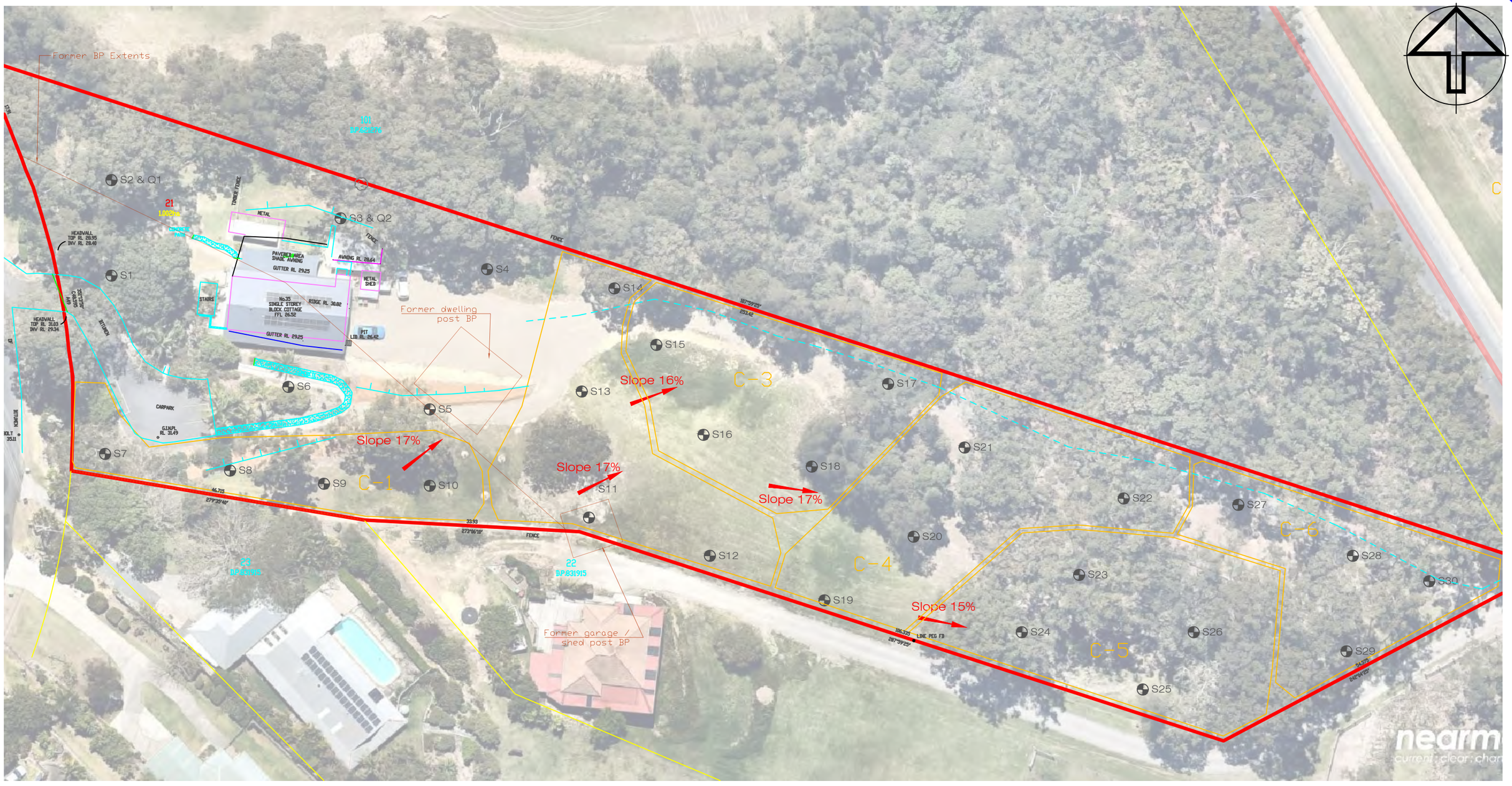
Horizontal Scale (metres) 1:600

EARTH WATER CONSULTING

LEGEND

- Property Boundary
- Powerline and Easement
- Existing Building
- Proposed Driveway Adjustment
- BE — Proposed BE

TITLE: Proposed Development Layout			FIGURE: Figure 2
			SHEET: 1 OF1 ISSUE: A
PROJECT: DESA for 35 Saye Close Sandy Beach			CLIENT: Brett Chapman
AUTHOR: SD	DATE: 03/08/23	SCALE: 1:600	PROJECT: 2122-027



0 10 20 30

Horizontal Scale (metres) 1:600

EARTH WATER CONSULTING

LEGEND

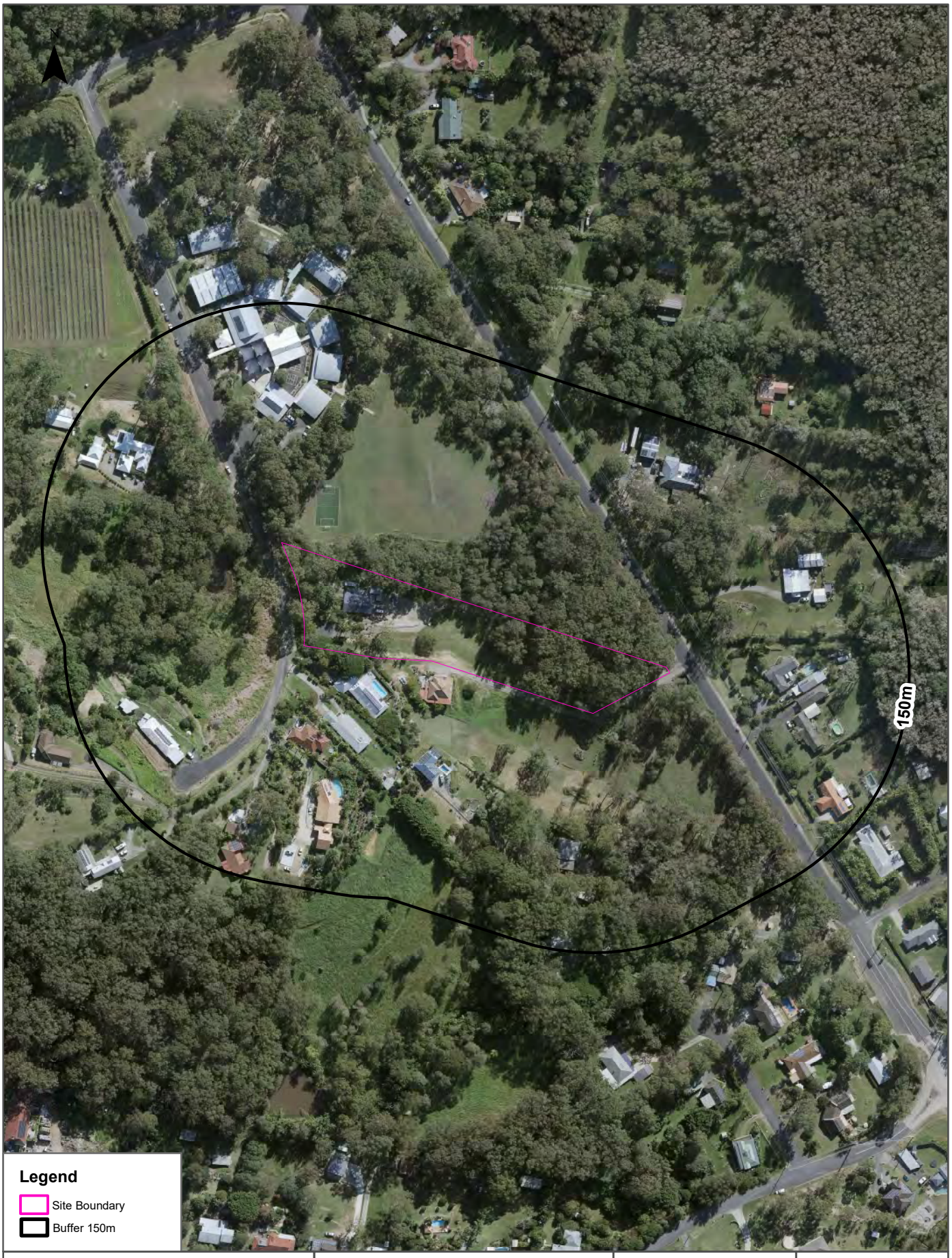
- Property Boundary
- Existing Building
- Contour (0.25m)t
- Slope Direction and Extent
- Slope % Approximate Sample Locations
- Discrete Sample
- C-1

TITLE: Site Layout and Sample Locations			FIGURE: Figure 3
			SHEET: 1 OF 1 ISSUE: A
PROJECT: DESA for 35 Saye Close Sandy Beach			CLIENT: Brett Chapman
AUTHOR: SD	DATE: 03/08/23	SCALE: 1:600	PROJECT: 2122-027

APPENDIX A

Aerial Imagery 2022

35 Saye Close, Sandy Beach, NSW 2450



Scale: 0 30 60 90 120 Meters	Data Source Aerial Imagery: © Aerometrex Pty Ltd	Coordinate System: GDA 1994 MGA Zone 56	Date: 20 July 2023

Aerial Imagery 2019

35 Saye Close, Sandy Beach, NSW 2450

Aerial Imagery 2016

35 Saye Close, Sandy Beach, NSW 2450

Aerial Imagery 2013

35 Saye Close, Sandy Beach, NSW 2450

Aerial Imagery 2011

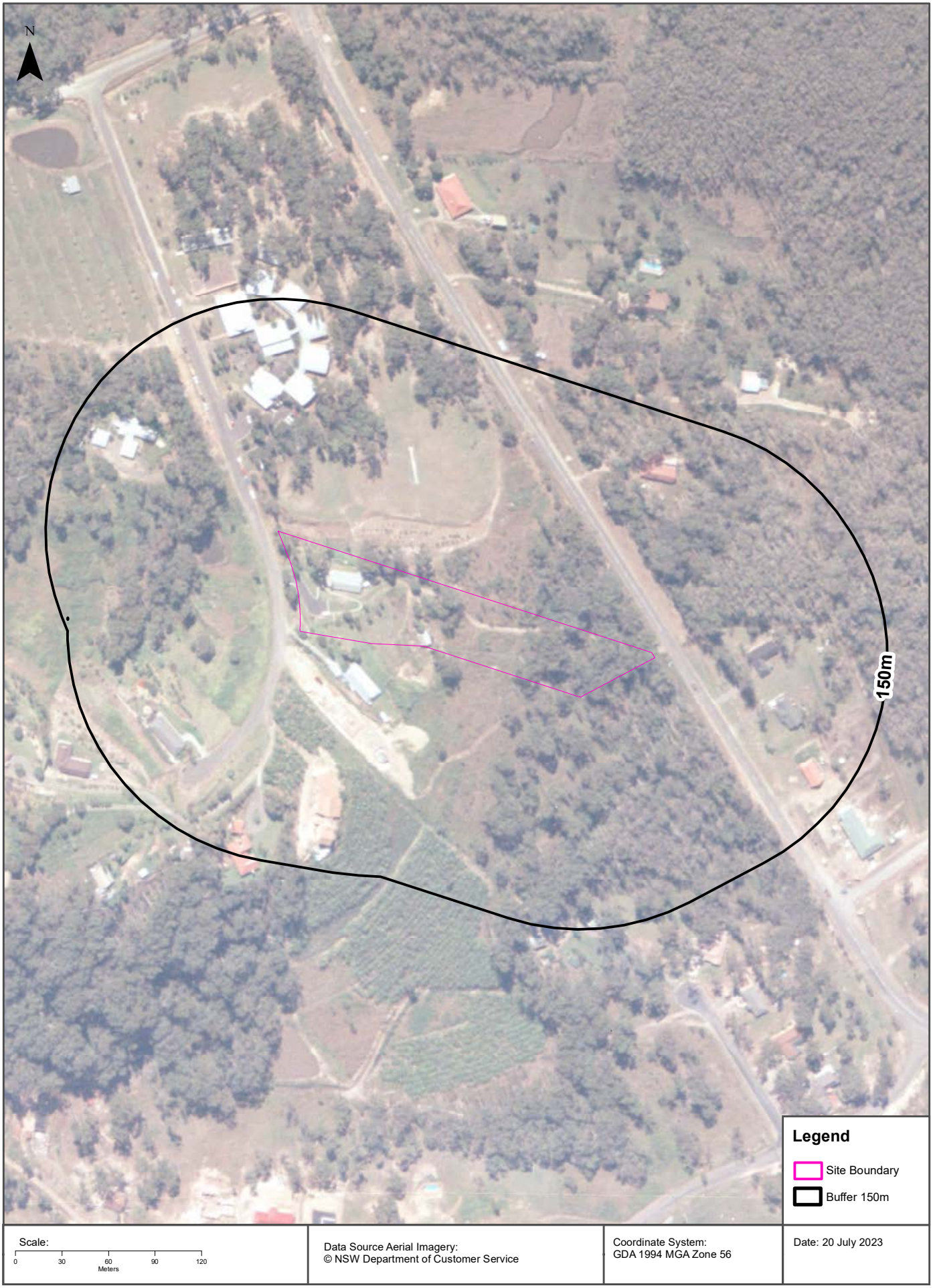
35 Saye Close, Sandy Beach, NSW 2450

Aerial Imagery 2004

35 Saye Close, Sandy Beach, NSW 2450

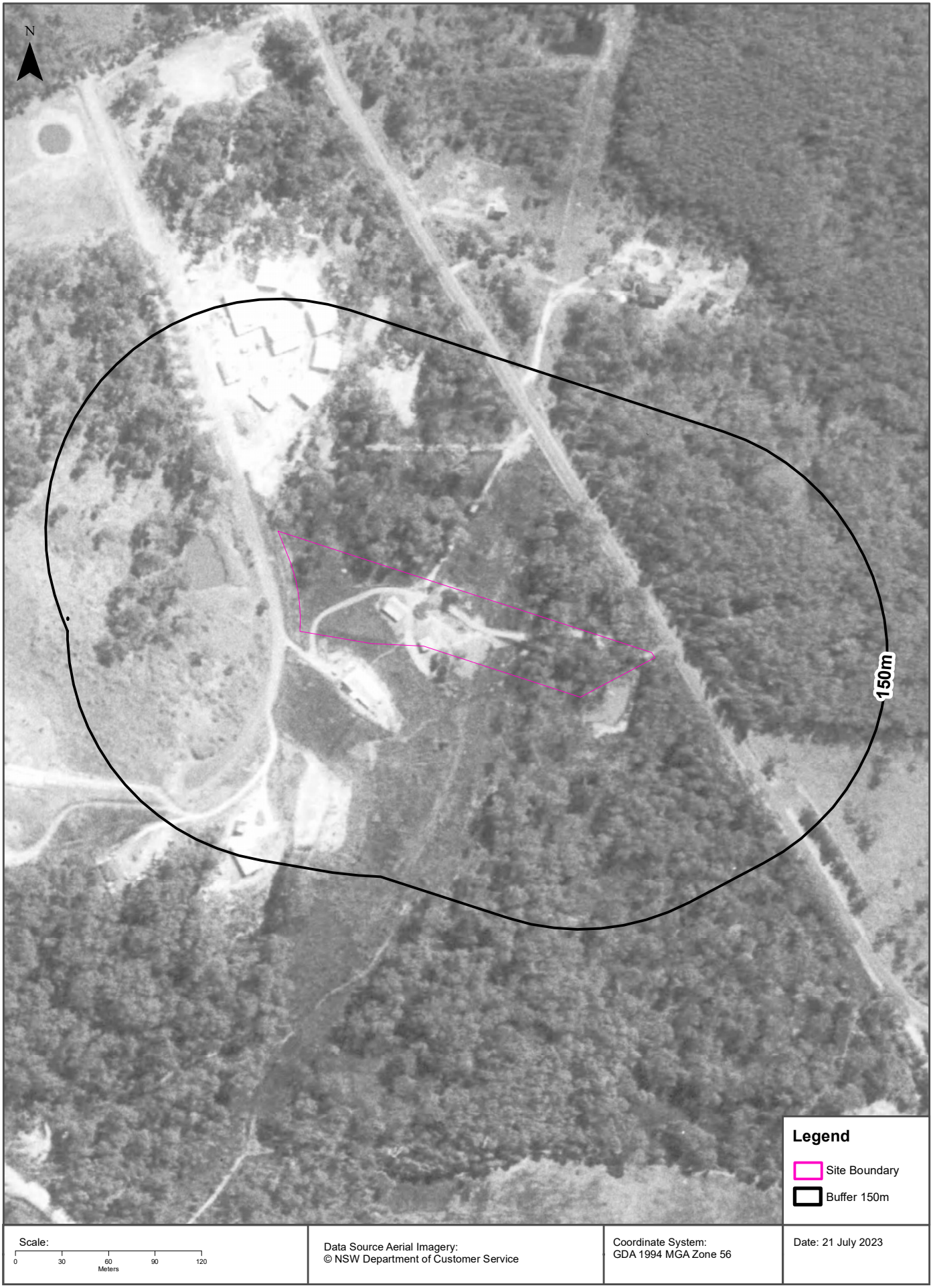
Aerial Imagery 1994

35 Saye Close, Sandy Beach, NSW 2450



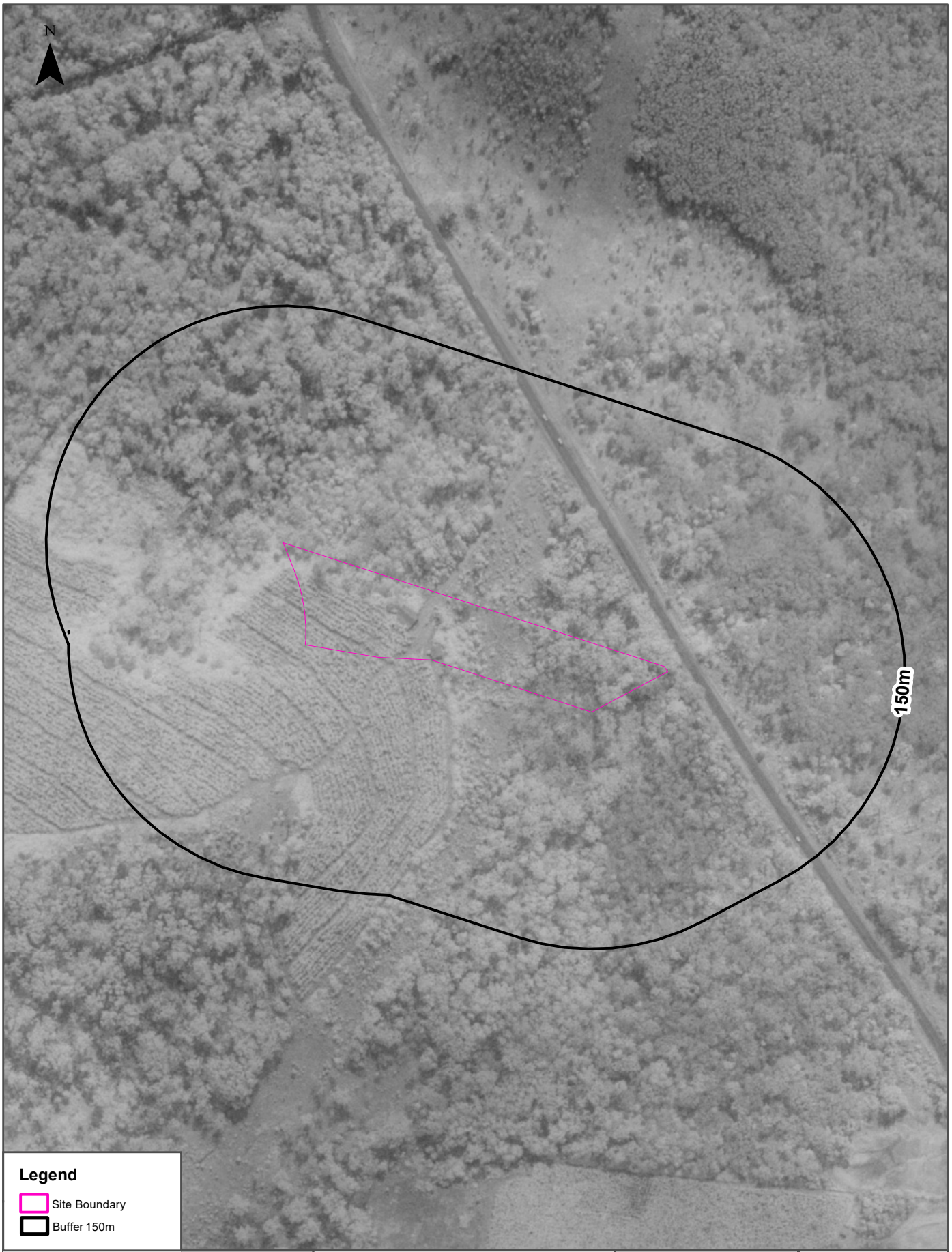
Aerial Imagery 1984

35 Saye Close, Sandy Beach, NSW 2450



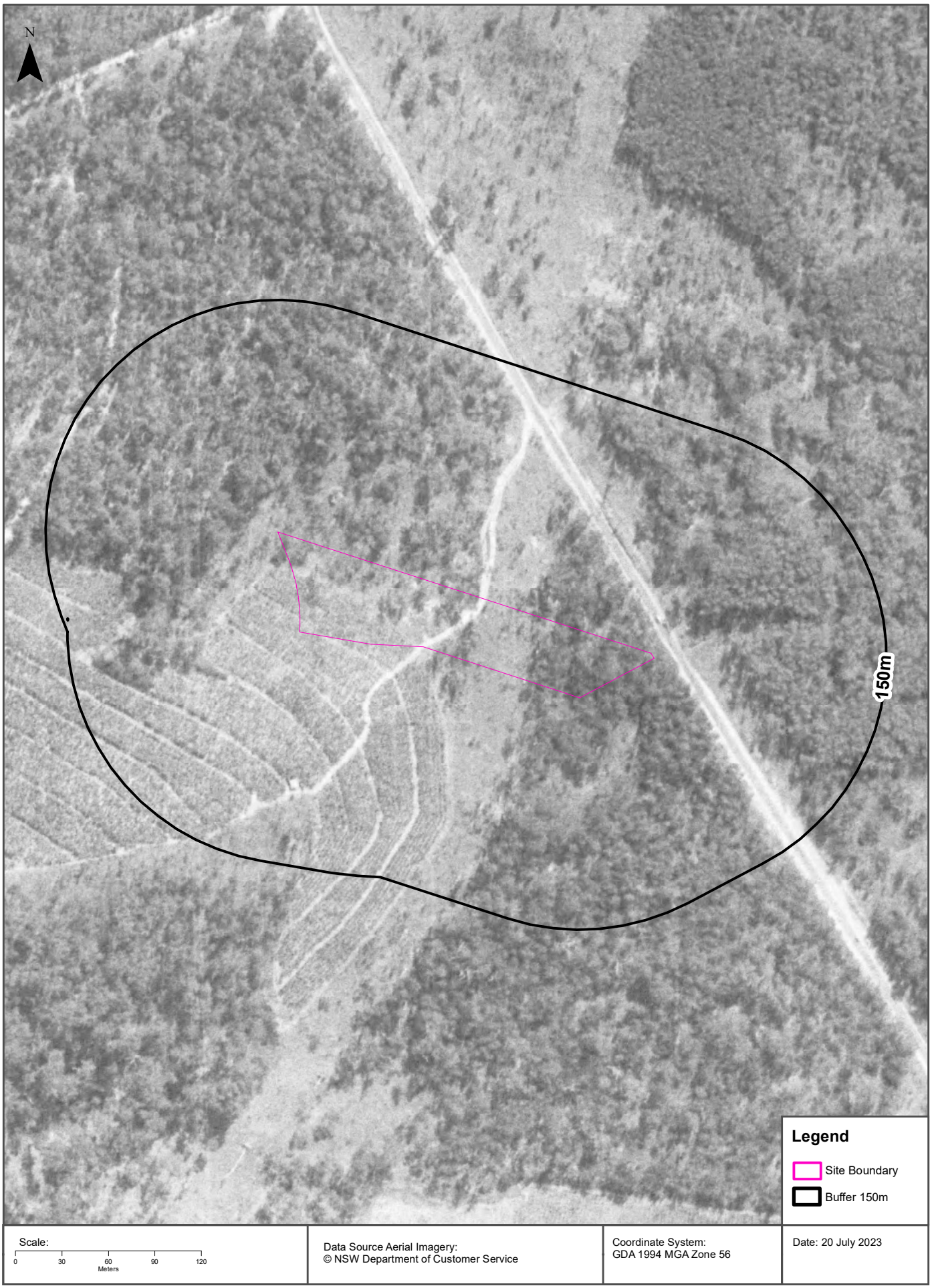
Aerial Imagery 1974

35 Saye Close, Sandy Beach, NSW 2450



Aerial Imagery 1964

35 Saye Close, Sandy Beach, NSW 2450

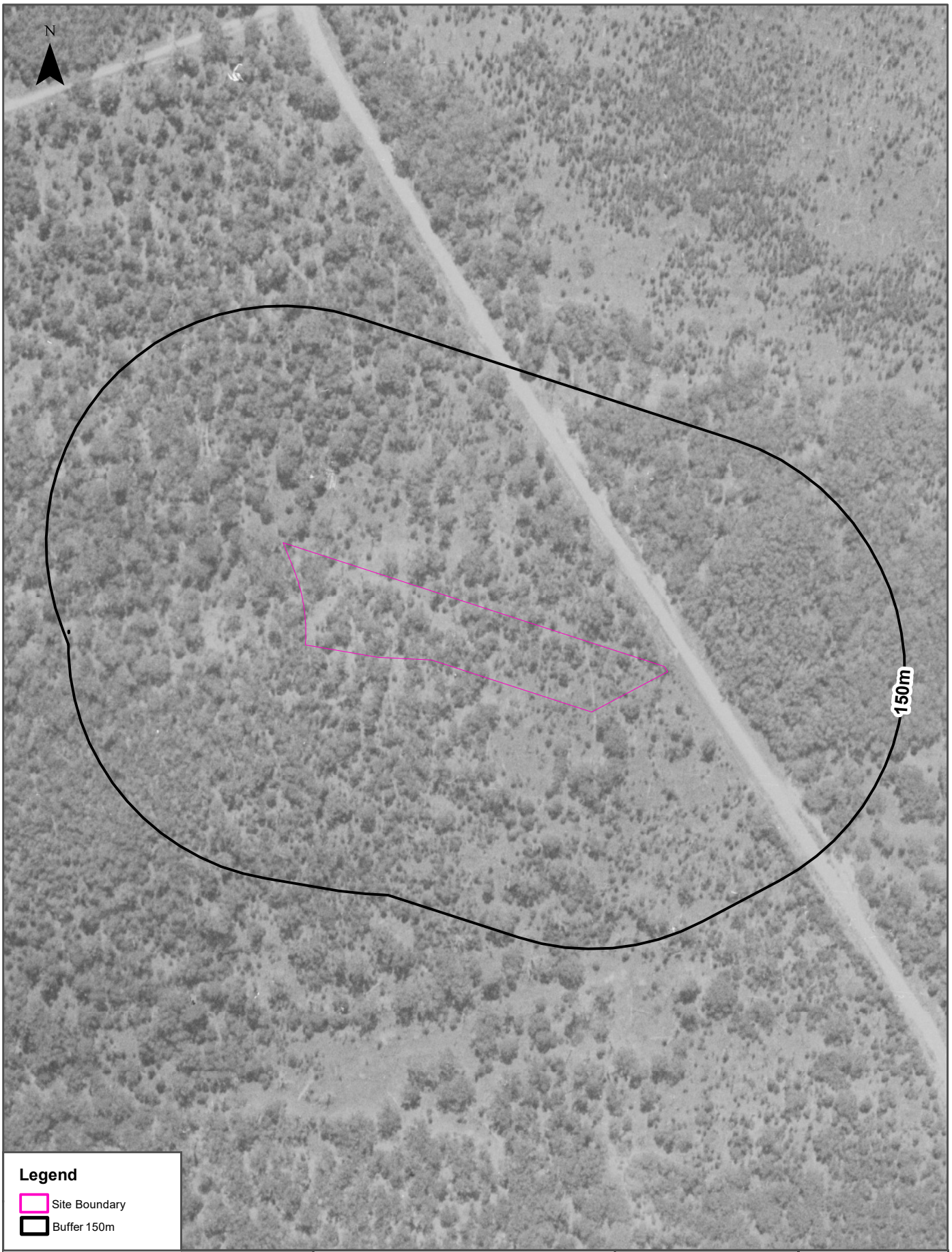


Aerial Imagery 1956

35 Saye Close, Sandy Beach, NSW 2450

Aerial Imagery 1943

35 Saye Close, Sandy Beach, NSW 2450

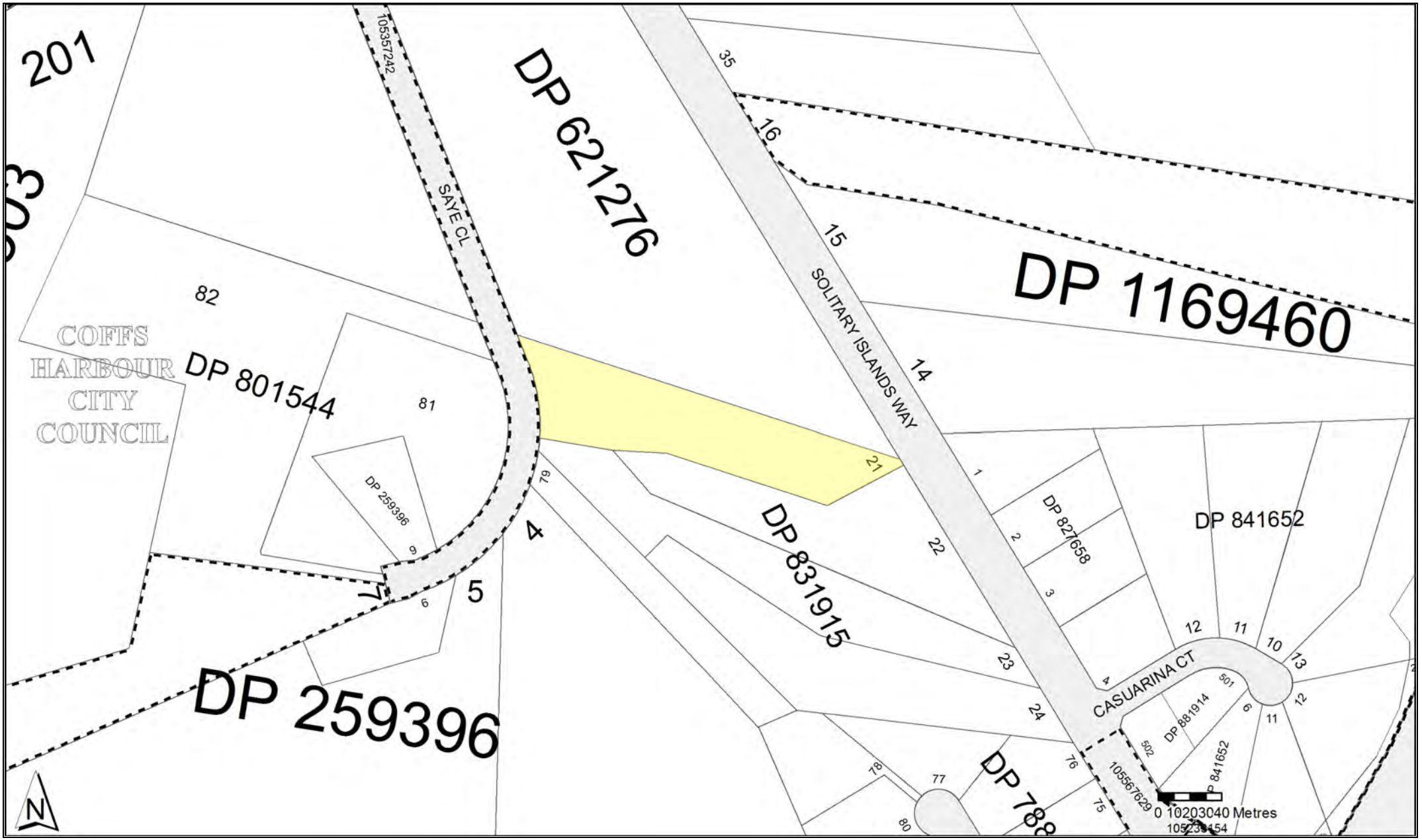


APPENDIX B

Cadastral Records Enquiry Report : Lot 21 DP 831915

Ref : 35 Saye Close, Sandy Beach

Locality : SANDY BEACH
Parish : MOONEE
LGA : COFFS HARBOUR
County : FITZROY



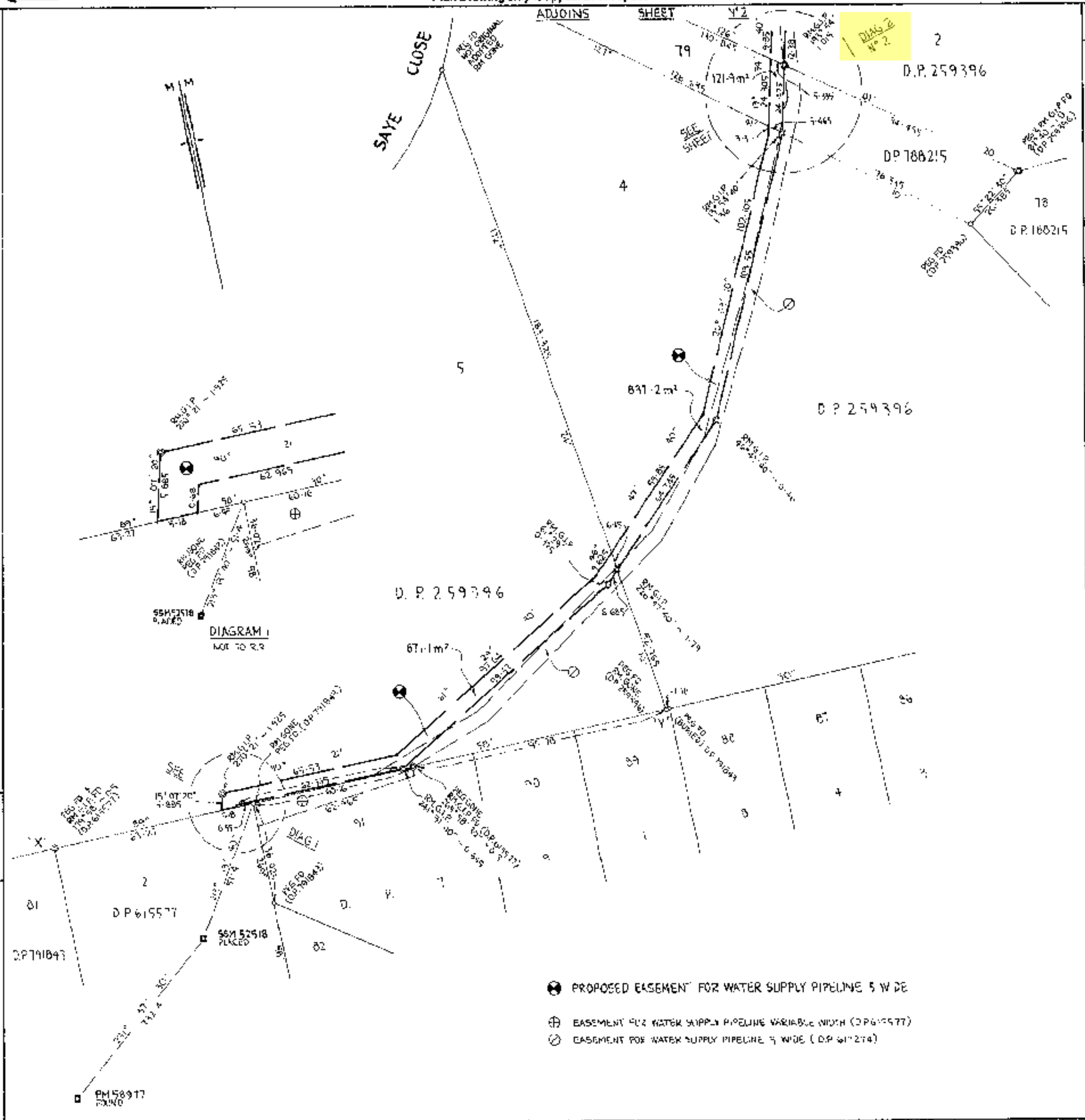
This information is provided as a searching aid only.Whilst every endeavour is made to ensure that current map, plan and titling information is accurately reflected, the Registrar General cannot guarantee the information provided. For ALL ACTIVITY PRIOR TO SEPTEMBER 2002 you must refer to the RGs Charting and Reference Maps

PLAN FORM 2

Plan Drawing only to appear in this space

*OFFICE USE ONLY

SIGNATURES, SEALS AND STATEMENTS of intention to dedicate public roads or to create easements, drainage reserves, easements, restrictions on the use of land or positive covenants.



Crown Lands Office Approval

PLAN APPROVED . . . .
Authorised Officer
Land District . . . .
Paper No . . . .
Folio Box . . . . Appd . . . .

Council Clerk's Certificate

SB 51333

Surveyor's Reference: S.B 51333

WARNING: CREASING OR FOLDING WILL LEAD TO REJECTION

DP 645380

Registered: 14-11-1991

C.A.

Title System: TORRENS

Purpose: EASEMENT

Ref. Map: Y0957-6 & 62

Last Plan: DP259396† DP621276 DP733077† DP788215

PLAN OF PROPOSED EASEMENT FOR PIPELINE WITHIN LOTS 2, 4 & 5 D.P. 259396, LOT 79 D.P. 788215 AND LOT 101 D.P. 621276

Lengths are in metres. Reduction Ratio 1:1000

City: COFFS HARBOUR

Locality: EMERALD BEACH

Parish: MOONEE

County: FITZROY

This is sheet 1 of my plan in 2 sheets.

I, ROBERT MAX ENGEL of PUBLIC WORKS DEPT - COFFS HARBOUR

4TH JUNE 1991

Plans used in preparation of survey/compilation:
DP 615577 DP 621274
DP 791843
DP 259396
DP 788215

PANEL FOR USE ONLY for statements of intention to dedicate public roads or to create public reserves, drainage reserves, easements or restrictions as to user.

COFFS HARBOUR WATER SUPPLY

EASEMENT PROPOSED TO BE ACQUIRED

N O C O F 12 A

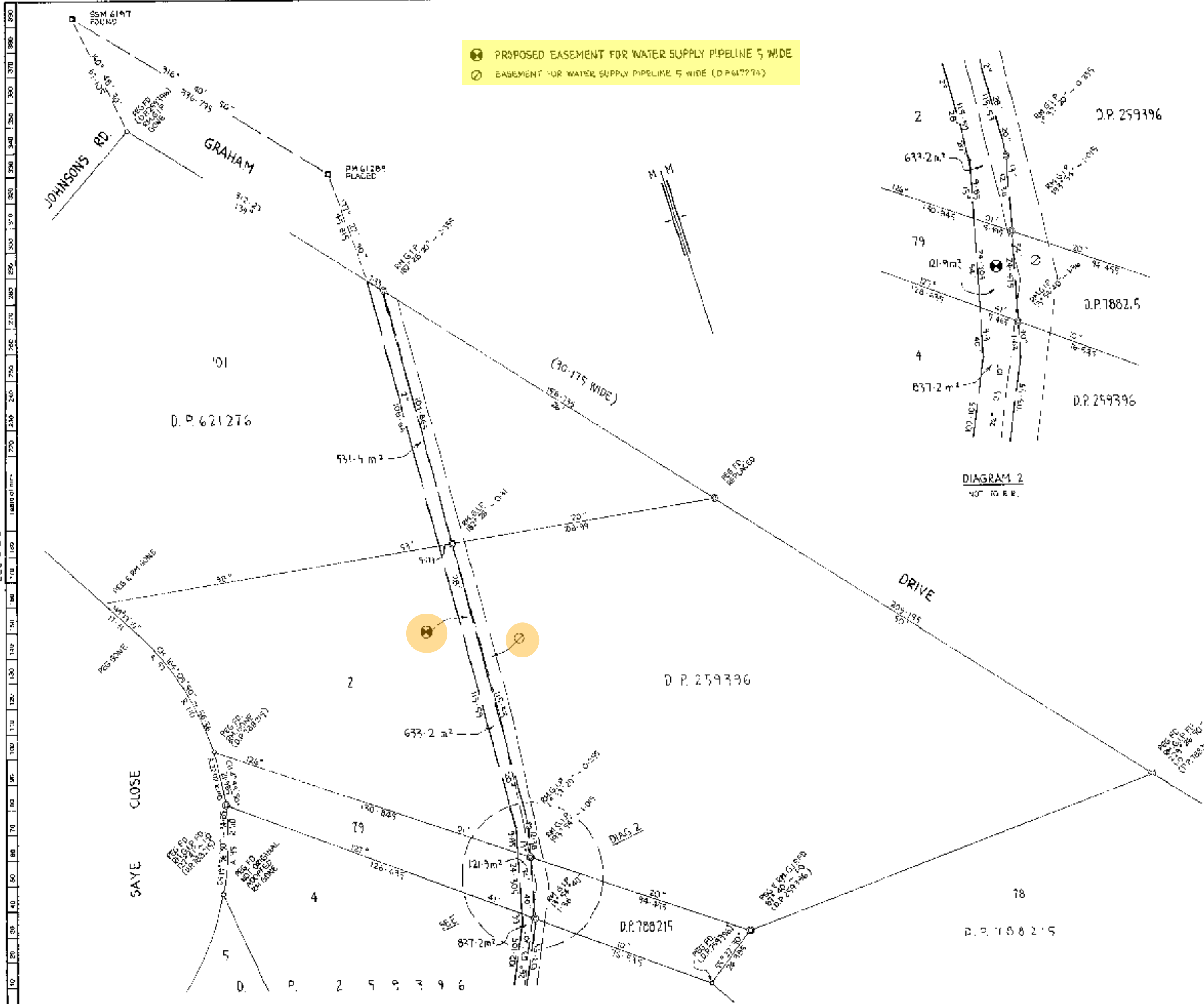
This negative is a photograph made as a permanent record of a document in the custody of the Registrar General this day 15th November, 1991

PLAN FORM 3

To be used in conjunction with Plan Form 2

WARNING: CREASING OR FOLDING WILL LEAD TO REJECTION

*OFFICE USE ONLY



DP 645380

Registered: 14-11-1991

This is sheet 2 of my plan in 2 sheets dated 4th JUNE 1991

Surveyor registered under Surveyors Act 1929

This is sheet of the plan of sheets covered by my Certificate No.

Council Clerk

For use where space is insufficient in any panel on Plan Form 2

Reduction Ratio 1 : 1000

Plan Drawing only to appear in this space

SURVEYOR'S REFERENCE: S.B 51333

S.B 51333

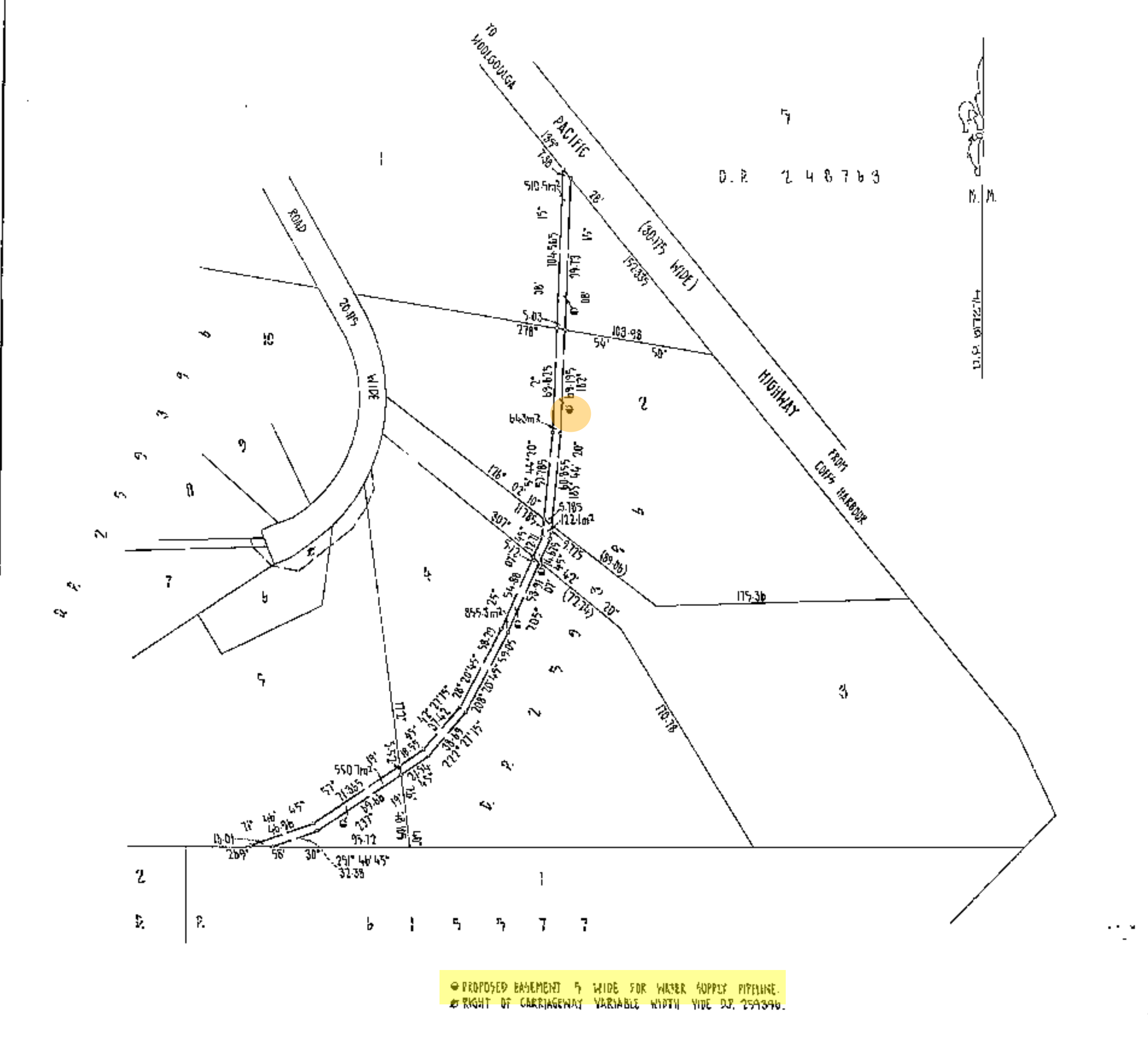
Table of mm 10 20 30 40 50 60 70 110 120 130 140

This negative is a photograph made as a permanent record of a document in the custody of the Registrar General this day. 15th November, 1991

2

PLAN FORM 2 ◄ Plan Drawing only to appear in this space ► DP617274 OFFICE USE ONLY

Signatures and seals only.



D. P. 617274

Registered: 4-6-1981

C.A.:

Title System: TORRENS

Purpose: EASEMENT

Ref Map: COFFS HARBOUR SHA

Last Plan: D.P. 259396

PLAN OF PROPOSED EASEMENT 5 WIDE FOR WATER SUPPLY PIPELINE WITHIN LOTS 1-5 INCLUSIVE D.P. 259396.

Reduction Ratio: 1:2000

Lengths are in metres.

Mun/Shire/City: COFFS HARBOUR

Locality: WOOLGOOLGA

Parish: MOONEE

County: FITZROY

~~This is sheet of my plan in sheets (Delete if inapplicable).~~

JOHN EDWARD READER

PUBLIC WORKS DEPARTMENT, SYDNEY.

a surveyor registered under the Surveyors Act, 1929, as amended, hereby certify that ~~the survey represented in this plan~~ is accurate ~~and has been made (1) by me (2) under my immediate supervision~~ in accordance with the Survey Practice Regulations, 1933, and was completed on † 24.11.80

Signature: [signature]

Surveyor registered under Surveyors Act, 1929, as amended

Datum Line of Azimuth.

*Strike out either (1) or (2). †Insert date of survey.

Panel for use only for statement of intention to dedicate public roads or to create public reserves, drainage reserves, easements or restrictions as to user.

EASEMENT PROPOSED TO BE ACQUIRED.

Council Clerk's Certificate

I hereby certify that –

(a) the requirements of the Local Government Act, 1919 (other than the requirements for the registration of plans), and

*(b) the requirements of section 34B of the †Metropolitan Water, Sewerage and Drainage Act, 1924, as amended †Hunter District Water, Sewerage, and Drainage Act, 1938, as amended

have been complied with by the applicant in relation to the proposed ....

(Insert "new road", "subdivision" or "consolidation" as the case requires)

Subdivision No ....

Date ....

(Signature) ....

Council Clerk

*This part of certificate to be deleted where the application is only for a consolidation or the opening of a new road or where the land to be subdivided is wholly outside the areas of operations of the Metropolitan Water Sewerage and Drainage Board and the Hunter District Water Board.

†Delete if inapplicable

• M.P.D. SB. 29234R

WARNING: CREASING OR FOLDING WILL LEAD TO REJECTION

SURVEYOR'S REFERENCE: SB. 29234R

I, Bruce Richard Davies, Under Secretary for Lands and Registrar General for New South Wales, certify that this negative is a photograph made as a permanent record of a document in my custody this day.

9th June, 1981

PLAN FORM 2 — Plan Drawing only to appear in this space — *OFFICE USE ONLY

DP 831915

SIGNATURES, SEALS AND STATEMENTS of intention to dedicate public roads or to create reserves, drainage reserves, easements, restrictions on the use of land or positive covenants.

Registered: 5.8.1993

O.A: Nº 108/93 of 5.7.1993

Title System: TORRENS

Purpose: SUBDIVISION

Ref. Map: Y0957-62* Y1857-41*

Last Plan: COFFS HARBOUR SH A DP 259396*

PLAN OF SUBDIVISION OF LOT 2 IN D.P. 259396

Lengths are in metres. Reduction Ratio 1 : 2000

~~Municipality~~ City: COFFS HARBOUR

Locality: SANDY BEACH

Parish: MOONEE

County: FITZROY

This is sheet 1 of my plan in ~~sheets~~ (Delete if inapplicable)

I, BRUCE WEIR

of P.O. BOX 1884 COFFS HARBOUR

a surveyor registered under the Surveyors Act 1929 as amended, hereby certify that the survey represented in this plan is accurate and has been made in accordance with the Survey Practice Regulations, 1933 and any special requirements of the Department of Lands and was completed on 28TH MAY 1993

Signature: Bruce Weir

Surveyor registered under Surveyors Act, 1929, as amended.

Datum Line of Azimuth: X'-Y'

Reason date of survey:

Plans used in preparation of survey/compilation.

D.P. 259396
D.P. 788915
D.P. 617274

PANEL FOR USE ONLY for statements of intention to dedicate public roads or to create public reserves, drainage reserves, easements or restrictions as to user.

PURSUANT TO SECTION 88B OF THE CONVEYANCING ACT 1919 AS AMENDED IT IS INTENDED TO CREATE:
1) EASEMENT FOR ELECTRICITY SUPPLY VARIABLE WIDTH.

Crown Lands Office Approval

PLAN APPROVED ..... Authorised Officer

Land District ...

Paper No. ...

Field Book ... pages ...

Council Clerk's Certificate

I hereby certify that —

(a) the requirements of the Local Government Act, 1919 (other than the requirements for the registration of plans), and

~~*(b) the requirements of Part 3 Division 2 of the Water Board Act 1987 and Water Supply Authorities Act 1987~~

have been complied with by the applicant in relation to the proposed SUBDIVISION (insert "new road", "subdivision" or "consolidated lot") set out herein

Subdivision No. 108/93

Date 5/7/93

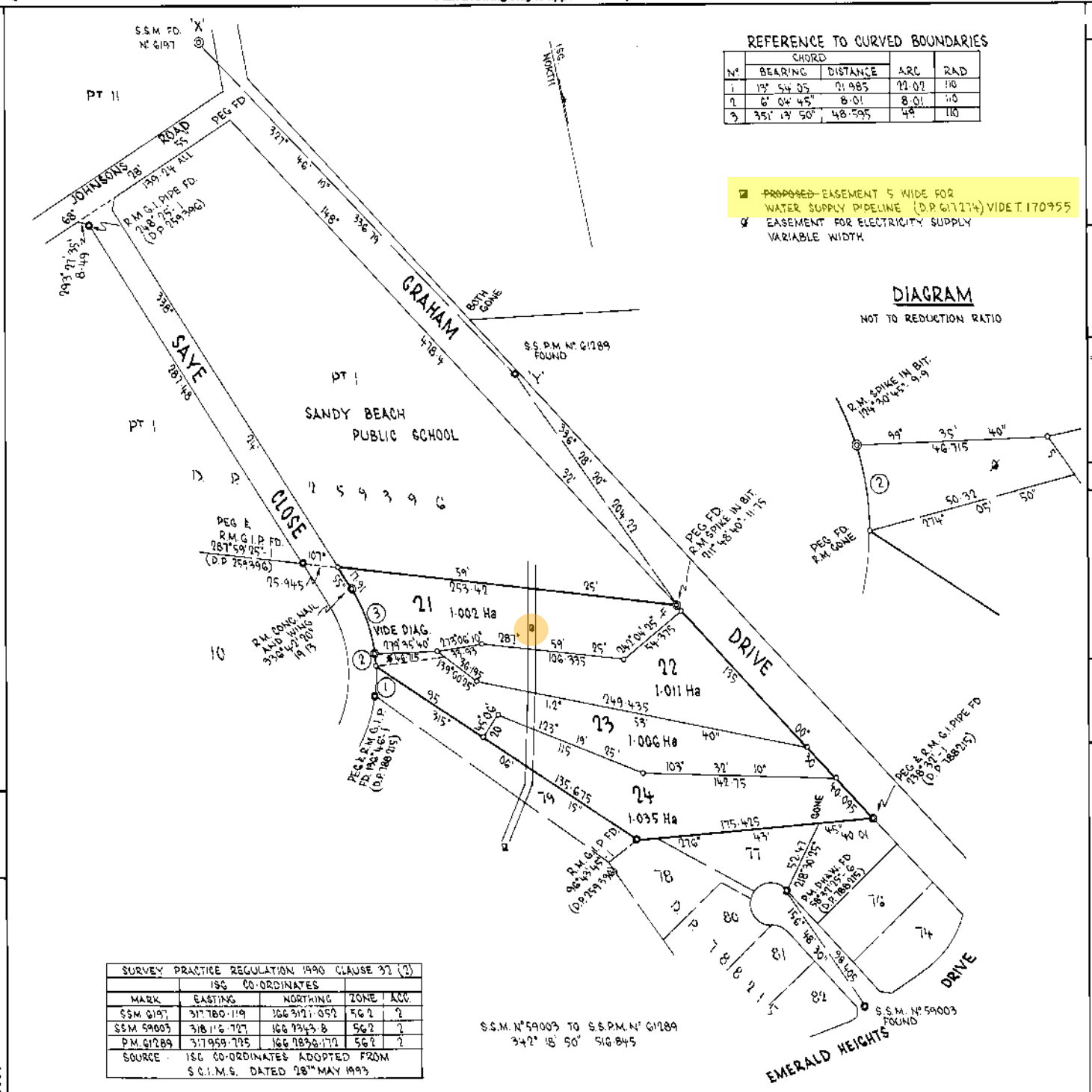
(Signature) ..... Council Clerk

Council File No. ...

*This part of certificate to be deleted where the application is only for consolidated lot or the opening of a new road or where the land to be subdivided is wholly outside the areas of operations of the Metropolitan Water Sewerage and Drainage Board and the Hunter District Water Board.

† Delete if inapplicable.

SURVEYOR'S REFERENCE: 1157



REFERENCE TO CURVED BOUNDARIES

Nº	CHORD BEARING	CHORD DISTANCE	ARC	RAD
1	13° 54' 05"	21.985	22.02	110
2	6° 04' 45"	8.01	8.01	110
3	351° 13' 50"	48.595	49	110

DIAGRAM

NOT TO REDUCTION RATIO

SURVEY PRACTICE REGULATION 1990 CLAUSE 32 (2)

	ISG CO-ORDINATES			
MARK	EASTING	NORTHING	ZONE	ACC.
SSM 6197	317780·119	166 3121·052	56 2	2
SSM 59003	318 116·727	166 7343·8	562	2
P.M. 61289	317959·795	166 7836·172	562	2

SOURCE: ISG CO-ORDINATES ADOPTED FROM S.C.I.M.S. DATED 28TH MAY 1993

S.S.M. Nº 59003 TO S.S.P.M. Nº 61289 342° 18' 50" 516·845

WARNING: CREASING OR FOLDING WILL LEAD TO REJECTION

G. 1

NEW SOUTH WALES

[redacted]TIFICATE OF TITLE

[redacted]PERTY ACT, 1900, as amended.

Crown Grant (Prior Title)
Vol. 6688 Fol. 1

Vol. 9731 Fol. 133

MA 1st Edition issued 18-6-1964

J577979

I certify that the person described in the First Schedule is the registered proprietor of the undermentioned estate in the land within described subject nevertheless to such exceptions encumbrances and interests as are shown in the Second Schedule.

Witness

Registrar-General.

ESTATE AND LAND REFERRED TO

Estate in Fee Simple in Portion 254 in the Shire of Coffs Harbour Parish of Moonee and County of Fitzroy, excepting thereout Lot 1 in Deposited Plan 500619, Lots 2 and 3 in Deposited Plan 100625 and the land in Deposited Plan 100626, the road 100 links wide shown in the plan hereon and the minerals reserved by the above Crown Grant.

Registrar General.

CANCELLED

FIRST SCHEDULE (continued overleaf)

ALFRED WILLIAM ALLEN JOHNSON, of Woolgoolga, Banana Grower.

Registrar General.

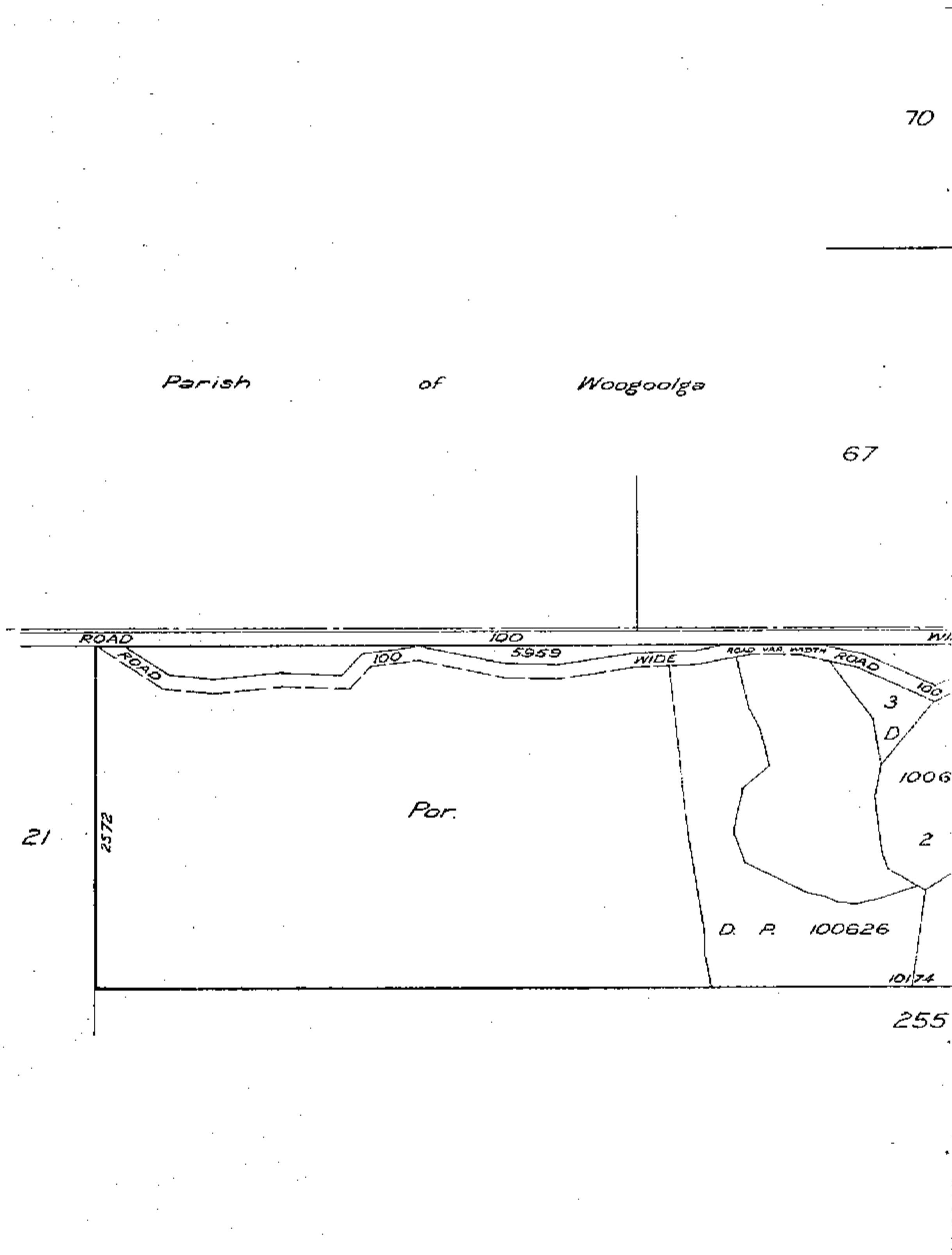
SECOND SCHEDULE (continued overleaf)

1. Reservations and conditions, if any, contained in the Crown Grant above referred to.
2. Restrictions on transfer - See Section 272 Crown Lands Consolidation Act 1913 (C.P. 1919/38 Bellingen).
3. Mortgage No.F968195 to Bank of New South Wales. Entered 19-11-1953.
4. Lease No.F988836 of part to John Edward Gibson, of Woolgoolga, Banana Grower (with consent of Mortgagee). Entered 8-2-1954.
5. Caveat No.J117491. Entered 21-8-1962.

Registrar General.

Vol. 9731 Fol. 133

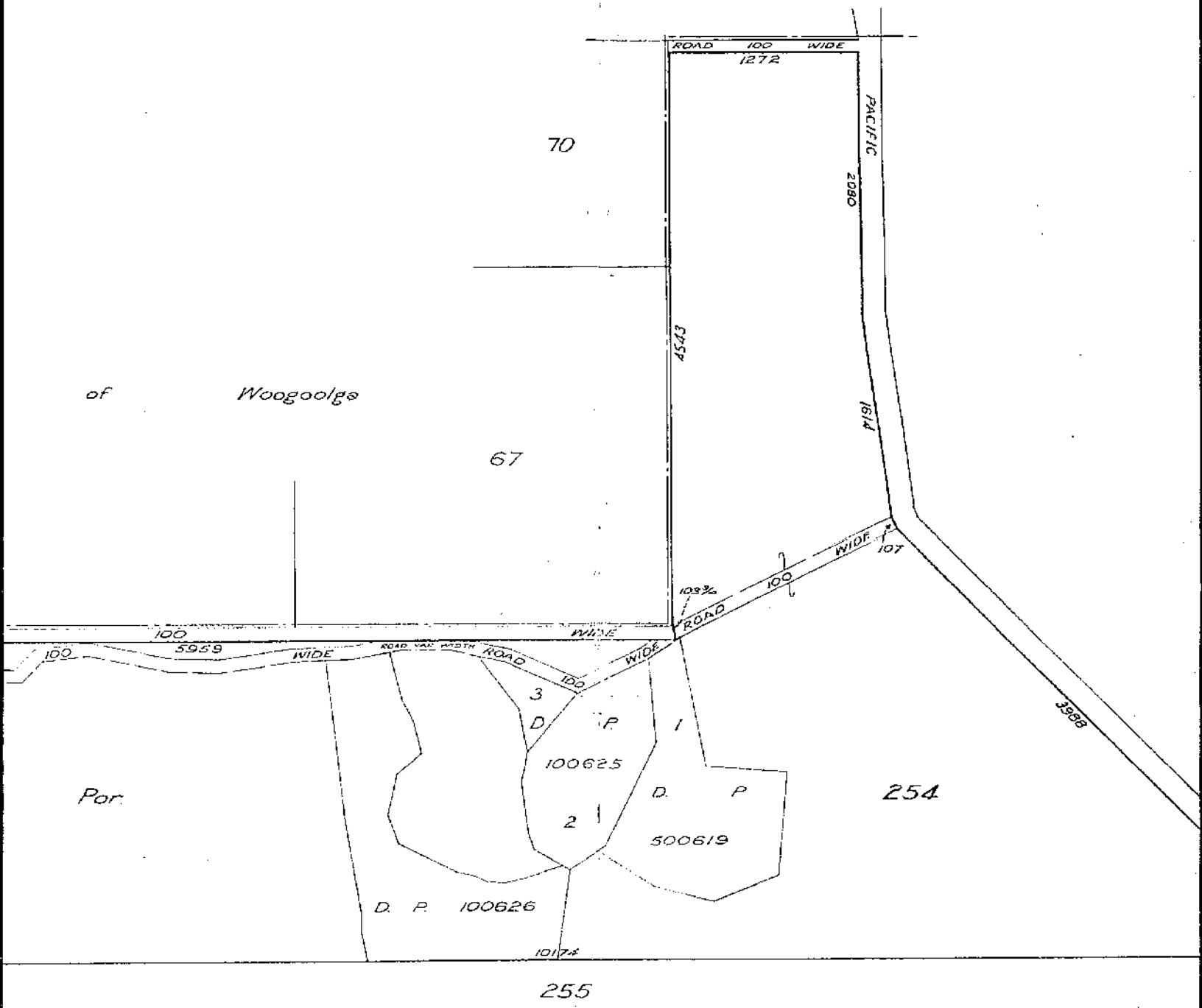
PLAN SHOWING LOCAT



J577979

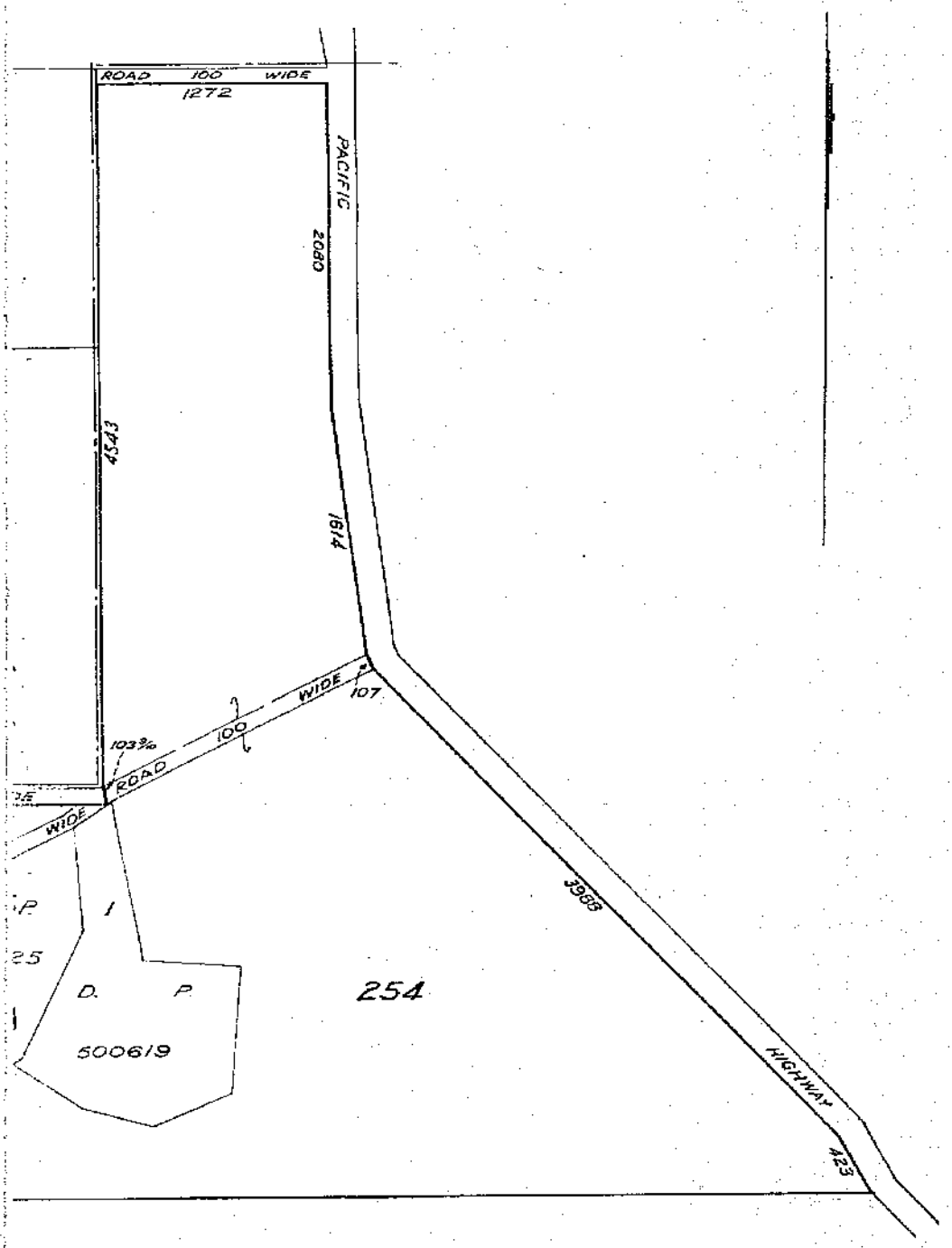
Vol. Fol.

PLAN SHOWING LOCATION OF LAND



Area: 253 ac. 1rd. 13¼ per.
This area does not include the area of the lands in D.P. 500619, D.P. 100625, D.P. 100626 and the roads 100 links wide and variable width.
Scale: 8 chains to one inch.
All lengths shown hereon are in links.

TION OF LAND



Area: 253 ac. 1rd. 13¼ per.
This area does not include the area of the lands in D.P. 500619, D.P. 100625, D.P. 100626 and the roads 100 links wide and variable width.
Scale: 8 chains to one inch.
All lengths shown hereon are in links.

Vol. 9731 Fol 133

FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR	INSTRUMENT: NATURE	INSTRUMENT: NUMBER	INSTRUMENT: DATE	ENTERED	Signature of Registrar-General
This deed is cancelled as to the whole. New Certificates of Title have issued for lots in deposited Plan No 226335 as follows:- Lots 1 to 2 Vol 10104 Fol 26 to 27 respectively. J Watson REGISTRAR GENERAL					

SECOND SCHEDULE (continued)

INSTRUMENT: NATURE	INSTRUMENT: NUMBER	INSTRUMENT: DATE	PARTICULARS	ENTERED	Signature of Registrar-General	CANCELLATION
			New C/T issuing on DP 226335 to disclose to be used without reference to [illegible]			

(Page 4 of 4 pages)

 NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR-GENERAL ARE CANCELLED

10104026

NEW SOUTH WALES

[redacted]RTIFICATE OF TITLE
[redacted]OPERTY ACT, 1900, as amended.

Crown Grant Volume 6688 Folio 1[redacted]
Prior Title Volume 9731 Folio 1[redacted] 33

Vol. 10104 Fol. 26

ID

W

1st Edition issued 3-9-1965

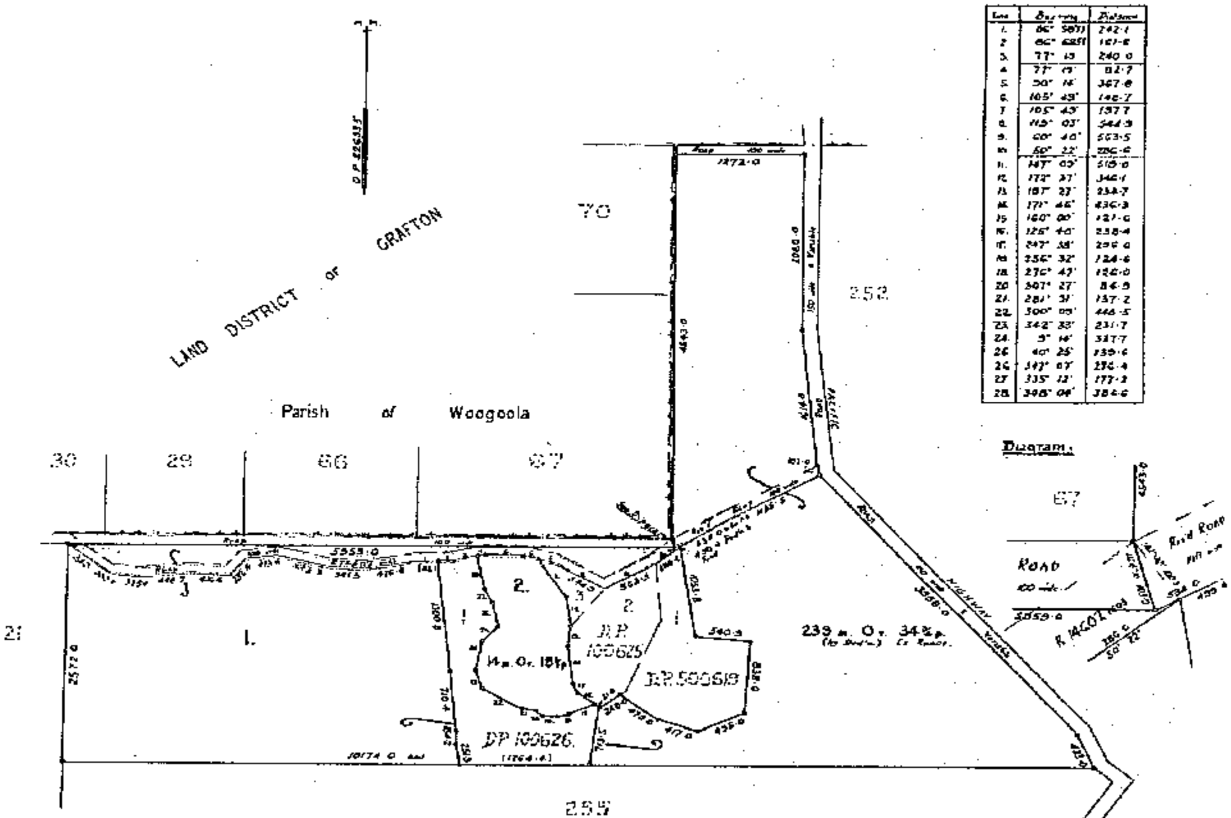
(Page 1) Vol. 10104 Fol. 26

I certify that the person described in the First Schedule is the registered proprietor of the undermentioned estate in the land within described subject nevertheless to such exceptions encumbrances and interests as are shown in the Second Schedule.

Witness J. Charles

Registrar General.

PLAN SHOWING LOCATION OF LAND



Line	Bearing	Distance
1.	86° 50'	242·1
2	86° 58'	161·8
3.	77° 15'	240·0
4	77° 15'	82·7
5.	50° 16'	367·8
6.	105° 43'	146·7
7	105° 43'	137·7
8.	115° 03'	544·9
9.	60° 40'	563·5
10	60° 22'	286·6
11.	147° 03'	515·0
12	172° 37'	346·1
13	187° 27'	234·7
14	171° 46'	436·3
15	160° 00'	127·6
16.	126° 40'	238·4
17.	247° 38'	296·0
18	256° 32'	124·6
19	276° 47'	152·0
20	307° 27'	84·9
21.	281° 31'	137·2
22.	300° 05'	446·5
23.	342° 33'	231·7
24.	3° 16'	317·7
25	40° 25'	139·6
26	347° 07'	276·4
27	335° 12'	177·2
28	348° 04'	384·6

ESTATE AND LAND REFERRED TO

Estate in Fee Simple in Lot 1 in Deposited Plan 226335 at Moonee in the Shire of Coffs Harbour Parish of Moonee and County of Fitzroy Excepting thereout the roads shown in the plan hereon and the minerals reserved by the Crown Grant.

FIRST SCHEDULE (continued overleaf)

ALFRED WILLIAM ALLEN JOHNSON, of Woolgoolga, Banana Grower.

Registrar General

SECOND SCHEDULE (continued overleaf)

1. Reservations and conditions, if any, contained in the Crown Grant above referred to.
2. Restrictions on transfer - see Section 272 Crown Lands Consolidation Act 1913 (C.P. 1919/38 Bellingen).
3. Mortgage No.F968195 to Bank of New South Wales Entered 19-11-1953.
4. Caveat No. J117491 Entered 21-8-1962.

Registrar General

PERSONS ARE CAUTIONED AGAINST ALTERING OR ADDING TO THIS CERTIFICATE OR ANY NOTIFICATION HEREON

WARNING: THIS DOCUMENT MUST NOT BE REMOVED FROM THE LAND TITLES OFFICE.

NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR GENERAL ARE CANCELLED.

DP249942
[illegible] 16/9/[illegible]

SF 1508 V. C. N. BLIGHT, GOVERNMENT PRINTER

FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR	INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	ENTERED	Signature of Registrar General
NEW CERTIFICATE(S) OF TITLE ISSUING ON DP249942 NO DEALING TO BE REGISTERED WITHOUT REFERENCE TO SURVEY [illegible] BRANCH					
[illegible] the whole					
New Certificates of [illegible] 29-9-1975.					
for lots in Deposited Plan No. 249942 as follows:					
Lots 1 to 12 Vol. 12889 Fols 171 to 182 respectively.					
[signature]					

[illegible]
CT29-[illegible]
CT165-[illegible]
LOT 7, D.P.24[illegible] Declared pu[illegible] road, GAZ 29 FOL. 1614
Lot 7 in DP24[illegible] Proclaimed Moto[illegible] Occasionally [illegible] [illegible]

SECOND SCHEDULE (continued)

INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	PARTICULARS	ENTERED	Signature of Registrar General	CANCELLATION
Caveat	K323750	5-5-1966	CAVEAT	23-5-[illegible]	[signature]	

(Page 2 of 2 pages)

FORM No. 62

NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR GENERAL ARE CANCELLED

12889182

NEW SOUTH WALES

[redacted]ICATE OF TITLE

[redacted] PROPERTY ACT, 1900

Crown Grant Vol. 6688 Fol. 1

Prior Title Vol. 10104 Fol. 26

Vol. 12889 Fol. 182

EDITION ISSUED 29 9 1975

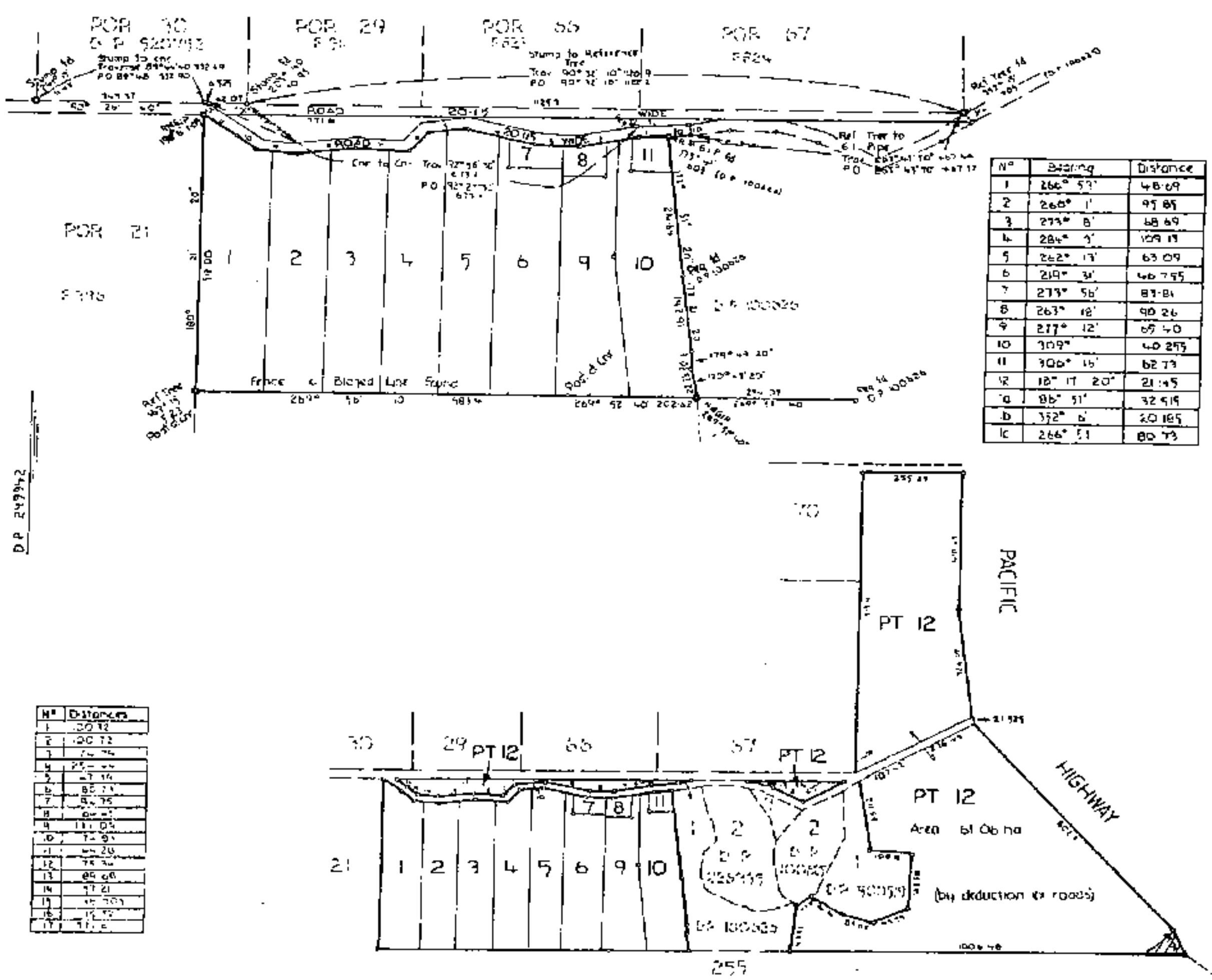
(Page 1) Vol. 12889 Fol. 182

I certify that the person described in the First Schedule is the registered proprietor of the undermentioned estate in the land within described subject nevertheless to such exceptions encumbrances and interests as are shown in the Second Schedule.

Registrar General.

PLAN SHOWING LOCATION OF LAND

LENGTHS ARE IN METRES



Nº	Bearing	Distance
1	266° 53'	48·69
2	260° 1'	95 85
3	273° 8'	68 69
4	284° 3'	109 13
5	262° 13'	63 09
6	219° 31'	46 755
7	273° 56'	83·81
8	263° 18'	90 26
9	277° 12'	65 40
10	309°	40 255
11	306° 15'	62 73
12	18° 17' 20"	21·45
1a	86° 51'	32 515
1b	352° 6'	20 165
1c	266° 51	80 73

Nº	Distances
1	100 72
2	100 72
3	[illegible]
4	[illegible]
5	[illegible]
6	[illegible]
7	[illegible]
8	[illegible]
9	111 09
10	[illegible]
11	[illegible]
12	[illegible]
13	[illegible]
14	[illegible]
15	[illegible]
16	[illegible]
17	[illegible]

ESTATE AND LAND REFERRED TO

Estate in Fee Simple in Lot 12 in Deposited Plan 249942 at South Woolgoolga in the Shire of Coffs Harbour Parish of Moonee and County of Fitzroy. EXCEPTING THEREOUT the roads shown in the plan hereon and the minerals reserved by the Crown Grant.

FIRST SCHEDULE

~~ALFRED WILLIAM ALLEN JOHNSON, of Woolgoolga, Banana Grower.~~

SECOND SCHEDULE

1. Reservations and conditions, if any, contained in the Crown Grant above referred to.
2. Restriction on transfer - See Section 272 Crown Lands Consolidation Act, 1913 (C.P.1919/38 Bellingen).
3. Mortgage No.F968195 to Bank of New South Wales. Entered 19-11-1953.
4. Caveat No.J117491. Entered 21-8-1962.
5. Caveat No.K323750. Entered 23-5-1966.

Vol. 12889 Fol. 182

FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR	INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	ENTERED	Signature of Registrar General
~~The Commissioner for Main Roads as regards Lot 7 in DP 248763 [illegible] William [illegible] Johnson of Woolgoolga, [illegible] as regards the residue~~	~~Resumption~~	~~Q254109~~		~~26.7.1977~~	[signature]
The Commissioner for Main Roads as regards part being Lot 7 in DP 248763. (Motorway)	Resumption	R508677	-	20-5-1980.	[signature]

NEW CERTIFICATE(S) OF TITLE ISSUING ON DP259396
~~NO DEALING TO BE REGISTERED WITHOUT REFERENCE TO SURVEY DRAFTING BRANCH.~~

SECOND SCHEDULE (continued)

INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	PARTICULARS	ENTERED	Signature of Registrar General	CANCELLATION
			DP 259396 The interest of the Council of the Shire of Coffs Harbour in the new road shown in DP 259396	27.2.1980	[signature]	
			Interests created pursuant to Section 88B Conveyancing Act, 1919 by the registration of Deposited Plan 259396	27.2.1980	[signature]	

This deed is cancelled as to the whole ex road
New Certificates of Title have issued on 27.3.1980
for lots in deposited Plan No. 259396 as follows
Lots 1 & 11 Vol. 14091 Fol. 187 & 228 respectively

REGISTRAR GENERAL

The residue of land in this folio comprises the whole ex road in DP 259396 and motorway in DP 248763.

[signature]

REGISTRAR GENERAL

(Page 2 of 2 pages)

NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR GENERAL ARE CANCELLED

Q254109 W (Lot 7 DP248763) CT 18/7/79

DP259396 27/2/80

14091219

NEW SOUTH WALES

[redacted]FICATE OF TITLE

[redacted]EAL PROPERTY ACT, 1900

Crown Grant Vol. 6688 Fol. 1

Prior Title Vol.12889 Fol.182

Vol. 14091 Fol. 219

EDITION ISSUED

28 3 1989

(Page 1) Vol. 14091 Fol. 219

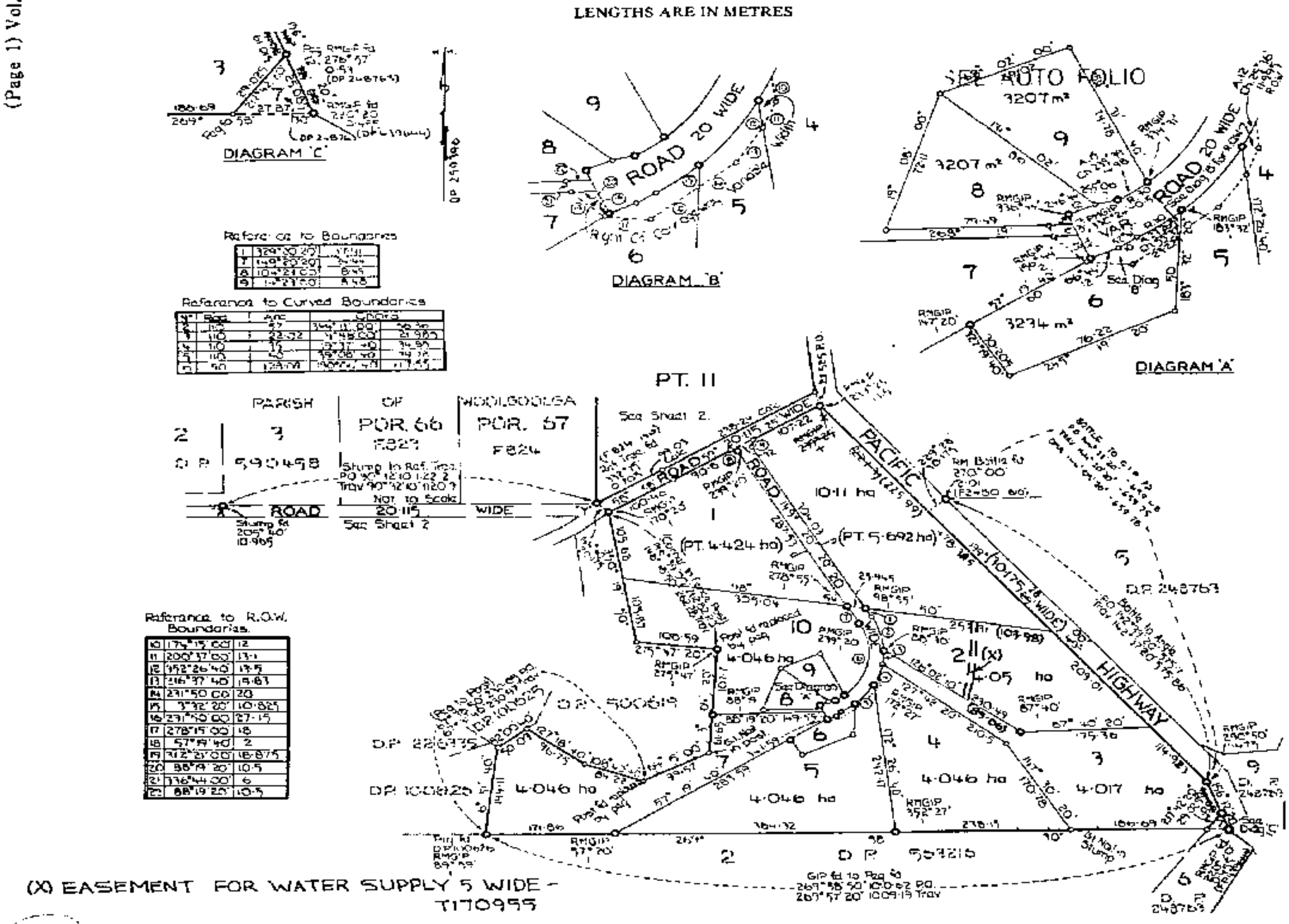
I certify that the person described in the First Schedule is the registered proprietor of the undermentioned estate in the land within described subject nevertheless to such exceptions encumbrances and interests as are shown in the Second Schedule.

Registrar General.

PLAN SHOWING LOCATION OF LAND

CANCELLED

LENGTHS ARE IN METRES



PERSONS ARE CAUTIONED AGAINST ALTERING OR ADDING TO THIS CERTIFICATE OR ANY NOTIFICATION HEREON

WARNING: THIS DOCUMENT MUST NOT BE REMOVED FROM THE REGISTRAR GENERAL'S OFFICE.

ESTATE AND LAND REFERRED TO

Estate in Fee Simple in Lot 2 in Deposited Plan 259396 at South Woolgoolga in the Shire of Coffs Harbour Parish of Moonee and County of Fitzroy. EXCEPTING THEREOUT the minerals reserved by the Crown Grant.

FIRST SCHEDULE

~~ALFRED WILLIAM ALLEN JOHNSON of Woolgoolga, Banana Grower.~~

SECOND SCHEDULE

1. Reservations and conditions, if any, contained in the Crown Grant above referred to.
2. Restriction on transfer - Section 272 CrownLands Consolidation Act,1913 (C.P.1919/38 Bellingen).
3. ~~F968195 Mortgage to Bank of New South Wales.~~ Discharged S377792
4. ~~J117491 Caveat by Rural Bank of New South Wales.~~ Withdrawn S377791
5. ~~K323750 Caveat by Rural Bank of New South Wales.~~ Withdrawn S377791

NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR GENERAL ARE CANCELLED

Vol. 14091 Fol. 219

FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR	INSTRUMENT NATURE	INSTRUMENT NUMBER	REGISTERED	Signature of Registrar General
Neil Leonard Lawrence of Engadine, Salesman and Gwendoline Dorothy Lawrence his wife, as joint tenants.	Transfer	S377793	31-3-1981	[signature]

Mtge. F 9681 11.3.81

S377794

DP 617274 (PT of LOT D.P. 61724 land is res for Easement Water Supply GAZ. 21-8-81 4488.

T170955 (PART)

SECOND SCHEDULE (continued)

INSTRUMENT NATURE	INSTRUMENT NUMBER	PARTICULARS	REGISTERED	Signature of Registrar General	CANCELLATION	
EF(SB) T170955	Resumption Registered	Easement for water supply affecting the land shown as burdened on the plan hereon. 8-11-1982.		[signature]		

NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR GENERAL ARE CANCELLED

Historical Title

NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

SEARCH DATE
25/7/2023 4:24PM

FOLIO: 2/259396

First Title(s): SEE PRIOR TITLE(S)
Prior Title(s): VOL 14091 FOL 219

Recorded	Number	Type of Instrument	C.T. Issue
5/6/1987		TITLE AUTOMATION PROJECT	LOT RECORDED FOLIO NOT CREATED
18/9/1987		CONVERTED TO COMPUTER FOLIO	FOLIO CREATED CT NOT ISSUED
8/12/1988	Y38372	MORTGAGE	EDITION 1
27/2/1989	Y204798	DISCHARGE OF MORTGAGE	
27/2/1989	Y204799	TRANSFER	EDITION 2
28/8/1990	Z214736	DEPARTMENTAL DEALING	
15/11/1991	DP645380	DEPOSITED PLAN	
6/8/1993	DP831915	DEPOSITED PLAN	FOLIO CANCELLED

*** END OF SEARCH ***

RP 13

STAMP DUTY [redacted]

$1.00.

Y204799

TRANSFER

REAL PROPERTY ACT, 1900

T 3 2 of 2 X

$ 42

Rc/2.

	Torrens Title Reference	If Part Only, Delete Whole and Give Details	Location
DESCRIPTION OF LAND Note (a)	Volume 14091 Folio 219 now being Folio Identifier 2/259396	WHOLE	Parish of Woolgoolga County of Fitzroy

TRANSFEROR Note (b): NEIL LEONARD LAWRENCE AND GWENDOLINE DOROTHY LAWRENCE

ESTATE Note (c): (the abovenamed TRANSFEROR) hereby acknowledges receipt of the consideration of $ 215,000.00 and transfers an estate in fee simple in the land above described to the TRANSFEREE

TRANSFEREE Note (d): HORACE EMERSON HAY of 25 Lyndale Avenue, Port Macquarie and MARION EMMA HAY of the same address, his wife

OFFICE USE ONLY: JT 2.

TENANCY Note (e): as joint tenants/~~tenants in common~~

PRIOR ENCUMBRANCES Note (f): subject to the following PRIOR ENCUMBRANCES 1 ..... 2 ..... 3 .....

DATE 14th February, 1989

We hereby certify this dealing to be correct for the purposes of the Real Property Act, 1900

EXECUTION Note (g)

Signed in my presence by the transferor who is personally known to me

[signature] JP
Signature of Witness

S. LAWRENCE
Name of Witness (BLOCK LETTERS)

WOOLGOOLGA
Address and occupation of Witness

LEGAL CLERK

[signature]
Signature of Transferor

[signature]

Signed in my presence by the transferee who is personally known to me

Note (g)

Signature of Witness

Name of Witness (BLOCK LETTERS)

Address and occupation of Witness

[signature] BRETT SCOTT
Signature of Transferee

Solicitor for

TO BE COMPLETED BY LODGING PARTY Notes (h) and (i)

LODGED BY: THOMAS KENYON & SON, LAW STATIONERS, FIRST FLOOR, THE CENTREPOINT, SYDNEY.
Delivery Box Number: D.X. 435 P[illegible] 231 5732

LOCATION OF DOCUMENTS: CT ✓ minister's consent Herewith ✓ OTHER

In L.T.O. with

Produced by

OFFICE USE ONLY

Checked	Passed
ECH	
Signed	Extra Fee

REGISTERED - -19

27 FEB 1989

Secondary Directions

Delivery Directions eT 33H

Min Consent to 33H.

RP 13
1985

INSTRUCTIONS FOR COMPLETION

This dealing should be marked by the Commissioner of Stamp Duties before lodgment by hand at the Land Titles Office.

Typewriting and handwriting should be clear, legible and in permanent dense black or dark blue non-copying ink.

Alterations are not to be made be erasure; the words rejected are to be ruled through and initialled by the parties to the dealing in the left-hand margin.

If the space provided is insufficient, additional sheets of the same size and quality of paper and having the same margins as this form should be used. Each additional sheet must be identified as an annexure and signed by the parties and the attesting witnesses.

If it is intended to create easements, covenants, &c., use forms RP13A, RP13B, RP13C as appropriate.

Rule up all blanks

The following instructions relate to the SIDE NOTES on the form.

(a) Description of land:

(i) TORRENS TITLE REFERENCE. — For a manual reference insert the Volume and Folio (e.g., Vol. 8514 Fol. 126) — For a computer folio insert the folio identifier (e.g., 12/701924).

(ii) PART/WHOLE. - If part only of the land in the folio of the Register is being transferred, delete the word "WHOLE" and insert the lot and plan number, portion, &c. See also sections 327 and 327AA of the Local Government Act, 1919.

(iii) LOCATION. — Insert the locality shown on the Certificate of Title/Crown Grant, e.g., at Chullora. If the locality is not shown, insert the Parish and County, e.g., Ph. Lismore Co. Rous

(b) Show the full name of the transferor(s).

(c) If the estate being transferred is a lesser estate than an estate in fee simple, delete "fee simple" and insert appropriate estate.

(d) Show the full name, address and occupation or description of the transferee(s).

(e) Delete if only one transferee. If more than one transferee, delete either "joint tenants" or "tenants in common", and, if the transferees hold as tenants in common, state the shares in which they hold

(f) In the memorandum of prior encumbrances, state only the registered number of any mortgage, lease, charge or writ to which this dealing is subject.

(g) Execution.

GENERALLY (i) Should there be insufficient space for the execution of this dealing, use an annexure sheet.
(ii) The certificate of correctness under the Real Property Act, 1900, must be signed by all parties to the transfer, each party to execute the dealing in the presence of an adult witness not being a party to the dealing, to whom he/she is personally known.
The solicitor for the transferee may sign the certificate on behalf of the transferee, the solicitor's name (not that of his/her firm), to be typewritten or printed adjacent to the signature. Any person falsely or negligently certifying is liable to the penalties provided by section 117 of the Real Property Act, 1900.

ATTORNEY (iii) If the transfer is executed by an attorney for the transferor/transferee pursuant to a registered power of attorney, the form of attestation must set out the full name of the attorney, and the form of execution must indicate the source of his/her authority, e.g. "AB by his attorney (or receiver or delegate, as the case may be) XY pursuant to power of attorney registered Book No.

AUTHORITY (iv) If the transfer is executed pursuant to an authority (other than specified in (iii)) the form of execution must indicate the statutory, judicial or other authority pursuant to which the transfer has been executed.

CORPORATION (v) If the transfer is executed by a corporation under seal, the form of execution should include a statement that the seal has been properly affixed, e.g., in accordance with the Articles of Association of the corporation. Each person attesting the affixing of the seal must state his/her position (e.g., director, secretary) in the corporation.

(h) Insert the name, postal address, Document Exchange reference, telephone number and delivery box number of the lodging party.

(i) The lodging party is to complete the LOCATION OF DOCUMENTS panel. Place a tick in the appropriate box to indicate the whereabout of the Certificate of Title. List, in an abbreviated form, other documents lodged, e.g., stat. dec. for statutory declaration, pbte for probate, L/A. for letters of administration, &c.

OFFICE USE ONLY

FIRST SCHEDULE DIRECTIONS

(A) FOLIO IDENTIFIER	(B) DIRECTION	(C) NAME

SECOND SCHEDULE AND OTHER DIRECTIONS

(D) FOLIO IDENTIFIER	(E) DIRECTION	(F) NOTEN TYPE	(G) DEALING NUMBER	(H) DETAILS

NOTICES ISSUED 5B2 19-3-89 JW

LAND REGISTRY SERVICES Historical Search

NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

SEARCH DATE
25/7/2023 4:24PM

FOLIO: 21/831915

First Title(s): VOL 6688 FOL 1
Prior Title(s): 2/259396

Recorded	Number	Type of Instrument	C.T. Issue
6/8/1993	DP831915	DEPOSITED PLAN	FOLIO CREATED EDITION 1
3/12/1993	I689393	REQUEST	
10/3/1994	U57812	RESUMPTION APPLICATION	
30/6/1994	U398061	TRANSFER	
30/6/1994	U398062	MORTGAGE	EDITION 2
5/11/1996	2587851	DEPARTMENTAL DEALING	
21/9/1999	6214761	DEPARTMENTAL DEALING	
25/11/1999	6320271	DISCHARGE OF MORTGAGE	
25/11/1999	6320272	MORTGAGE	EDITION 3
21/12/2000	7303817	DEPARTMENTAL DEALING	
9/10/2002	9019211	DISCHARGE OF MORTGAGE	
9/10/2002	9019212	TRANSFER	
9/10/2002	9019213	MORTGAGE	EDITION 4
19/7/2017	AM577807	DISCHARGE OF MORTGAGE	EDITION 5
31/10/2017	AM848867	LEASE	
31/10/2017	AM848868	TRANSFER	
31/10/2017	AM848869	MORTGAGE	EDITION 6 CORD ISSUED

*** END OF SEARCH ***

35 Saye Close, Sandy Beach PRINTED ON 25/7/2023

(1)

Form: 01T
Release: 2.1
www.lpi.nsw.gov.au

TRANSFER

New South Wales
Real Property Act 1900

9019212C

PRIVACY NOTE: this information is legally required and ...

STAMP DUTY

OFFICE OF STATE REVENUE (N.S.W. TREASURY)

Office of State Revenue use only
CLIENT No. 1405393 STAMP No. 183
STAMP DUTY $2.00 SIGNATURE
TRANSACTION No. 028702 DATE 5-7-2002
ASSESSMENT DETAILS:

(A) **TORRENS TITLE** FOLIO IDENTIFIER 21/831915

(B) **LODGED BY**

Delivery Box	Name, Address or DX and Telephone	CODES
	L. J. KANE & CO. LTO BOX 30P FWO - HERMAN	T TW (Sheriff)
	Reference:	

(C) **TRANSFEROR** BRUCE ANTHONY LUMB and KERRIE ANN LUMB

(D) **CONSIDERATION** The transferor acknowledges receipt of the consideration of $ 150,000.00 and as regards

(E) **ESTATE** the land specified above transfers to the transferee an estate in fee simple

(F) **SHARE TRANSFERRED**

(G) Encumbrances (if applicable):

(H) **TRANSFEREE** ANDREW DAVID HERMAN and LESLIE LORRAINE HERMAN

(I) **TENANCY:** Joint Tenants

(J) **DATE**

I certify that the person(s) signing opposite, with whom I am personally acquainted or as to whose identity I am otherwise satisfied, signed this instrument in my presence.

Signature of witness:

Name of witness: L.L. ABBOTT
Address of witness: Solicitor Woolgoolga

Certified correct for the purposes of the Real Property Act 1900 by the transferor.

Signature of transferor: Bruce Lumb Kerrie Lumb

Certified for the purposes of the Real Property Act 1900 by the person whose signature appears below.

Signature:

Signatory's name: PETER SAMES
Signatory's capacity: transferees' solicitor

All handwriting must be in block capitals.

02

NEW SOUTH WALES LAND REGISTRY SERVICES - TITLE SEARCH

FOLIO: 21/831915

SEARCH DATE	TIME	EDITION NO	DATE
25/7/2023	4:23 PM	6	31/10/2017

LAND

LOT 21 IN DEPOSITED PLAN 831915
AT SANDY BEACH
LOCAL GOVERNMENT AREA COFFS HARBOUR
PARISH OF MOONEE COUNTY OF FITZROY
TITLE DIAGRAM DP831915

FIRST SCHEDULE

COFFSCHAP PTY LTD (T AM848868)

SECOND SCHEDULE (5 NOTIFICATIONS)

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1 LAND EXCLUDES MINERALS AND IS SUBJECT TO RESERVATIONS AND CONDITIONS IN FAVOUR OF THE CROWN - SEE CROWN GRANT(S)

2 T170955 EASEMENT FOR WATER SUPPLY AFFECTING THE PART SHOWN SO BURDENED IN DP617274

3 U57812 EASEMENT FOR WATER SUPPLY PIPELINE 5 WIDE AFFECTING THE PART OF THE LAND ABOVE DESCRIBED SHOWN SO BURDENED IN DP645380

4 AM848867 LEASE TO SANDY BEACH CHILD CARE PTY LTD EXPIRES: 19/10/2037.

5 AM848869 MORTGAGE TO SUNCORP-METWAY LIMITED

NOTATIONS

2587851 NOTE: EASEMENT FOR WATER SUPPLY PIPELINE CREATED BY U57812 VESTED IN COFFS HARBOUR CITY COUNCIL GAZ. 19.7.1996 FOL 4275

7303817 NOTE: EASEMENT CREATED BY T170955 VESTED IN COFFS HARBOUR CITY COUNCIL VIDE GAZETTE 17-3-2000 FOLIO 2202.

UNREGISTERED DEALINGS: NIL

*** END OF SEARCH ***

APPENDIX C

Earth Water Consulting Pty Limited
2-16 Lourdes Avenue
Urunga
NSW 2455

NATA Accredited
Accreditation Number 1261
Site Number 18217

Accredited for compliance with ISO/IEC 17025 – Testing
NATA is a signatory to the ILAC Mutual Recognition Arrangement for the mutual recognition of the equivalence of testing, medical testing, calibration, inspection, proficiency testing scheme providers and reference materials producers reports and certificates.

Attention: **Strider Duerinckx**

Report **1012267-S**
Project name BRETT CHAPMAN
Project ID 2122-027
Received Date Jul 28, 2023

Client Sample ID			**S-1**	**S-2**	**S-3**	**S-4**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S23-Jl0067761**	**S23-Jl0067762**	**S23-Jl0067763**	**S23-Jl0067764**
Date Sampled			**Jul 27, 2023**	**Jul 27, 2023**	**Jul 27, 2023**	**Jul 27, 2023**
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
a-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
b-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
d-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toxaphene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	117	98	100	108
Tetrachloro-m-xylene (surr.)	1	%	82	84	94	93
Heavy Metals						
Arsenic	2	mg/kg	5.5	11	3.7	7.5
Lead	5	mg/kg	8.4	15	< 5	22
Sample Properties						
% Moisture	1	%	21	14	28	14

Client Sample ID			S-5	S-6	Q-1	Q-2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S23-JI0067765	S23-JI0067766	S23-JI0067791	S23-JI0067792
Date Sampled			Jul 27, 2023	Jul 27, 2023	Jul 27, 2023	Jul 27, 2023
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
a-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
b-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
d-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toxaphene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	103	98	79	76
Tetrachloro-m-xylene (surr.)	1	%	93	93	85	82
Heavy Metals						
Arsenic	2	mg/kg	12	13	10	3.6
Lead	5	mg/kg	17	19	13	< 5
Sample Properties						
% Moisture	1	%	13	11	15	28

Client Sample ID			C1	C2	C3	C4
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S23-JI0067793	S23-JI0067794	S23-JI0067795	S23-JI0067796
Date Sampled			Jul 27, 2023	Jul 27, 2023	Jul 27, 2023	Jul 27, 2023
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
a-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
b-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
d-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05

Client Sample ID			C1	C2	C3	C4
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S23-Jl0067793	S23-Jl0067794	S23-Jl0067795	S23-Jl0067796
Date Sampled			Jul 27, 2023	Jul 27, 2023	Jul 27, 2023	Jul 27, 2023
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toxaphene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	80	87	75	83
Tetrachloro-m-xylene (surr.)	1	%	85	94	88	83
Heavy Metals						
Arsenic	2	mg/kg	20	9.8	14	4.4
Lead	5	mg/kg	14	57	22	12
Sample Properties						
% Moisture	1	%	18	25	24	14

Client Sample ID			C5	C6
Sample Matrix			Soil	Soil
Eurofins Sample No.			S23-Jl0067797	S23-Jl0067798
Date Sampled			Jul 27, 2023	Jul 27, 2023
Test/Reference	LOR	Unit		
Organochlorine Pesticides				
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05
a-HCH	0.05	mg/kg	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05
b-HCH	0.05	mg/kg	< 0.05	< 0.05
d-HCH	0.05	mg/kg	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05

Client Sample ID			C5	C6
Sample Matrix			Soil	Soil
Eurofins Sample No.			S23-Jl0067797	S23-Jl0067798
Date Sampled			Jul 27, 2023	Jul 27, 2023
Test/Reference	LOR	Unit		
Organochlorine Pesticides				
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05
Toxaphene	0.5	mg/kg	< 0.5	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	102	87
Tetrachloro-m-xylene (surr.)	1	%	86	94
Heavy Metals				
Arsenic	2	mg/kg	3.5	6.6
Lead	5	mg/kg	9.8	19
Sample Properties				
% Moisture	1	%	22	39

Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Organochlorine Pesticides	Sydney	Aug 03, 2023	14 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
Heavy Metals	Sydney	Aug 03, 2023	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
% Moisture	Sydney	Jul 31, 2023	14 Days
- Method: LTM-GEN-7080 Moisture			

eurofins

web: www.eurofins.com.au
email: EnviroSales@eurofins.com

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

Melbourne
6 Monterey Road
Dandenong South
VIC 3175
Tel: +61 3 8564 5000
NATA# 1261 Site# 1254

Geelong
19/8 Lewalan Street
Grovedale
VIC 3216
Tel: +61 3 8564 5000
NATA# 1261 Site# 25403

Sydney
179 Magowar Road
Girraween
NSW 2145
Tel: +61 2 9900 8400
NATA# 1261 Site# 18217

Canberra
Unit 1,2 Dacre Street
Mitchell
ACT 2911
Tel: +61 2 6113 8091
NATA# 1261 Site# 25466

Brisbane
1/21 Smallwood Place
Murarrie
QLD 4172
Tel: +61 7 3902 4600
NATA# 1261 Site# 20794

Newcastle
1/2 Frost Drive
Mayfield West NSW 2304
Tel: +61 2 4968 8448
NATA# 1261
Site# 25079 & 25289

Eurofins ARL Pty Ltd
ABN: 91 05 0159 898

Perth
46-48 Banksia Road
Welshpool
WA 6106
Tel: +61 8 6253 4444
NATA# 2377 Site# 2370

Eurofins Environment Testing NZ Ltd
NZBN: 9429046024954

Auckland
35 O'Rorke Road
Penrose,
Auckland 1061
Tel: +64 9 526 4551
IANZ# 1327

Christchurch
43 Detroit Drive
Rolleston,
Christchurch 7675
Tel: +64 3 343 5201
IANZ# 1290

Company Name: Earth Water Consulting Pty Limited
Address: 2-16 Lourdes Avenue
Urunga
NSW 2455

Project Name: BRETT CHAPMAN
Project ID: 2122-027

Order No.: 2122-027
Report #: 1012267
Phone: 0402 6083 96
Fax:

Received: Jul 28, 2023 9:55 AM
Due: Aug 4, 2023
Priority: 5 Day
Contact Name: Strider Duerinckx

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						Arsenic	Lead	Organochlorine Pesticides	Moisture Set
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X
External Laboratory									
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**				
1	S-1	Jul 27, 2023		Soil	S23-Jl0067761	X	X	X	X
2	S-2	Jul 27, 2023		Soil	S23-Jl0067762	X	X	X	X
3	S-3	Jul 27, 2023		Soil	S23-Jl0067763	X	X	X	X
4	S-4	Jul 27, 2023		Soil	S23-Jl0067764	X	X	X	X
5	S-5	Jul 27, 2023		Soil	S23-Jl0067765	X	X	X	X
6	S-6	Jul 27, 2023		Soil	S23-Jl0067766	X	X	X	X
7	Q-1	Jul 27, 2023		Soil	S23-Jl0067791	X	X	X	X
8	Q-2	Jul 27, 2023		Soil	S23-Jl0067792	X	X	X	X
9	C1	Jul 27, 2023		Soil	S23-Jl0067793	X	X	X	X
10	C2	Jul 27, 2023		Soil	S23-Jl0067794	X	X	X	X
11	C3	Jul 27, 2023		Soil	S23-Jl0067795	X	X	X	X
12	C4	Jul 27, 2023		Soil	S23-Jl0067796	X	X	X	X
13	C5	Jul 27, 2023		Soil	S23-Jl0067797	X	X	X	X

eurofins

web: www.eurofins.com.au
email: EnviroSales@eurofins.com

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

Melbourne
6 Monterey Road
Dandenong South
VIC 3175
Tel: +61 3 8564 5000
NATA# 1261 Site# 1254

Geelong
19/8 Lewalan Street
Grovedale
VIC 3216
Tel: +61 3 8564 5000
NATA# 1261 Site# 25403

Sydney
179 Magowar Road
Girraween
NSW 2145
Tel: +61 2 9900 8400
NATA# 1261 Site# 18217

Canberra
Unit 1,2 Dacre Street
Mitchell
ACT 2911
Tel: +61 2 6113 8091
NATA# 1261 Site# 25466

Brisbane
1/21 Smallwood Place
Murarrie
QLD 4172
Tel: +61 7 3902 4600
NATA# 1261 Site# 20794

Newcastle
1/2 Frost Drive
Mayfield West NSW 2304
Tel: +61 2 4968 8448
NATA# 1261
Site# 25079 & 25289

Eurofins ARL Pty Ltd
ABN: 91 05 0159 898

Perth
46-48 Banksia Road
Welshpool
WA 6106
Tel: +61 8 6253 4444
NATA# 2377 Site# 2370

Eurofins Environment Testing NZ Ltd
NZBN: 9429046024954

Auckland
35 O'Rorke Road
Penrose,
Auckland 1061
Tel: +64 9 526 4551
IANZ# 1327

Christchurch
43 Detroit Drive
Rolleston,
Christchurch 7675
Tel: +64 3 343 5201
IANZ# 1290

Company Name: Earth Water Consulting Pty Limited
Address: 2-16 Lourdes Avenue
Urunga
NSW 2455

Project Name: BRETT CHAPMAN
Project ID: 2122-027

Order No.: 2122-027
Report #: 1012267
Phone: 0402 6083 96
Fax:

Received: Jul 28, 2023 9:55 AM
Due: Aug 4, 2023
Priority: 5 Day
Contact Name: Strider Duerinckx

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						Arsenic	Lead	Organochlorine Pesticides	Moisture Set
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X
14	C6	Jul 27, 2023		Soil	S23-Jl0067798	X	X	X	X
Test Counts						14	14	14	14

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples follows guidelines delineated in the National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended May 2013 and are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil/sediment/solid results are reported on a dry basis, unless otherwise stated.
3. All biota/food results are reported on a wet weight basis on the edible portion, unless otherwise stated.
4. Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
5. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
6. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
7. Samples were analysed on an 'as received' basis.
8. Information identified on this report with blue colour, indicates data provided by customer that may have an impact on the results.
9. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the SRA.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

For VOCs containing vinyl chloride, styrene and 2-chloroethyl vinyl ether the holding time is 7 days however for all other VOCs such as BTEX or C6-10 TRH then the holding time is 14 days.

Units

mg/kg: milligrams per kilogram
mg/L: milligrams per litre
µg/L: micrograms per litre
ppm: parts per million
ppb: parts per billion
%: Percentage
org/100 mL: Organisms per 100 millilitres
NTU: Nephelometric Turbidity Units
MPN/100 mL: Most Probable Number of organisms per 100 millilitres
CFU: Colony forming unit

Terms

APHA	American Public Health Association
COC	Chain of Custody
CP	Client Parent - QC was performed on samples pertaining to this report
CRM	Certified Reference Material (ISO17034) - reported as percent recovery.
Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
LOR	Limit of Reporting.
LCS	Laboratory Control Sample - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
SRA	Sample Receipt Advice
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
TBTO	Tributyltin oxide (*bis*-tributyltin oxide) - individual tributyltin compounds cannot be identified separately in the environment however free tributyltin was measured and its values were converted stoichiometrically into tributyltin oxide for comparison with regulatory limits.
TCLP	Toxicity Characteristic Leaching Procedure
TEQ	Toxic Equivalency Quotient or Total Equivalence
QSM	US Department of Defense Quality Systems Manual Version 5.4
US EPA	United States Environmental Protection Agency
WA DWER	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

The acceptance criteria should be used as a guide only and may be different when site specific Sampling Analysis and Quality Plan (SAQP) have been implemented

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR: No Limit

Results between 10-20 times the LOR: RPD must lie between 0-50%

Results >20 times the LOR: RPD must lie between 0-30%

NOTE: pH duplicates are reported as a range not as RPD

Surrogate Recoveries: Recoveries must lie between 20-130% for Speciated Phenols & 50-150% for PFAS. SVOCs recoveries 20 – 150%

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.4 where no positive PFAS results have been reported have been reviewed and no data was affected.

QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore, laboratory analysis is unlikely to be completed within holding time.Analysis will begin as soon as possible after sample receipt.
4. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery the term "INT" appears against that analyte.
5. For Matrix Spikes and LCS results a dash "-" in the report means that the specific analyte was not added to the QC sample.
6. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Organochlorine Pesticides							
Chlordanes - Total	mg/kg	< 0.1			0.1	Pass	
4.4'-DDD	mg/kg	< 0.05			0.05	Pass	
4.4'-DDE	mg/kg	< 0.05			0.05	Pass	
4.4'-DDT	mg/kg	< 0.05			0.05	Pass	
a-HCH	mg/kg	< 0.05			0.05	Pass	
Aldrin	mg/kg	< 0.05			0.05	Pass	
b-HCH	mg/kg	< 0.05			0.05	Pass	
d-HCH	mg/kg	< 0.05			0.05	Pass	
Dieldrin	mg/kg	< 0.05			0.05	Pass	
Endosulfan I	mg/kg	< 0.05			0.05	Pass	
Endosulfan II	mg/kg	< 0.05			0.05	Pass	
Endosulfan sulphate	mg/kg	< 0.05			0.05	Pass	
Endrin	mg/kg	< 0.05			0.05	Pass	
Endrin aldehyde	mg/kg	< 0.05			0.05	Pass	
Endrin ketone	mg/kg	< 0.05			0.05	Pass	
g-HCH (Lindane)	mg/kg	< 0.05			0.05	Pass	
Heptachlor	mg/kg	< 0.05			0.05	Pass	
Heptachlor epoxide	mg/kg	< 0.05			0.05	Pass	
Hexachlorobenzene	mg/kg	< 0.05			0.05	Pass	
Methoxychlor	mg/kg	< 0.05			0.05	Pass	
Toxaphene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Heavy Metals							
Arsenic	mg/kg	< 2			2	Pass	
Lead	mg/kg	< 5			5	Pass	
LCS - % Recovery							
Organochlorine Pesticides							
Chlordanes - Total	%	83			70-130	Pass	
4.4'-DDD	%	98			70-130	Pass	
4.4'-DDE	%	88			70-130	Pass	
4.4'-DDT	%	100			70-130	Pass	
a-HCH	%	85			70-130	Pass	
Aldrin	%	84			70-130	Pass	
b-HCH	%	87			70-130	Pass	
d-HCH	%	81			70-130	Pass	
Dieldrin	%	92			70-130	Pass	
Endosulfan I	%	92			70-130	Pass	
Endosulfan II	%	94			70-130	Pass	
Endosulfan sulphate	%	92			70-130	Pass	
Endrin	%	93			70-130	Pass	
Endrin aldehyde	%	82			70-130	Pass	
Endrin ketone	%	90			70-130	Pass	
g-HCH (Lindane)	%	86			70-130	Pass	
Heptachlor	%	83			70-130	Pass	
Heptachlor epoxide	%	81			70-130	Pass	
Hexachlorobenzene	%	83			70-130	Pass	
Methoxychlor	%	103			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	103			80-120	Pass	
Lead	%	106			80-120	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
Chlordanes - Total	S23-Jl0068639	NCP	%	84			70-130	Pass	
4.4'-DDD	S23-Jl0068639	NCP	%	94			70-130	Pass	
4.4'-DDE	S23-Jl0068639	NCP	%	92			70-130	Pass	
4.4'-DDT	S23-Jl0068639	NCP	%	95			70-130	Pass	
a-HCH	S23-Jl0068639	NCP	%	85			70-130	Pass	
Aldrin	S23-Jl0068639	NCP	%	82			70-130	Pass	
b-HCH	S23-Jl0068639	NCP	%	90			70-130	Pass	
d-HCH	S23-Jl0068639	NCP	%	87			70-130	Pass	
Dieldrin	S23-Jl0068639	NCP	%	90			70-130	Pass	
Endosulfan I	S23-Jl0068639	NCP	%	86			70-130	Pass	
Endosulfan II	S23-Jl0068639	NCP	%	87			70-130	Pass	
Endosulfan sulphate	S23-Jl0068639	NCP	%	98			70-130	Pass	
Endrin	S23-Jl0068639	NCP	%	102			70-130	Pass	
Endrin aldehyde	S23-Jl0068639	NCP	%	73			70-130	Pass	
Endrin ketone	S23-Jl0068639	NCP	%	92			70-130	Pass	
g-HCH (Lindane)	S23-Jl0068639	NCP	%	86			70-130	Pass	
Heptachlor	S23-Jl0068639	NCP	%	85			70-130	Pass	
Heptachlor epoxide	S23-Jl0068639	NCP	%	80			70-130	Pass	
Hexachlorobenzene	S23-Jl0068639	NCP	%	86			70-130	Pass	
Methoxychlor	S23-Jl0068639	NCP	%	90			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S23-Au0003521	NCP	%	98			75-125	Pass	
Lead	S23-Au0003521	NCP	%	91			75-125	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	S23-Jl0068638	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
4.4'-DDD	S23-Jl0068638	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDE	S23-Jl0068638	NCP	mg/kg	0.05	0.05	<1	30%	Pass	
4.4'-DDT	S23-Jl0068638	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
a-HCH	S23-Jl0068638	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	S23-Jl0068638	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-HCH	S23-Jl0068638	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
d-HCH	S23-Jl0068638	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dieldrin	S23-Jl0068638	NCP	mg/kg	0.14	0.14	3.1	30%	Pass	
Endosulfan I	S23-Jl0068638	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan II	S23-Jl0068638	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan sulphate	S23-Jl0068638	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin	S23-Jl0068638	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin aldehyde	S23-Jl0068638	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin ketone	S23-Jl0068638	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
g-HCH (Lindane)	S23-Jl0068638	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor	S23-Jl0068638	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor epoxide	S23-Jl0068638	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Hexachlorobenzene	S23-Jl0068638	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methoxychlor	S23-Jl0068638	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Toxaphene	S23-Jl0068638	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Sample Properties				Result 1	Result 2	RPD			
% Moisture	S23-Jl0067764	CP	%	14	16	15	30%	Pass	

Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S23-Jl0067766	CP	mg/kg	13	13	4.0	30%	Pass	
Lead	S23-Jl0067766	CP	mg/kg	19	17	13	30%	Pass	
Duplicate									
Sample Properties				Result 1	Result 2	RPD			
% Moisture	S23-Jl0067798	CP	%	39	43	11	30%	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Authorised by:

Andrew Black	Analytical Services Manager
Fang Yee Tan	Senior Analyst-Metal
Maria Tian	Senior Analyst-Organic
Roopesh Rangarajan	Senior Analyst-Organic

Glenn Jackson
Managing Director

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please click here.

CHAIN OF CUSTODY RECORD

Eurofins | mgt ABN 50 005 085 521

☑ **Sydney Laboratory** Unit F3 Bld F 16 Mars Road Lane Cove West NSW 2066 02 9900 8400 EnviroSampleNSW@eurofins.com

☐ **Brisbane Laboratory** Unit 1 21 Smallwood Place Murarrie QLD 4172 07 3902 4600 EnviroSampleQLD@eurofins.com

☐ **Perth Laboratory** Unit 2 91 Leach Highway Kewdale WA 6105 08 9251 9600 EnviroSampleWA@eurofins.com

☐ **Melbourne Laboratory** 2 Kingston Town Close Oakleigh VIC 3166 03 8564 5000 EnviroSampleVic@eurofins.com

Company	Earth Water Consulting Pty Limited	Project №	2122-027	Project Manager	STRIDER	Sampler(s)	[signature]
Address	Unit 6 / 1A MArina Crescent, Urunga NSW 2455	Project Name	BRETT CHAPMAN	EDD Format		Handed over by	
Contact Name	Strider Duerinckx					Email for Invoice	strider@ewcon.com.au
Phone №	0402608396					Email for Results	strider@ewcon.com.au
Special Directions							
Purchase Order	2122-027						
Quote ID №	Earth Water Consulting						

Analyses: COMPOSITE; COMP ID; As, Pb; OCP

Containers: 500mL Plastic; 250mL Plastic; 125mL Plastic; 200mL Amber Glass; 40mL Vial; 500mL PFAS PET; Jar (Glass or HDPE)

Required Turnaround Time (*Surcharge will apply): ☐ Overnight (reporting by 9am)* ☐ Same day* ☐ 1 day* ☐ 2 days* ☐ 3 days* ☑ 5 days (Standard) ☐ Other( )

№	Client Sample ID	Sampled Date/Time	Matrix	COMPOSITE	COMP ID	As, Pb	OCP	Jar (Glass or HDPE)	Sample Comments / Dangerous Goods Hazard Warning
1	S-1	27.7.23	S			✓	✓	✓	SOIL
2	S-2	↓	↓			✓	✓	✓	↓
3	S-3	↓	↓			✓	✓	✓	↓
4	S-4	↓	↓			✓	✓	✓	↓
5	S-5	↓	↓			✓	✓	✓	↓
6	S-6	↓	↓			✓	✓	✓	↓
7	S-7	↓	↓	}				✓	↓
8	S-8	↓	↓	}	C1	✓	✓	✓	↓
9	S-9	↓	↓	}				✓	↓
10	S-10	↓	↓	}				✓	↓
			Total Counts						

Method of Shipment	☑ Courier (#)	☐ Hand Delivered	☐ Postal	Name: ROB LAIRD	Signature: [signature]	Date	Time

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Brendan SNE 28/7 12 PAGE 1 of 1 3.3 1012267

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Unit F3 Bld F 16 Mars Road Lane Cove West NSW 2066
02 9900 8400 EnviroSampleNSW@eurofins.com

Brisbane Laboratory ☐
Unit 1 21 Smallwood Place Murarrie QLD 4172
07 3902 4600 EnviroSampleQLD@eurofins.com

Perth Laboratory ☐
Unit 2 91 Leach Highway Kewdale WA 6105
08 9251 9600 EnviroSampleWA@eurofins.com

Melbourne Laboratory ☐
2 Kingston Town Close Oakleigh VIC 3166
03 8564 5000 EnviroSampleVic@eurofins.com

Company	Earth Water Consulting Pty Limited	Project №	2122-027
Address	Unit 6 / 1A MArina Crescent, Urunga NSW 2455	Project Name	BRETT CHAPMAN
Contact Name	Strider Duerinckx	Project Manager	STRIDER
Phone №	0402608396	EDD Format	
Special Directions		Sampler(s)	RL
Purchase Order	2122-027	Handed over by	
Quote ID №	Earth Water Consulting	Email for Invoice	strider@ewcon.com.au
		Email for Results	strider@ewcon.com.au

Analyses

№	Client Sample ID	Sampled Date/Time	Matrix	COMPOSITE	comp ID	Pb As, Cr OCP	Containers: 500mL Plastic	250mL Plastic	125mL Plastic	125mL Amber Glass	40mL Vial	500mL PFAS HDPE	Jar (Glass or HDPE)	Sample Comments / Dangerous Goods Hazard Warning
1	S-11	27/7/23	S										✓	SOIL
2	S-12				C2	✓	✓						✓	
3	S-13												✓	
4	S-14												✓	
5	S-15												✓	
6	S-16				C3	✓	✓						✓	
7	S-17												✓	
8	S-18												✓	
9	S-19				C4	✓	✓						✓	
10	S-20												✓	
	Total Counts													

Required Turnaround Time (*Surcharge will apply)

- ☐ Overnight (reporting by 9am)*
- ☐ Same day*
- ☐ 1 day*
- ☐ 2 days*
- ☐ 3 days*
- ☑ 5 days (Standard)
- ☐ Other( )

Method of Shipment								
☑ Courier (#)	☐ Hand Delivered	☐ Postal	Name	ROB LANE	Signature		Date	Time

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- [ ] **Brisbane Laboratory** Unit 1 21 Smallwood Place Murarrie QLD 4172 07 3902 4600 EnviroSampleQLD@eurofins.com
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- [ ] **Melbourne Laboratory** 2 Kingston Town Close Oakleigh VIC 3166 03 8564 5000 EnviroSampleVic@eurofins.com

Company	Earth Water Consulting Pty Limited
Address	Unit 6 / 1A MArina Crescent, Urunga NSW 2455
Contact Name	Strider Duerinckx
Phone №	0402608396
Special Directions	
Purchase Order	~~2223~~ 2122-027
Quote ID №	Earth Water Consulting

Project №	~~2223~~ 2122-027	Project Manager	STRIDER
Project Name	BRETT CHAPMAN	EDD Format	

Sampler(s):	RL
Handed over by	
Email for invoice	strider@ewcon.com.au
Email for Results	strider@ewcon.com.au

Analyses: COMPOSITE | COMP (1) | As, Pb | OCP

Containers: 500mL Plastic | 250mL Plastic | 125mL Plastic | 200mL Amber Glass | 40mL Vial | 500mL PFAS PET | Jar (Glass or HDPE)

Required Turnaround Time
- [ ] Overnight (reporting by 9am)♦
- [ ] Same day♦
- [ ] 1 day♦
- [ ] 2 days♦
- [ ] 3 days♦
- [x] 5 days (Standard)
- [ ] Other( )

♦Surcharge will apply

№	Client Sample ID	Sampled Date/Time	Matrix	COMPOSITE	COMP (1)	As, Pb	OCP	Jar (Glass or HDPE)	Sample Comments / Dangerous Goods Hazard Warning
1	S-21	27-7-23	S	}	C4	✓	✓	✓	SOIL
2	S-22	↓	↓	}				✓	↓
3	S-23			}				✓	
4	S-24			}	C5	✓	✓	✓	
5	S-25			}				✓	
6	S-26			}				✓	
7	S-27			}				✓	
8	S-28			}	C6	✓	✓	✓	
9	S-29							✓	
10	S-30	↓	↓					✓	↓
		Total Counts							

Method of Shipment	[x] Courier (#)	[ ] Hand Delivered	[ ] Postal	Name	ROB LAIRD	Signature	[signature]	Date		Time	

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☐ **Melbourne Laboratory** 2 Kingston Town Close Oakleigh VIC 3166 03 8564 5000 EnviroSampleVic@eurofins.com

Company	Earth Water Consulting Pty Limited	Project №	2122-027	Project Manager	STRIDER	Sampler(s)	LL
Address	Unit 6 / 1A MArina Crescent, Urunga NSW 2455	Project Name	BRETT CHAPMAN	EDD Format		Handed over by	
Contact Name	Strider Duerinckx					Email for Invoice	strider@ewcon.com.au
Phone №	0402608396					Email for Results	strider@ewcon.com.au
Special Directions							
Purchase Order	2122-027						
Quote ID №	Earth Water Consulting						

Required Turnaround Time (Default will be 5 days if not ticked)

♦Surcharge will apply

- ☐ Overnight (reporting by 9am)♦
- ☐ Same day♦ ☐ 1 day♦
- ☐ 2 days♦ ☐ 3 days♦
- ☑ 5 days (Standard)
- ☐ Other( )

№	Client Sample ID	Sampled Date/Time	Matrix	As, Pb	OCP	500mL Plastic	250mL Plastic	125mL Plastic	200mL Amber Glass	40mL Vial	500mL PFAS PET	Jar (Glass or HDPE)	Sample Comments / Dangerous Goods Hazard Warning
1	Q-1	27.7.23	S	✓	✓							✓	SOIL
2	Q-2	"	"	✓	✓							✓	
3													
4													
5													
6													
7													
8													
9													
10													
			Total Counts										

Method of Shipment: ☑ Courier (#) ☐ Hand Delivered ☐ Postal | Name: ROB LAIRD | Signature: [signature] | Date: | Time:

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Department of Planning, Housing and Infrastructure

Gateway Determination

***Planning proposal (Department Ref: PP-2023-2110)**: Reduce the minimum lot size of Lot 21 DP831915, 35 Saye Close, Sandy Beach to 5000m^2.*

I, the Acting Director, Hunter and Northern Region, at the Department of Planning, Housing and Infrastructure, as delegate of the Minister for Planning and Public Spaces, have determined under section 3.34(2) of the *Environmental Planning and Assessment Act 1979* (the Act) that an amendment to the Coffs Harbour Local Environmental Plan 2013 to reduce the minimum lot size for Lot 21 DP831915, 35 Saye Close, Sandy Beach to 5000m^2 should proceed subject to the following conditions.

The Council as planning proposal authority is authorised to exercise the functions of the local plan-making authority under section 3.36(2) of the Act subject to the following:

(a) The planning proposal authority has satisfied all the conditions of the gateway determination.

(b) The planning proposal is consistent with applicable directions of the Minister under section 9.1 of the Act, or the Secretary has agreed that any inconsistencies are justified.

(c) There are no outstanding written objections from public authorities.

The LEP should be completed on or before 8 months of the date of this Gateway Determination.

Gateway Conditions

1. Public exhibition is required under section 3.34(2)(c) and clause 4 of Schedule 1 to the Act as follows:

   (a) The planning proposal is categorised as standard as described in the Local Environmental Plan Making Guideline (Department of Planning and Environment, August 2023) and must be made publicly available for a minimum of 20 working days; and

   (b) The planning proposal authority must comply with the notice requirements for public exhibition of planning proposals and the specifications for material that must be made publicly available along with planning proposals as identified in Local Environmental Plan Making Guideline (Department of Planning and Environment, August 2023).

2. Consultation is required with NSW Rural Fire Service and the NSW Biodiversity Conservation and Science Group under section 3.34(2)(d) of the Act and/or to comply with the requirements of applicable directions of the Minister under section 9.1 of the Act.

   The public authorities are to be provided with a copy of the planning proposal and any relevant supporting material via the NSW Planning Portal and given at least 30 working days to comment on the proposal.

3. A public hearing is not required to be held into the matter by any person or body under section 3.34(2)(e) of the Act. This does not discharge Council from any obligation it may otherwise have to conduct a public hearing (for example, in response to a submission or if reclassifying land).

Dated 20 June 2024

Craig Diss
Acting Director, Hunter and Northern Region
Local Planning and Council Support
Department of Planning, Housing and Infrastructure
Delegate of the Minister for Planning and Public Spaces