



**Planning Proposal 26.2020.6.1
Amendment of Byron Local Environmental Plan 2014
Policy and Mapping Housekeeping**

Byron Shire Council

Version #1

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Part 1 Introduction

1.1 Objective and intended outcomes

The objective of this planning proposal is to amend a number of maps and provisions contained within the Byron Local Environmental Plan (BLEP) 2014. The changes are part of a periodic review of the planning instrument. The amendments are unrelated and the justification for each change will be given in Part 2 of this Planning Proposal.

1.2 Background

It is important that the Byron LEP (BLEP) 2014 be reviewed and updated to ensure the planning controls will enable the desired outcomes of Council and the Byron Shire community.

Major changes to the BLEP are considered standalone with a planning proposal of their own, however smaller changes, as those contained within this planning proposal, are grouped together and completed in a single planning proposal.

There are a total of 12 proposed changes contained within this planning proposal. The proposed changes have been given an item number from 1 to 12 to help assess them individually against the relevant state and regional planning regulations.

Part 2 Explanation of provisions

The explanation for each proposed change is presented in this section. Policy related changes have been separated from the mapping related changes. For the Policy changes, the current clause in BLEP is presented with the proposed changes shown in **Red text**.

Proposed Policy Amendments

Item 1

Maximum number of dwelling houses or dual occupancies on multiple occupancy or rural landsharing community developments – Clause 4.2B

The BLEP overrides the Community Title Statement. This means that secondary dwellings and dual occupancies are permissible in the RU1 and RU2 zones which is inconsistent with multiple occupancy and community title intentions. As land prices in the Shire have and continue to increase, there is more incentive for rural owners to develop additional dwellings with the intention of selling, renting or short term holiday renting. Byron Shire Council and community value the rural zones and places great emphasis on protecting and encouraging

agriculture in these zones. It is therefore important that the BLEP reflect these values and prohibit the development of dwellings when they are not for the purposes of agriculture or rural living.

Clause 4.2B governs dwelling density on rural multiple occupancies and community title, however the application of the clause is only to multiple occupancies. This clause should also apply to rural community title to give consistency to existing community title approvals to prevent overdevelopment of the rural areas.

This clause will provided for a maximum density of dwelling and add consistency to approved community title statements and better align the views of the community by protecting the rural areas from overdevelopment.

The Byron DCP 2014 currently does not support dual occupancies or secondary dwellings on Multiple Occupancies and Community Titles in the rural zones. This amendment to BLEP will strengthen this position and add consistency across Council's planning instruments.

4.2B Maximum number of dwelling houses or dual occupancies on multiple occupancy or rural landsharing community developments

- (1) The objectives of this clause are as follows—
 - (a) to permit—
 - (i) people to collectively own a single lot of land and use it as their principal place of residence, and
 - (ii) the erection of multiple dwellings on the lot and the sharing of facilities and resources, and
 - (iii) the collective environmental repair and management of the lot, and
 - (iv) the pooling of resources to economically develop a wide range of communal rural living opportunities,
 - (b) to facilitate closer rural settlement in a clustered style in a manner that—
 - (i) protects the environment, and
 - (ii) does not create any unreasonable demand for the provision of services or any unreasonable demand for the uneconomic provision of services.
- (2) This clause applies to land
 - (a) outlined by a thick green **line or thick purple line** on the Multiple Occupancy and Community Title Map, **or**
 - (b) **containing an existing approved multiple occupancy or rural community title.**
- (3) Development may be carried out with consent for the erection of more than one dwelling house or dual occupancy (attached) on such a lot provided that—
 - (a) if there is a number shown for that lot on the Multiple Occupancy and Community Title Map—the total number of dwellings on the lot will not exceed the number marked for that lot on that Map, or

- (b) if there is no number shown for that lot on that Map—there will not be less than 3 dwellings, and not more than 1 dwelling for every 3 hectares, up to a maximum of 15 dwellings, on the lot.
- (4) Development consent must not be granted under subclause (3) unless the consent authority is satisfied that—
 - (a) there will be appropriate management measures in place that will ensure the protection of the landscape, biodiversity and rural setting of the land, and
 - (b) the development is complementary to the rural and environmental attributes of the land and its surrounds.

Item 2

Remove clause 4.1F from the Byron LEP 2014.

Clause 4.1F was placed into the LEP when it was first created to enable special purpose subdivisions similar to what was permitted under the 1988 LEP.

This clause was flagged for review as an applicant had interpreted this clause to enable subdivision of tourist cabins from the parent lot containing the dwelling house. This is not the intention of this clause.

Further research has found this clause has not been applied and is not providing for any need in the shire.

Clause 4.1C exists to enable rural boundary adjustments. It is presented that this clause is not needed in the Byron 2014 LEP and to avoid confusion or applications attempting to utilise this clause for unintended purposes, it is proposed that this clause is removed from the LEP.

The current 4.1F clause is shown below.

4.1F Exceptions to minimum lot sizes for certain rural subdivisions

- (1) The objective of this clause is to enable the subdivision of land in rural areas to create lots of an appropriate size to meet the needs of current permissible uses other than for the purpose of dwelling houses, dual occupancies, secondary dwellings,
- (2) This clause applies to land in the following zones:
 - (a) Zone RU1 Primary Production,
 - (b) Zone RU2 Rural Landscape.
- (3) Despite clause 4.1, development consent may be granted to the subdivision of land to which this clause applies to create a lot with a size less than the minimum subdivision lot size shown on the [Lot Size Map](#) in relation to those lots, if the consent authority is satisfied that:
 - (a) there is no dwelling house or dual occupancy located on the land, and
 - (b) the use of the land after the subdivision will be the same use permitted under the existing development consent for the land.

- (4) Development consent must not be granted for the subdivision of land to which this clause applies unless the consent authority is satisfied that:
- (a) the subdivision will not adversely affect the use of the surrounding land for agriculture, and
 - (b) the subdivision is necessary for the ongoing operation of the permissible use, and
 - (c) the subdivision will not increase rural land use conflict in the locality, and
 - (d) the subdivision is appropriate having regard to the natural and physical constraints affecting the land.

Item 3

Insert a minimum lot size for Attached Dwellings in R2 and R3 zones and Dual Occupancies (detached) in the R5 zone - Clause 4.1E

Currently, there is no minimum lot size assigned for Attached Dwellings.

A recent planning proposal has included minimum lot sizes for manor houses in the below table in response to the recent state governments Low Rise Housing Diversity Code. It is considered appropriate to have a minimum lot size apply to Attached Dwellings in line with similar medium density housing.

Additionally, there is currently no minimum lot size for Dual Occupancies (detached) in the R5 zone. For consistency with other uses permitted in the R5 zone and the objectives of the R5 zone, a minimum lot size of 4000sqm is proposed.

4.1E Minimum lot sizes for dual occupancies, **attached dwellings**, manor houses, multi dwelling housing and residential flat buildings

- (1) The objective of this clause is to achieve planned residential density in certain zones.
- (2) Development consent may be granted to development on a lot in a zone shown in Column 2 of the table to this clause for a purpose shown in Column 1 of the table opposite that zone, if the area of the lot is equal to or greater than the area specified for that purpose and shown in Column 3 of the table.

Column 1	Column 2	Column 3
Attached dwellings	Zone R2 Low Density Residential	1000 square metres
Attached dwellings	Zone R3 Medium Density Residential	800 square metres
Dual occupancy (attached)	Zone R2 Low Density Residential, Zone R3 Medium Density Residential	800 square metres
Dual occupancy (attached)	Zone RU1 Primary Production, Zone RU2 Rural Landscape, Zone RU5 Village, Zone R5 Large Lot Residential	4,000 square metres
Dual occupancy (detached)	Zone RU1 Primary Production, Zone RU2 Rural	4,000 square metres

	Landscape, Zone R5 Large Lot Residential	
Dual occupancy (detached)	Zone R2 Low Density Residential, Zone R3 Medium Density Residential	800 square metres
Manor house	Zone R2 Low Density Residential,	1,000 square metres
Manor house	Zone R3 Medium Density Residential	800 square metres
Multi dwelling housing	Zone R2 Low Density Residential	1,000 square metres
Multi dwelling housing	Zone R3 Medium Density Residential	800 square metres
Residential flat building	Zone R3 Medium Density Residential	800 square metres

Item 4

Include Zone E3 Environmental Management in the application of Clause 4.2A AND include E2 Environmental Conservation and E3 Environmental Management in 4.1D

Byron Shire Council is currently reviewing areas of Deferred Matter with the intention of applying either environmental zones E2 Environmental Conservation or Zone E3 Environmental Management.

As the Shire has many parcels of land where split zones and split lot sizes apply, it has been identified that Clause 4.2A should also apply to the E3 zone where dwellings will be permitted to enable the replacement of lawfully erected dwellings.

Additionally Clause 4.1D enables subdivision for split zones and the new environmental zones should also apply to this clause.

4.2A Erection of dwelling houses and dual occupancies on land in certain rural zones

- (1) The objectives of this clause are as follows:
 - (a) to minimise unplanned rural residential development,
 - (b) to enable the replacement of lawfully erected dwelling houses and dual occupancies in rural zones.
- (2) This clause applies to land in the following zones:
 - (a) Zone RU1 Primary Production,
 - (b) Zone RU2 Rural Landscape,
 - (c) Zone E3 Environmental Management.**
- (3) Development consent must not be granted for the erection of a dwelling house or a dual occupancy on land to which this clause applies unless the land:
 - (a) is a lot that is at least the minimum lot size shown on the [Lot Size Map](#) in relation to that land, or
 - (b) is a lot created under this Plan (other than under clause 4.2 (3)), or

- (c) is a lot created before this Plan commenced and on which the erection of a dwelling house or a dual occupancy was permissible immediately before that commencement, or
- (d) is a lot resulting from a subdivision for which development consent (or equivalent) was granted before this Plan commenced and on which the erection of a dwelling house or a dual occupancy would have been permissible if the plan of subdivision had been registered before that commencement, or
- (e) would have been a lot referred to in paragraph (a), (b), (c) or (d) had it not been affected by:
 - (i) a minor realignment of its boundaries that did not create an additional lot, or
 - (ii) a subdivision creating or widening a public road or public reserve or for another public purpose, or
 - (iii) a consolidation with an adjoining public road or public reserve or for another public purpose.

Note.

A dwelling cannot be erected on a lot created under clause 9 of *State Environmental Planning Policy (Rural Lands) 2008* or clause 4.2.

- (4) Development consent must not be granted under subclause (3) unless:
 - (a) no dwelling house or dual occupancy is currently erected on the land, and
 - (b) if a development application has been made for development for the purpose of a dwelling house or a dual occupancy on the land—the application has been refused or it was withdrawn before it was determined, and
 - (c) if development consent has been granted in relation to such an application—the consent has been surrendered or it has lapsed.
- (5) Development consent may be granted for the erection of a dwelling house or a dual occupancy on land to which this clause applies if:
 - (a) there is a lawfully erected dwelling house or a dual occupancy on the land and the dwelling house or a dual occupancy to be erected is intended only to replace the existing dwelling house, or
 - (b) the dwelling house or a dual occupancy will replace a lawfully erected dwelling house or a dual occupancy that was either:
 - (i) removed from the site, or
 - (ii) partially or completely destroyed, less than 5 years before the lodgement of a development application under this Plan for the purposes of a dwelling house or a dual occupancy.

4.1D Exceptions to minimum subdivision lot sizes for certain split zones

- (1) The objectives of this clause are as follows—
 - (a) to provide for the subdivision of lots that are within more than one zone but cannot be subdivided under clause 4.1,

- (b) to ensure that the subdivision occurs in a manner that promotes suitable land use and development.
- (2) This clause applies to each lot (an *original lot*) that contains—
 - (a) land in a residential, business or industrial zone, and
 - (b) land in Zone RU1 Primary Production, Zone RU2 Rural Landscape, **Zone E2 Environmental Conservation, Zone E3 Environmental Management** or Zone SP3 Tourist.
- (3) Despite clause 4.1, development consent may be granted to subdivide an original lot to create other lots (the *resulting lots*) if—
 - (a) one of the resulting lots will contain—
 - (i) land in a residential, business or industrial zone that has an area that is not less than the minimum size shown on the **Lot Size Map** in relation to that land, and
 - (ii) all of the land in Zone RU1 Primary Production, Zone RU2 Rural Landscape, **Zone E2 Environmental Conservation, Zone E3 Environmental Management** or Zone SP3 Tourist that was in the original lot, and
 - (b) all other resulting lots will contain land that has an area that is not less than the minimum size shown on the **Lot Size Map** in relation to that land.

Item 5

Include roadside stalls in Schedule 2 Exempt development

Small scale roadside stalls that meet the technical road standards and requirements should be considered exempt development. Enabling these stalls to be exempt development would make it easier for farmers to sell their produce locally and reduce unnecessary development applications numbers.

This amendment is supported by Byron Shire Rural Land Use Strategies rural economy actions through identifying opportunities in our local planning framework to support and strengthen existing agricultural activities and small, home-based business activities that bring community benefit, complement rural productivity and align with the rural amenity.

Ballina Shire Council has recently included an amendment to their LEP to permit roadside stalls of a certain scale as exempt development. A similar clause is proposed for the Byron LEP 2014.

Schedule 2 Exempt Development

Roadside stalls

- (1) This clause applies to the use of land for a roadside stall for the sale of only agricultural produce.
- (2) The roadside stall—

- (a) must be located on land within Zone RU1 Primary Production or Zone RU2 Rural Landscape, and
- (b) must be located wholly on private property, and
- (c) must not be located on land that is adjacent to a classified road, and
- (d) must not have a footprint greater than 4m².
- (3) No more than 1 roadside stall may be used on any landholding.
- (4) Any relevant approval issued under the *Roads Act 1993* must be obtained.

Item 6

Introduce Artisan Food and Drink Industry as a permissible use with consent in RU2 Rural Landscape zone.

Artisan food and drink industry is a relatively new definition introduced into the standard instrument in late 2018.

Prior to the introduction of this definition uses such as breweries and other agricultural related food industries in the rural zones were permitted under the rural industry or agricultural produce industry definitions.

Now that the Department of Planning, Industry and Environment (DPIE) has introduced this new definition, which fits more closely to these uses, the old definitions can no longer be used to permit this type of development.

The Department has introduced this definition to provide clarity for the growing artisan and craft food and drink industry such as microbreweries or cheese makers by establishing a new definition that reflects the nature of these uses.

This definition is a form of light industry and is currently permissible in the industrial zones, but prohibited in the rural zones.

It is proposed that including this use as permissible in the RU2 zone is appropriate as uses that now better fall under this definition were previously permitted in the RU2 zones and restaurants and cafes are currently permitted in the rural zones.

Permitting artisan food and drink industries in the RU2 Rural Landscape zone will enable uses such as microbreweries or cheese making and enable tours, tasting and sale of these products. The definition of artisan food and drink industry is shown below

artisan food and drink industry means a building or place the principal purpose of which is the making or manufacture of boutique, artisan or craft food or drink products only. It must also include at least one of the following—

- (a) a retail area for the sale of the products,
- (b) a restaurant or cafe,
- (c) facilities for holding tastings, tours or workshops.

Note.

See clause 5.4 for controls in industrial or rural zones relating to the retail floor area of an artisan food and drink industry.

Artisan food and drink industries are a type of *light industry*—see the definition of that term in this Dictionary.

Clause 4.5 has also been placed into the standard instrument providing additional controls to the scale of artisan food and drink industries.

Clause 5.4

(10) **Artisan food and drink industry exclusion** if development for the purposes of an artisan food and drink industry is permitted under this Plan in an industrial or rural zone, the floor area used for retail sales (not including any cafe or restaurant area) must not exceed—

- (a) 40% of the gross floor area of the industry, or
 - (b) 250 square metres,
- whichever is the lesser.

Item 7

Amend clause 4.1A and 4.1AA to ensure a minimum lot size applies to Community Title and Strata subdivision in special purpose and environmental zones.

Minimum lot size applies to land zoned under the 2014 Byron LEP as shown on the Lot Size Map. Community Title and Strata subdivisions are exempt from this minimum lot size unless specified in clause 4.1A and 4.1AA.

To ensure the appropriate minimum lot size applies as shown on the lot size map it is proposed to include SP1 Special Activities, SP3 Tourist, E2 Environmental Conservation and E3 Environmental Management in clause 4.1A and 4.1AA.

4.1A Minimum subdivision lot size for strata plan schemes in certain rural and residential zones

- (1) The objective of this clause is to ensure that land to which this clause applies is not fragmented by subdivisions that would create additional dwelling entitlements.
- (2) This clause applies to land in the following zones that is used, or is proposed to be used, for residential accommodation or tourist and visitor accommodation—
 - (a) Zone RU1 Primary Production,
 - (b) Zone RU2 Rural Landscape,
 - (c) Zone R5 Large Lot Residential,
 - (d) Zone SP1 Special Activities,
 - (e) Zone SP3 Tourist,
 - (f) E2 Environmental Conservation,

(g) E3 Environmental Management,

- (3) The size of any lot resulting from a subdivision of land to which this clause applies for a strata plan scheme (other than any lot comprising common property within the meaning of the Strata Schemes (Freehold Development) Act 1973 or Strata Schemes (Leasehold Development) Act 1986) is not to be less than the minimum size shown on the Lot Size Map in relation to that land.

4.1AA Minimum subdivision lot size for community title schemes

- (1) The objectives of this clause are as follows—
- (a) to ensure that land to which this clause applies is not fragmented by ad hoc subdivisions that would create additional dwelling entitlements.
- (2) This clause applies to a subdivision (being a subdivision that requires development consent) under the Community Land Development Act 1989 of land in any of the following zones—

- (a) Zone RU1 Primary Production,
- (b) Zone RU2 Rural Landscape,
- (c) Zone R5 Large Lot Residential,
- (d) Zone SP1 Special Activities,**
- (e) Zone SP3 Tourist,**
- (f) E2 Environmental Conservation,**
- (g) E3 Environmental Management,**

but does not apply to a subdivision by the registration of a strata plan.

- (3) The size of any lot resulting from a subdivision of land to which this clause applies (other than any lot comprising association property within the meaning of the Community Land Development Act 1989) is not to be less than the minimum size shown on the Lot Size Map in relation to that land.
- (4) This clause applies despite clause 4.1.

Proposed Mapping Amendments

Item	Amendment Proposed	Rationale
8	Amendment of Byron LEP 2014 Land Zoning Map – LZN_003CC to rezone residual B1 Neighbourhood Centre zoning on a residential property (Lot 129 DP 777329) to R3	A subdivision has resulted in B1 Neighbourhood Centre zoning on part of a residential lot. The property has constructed residential housing on site and a complete residential zoning is appropriate.

Item	Amendment Proposed	Rationale
	Medium Density Residential as contained in Appendix 1. Consequential amendments to the FSR and MLS maps to reflect the residential zoning.	
9	Amendment to Byron LEP Land Zoning Map – LZN_003A to correct cadastre issues and zone lots entirely RU5 as contained in Appendix 1.	Several lots in Federal village have RU1 zoning applying to the back few meters of the lots. The zoning of these lots should be entirely RU5.
10	Amendment to Byron LEP 2014 Land Zoning Map – LZN_003CB to remove residual SP2 zoning from a number of lots as contained in Appendix 1.	A number of lots owned by TfNSW along the highway have been identified as surplus land and are to be sold off. TfNSW has requested that any portion of SP2 zoning on these parcels be rezoned to the prevailing zone of the lot.
11	Amendment to Byron LEP Land Zoning Map LZN_002BA to correct cadastre issues and zone a residential lot entirely R2 as contained in Appendix 1. Consequential amendments to the FSR and MLS maps to reflect the residential zoning	10 Botanic Court, Mullumbimby has a small part of the lot zoned as deferred matter. The entirety of the lot should be zoned as R2 low density residential.
12	Amendment of Byron LEP 2014 Acid Sulfate Soils Map – ASS_002 to remove acid sulfate soils mapping from Lot 4 DP 810118 as contained in Appendix 1.	A comprehensive study provided for this property has confirmed that no acid sulfate soils are present on site, as such it is appropriate to remove the study area from the acid sulfate soils mapping contained within the LEP. The study is attached to this planning proposal.

The current and proposed mapping changes for items 1 – 12 above are contained in Appendix 1.

Part 3 Justification

Section A Need for the planning proposal

Q1. Is the planning proposal a result of any strategic study or report?

No. This planning proposal is an amalgamation of small amendments that have been identified throughout the year to correct errors in the mapping and close loopholes and ensure the provisions within BLEP 2014 are up to date. A planning proposal of this kind is undertaken periodically to ensure the BLEP 2014 is kept current.

Q2. Is the planning proposal the best means of achieving the objective or intended outcomes, or is there a better way?

Yes. The Planning Proposal is considered the best means of updating the provisions and maps contained within the BLEP 2014.

Section B Relationship to strategic planning framework**Q3. Is the planning proposal consistent with the objectives and actions of the applicable regional, sub-regional or district plan or strategy (in this case the North Coast Regional Plan 2036)?**

Due to the housekeeping nature of the proposed amendments contained within this planning proposal it is not considered relevant to the North Coast Regional Plan. No significant land use or policy changes are involved.

Q4. Is the planning proposal consistent with a council's local strategy or other local strategic plan?

Keeping the LEP up to date is consistent with the corporate governance objectives of Byron Community Strategic Plan 2022.

Item 1 is consistent with Bryon Shire Rural Land Use Strategy in protecting our rural environment from over development. Additionally item 5 and 6 are also consistent with the Bryon Shire Rural Land Use Strategy policy directions for our rural economy in ensuring the planning system provides flexibility for farmers to diversify their income source where ancillary to farming operations.

Q5. Is the planning proposal consistent with applicable State Environmental Planning Policies (SEPPs)?

Due to the housekeeping nature of the proposed amendments it is unlikely that any State Environmental Planning Policies will be relevant to this planning proposal. The relevant SEPPs to this Planning Proposal are as follows

State Environmental Planning Policy (SEPP)	Compliance of Planning Proposal
SEPP (Primary Production and Rural Development) 2019.	This planning proposal constitutes minor corrections and policy changes. No rural or residential housing will result from this planning proposal. Two policy changes will enable diversification of income for rural landowners and facilitate the orderly economic use and development of lands for primary production.

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Q6. Is the planning proposal consistent with the applicable Ministerial Directions (s.9.1 directions)?

Consistency with the Local Planning Directions is assessed in the following table:

S. 9.1 Direction	Application	Relevance to this planning proposal	Consistency
1. Employment and Resources			
1.1 Business and Industrial Zones	<p>Applies when a relevant planning authority prepares 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).</p> <p>A planning proposal may be inconsistent with the terms of this direction only if the relevant planning authority can satisfy the Secretary of the Department of Planning and Environment (or an officer of the Department nominated by the Secretary) that the provisions of the planning proposal that are inconsistent are:</p> <ul style="list-style-type: none"> (a) justified by a strategy which: <ul style="list-style-type: none"> (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), and (iii) is approved by the Secretary of the Department of Planning and Environment, 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 Sub-Regional Strategy prepared by the Department of Planning and Environment which gives consideration to the objective of this direction, 	<p>Item 8 will change the zoning of a parcel that has part of the lot within a business zone. The land is currently used for residential purposes with housing constructed.</p> <p>This lot has not been included in Council's Business and Industrial Lands Strategy and the change is seen to be of minor significance reflecting the on ground land use.</p>	Justifiably Inconsistent

S. 9.1 Direction	Application	Relevance to this planning proposal	Consistency
	or (d) of minor significance.		
1.2 Rural Zones	<p>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).</p> <p>The objective of this direction is to protect the agricultural production value of rural land.</p> <p>Under this direction a planning proposal must:</p> <ul style="list-style-type: none"> (a) not rezone land from a rural zone to a residential, business, industrial, village or tourist zone. 	<p>This planning proposal has a number of items that will affect rural zones.</p> <p>The mapping amendments are to correct cadastre issues and are of minor significance.</p>	Justifiably inconsistent
1.3 Mining, Petroleum Production and Extractive Industries	<p>Applies when a relevant planning authority prepares a planning proposal that would have the effect of:</p> <ul style="list-style-type: none"> (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. 	Not applicable	Not applicable
1.4 Oyster Aquaculture	<p>Applies when a relevant planning authority prepares any planning proposal that proposes a change in land use which could result in:</p> <ul style="list-style-type: none"> (a) adverse impacts on a Priority Oyster Aquaculture Area or a “current oyster aquaculture lease in the national parks estate”, or 	Not applicable	Not applicable

S. 9.1 Direction	Application	Relevance to this planning proposal	Consistency
	<p>(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.</p>		
1.5 Rural Lands	<p>Applies when a relevant planning authority prepares a planning proposal that:</p> <ul style="list-style-type: none"> (a) will affect land within an existing or proposed rural or environment protection zone (including the alteration of any existing rural or environment protection zone boundary), or (b) changes the existing minimum lot size on land within a rural or environment protection zone. <p>A planning proposal to which clauses (a) and (b) apply must:</p> <ul style="list-style-type: none"> (a) be consistent with any applicable strategic plan, including regional and district plans endorsed by the Secretary of the Department of Planning and Environment, 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 	<p>This planning proposal has a number of items that will affect rural zones.</p> <p>The mapping amendments are to correct cadastre issues and are of minor significance.</p> <p>The policy amendments are also of minor significance and are consistent with this direction as they aim to protect the rural areas from overdevelopment and enable diversification of income for farmers.</p>	Justifiably Consistent.

S. 9.1 Direction	Application	Relevance to this planning proposal	Consistency
	<p>limited to, topography, size, location, water availability and ground and soil conditions</p> <p>(e) promote opportunities for investment in productive, diversified, innovative and sustainable rural economic activities</p> <p>(f) support farmers in exercising their right to farm</p> <p>(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 uses.</p> <p>(h) consider State significant agricultural land identified in State Environmental Planning Policy (Primary Production and Rural Development) 2019 for the purpose of ensuring the ongoing viability of this land</p> <p>(i) consider the social, economic and environmental interests of the community.</p>		
2. Environment and Heritage			
2.1 Environment Protection Zones	<p>The objective of this direction is to protect and conserve environmentally sensitive areas. A planning proposal must include provisions that facilitate the protection and conservation of environmentally sensitive areas.</p> <p>A planning proposal that applies to land within an environment protection zone or land otherwise identified for environment protection purposes in a LEP must not reduce the environmental protection standards that apply to the land (including by modifying development standards that apply to the land). This requirement does not</p>	This planning proposal does not alter or apply to any environment protections zones.	Not applicable

S. 9.1 Direction	Application	Relevance to this planning proposal	Consistency
	<p>apply to a change to a development standard for minimum lot size for a dwelling in accordance with clause (5) of Direction 1.5 "Rural Lands".</p>		
2.2 Coastal Protection Zones	<p>This direction applies to land that is within the coastal zone, as defined under the Coastal Management Act 2016 - comprising the coastal wetlands and littoral rainforests area, coastal vulnerability area, coastal environment area and coastal use area - and as identified by the State Environmental Planning Policy (Coastal Management) 2018.</p> <p>A planning proposal must include provisions that give effect to and are consistent with:</p> <ul style="list-style-type: none"> (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. <p>A planning proposal must not rezone land which would enable increased development or more intensive land-use on land:</p> <ul style="list-style-type: none"> (a) within a coastal vulnerability area identified by the State Environmental 	<p>Some properties mapped under the coastal management SEPP are zoned as RU2 and RU1 triggering this direction.</p> <p>This planning proposal will not enable increased development in any land mapped as coastal vulnerable, coastal wetlands or littoral wetlands.</p>	Consistent

S. 9.1 Direction	Application	Relevance to this planning proposal	Consistency
	<p>Planning Policy (Coastal Management) 2018; or</p> <p>(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:</p> <ul style="list-style-type: none"> (i) by or on behalf of the planning proposal authority and the planning proposal authority, or (ii) by or on behalf of a public authority and provided to the planning proposal authority. <p>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 (Coastal Management) 2018:</p> <ul style="list-style-type: none"> (a) Coastal wetlands and littoral rainforests area map; (b) Coastal vulnerability area map; (c) Coastal environment area map; and (d) Coastal use area map <p>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.</p>		
2.3 Heritage Conservation	<p>A planning proposal must contain provisions that facilitate the conservation of:</p> <ul style="list-style-type: none"> (a) items, places, buildings, works, relics, 	This planning proposal does not impact on any heritage items or provisions.	Consistent

S. 9.1 Direction	Application	Relevance to this planning proposal	Consistency
	<p>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,</p> <p>(b) Aboriginal objects or Aboriginal places that are protected under the National Parks and Wildlife Act 1974, and</p> <p>(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.</p>		
2.4 Recreation Vehicle Areas	<p>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):</p> <p>(a) where the land is within an environmental protection zone,</p> <p>(b) where the land comprises a beach or a dune adjacent to or adjoining a beach,</p> <p>(c) where the land is not within an area or zone referred to in paragraphs (4)(a) or (4)(b) unless the relevant planning authority has taken into consideration:</p>	This planning proposal does not enable land to be developed for the purpose of a recreational vehicle area.	Consistent.

S. 9.1 Direction	Application	Relevance to this planning proposal	Consistency
	<ul style="list-style-type: none"> (i) the provisions of the guidelines entitled Guidelines for Selection, Establishment and Maintenance of Recreation Vehicle Areas, Soil Conservation Service of New South Wales, 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 		
2.5 Application of E2 and E3 Zones and Environmental Overlays in Far North Coast LEPs	<p>This direction applies when a relevant planning authority prepares a planning proposal:</p> <ul style="list-style-type: none"> (a) that introduces or alters an E2 Environmental Conservation or E3 Environmental Management zone; (b) that introduces or alters an overlay and associated clause. 	<p>This planning proposal does not alter or introduce any environmental protection zones or overlays.</p> <p>Item 4 updates the LEP to ensure E3 Environmental Management is captured in clause 4.2A.</p>	Consistent.
2.6 Remediation of Contaminated Land	<p>This direction applies to:</p> <ul style="list-style-type: none"> (a) land that is within an investigation area within the meaning of the Contaminated Land Management Act 1997, (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, 	<p>This planning proposal does not rezone any known contaminated land. The rezonings are to correct mapping errors and are considered minor in scale and impact.</p>	Consistent.

S. 9.1 Direction	Application	Relevance to this planning proposal	Consistency
	<p>land:</p> <ul style="list-style-type: none"> (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). 		
3. Housing, Infrastructure and Urban Development			
3.1 Residential Zones	<p>This direction applies when a relevant planning authority prepares a planning proposal that will affect land within:</p> <ul style="list-style-type: none"> (a) an existing or proposed residential zone (including the alteration of any existing residential zone boundary), (b) any other zone in which significant residential development is permitted or proposed to be permitted. <p>A planning proposal must include provisions that encourage the provision of housing that will:</p> <ul style="list-style-type: none"> (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. 	<p>Small alterations to residential zonings are proposed to correct mapping errors.</p> <p>The rezonings are small in scale and will not impact housing diversity or provide any additional residential lots.</p>	Consistent

S. 9.1 Direction	Application	Relevance to this planning proposal	Consistency
	<p>A planning proposal must, in relation to land to which this direction applies:</p> <ul style="list-style-type: none"> (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 		
3.2 Caravan Parks and Manufactured Home Estates	<p>In identifying suitable zones, locations and provisions for caravan parks in a planning proposal, the relevant planning authority must:</p> <ul style="list-style-type: none"> (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 <p>In identifying suitable zones, locations and provisions for manufactured home estates (MHEs) in a planning proposal, the relevant planning authority must:</p> <ul style="list-style-type: none"> (a) take into account the categories of land set out in Schedule 2 of SEPP 36 as to where MHEs should not be located, (b) take into account the principles listed in 	This planning proposal does not have any implication on caravan parks or manufactured home estates.	Consistent.

S. 9.1 Direction	Application	Relevance to this planning proposal	Consistency
	<p>clause 9 of SEPP 36 (which relevant planning authorities are required to consider when assessing and determining the development and subdivision proposals), and</p> <p>(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.</p>		
3.3 Home Occupations	Planning proposals must permit home occupations to be carried out in dwelling houses without the need for development consent.	This planning proposal does not have any implication on home occupations.	Consistent.
3.4 Integrating Land Use and Transport	<p>This direction applies when a relevant planning authority prepares 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. 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:</p> <p>(a) <i>Improving Transport Choice – Guidelines for planning and development</i> (DUAP 2001), and</p> <p>(b) <i>The Right Place for Business and Services – Planning Policy</i> (DUAP 2001).</p>	<p>Small alterations to residential zonings are proposed to correct mapping errors.</p> <p>The rezonings are small in scale and do not create any new residential lots.</p>	Consistent.
3.5 Development Near Regulated Airports and Defence Airfields	This direction applies when a relevant planning authority prepares 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.	This planning proposal does not alter or remove a zone in proximity to a regulated airport.	Not applicable.
3.6 Shooting	This direction applies when a relevant planning	This planning proposal does not affect, create, alter	Not applicable

S. 9.1 Direction	Application	Relevance to this planning proposal	Consistency
Ranges	<p>authority prepares 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. A planning proposal must not seek to rezone land adjacent to and/ or adjoining an existing shooting range that has the effect of:</p> <ul style="list-style-type: none"> (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. 	or remove a zone or a provision relating to land adjacent to and/ or adjoining an existing shooting range.	
3.7 Reduction in non-hosted short term rental accommodation period	This direction applies when the council prepares a planning proposal to identify or reduce the number of days that non-hosted short-term rental accommodation may be carried out in parts of its local government area.	Not applicable	Not applicable
4. Hazard and Risk			
4.1 Acid Sulfate Soils	<p>This direction applies when a relevant planning authority prepares 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.</p> <p>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</p>	<p>Acid Sulfate Soils are found within Byron Shire however the mapping changes are minor in nature to correct errors.</p> <p>The planning proposal does not propose intensification on any specific properties.</p> <p>One item proposes to remove a property from the acid sulfate soils map based on a study showing no presence of acid sulfate soils.</p>	Justifiably inconsistent

S. 9.1 Direction	Application	Relevance to this planning proposal	Consistency
	the presence of acid sulfate soils. The relevant planning authority must provide a copy of any such study to the Director General prior to undertaking community consultation in satisfaction of section 57 of the Act.		
4.2 Mine Subsidence and Unstable Land	<p>This direction applies to land that:</p> <ul style="list-style-type: none"> (a) is within a Mine Subsidence District proclaimed pursuant to section 15 of the Mine Subsidence Compensation Act 1961, or (b) has been identified as unstable land. <p>This direction applies when a relevant planning authority prepares a planning proposal that permits development on land that:</p> <ul style="list-style-type: none"> (a) is within a mine subsidence district, or (b) has been identified as unstable in a study, strategy or other assessment 	This planning proposal does not apply to land within a mine subsidence district or identified as unstable land.	Not applicable
4.3 Flood Prone Land	<p>This direction applies when a relevant planning authority prepares a planning proposal that creates, removes or alters a zone or a provision that affects flood prone land.</p> <p>A planning proposal must include provisions that give effect to and are consistent with the NSW Flood Prone Land Policy and the principles of the Floodplain Development Manual 2005 (including the Guideline on Development Controls on Low Flood Risk Areas).</p> <p>A planning proposal must not rezone land within the flood planning areas from Special Use, Special Purpose, Recreation, Rural or Environmental Protection Zones to a Residential, Business, Industrial, Special Use or Special Purpose Zone.</p>	A number of properties in Byron Shire are mapped as flood prone. The rezonings and policy changes presented in this planning proposal are minor in nature and will not enable increased development on flood prone land.	Justifiably inconsistent.

S. 9.1 Direction	Application	Relevance to this planning proposal	Consistency
	<p>A planning proposal must not contain provisions that apply to the flood planning areas which:</p> <ul style="list-style-type: none"> (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 development of that land, (d) are likely to result in a substantially increased requirement for government spending on flood mitigation measures, infrastructure or services, or (e) permit development to be carried out without development consent except for the purposes of agriculture (not including dams, drainage canals, levees, buildings or structures in floodways or high hazard areas), roads or exempt development. <p>A planning proposal must not impose flood related development controls above the residential flood planning level for residential development on land, unless a relevant planning authority provides adequate justification for those controls to the satisfaction of the Director-General (or an officer of the Department nominated by the Director-General).</p> <p>For the purposes of a planning proposal, a relevant planning authority must not determine a flood planning level that is inconsistent with the Floodplain Development Manual 2005 (including the Guideline on Development Controls on Low Flood Risk Areas) unless a relevant planning authority provides adequate justification for the</p>		

S. 9.1 Direction	Application	Relevance to this planning proposal	Consistency
	proposed departure from that Manual to the satisfaction of the Director-General (or an officer of the Department nominated by the Director-General).		
4.4 Planning for Bushfire Protection	<p>This direction applies when a relevant planning authority prepares a planning proposal that will affect, or is in proximity to land mapped as bushfire prone land.</p> <p>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:</p> <ul style="list-style-type: none"> (a) have regard to Planning for Bushfire Protection 2006, (b) introduce controls that avoid placing inappropriate developments in hazardous areas, and (c) ensure that bushfire hazard reduction is not prohibited within the APZ. <p>A planning proposal must, where development is proposed, comply with the following provisions, as appropriate:</p> <ul style="list-style-type: none"> (a) provide an Asset Protection Zone (APZ) incorporating at a minimum: <ul style="list-style-type: none"> (i) an Inner Protection Area bounded by a perimeter road or reserve which circumscribes the hazard side of the land intended for 	A number of properties in Byron Shire are mapped as bushfire prone. The rezonings and policy changes presented in this planning proposal are minor in nature and will not enable increased development on bushfire prone land.	Justifiably inconsistent.

S. 9.1 Direction	Application	Relevance to this planning proposal	Consistency
	<p>development and has a building line consistent with the incorporation of an APZ, within the property, and</p> <p>(ii) an Outer Protection Area managed for hazard reduction and located on the bushland side of the perimeter road,</p> <p>(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,</p> <p>(c) contain provisions for two-way access roads which links to perimeter roads and/or to fire trail networks,</p> <p>(d) contain provisions for adequate water supply for firefighting purposes,</p> <p>(e) minimise the perimeter of the area of land interfacing the hazard which may be developed,</p> <p>(f) introduce controls on the placement of combustible materials in the Inner Protection Area.</p>		
5. Regional Planning			

S. 9.1 Direction	Application	Relevance to this planning proposal	Consistency
5.1 Implementation of Regional Strategies	This direction applies to land to which the following regional strategies apply: (a) South Coast Regional Strategy (excluding land in the Shoalhaven LGA) (b) Sydney–Canberra Corridor Regional Strategy	Not Applicable.	Not applicable
5.2 Sydney Drinking Water Catchments	Applies when a relevant planning authority prepares a planning proposal that applies to the hydrological catchment.	Not Applicable.	Not applicable
5.3 Farmland of State and Regional Significance on the NSW Far North Coast	This applies to Byron Shire Council except within areas contained within the “urban growth area” mapped in the North Coast Regional Plan 2036. A planning proposal must not: (a) rezone land identified as “State Significant Farmland” for urban or rural residential purposes. (b) rezone land identified as “Regionally Significant Farmland” for urban or rural residential purposes. (c) rezone land identified as “significant non-contiguous farmland” for urban or rural residential purposes.	Item 9 rezones a small section of land mapped as regionally significant farmland to RU5. This is to correct a mapping issue to ensure the entire residential lots are zoned RU5. This will not have any impact on the farm land adjacent to the site.	Justifiably inconsistent.
5.4 Commercial and Retail Development along the Pacific Highway, North Coast	This Direction 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. A planning proposal that applies to land located on “within town” segments of the Pacific Highway must provide that: (a) new commercial or retail development must be concentrated within distinct centres rather than spread along the highway;	This planning proposal removes SP2 zoning from properties adjacent to the Pacific Highway. As explained in Part 2, this rezoning is a result of excess land no longer required by Transport for NSW. The proposed zoning is to apply rural zones consistent with the prevailing zoning of the relevant lots. No retail or commercial development will result from these changes	Consistent.

S. 9.1 Direction	Application	Relevance to this planning proposal	Consistency
	<p>(b) development with frontage to the Pacific Highway must consider impact the development has on the safety and efficiency of the highway; and</p> <p>(c) for the purposes of this paragraph, “within town” means areas which, prior to the draft local environmental plan, have an urban zone (eg: “village”, “residential”, “tourist”, “commercial”, “industrial”, etc) and where the Pacific Highway speed limit is less than 80km/hour.</p> <p>A planning proposal that applies to land located on “out-of-town” segments of the Pacific Highway must provide that:</p> <p>(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;</p> <p>(b) development with frontage to the Pacific Highway must consider the impact the development has on the safety and efficiency of the highway; and</p> <p>(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 (eg: “village”, “residential”, “tourist”, “commercial”, “industrial”, etc) or are in areas where the Pacific Highway speed limit is 80km/hour or greater.</p>		
5.5 – 5.8 Revoked	-	-	-

S. 9.1 Direction	Application	Relevance to this planning proposal	Consistency
5.9 North West Rail Link Corridor Strategy	Not Applicable	Not applicable	Not applicable
5.10 Implementation of Regional Plans	Planning proposals must be consistent with a Regional Plan released by the Minister for Planning.	The consistency of this planning proposal with the North Coast Regional Plan is addressed in Section B above.	Consistent
5.11 Development of Aboriginal Land Council land	This direction applies when a planning proposal authority prepares a planning proposal for land shown on the Land Application Map of State Environmental Planning Policy (Aboriginal Land) 2019.	Not applicable	Not applicable
6. Local Plan Making			
6.1 Approval and Referral Requirements	<p>A planning proposal must:</p> <ul style="list-style-type: none"> (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: <ul style="list-style-type: none"> (i) the appropriate Minister or public authority, and (ii) the Director-General of the Department of Planning (or an officer of the Department nominated by the Director-General), prior to undertaking community consultation in satisfaction of section 57 of the Act, and (c) not identify development as designated 	This planning proposal will not include provisions that require concurrence, consultation or referral of development applications to a Minister of public authority. It does not identify development as designated development.	Consistent

S. 9.1 Direction	Application	Relevance to this planning proposal	Consistency
	<p>development unless the relevant planning authority:</p> <ul style="list-style-type: none"> (i) can satisfy the Director-General of the Department of Planning (or an officer of the Department nominated by the Director-General) that the class of development is likely to have a significant impact on the environment, and (ii) has obtained the approval of the Director-General of the Department of Planning (or an officer of the Department nominated by the Director-General) prior to undertaking community consultation in satisfaction of section 57 of the Act. 		
6.2 Reserving Land for Public Purposes	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 Director-General of the Department of Planning and Environment (or an officer of the Department nominated by the Director-General).	This planning proposal does rezone land owned by Transport for NSW. This is at the request of Transport for NSW. No other items in this planning proposal alter or create land for public purposes.	Consistent
6.3 Site Specific Provisions	This direction applies when a relevant planning authority prepares a planning proposal that will allow a particular development to be carried out. A planning proposal that will amend another environmental planning instrument in order to allow a particular development proposal to be carried out must either:	This planning proposal does not allow a particular development to be carried out	Not applicable

S. 9.1 Direction	Application	Relevance to this planning proposal	Consistency
	<p>(a) allow that land use to be carried out in the zone the land is situated on, or</p> <p>(b) rezone the site to an existing zone already applying 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</p> <p>(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.</p> <p>A planning proposal must not contain or refer to drawings that show details of the development proposal.</p>		

Section C Environmental, social and economic impact

Q7. 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?

Due to the housekeeping nature of this planning proposal it is unlikely that the amendments proposed will have any adverse affect on critical habitat or threatened species, populations or ecological communities, or their habitats.

Q8. Are there any other likely environmental effects as a result of the planning proposal and how are they proposed to be managed

There are negligible environmental effects likely as a result of the minor amendments and corrections outlined in this planning proposal.

Q9. Has the planning proposal adequately addressed any social and economic effects?

There are negligible social and economic impacts as a result of the minor amendments and corrections outlined in this planning proposal.

Section D State and Commonwealth interests

Q10. Is there adequate public infrastructure for the planning proposal?

Public infrastructure provision is not relevant to the minor amendments and corrections outlined in this proposal as there will be no development as a result of this planning proposal.

Q11. What are the views of state and Commonwealth public authorities consulted in accordance with the Gateway determination?

State and Commonwealth public authorities will be consulted after Gateway determination.

Part 4 Mapping

Item 8 to 12 propose amendments to maps contained in Byron LEP 2014. The following map sheets are proposed to be amended:

LZN_003CC, LZN_003A, LZN_003CB, LZN_002BA

FSR_003CC, FSR_002BA

LSZ_003CC, LSZ_002BA

ASS_002

Part 5 Community consultation

Community consultation will be conducted in accordance with the Gateway determination.

Due to the housekeeping nature of this proposal, a 14 day exhibition period is recommended.

Notification of the exhibited planning proposal will include:

- updates to Council's website
- letters to relevant State agencies
- notification in writing to affected landowners where possible

Part 6 Project timeline

The proposed timeline for the completion of the planning proposal is as follows:

Plan making step	Estimated completion
Gateway Determination	Dec 2020
Agency Consultation	Jan 2021
Public Exhibition Period	Jan 2021
Submissions Assessment	Feb 2021
Submission of endorsed LEP amendment to Parliamentary Counsel for drafting (delegated authority)	Feb 2021
Council to make the LEP amendment (delegated authority)	March 2021
LEP amendment notification	Apr 2021

Conclusion

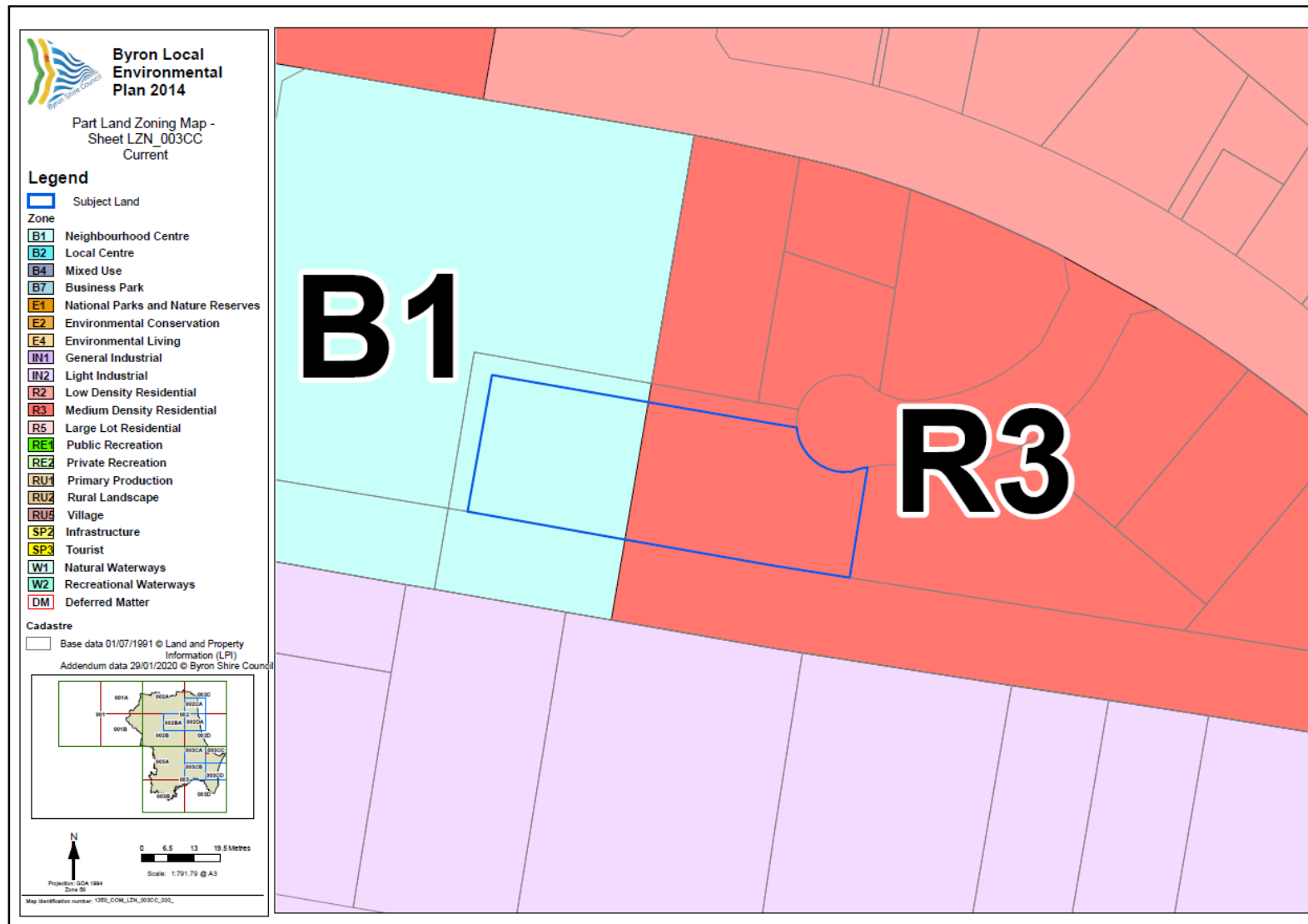
Byron Shire Council has initiated a planning proposal to modify its 2014 LEP to make a range of minor changes relating to mapping and policy inconsistencies and errors. Such changes help to ensure the Byron LEP 2014 is up to date to promote consistency and allow for the best possible planning and land use outcomes.

The planning proposal is broadly consistent with the Far North Coast Regional Plan and SEPPs. It is also consistent (or justifiably inconsistent) with section 9.1 Directions.

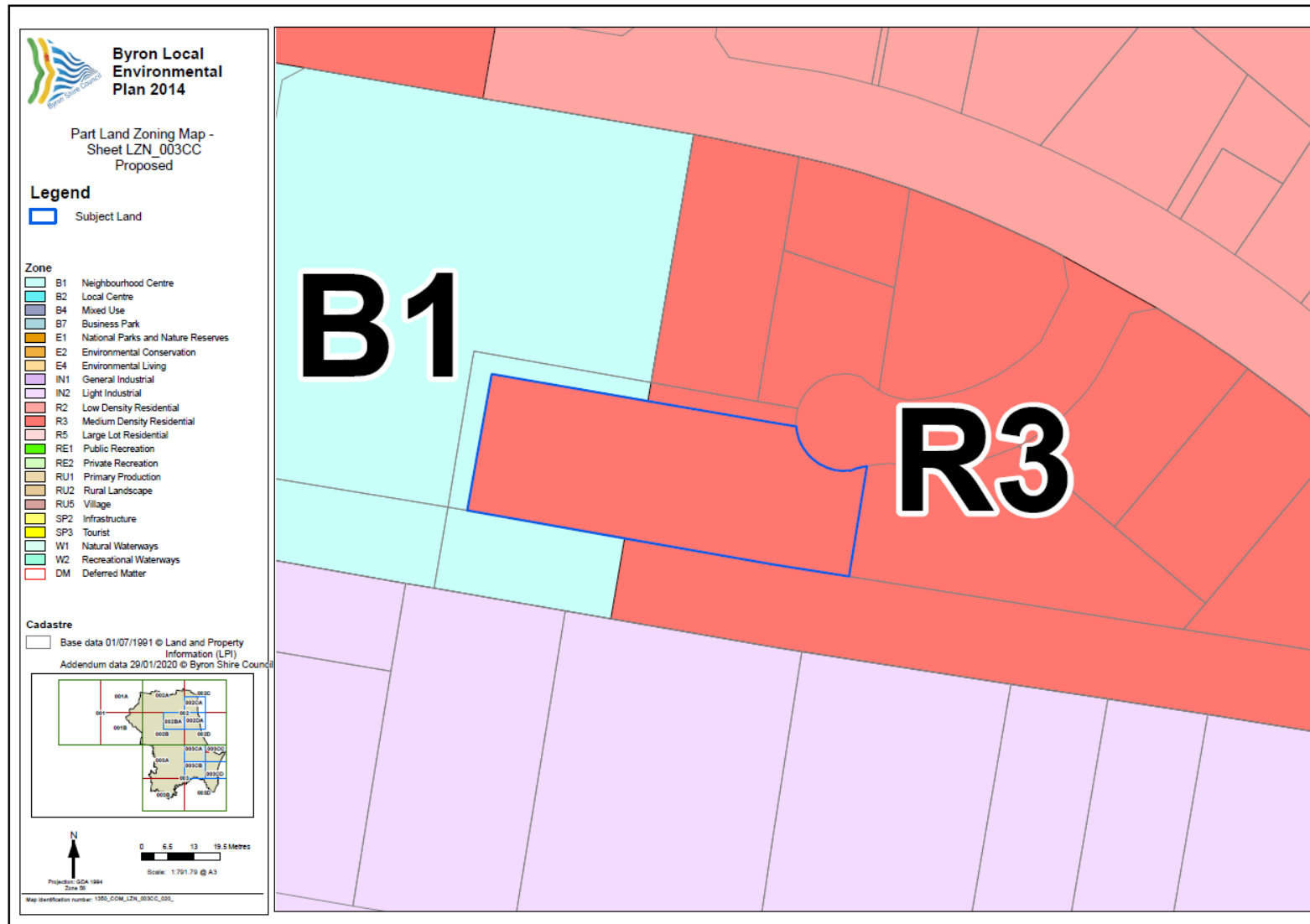
Appendices

Appendix 1: current and proposed mapping changes

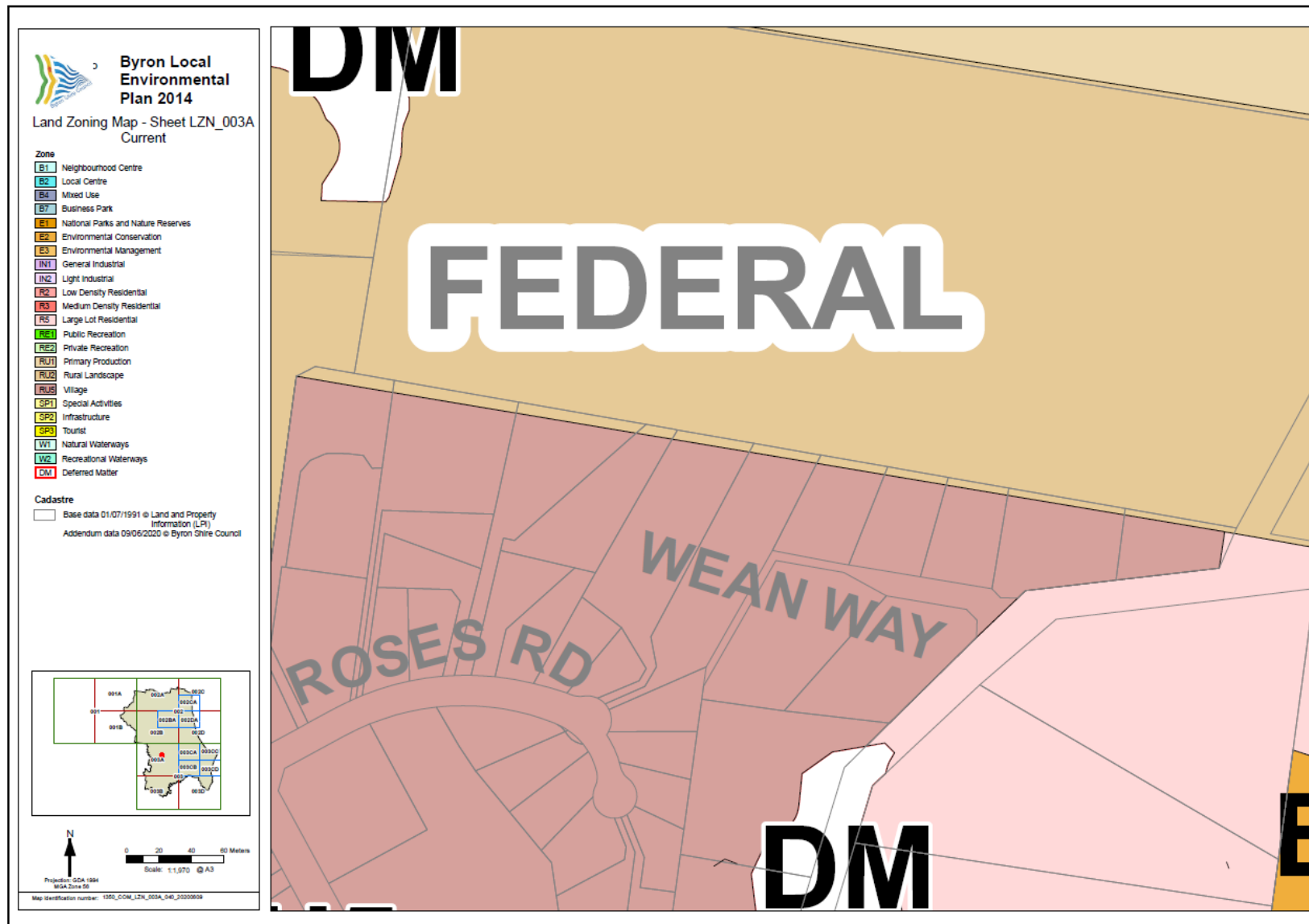
Item 8: Current Zoning



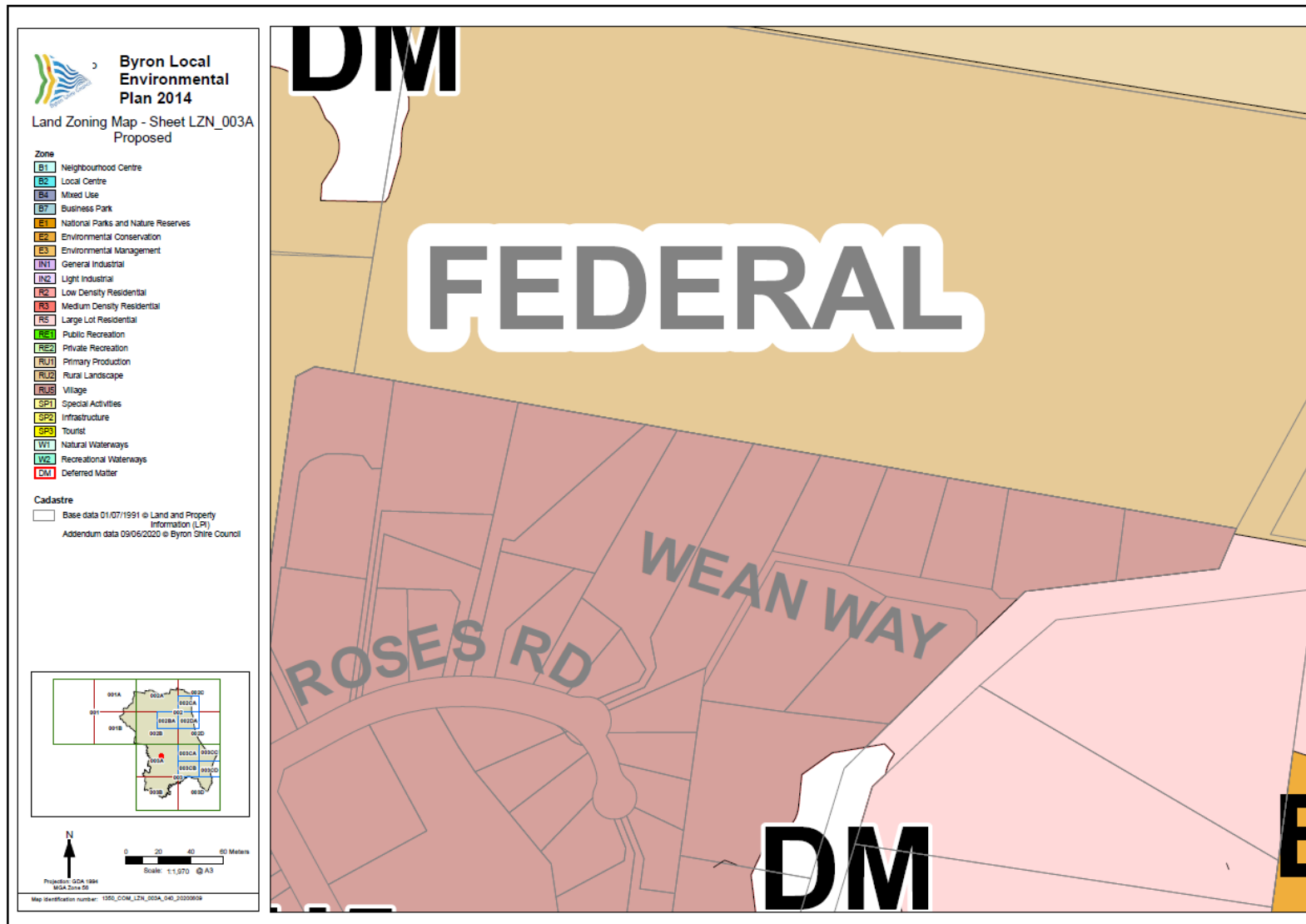
Item 8: Proposed Zoning



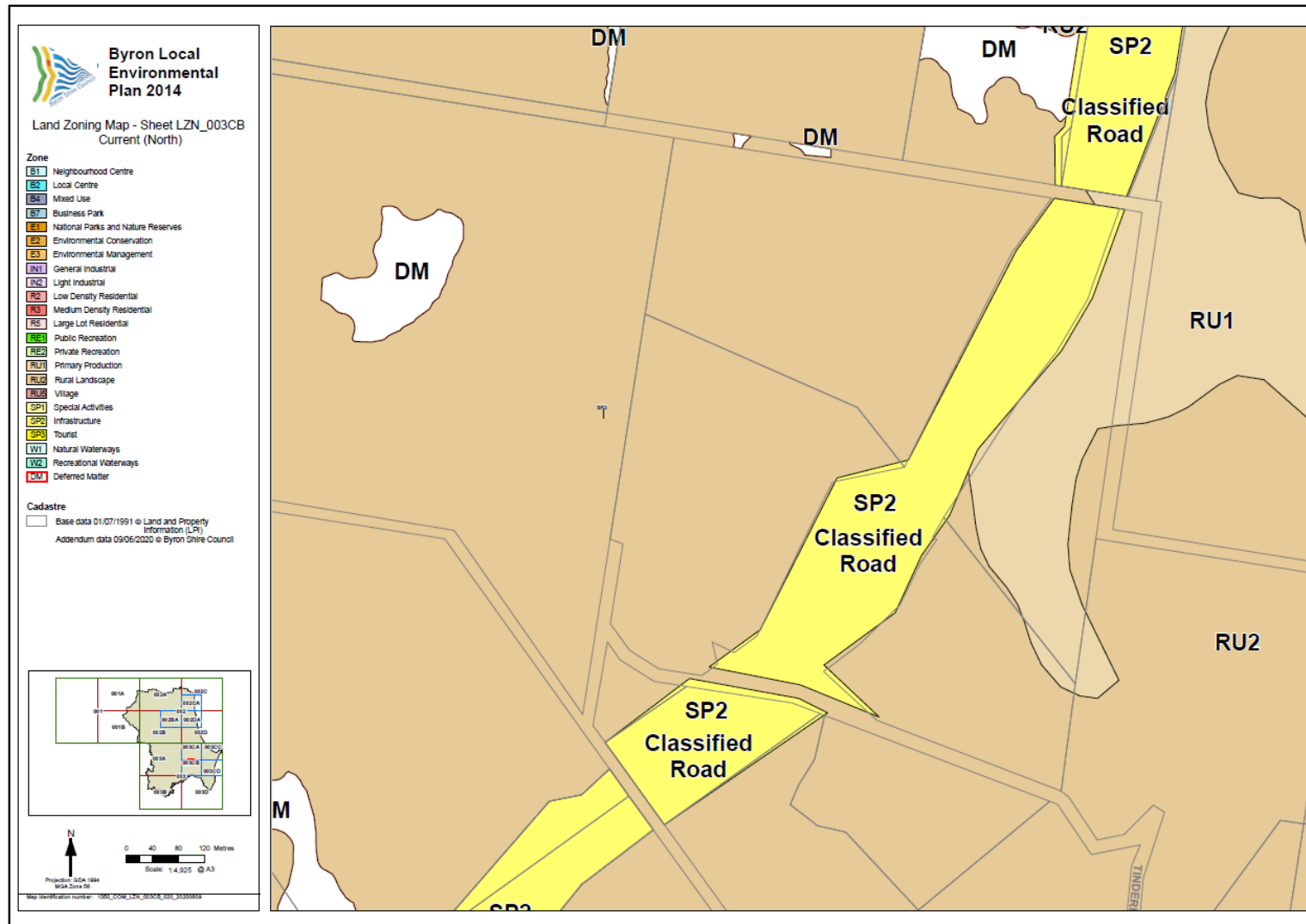
Item 9: Current Zoning



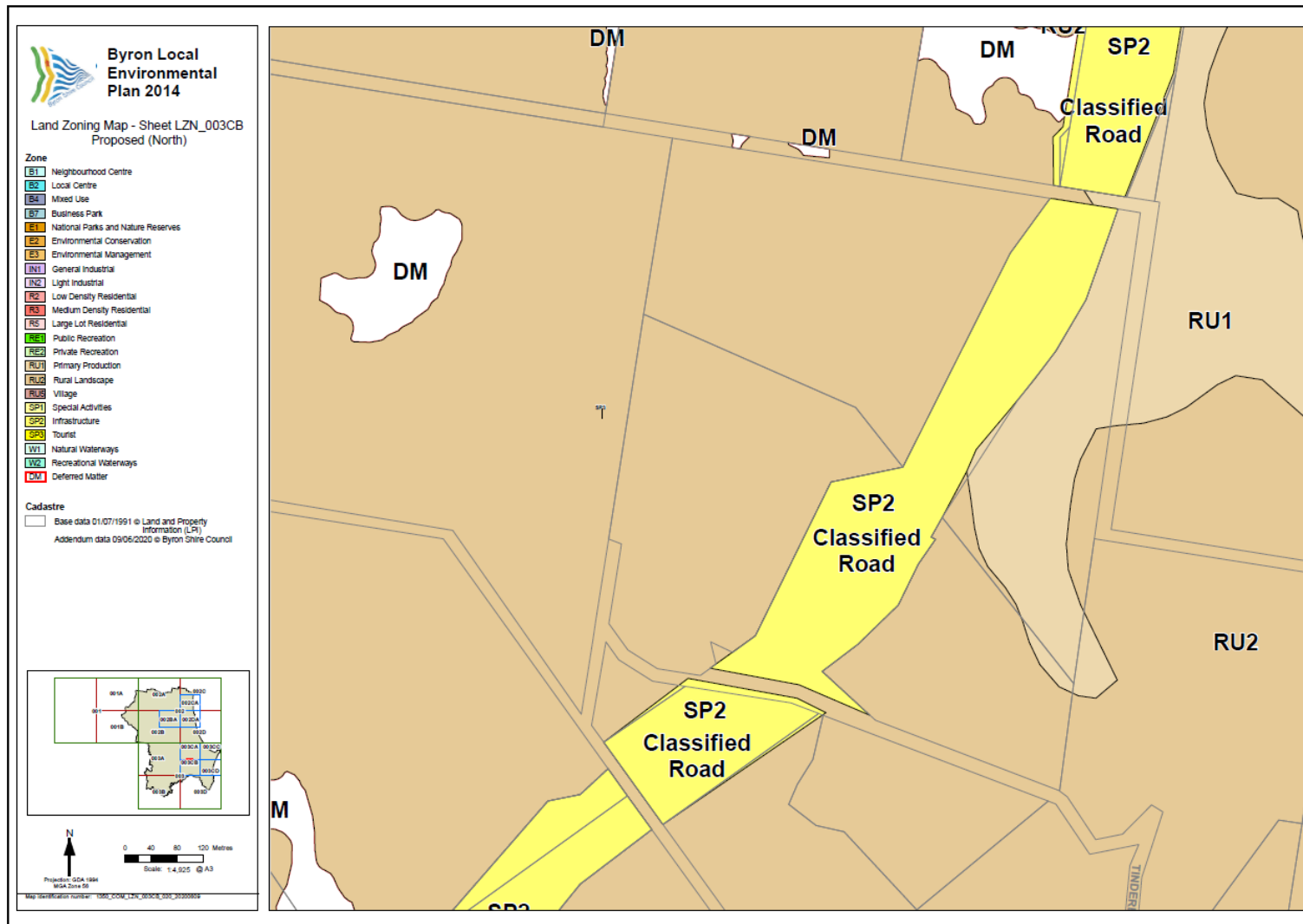
Item 9: Proposed Zoning



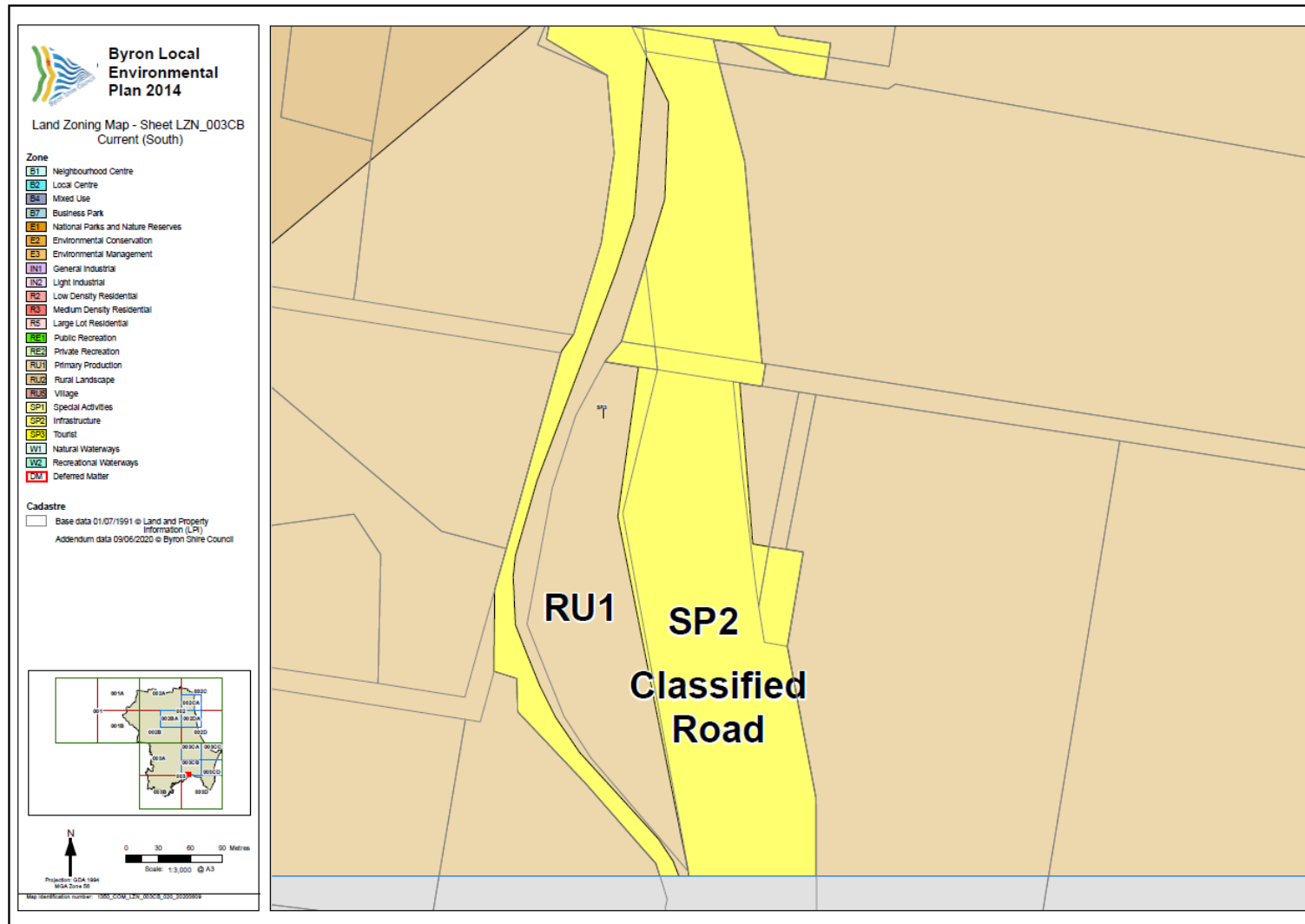
Item 10: Current Zoning (North)



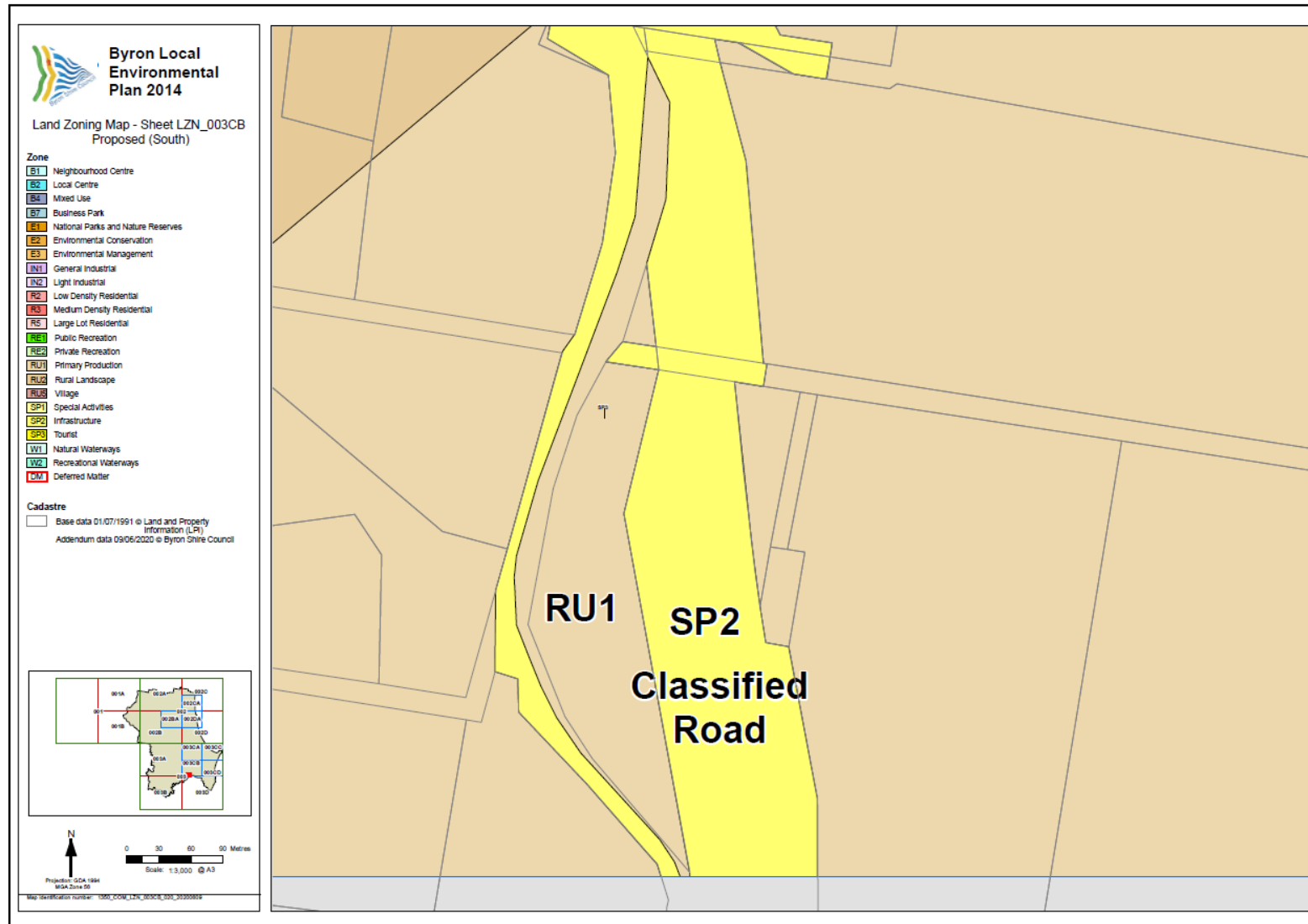
Item 10: Proposed Zoning (North)



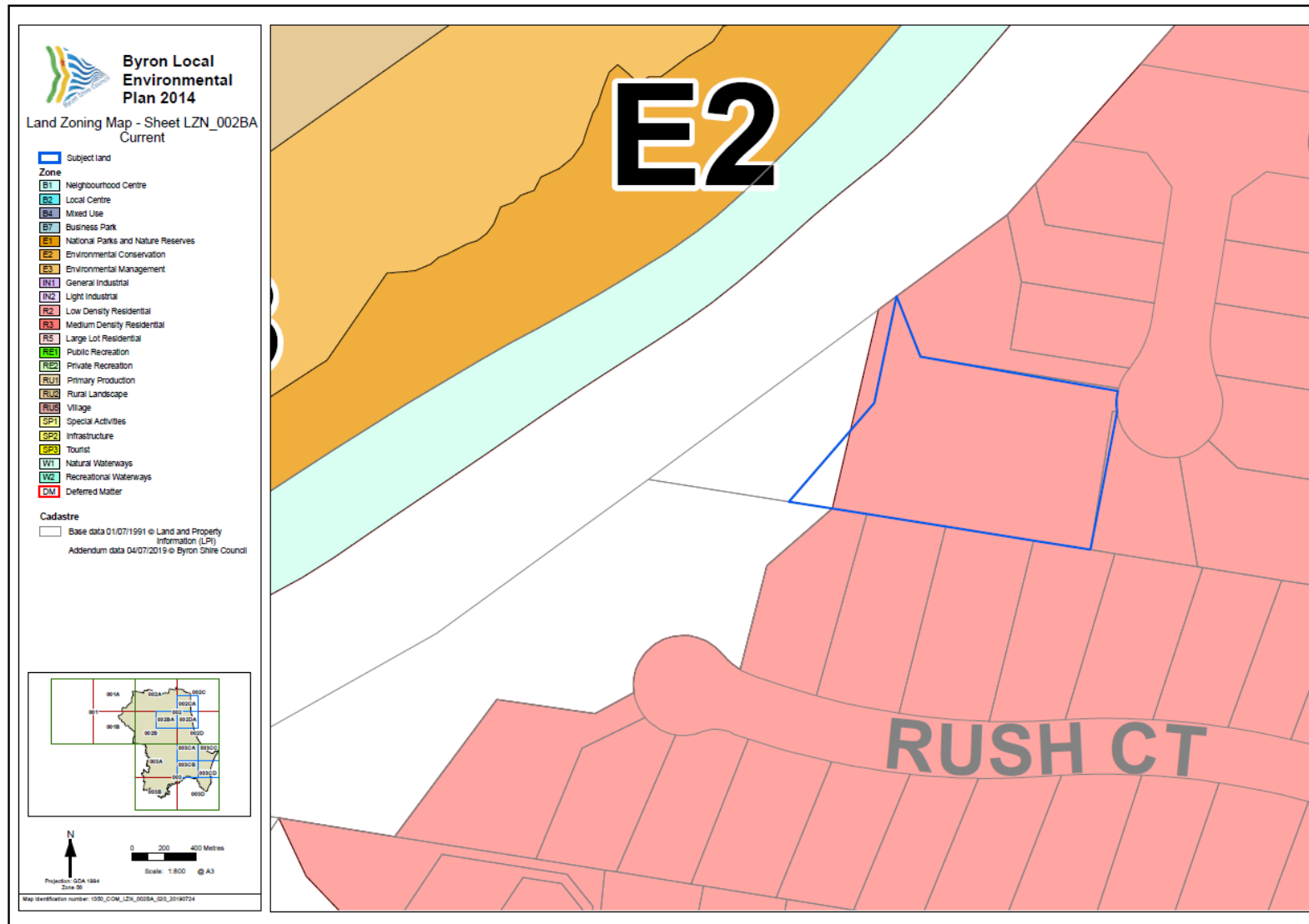
Item 10: Current Zoning (South)



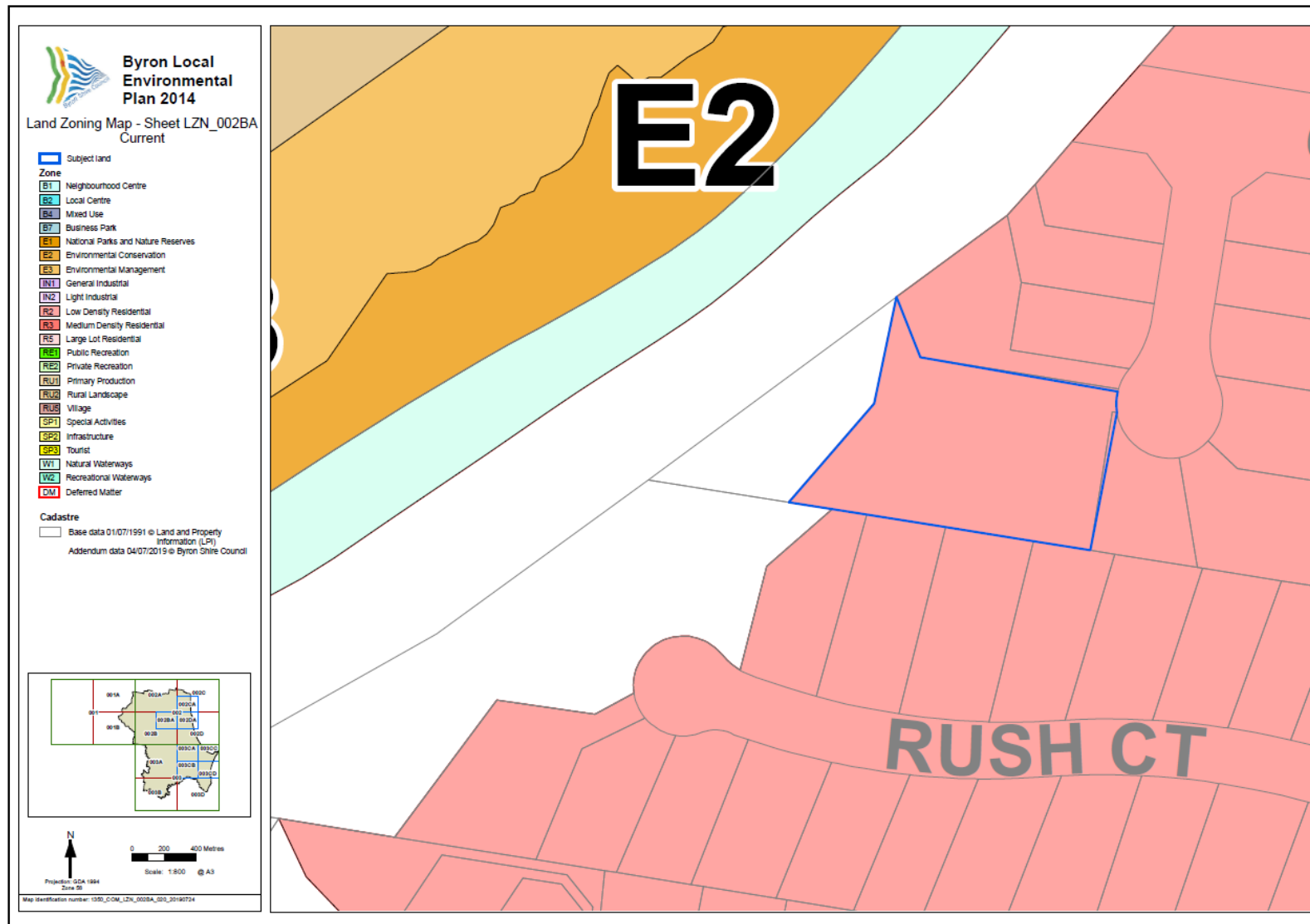
Item 10: Proposed (South)



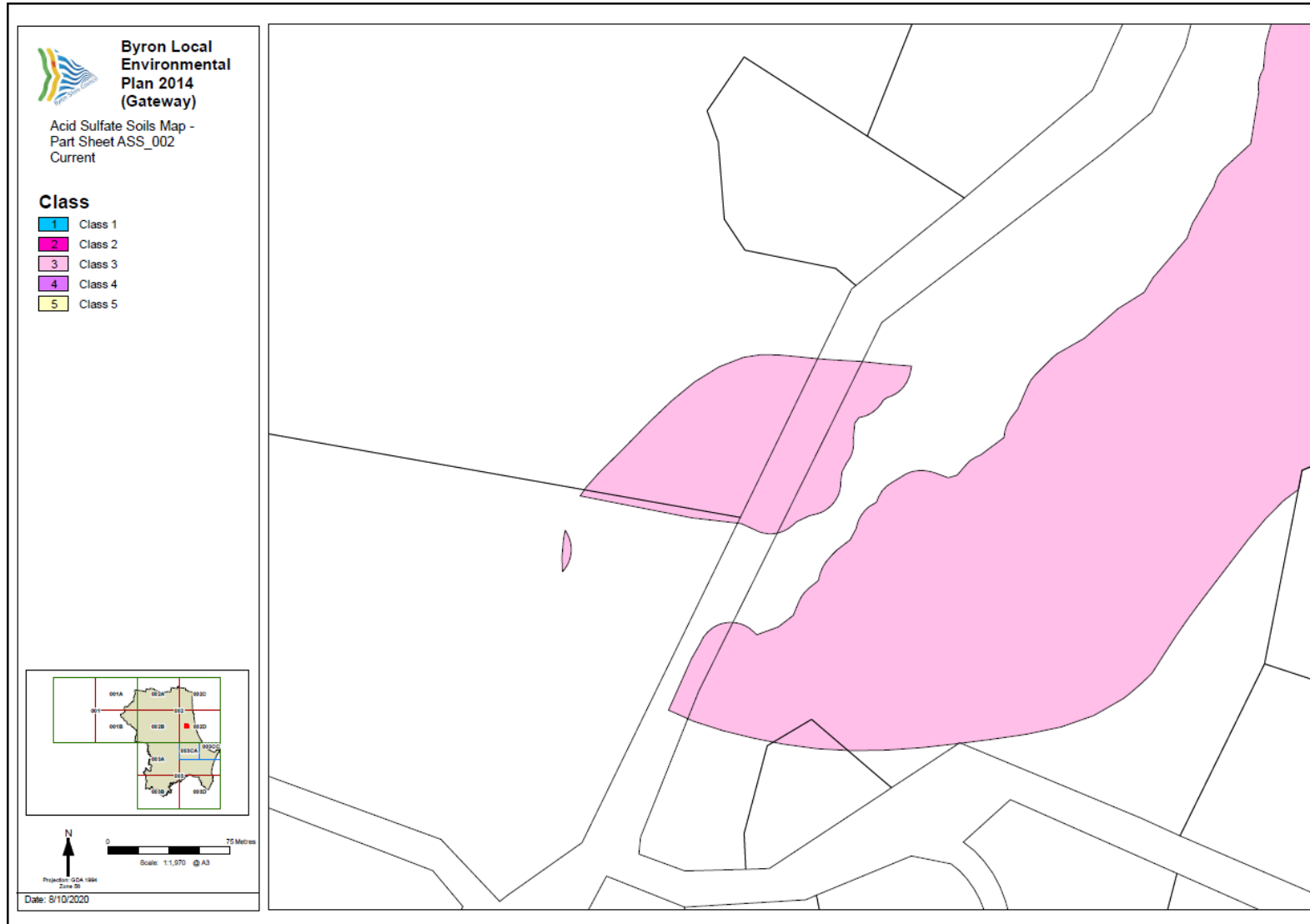
Item 11: Current Zoning



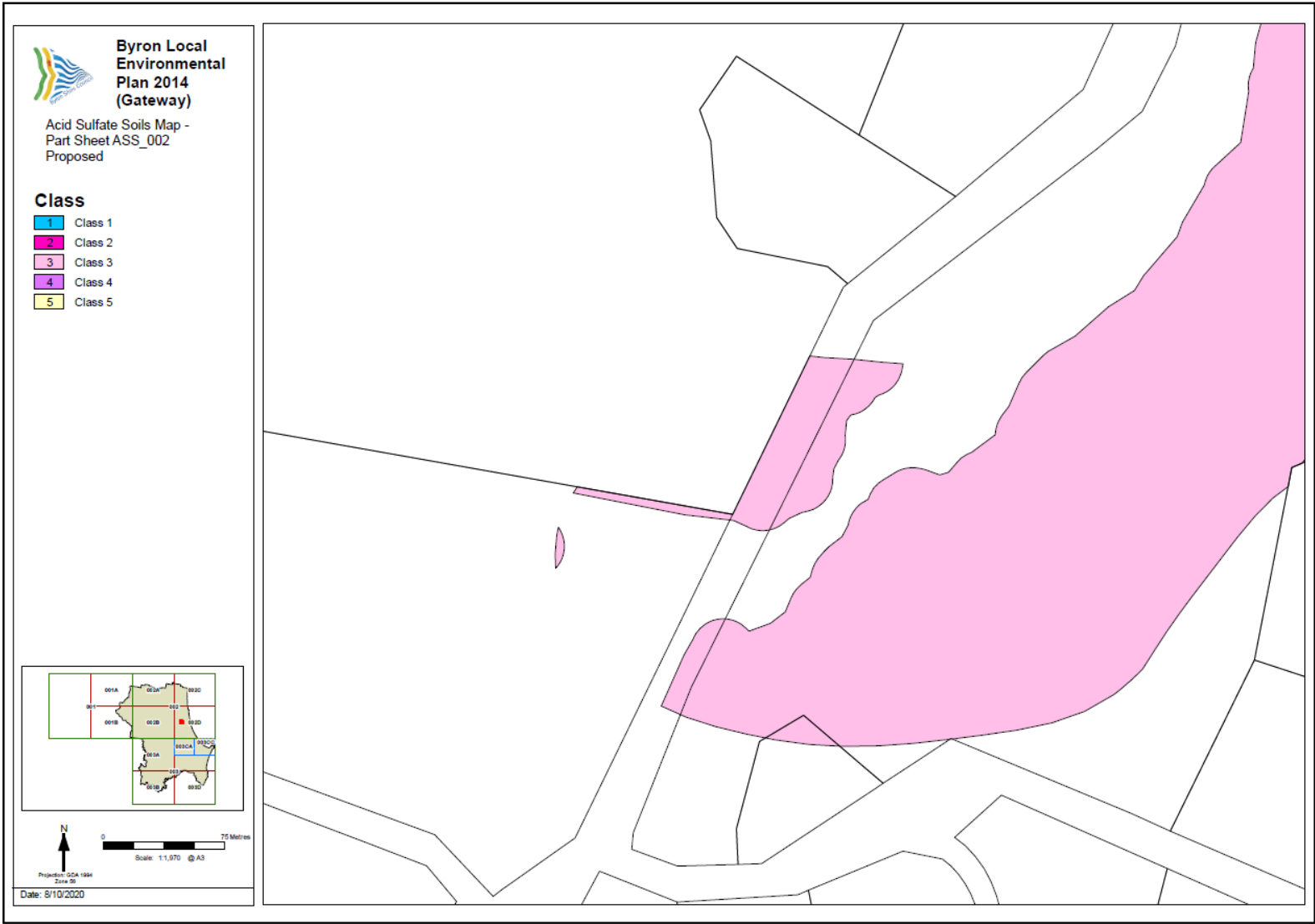
Item 11: Proposed Zoning



Item 12: Current Acid Sulfate Soils Mapping



Item 12: Proposed Acid Sulfate Soils Mapping



Appendix 2: Acid Sulfate Soils study for 219 The Saddle Road



Greg Alderson & Associates

Chartered Professional Engineers and Scientists

Preliminary Acid Sulfate Soil Assessment

Proposed harvestable rights dam & stormwater management system at
Lot 4 DP 810118, 219 The Saddle Road, Brunswick Heads

For: Koresoft Pty Ltd
Report No: 17224_ASS Rev C.doc
Date: 26th March 2019

Greg Alderson & Associates

Chartered Professional Engineers and Scientists

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Document Information

Project name	Harvestable rights dam and stormwater management system
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Reference	17224_ASS Rev C.doc
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Revision summary	Rev A - 27/10/2017 Rev B - 27/02/2018 Rev C – 26/03/2019
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Attachments

Soil laboratory analysis results
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EXECUTIVE SUMMARY

Greg Alderson and Associates have been commissioned by Matt O'Reilly to undertake a preliminary Acid Sulfate Soil (ASS) assessment at Lot 4 DP 810118, 219 The Saddle Road, Brunswick Heads. This assessment is required to determine if ASS or Potential ASS (ASS) is present on the site in the areas mapped under Byron Shire Council's Local Environmental Plan (LEP). It is understood our client is proposing to undertake stormwater management works and a harvestable rights dam in the area mapped as class 3 ASS risk under Council's LEP and therefore this assessment is required.

The Acid Sulphate Soil Risk Map (Soil Conservation Service of NSW, 1997) for Lismore-Ballina was investigated to give a preliminary insight as to the potential of acid sulfate soils on the site. The map presents that the site is classed as having a low probability of ASS occurrence as the environment has not been suitable for the formation of acid sulfate soil materials. However the map does note that it is possible that pockets of ASS material could be present under alluvium or wind blown sediments.

Four boreholes were excavated at the site. Laboratory results of the soil samples collected from the boreholes shows that acidity is present in all samples but were in concentrations that did not exceed the action criteria from ASSMAC (Stone *et al.*, 1998). The pH of all soils was above 4 and reduced sulfidic materials were in low concentrations or undetected, indicating that acidity was not being derived from sulfides. Rather it was apparent that acids derived from organic matter was the source of acidity, which is to be expected considering the levels of dissolved organic matter within the upper layer of the soil profile.

Based on the laboratory analysis results it is concluded that management practices to mitigate acid sulfate soils are not required during the construction of any drainage works on the property.

1.0 INTRODUCTION

Greg Alderson and Associates have been commissioned by Matt O'Reilly to undertake a preliminary Acid Sulfate Soil (ASS) assessment at Lot 4 DP 810118, 219 The Saddle Road, Brunswick Heads. This assessment is required to determine if ASS is present in mapped areas of the subject property as per the Byron Shire Council (Council) Local Environmental Plan (LEP) 2014 environmental mapping.

1.1 Proposed Development

It is proposed that channels are to be excavated to direct stormwater away from agricultural areas on the subject site. These proposed channels consist of both historical channels that have silted up and are no longer functioning adequately, and new channels in areas previously not subjected to stormwater management works. The client has stated that drains will be excavated to a maximum depth of 2.0m below natural ground level, be a maximum of 1.0m wide at the base and having battered walls to give a mowable drainage channel 5-7m wide at the top of the drain walls.

One new 3ML harvestable rights dam is proposed is on the south eastern side of the property near Gulgan Road and will have an irregular shape. The proposed dam is a 'turkeys nest' construction with the bulk of storage below the existing ground levels, with a 0.6m bund wall above the existing ground level. Figure 1 shows the location of the proposed drainage works on the subject property.

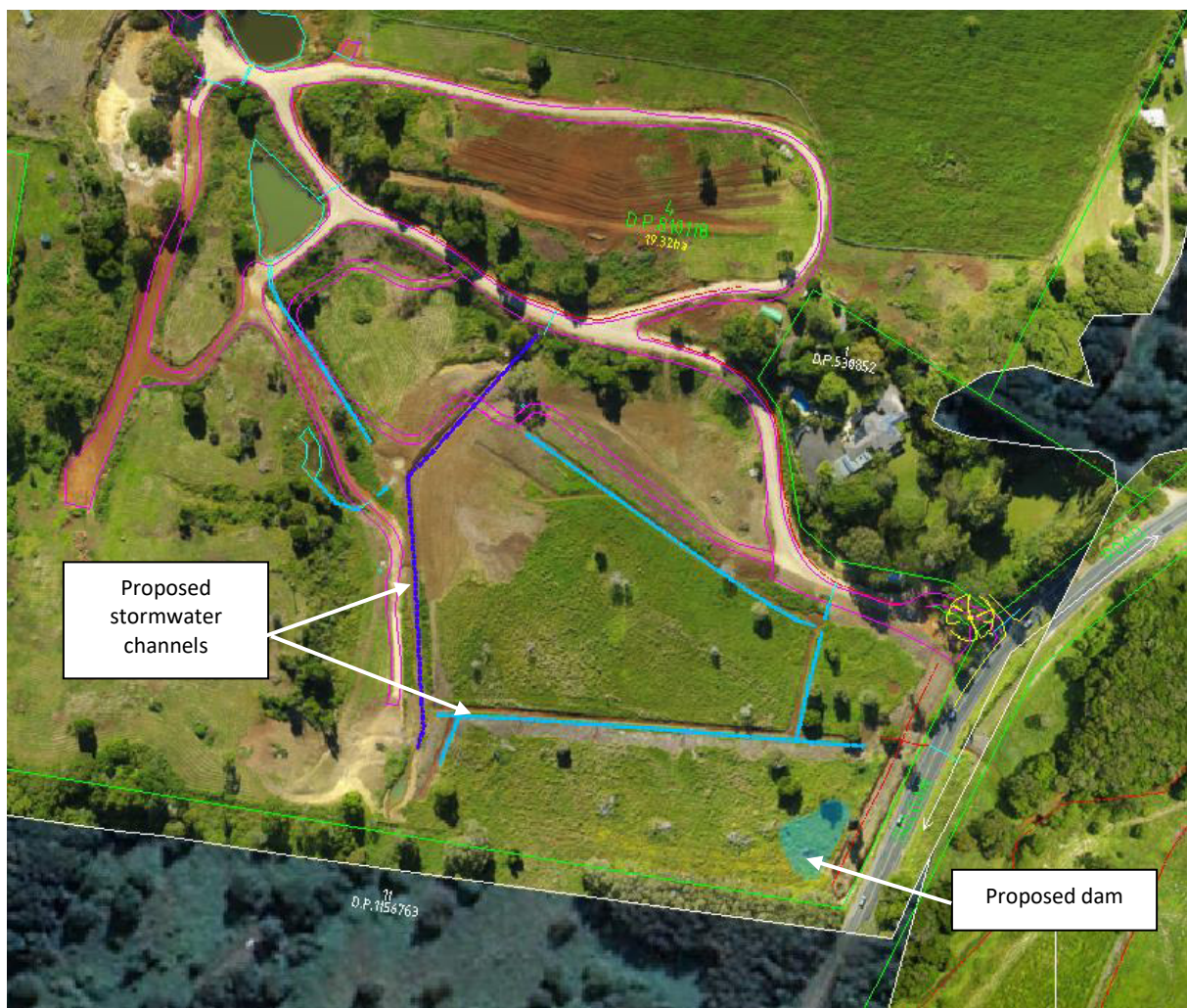


Figure 1. Proposed Stormwater channels and dam on property relating to ASS.

Under Council's Local Environmental Plan 2014 Acid Sulfate Soils Mapping an area of the subject site is mapped as Class 3. Figure 2 shows the mapped area under the LEP mapping with the proposed drainage works overlayed. Under ASSMAC (Stone *et al.*, 1988), Class 3 areas require investigating for 'Works beyond 1 metre below natural ground surface or Works by which the water table is likely to be lowered beyond 1 metre below natural ground surface'. Therefore this assessment is required.

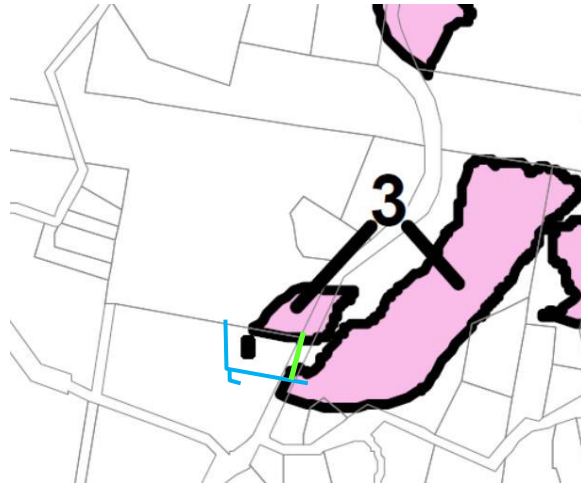


Figure 2. Class 3 ASS mapping under Council's LEP 2014.

1.2 Site Identification

The site is formally identified as Lot 4 DP 810118, 219 The Saddle Road, Brunswick Heads. The south eastern most corner of the property is Latitude -28.570891 S and the Longitude is 153.534158 E. A locality plan is provided in **Exhibit No. 1**.

1.3 Site Description

The subject property has an area of approximately 19.32ha. Currently the property is not used for any commercial agriculture but a development application is being submitted for intensive plant agriculture. There is an existing dwelling on the site and a dual occupancy dwelling has been approved but not yet constructed. There is also a disused quarry located centrally within the property.

The topography of the site varies. The south eastern quarter of the property consists of lowlying relatively flat land of a height of approximately 3.5-5.7m AHD. The elevation of the property rises to the west and north to a height of approximately 50m AHD.

Vegetation of the property is highly disturbed. Most areas are cleared of native vegetation and consist of pasture grass that was used for cattle grazing. In the low lying area the vegetation on the neighbouring property consists of paper bark forest. Land zoning of the development area is RU2 Rural landscape.

2.0 ACID SULFATE SOIL ASSESSMENT

This investigation is preliminary and is required to determine if potential or actual ASS is present in the soil within the proposed development area. The sampling, analysis and interpretation of data in relation to acid sulfate soils in this report are in accordance with the requirements outlined in the

'Acid Sulfate Soils Manual' endorsed by the Acid Sulfate Soils Management Advisory Committee (ASSMAC) in 1988 (Stone *et al.*, 1988). Soil sampling methodology used in this investigation included:

- Sample collection by Wendy Attrill (BAppSc) & Dylan Brooks (BEnvSc) of this office;
- All Laboratory samples were collected using a hand auger, placed in a plastic bag and sent to the Environmental Analysis Laboratory (EAL) who undertook analysis for the investigation of acid sulfate soil using the SPOCAS method 23 and the 'Chromium Reducible Sulfur' method 22B;
- All results from the EAL were sent to this office for the completion of the report;
- The report is written in accordance with the relevant chapters of the 'Acid Sulfate Soils Manual' (Stone *et al.*, 1988).

2.1 Preliminary Assessment

The Acid Sulphate Soil Risk Map (Soil Conservation Service of NSW, 1997) for the Huonbrook/Brunswick area was investigated to give a preliminary insight as to the potential of acid sulfate soils on the site. The map presents that the site is classed as having a low probability of ASS occurrence with the landform code Ap2 (A = Plain; p = Plain; 2 = 2-4m elevation) and if present ASS would be between 1 & 3m below the ground surface. The map states for Ap2 landforms:

"Low probability of occurrence of acid sulfate soil materials within the soil profile. The environment of deposition has generally not been suitable for the formation of acid sulfate soil materials. Soil materials are often Pleistocene in age. Acid sulfate soil materials, if present, are sporadic and may be buried by alluvium or windblown sediments."

In regard to the environmental risk the map states *'The majority of these landforms are not expected to contain acid sulfate soil materials. Therefore, land management is generally not affected by acid sulfate soils. However highly localised occurrences may be found, especially near boundaries with environments with a high probability of occurrence. Disturbance of these soil materials will result in an environmental risk that will vary with elevation and depth of disturbance.'*

Figure 3 below shows an excerpt from the Soil Risk Map.

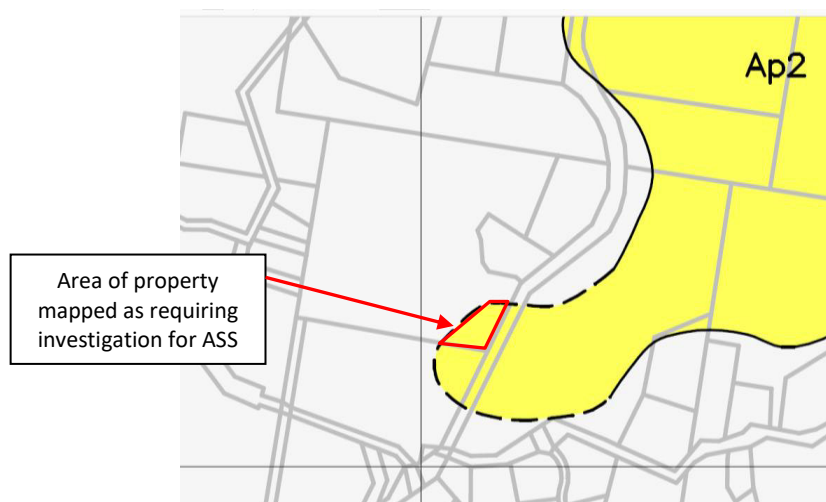


Figure 3. Class 3 ASS mapping under Council's LEP 2014.

3.0 GEOLOGY AND SOIL

Morand (1994) maps the soil of the proposed development area as being within a 'Myocum' soil landscape. Morand's description of these soils is as follows:

Soils - Deep (>1.5m) poorly drained dense clays & grey clays.

Geology - Quaternary alluvium: alluvium sand, clay. Predominantly fine grained sediments from the Lismore Basalts, though sediments from the Nimbin Rhyolites and Neranleigh-Fernvale Group also contribute.

Topography - Extremely low, level to very gently inclined drainage plains & back plains apparently formed by the infilling of drowned Pleistocene valleys behind sand barriers.

Limitations to development - my1 soils: moderate shrink-swell, very strongly acid, low wet bearing strength, low available water holding capacity.

2.2 Number of Sampling Sites

Table 4.1 of Section 4a of the Assessment Guidelines (Chapter 2) of the Acid Sulfate Soil Manual (Stone *et al.*, 1998) recommends the minimum number of sampling holes required, which is 4 holes for up to 1 hectare (10,000m²). As the area mapped on the site for ASS is approximately 6500m² four sample holes were collected. Borehole locations are shown in Figure 4 and Table 1 below.



Figure 4. Borehole locations.

Table 1. Borehole locations.

Borehole	Latitude	Longitude
BH 1	-28.5701	153.5347
BH 2	-28.5704	153.5342
BH 3	-28.571	153.5342
BH 4	-28.5707	153.5343

2.3 Sampling Depth

The depth of soil sampling was determined from Section 4b of the Assessment Guidelines (Chapter 2) of the Acid Sulfate Soil Manual (Stone *et al.*, 1998). The minimum depth of sampling should be at least one metre beyond the depth of the proposed excavation or the estimated drop in water table height, or 2.0m below the natural ground surface, whichever is greatest. Samples were collected to a depth of 2.0m in boreholes 1 & 2 as the deepest excavations in these areas is proposed to be 1.0m. Samples were collected down to 4.0m in borehole 4 as the proposed harvestable rights dam will be excavated to a depth of 3.0m in this area. Samples were only taken to 1.5m depth in borehole 3 as the soil profile was consistent with boreholes 1 & 2. Section 4b (Stone *et al.*, 1998) also indicates that samples should be collected every 0.5m or for every changed soil layer.

2.4 Borehole Sample Location

Boreholes were located in the most likely location of ASS. The source of sulfur required to form ASS would generally come from an easterly direction, being the salt water carried in the tidal influence of Everitts Creek or from historical seawater inundation which also would have come from the east due to lower elevation of that aspect. Boreholes were also purposely taken in the areas of lowest elevation to give greater chance of detecting deeper ASS. Figure 5 shows the location of the bore in relation to the most likely direction of sulphur presence in the sites soils.

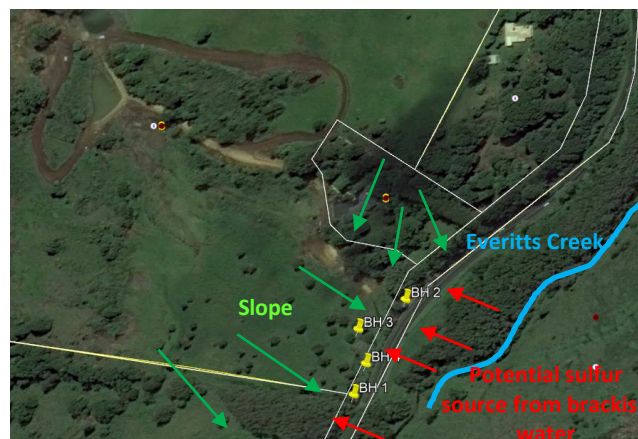


Figure 5. Borehole location and ASS probability.

2.5 Analysis of Soil Samples

Soil samples were analysed for Chromium Reducible Sulfur (CRS) with Method 22B and SPOCAS method 23 of the Acid Sulfate Soils Assessment and Management Guidelines (in the Acid Sulfate Soil Manual (Stone *et al.*, 1998). The full laboratory analysis results of the soil analysis are presented in the Appendix.

4.0 BASIS FOR ASSESSMENT CRITERIA

The results of the soil sample analysis are compared to Table 4.4 in ASSMAC (Stone *et al.*, 1998) (Table 2). If the oxidisable sulfur trail or net acidity trail is greater than the Action Criteria then this initiates the requirement for management of the soil to occur. The values for <1000t of disturbed soil has been used for the purposes of the subject development.

Table 2: Action Criteria from Table 4.4 in Section 4.3 of Chapter 2 of ASSMAC (Stone *et al.*, 1998)

Soil Texture	Sulfur trail (% sulfur oxidisable)	Net acidity trail (mole H ⁺ /tonne)
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Coarse	0.03	18
Medium	0.06	36
Fine	0.1	62

If the sulfur trail was exceeded by the trails recorded in the soil samples, the soil layer from which that sample was collected would be classed as Potential Acid Sulfate Soil (PASS) and would require management if disturbed. Soils were classed as Actual Acid Sulfate Soils (AASS) if the pH was recorded lower than ≤ 4 (Southern Cross Geoscience, 2012). An understanding of acid sulfate soil formation is required when interpreting ASS laboratory results, as acidity can be sourced from the oxidation of organic matter.

5.0 RESULTS

A summary of the soil analysis results from the soil samples collected by this office is given below (Table 3, 4, 5 & 6). The full copies of the laboratory analysis results are also attached to this report.

Table 3. Borehole 1 soil investigation & results.


Soil colour	Depth (mm)	Sample No.	Approximate AHD (m)	Soil description	Laboratory Analysis				
					Titratable Actual acidity		Reduced Inorganic sulfur		Net acidity
					pH	Mole H ⁺ /tonne	(%Scr)	Mole H ⁺ /tonne	Mole H ⁺ /tonne
	0		3.47	Dark brown massive silty clay					
	500	1A	2.97	Orange mottling in dark brown clay	4.20	77	0.030	19	96
	700			Massive heavy dark brown/grey clay					
	1000	1B	2.47		5.43	19	0.016	10	29
	1500	1C	1.97	Massive heavy grey clay	6.22	6	0.049	31	36
	2000	1D	1.47		6.18	3	0.058	36	39

Table 4. Borehole 2 soil investigation & results.



Soil colour	Depth (mm)	Sample No.	Approximate AHD (m)	Soil description	Laboratory Analysis				
					Titratable Actual acidity		Reduced Inorganic sulfur		Net acidity
					pH	Mole H ⁺ /tonne	(%Scr)	Mole H ⁺ /tonne	Mole H ⁺ /tonne
	0		3.54	Massive heavy grey clay. Iron oxides present along root channels to approximately 0.5m depth.					
	500	2A	3.04		4.28	74	<0.005	0	74
	1000	2B	2.54		4.32	69	0.010	6	75
	1500	2C	2.04		5.12	21	<0.005	0	21
	2000	2D	1.54		5.52	12	<0.005	0	12

Table 5. Borehole 3 soil investigation & results.

Soil colour	Depth (mm)	Sample No.	Approximate AHD (m)	Soil description	Laboratory Analysis				
					Titratable Actual acidity		Reduced Inorganic sulfur		Net acidity
					pH	Mole H ⁺ /tonne	(%Scr)	Mole H ⁺ /tonne	Mole H ⁺ /tonne
	0		3.60	Massive heavy grey clay. Iron oxides present along root channels to approximately					
	300		3.30						

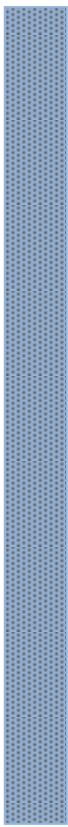
WATER TABLE

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	500	3A	3.10	0.5m depth.	4.18	71	0.006	4	74
	1000	3B	2.60		4.22	66	0.002	1	67
	1500	3C	2.1		4.65	28	0.019	12	40

Table 6. Borehole 4 soil investigation & results.

Soil colour	Depth (mm)	Sample No.	Approximate AHD (m)	Soil description	Laboratory Analysis				
					Titratable Actual acidity		Reduced Inorganic sulfur		Net acidity
					pH	Mole H ⁺ /tonne	(%Scr)	Mole H ⁺ /tonne	Mole H ⁺ /tonne
	2000		1.54	Massive heavy grey clay. Iron oxides present throughout					
	2500	1E	1.04		6.01	5	0.006	4	8
	3000	1F	0.54		6.11	3	<0.005	0	3
	3500	1G	0.04		6.19	3	<0.005	0	3
	4000	1H	-0.46		6.10	5	0.078	49	53

5.1 Interpretation of Results

Soil profile was consistent between the four boreholes. Morand's (1994) description of the soil profile in this location was confirmed as dense poorly drained grey clays were present to the extents of the borehole. These alluvial derived clays are sourced from the Lismore basalts and Narenleigh-Fernvale metasediments found above the subject location.

The soils found in the boreholes is described as being naturally acidic. Soils in the top 500mm of

boreholes 1-3 was less than pH 4.5 while all deeper soils between 0.5-2.0m generally had a pH of less than 6.0. The soil pH also became less acidic with depth with samples collected below 2.0m in borehole 4 had pH levels of above 6.

The soil testing shows that sulfidic materials are not responsible for the acidic soil found in the top 2.0m of the soil profile. Soils are naturally acidic from humic and fluvic acids present in broken down organic matter as evidenced by the higher existing levels of acidity correlating with higher humus content in the top layer of soils and low levels of reduced inorganic sulfur throughout the boreholes. The excavation of soils on the site related to the proposed drainage development will not create a risk of disturbing acid sulfate materials.

Generally here were also low levels of sulfur detected in the tested soils. All reduced inorganic sulfur concentrations were below the $\geq 0.1\%$ nominated by ASSMAC (Stone *et al.*, 1998) as being the value for classifying a soil as Potential ASS (PASS). In borehole 2 sulfidic material was nearly undetected throughout the entire borehole while boreholes 1 & 3 had low concentrations of sulfidic material detected.

The deepest soil sample collected in borehole 4 (4.0m below ground surface) did contain some acid sulfate material. The AHD of this sample was approximately -0.46m and contained 0.078% reduced sulfur. This is below the 0.1% threshold for triggering the requirement for a ASS management plan.

In the actual soil proposed to be disturbed the greatest concentrations of sulfidic material were evident borehole 1. The reasoning behind this is thought to be that this borehole was taken in the lowest location on the property thereby being the most likely location to have been influenced by sulfur containing seawater in past times and was the closest to Everitts Creek, also a potential historical source of sulfur containing seawater. Sulfur concentrations increased with depth but at 2.0m (1.47m AHD) depth (termination depth) the reduced inorganic sulfur concentration was recorded at 0.058% which is below the $\geq 0.1\%$ trigger level for PASS.

7.0 CONCLUSIONS

A preliminary Acid Sulfate Soil Assessment was undertaken at Lot 4 DP 810118, 219 The Saddle Road, Brunswick Heads. This assessment is required to determine if the area of proposed development contains ASS or PASS, and if so to what severity and what depths in the soil profile.

Four boreholes were excavated at the site with the results compared with the Action Criteria within the Acid Sulfate Soil Manual (Stone *et al.*, 1998). Although soils are naturally acidic the comparison of the soil laboratory analysis results to the action criteria shows that neither ASS or PASS is present in the borehole locations to a depth of 4.0m. The proposed stormwater management works and harvestable rights dam will not disturb either ASS or PASS and therefore no management plan is required.

8.0 REFERENCES

Morand, D.T. (1994). *Soil Landscapes of the Lismore-Ballina 1:100,000 Sheet Map*, Soil Conservation Service of NSW, Sydney.

Soil Conservation Service of NSW (1997). *Acid Sulfate Soil Risk Map*, 2nd Edition; Woodburn.

Stone, Y., Ahern, C.R. and Blunden, B. (1998). *Acid Sulfate Soils Manual*. Acid Sulfate Soil Management Advisory Committee, Wollongbar, NSW, Australia.

SOIL LABORATORY ANALYSIS RESULTS

RESULTS OF ACID SULFATE SOIL ANALYSIS

4 samples supplied by Greg Alderson & Associates on 5/02/18. Lab Job No.G7121

Analysis requested by Wendy Attrill. Your Job: 17224

133 Scarrabollotti's Road NASHUA NSW 2479

Sample Identification	Depth (m)	EAL Lab Code	Texture	Moisture Content		Potential Sulfidic Acidity (Chromium Reducible Sulfur - CRS)		Actual Acidity (Titratable Actual Acidity - TAA)		Retained Acidity (% S_{HCl} - % S_{KCl})		Acid Neutralising Capacity ($ANC_{6.7}$)		Net Acidity (based on S_{CR})	Lime Calculation
				(% moisture of total wet weight)	(g moisture / g of oven dry soil)	(% S_{CR})	(mol H^+ /t)	pH $_{KCl}$	(mol H^+ /t)	(% S_{NAS})	(mol H^+ /t)	(% $CaCO_3$)	(mol H^+ /t)	(mol H^+ /t)	(kg $CaCO_3$ /t DW)
Method Info.			**		**	(In-house method S20)		(In-house method 16b)		**		(In-house method S14)		**	**
1e	..	G7121/1	Fine	21.9	0.28	0.006	4	6.01	5	..	..	..	..	8	1
1f	..	G7121/2	Fine	20.4	0.26	<0.005	0	6.11	3	..	..	..	..	3	0
1g	..	G7121/3	Fine	23.9	0.31	<0.005	0	6.19	3	..	..	..	..	3	0
1h	..	G7121/4	Fine	32.7	0.49	0.078	49	6.10	5	..	..	..	..	53	4

NOTES:

- All analysis is reported on a dry weight (DW) basis, unless wet weight (WW) is specified.
- Samples are dried and ground immediately upon arrival (unless supplied dried and ground).
- Analytical procedures are sourced from Ahern CR, McElna AE and Sullivan LA (2004). *Acid sulfate soil laboratory method guidelines*. Queensland Department of Natural Resources, Mines and Energy: Indooroopilly, Qld, Australia.
- The Acid Base Accounting Equation is **Net Acidity = Actual Acidity + Retained Acidity + Potential Sulfidic Acidity (S_{CR} or S_{OR}) - Acid Neutralising Capacity/Fineness Factor** (Ahern et al. 2004 - full reference above).
- Retained Acidity is required when the pH $_{KCl}$ < 4.5 or where jarosite has been visually observed. Acid Neutralising Capacity is required when the Potential Sulfidic Acidity is greater than the texture dependent trigger and the pH $_{KCl}$ is \geq 6.5.
- An acid sulfate soil management plan is triggered by Net Acidity results greater than the texture dependent criterion: coarse texture \geq 0.03% S or 19 mol H^+ /t; medium texture \geq 0.06% S or 37 mol H^+ /t; fine texture \geq 0.1% S or 62 mol H^+ /t** (Ahern et al. 2004 - full reference above)
- For projects that disturb > 1000 tonnes of soil, the coarse trigger of \geq 0.03% S must be applied in accordance with Ahern CR, Stone Y and Blunden B (1998). *Acid sulfate soils assessment guidelines*. Acid Sulfate Soil Management Advisory Committee: Wollongbar, NSW, Australia.
- Acid sulfate soil texture triggers can be related to standard soil textures: coarse = sands to loamy sands; medium = sandy loams to light clays; fine = medium to heavy clays and silty clays (Ahern et al. 1998 - full reference above).
- Bulk density is required to convert liming rates to soil volume based results. Field bulk density rings can be submitted to EAL for bulk density determination.
- The lime calculation includes a Safety Factor of 1.5 as a safety margin for acid neutralisation (Ahern et al. 2004). This is only applied to positive values. An increased Safety Factor may be required in some cases.**
- A negative Net Acidity result indicates an excess acid neutralising capacity.
- '..' is reported where a test is either not requested or not required. Where pH $_{KCl}$ is < 4.5 or > 6.5, zero is reported for S_{NAS} and ANC in Net Acidity calculations, respectively.
- Results refer to samples as received at the laboratory. This report is not to be reproduced except in full.
- ** NATA accreditation does not cover the performance of this service.



RESULTS OF ACID SULFATE SOIL ANALYSIS

4 samples supplied by Greg Alderson & Associates on 24th February, 2017 - Lab. Job No. F7194

Analysis requested by Wendy Attrill. **Your Project: Site 17224**

(133 Scarrabelottis Road NASHUA NSW 2479)

Sample Site	EAL lab code	TEXTURE (note 7)	MOISTURE CONTENT		TITRATABLE ACTUAL ACIDITY (TAA) (To pH 6.5)		REDUCED INORGANIC SULFUR (% chromium reducible S)		NET ACIDITY Chromium Suite mole H ⁺ /tonne	LIME CALCULATION Chromium Suite kg CaCO ₃ /tonne DW
			(% moisture of total wet weight)	(g moisture / g of oven dry soil)	pH _{KCl}	(mole H ⁺ /tonne)	(%Scr)	(mole H ⁺ /tonne)	(based on %Scr)	(includes 1.5 safety Factor when liming rate is +ve)
<i>Method Info.</i>		**	**		(ACTUAL ACIDITY-Method 23)		(POTENTIAL ACIDITY-Method 22B)		** & note 5	** & note 4 and 6
1a	F7194/1	Fine	24.6	0.33	4.20	77	0.030	19	96	7.2
1b	F7194/2	Fine	37.1	0.59	5.43	19	0.016	10	29	2.2
1c	F7194/3	Fine	14.4	0.17	6.22	6	0.049	31	36	2.7
1d	F7194/4	Fine	20.1	0.25	6.18	3	0.058	36	39	2.9

NOTE:

- 1 - All analysis is Dry Weight (DW) - samples dried and ground immediately upon arrival (unless supplied dried and ground)
- 2 - Samples analysed by SPOCAS method 23 (ie Suspension Peroxide Oxidation Combined Acidity & sulfate) and 'Chromium Reducible Sulfur' technique (Scr - Method 22B)
- 3 - Methods from Ahern, CR, McElnea AE, Sullivan LA (2004). **Acid Sulfate Soils Laboratory Methods Guidelines**. QLD DNRME.
- 4 - Bulk Density is required for liming rate calculations per soil volume. Lab. Bulk Density is no longer applicable - field bulk density rings can be used and dried/ weighed in the laboratory.
- 5 - **ABA Equation: Net Acidity = Potential Sulfidic Acidity (ie. Scr or Sox) + Actual Acidity + Retained Acidity - measured ANC/FF (with FF currently defaulted to 1.5)**
- 6 - The neutralising requirement, lime calculation, includes a 1.5 safety margin for acid neutralisation (an increased safety factor may be required in some cases)
- 7 - For Texture: coarse = sands to loamy sands; medium = sandy loams to light clays; fine = medium to heavy clays and silty clays
- 8 - .. denotes not requested or required. '0' is used for ANC and Snag calcs if TAA pH <6.5 or >4.5
- 9 - SCREENING, CRS, TAA and ANC are NATA accredited but other SPOCAS segments are currently not NATA accredited
- 10- Results at or below detection limits are replaced with '0' for calculation purposes.
- 11 - **Projects that disturb >1000 tonnes of soil, the ≥0.03% S classification guideline would apply (refer to acid sulfate management guidelines).**
- 12 - Results refer to samples as received at the laboratory. This report is not to be reproduced except in full.
- 13 ** denotes these test procedure or calculation are as yet not NATA accredited but quality control data is available



(Classification of potential acid sulfate material if: coarse Scr≥0.03%S or 19mole H⁺/t; medium Scr≥0.06%S or 37mole H⁺/t; fine Scr≥0.1%S or 62mole H⁺/t) - as per QUASSIT Guidelines

RESULTS OF ACID SULFATE SOIL ANALYSIS

7 samples supplied by Greg Alderson & Associates on the 22nd September, 2017 - Lab. Job No. G3456

Analysis requested by Wendy Attrill. **Your Project: 17224**

133 Scarrabelottis Road NASHUA NSW 2479

Sample Site	EAL lab code	TEXTURE (note 7)	MOISTURE CONTENT		TITRATABLE ACTUAL ACIDITY (TAA) (To pH 6.5)		REDUCED INORGANIC SULFUR (% chromium reducible S)		NET ACIDITY Chromium Suite (mol H ⁺ /t)	LIME CALCULATION Chromium Suite kg CaCO ₃ /tonne DW
			(% moisture of total wet weight)	(g moisture / g of oven dry soil)	pH _{Ka}	(mol H ⁺ /t)	(%Scr)	(mol H ⁺ /t)	(based on %Scr)	(includes 1.5 safety Factor when liming rate is %ve)
Method	Info.	**	**		(In-house method 16b)		(In-house method S20)		** & note 5	** & note 4 and 6
2a	G3456/1	Fine	32.5	0.48	4.28	74	<0.005	0	74	6
2b	G3456/2	Fine	31.1	0.45	4.32	69	0.010	6	75	6
2c	G3456/3	Fine	28.9	0.41	5.12	21	<0.005	0	21	2
2d	G3456/4	Fine	27.3	0.38	5.52	12	<0.005	0	12	1
3a	G3456/5	Fine	29.7	0.42	4.18	71	0.006	4	74	6
3b	G3456/6	Fine	29.8	0.42	4.22	66	0.002	1	67	5
3c	G3456/7	Fine	29.0	0.41	4.65	28	0.019	12	40	3

NOTE:

- 1 - All analysis is Dry Weight (DW) - samples dried and ground immediately upon arrival (unless supplied dried and ground)
- 2 - Samples analysed by SPOCAS method 23 (ie Suspension Peroxide Oxidation Combined Acidity & sulfate) and 'Chromium Reducible Sulfur' technique (Scr - Method 22B)
- 3 - Analytical procedures are sourced from Ahern CR, McElnea AE and Sullivan LA (2004). Acid sulfate soil laboratory method guidelines. Queensland Department of Natural Resources, Mines and Energy: Indooroopilly, Qld, Australia.
- 4 - Bulk density is required to convert liming rates to soil volume based results. Field bulk density rings can be submitted to EAL for bulk density determination.
- 5 - The Acid Base Accounting Equation is **Net Acidity = Actual Acidity + Retained Acidity + Potential Sulfidic Acidity (Scr or Sox) — Acid Neutralising Capacity/Fineness Factor** (Ahern et al. 2004 - full reference above).
- 6 - The lime calculation includes a Fineness Factor of 1.5 as a safety margin for acid neutralisation (Ahern et al. 2004). This is only applied to positive values. An increased safety factor may be required in some cases.
- 7 - Acid sulfate soil texture triggers can be related to standard soil textures: coarse = sands to loamy sands; medium = sandy loams to light clays; fine = medium to heavy clays and silty clays (Ahern et al. 1998 - full reference above).
- 8 - ... is reported where a test is either not requested or not required. Where pH_{KCl} is < 4.5 or > 6.5, zero is reported for SNAS and ANC in Net Acidity calculations, respectively.
- 9 - An acid sulfate soil management plan is triggered by Net Acidity results greater than the texture dependent criterion: coarse texture ≥ 0.03% S or 19 mol H⁺/t; medium texture ≥ 0.06% S or 37 mol H⁺/t; fine texture ≥ 0.1% S or 62 mol H⁺/t (Ahern et al. 2004 - full reference above)
- 10 - Results at or below detection limits are replaced with '0' for calculation purposes.
- 11 - **For projects that disturb > 1000 tonnes of soil, the coarse trigger of ≥ 0.03% S must be applied in accordance with Ahern CR, Stone Y and Blunden B (1998). Acid sulfate soils assessment guidelines. Acid Sulfate Soil Management Advisory Committee: Wollongbar, NSW, Australia.**
- 12 - A negative Net Acidity result indicates an excess acid neutralising capacity.
- 13 - Results refer to samples as received at the laboratory. This report is not to be reproduced except in full.
- 14 - ** NATA accreditation does not cover the performance of this service.

(Classification of potential acid sulfate material if: coarse Scr≥0.03%S or 19mole H⁺/t; medium Scr≥0.06%S or 37mole H⁺/t; fine Scr≥0.1%S or 62mole H⁺/t) - as per QUASSIT Guidelines



checked:
Graham Lancaster
Laboratory Manager

CHAIN OF CUSTODY FORMS

CHAIN OF CUSTODY FORM

Sheet 1 of 1

INVESTIGATOR:

GREG ALDERSON AND ASSOCIATES

ABN 58 594 160 789

Scarrabelottis Rd, Nashua 2479

Ph: 02 6629 1552

Fax: 02 6629 1566

E-mail:

office@aldersonassociates.com.au

Contact: Wendy Attrill

Container

Sample Matrix

Sample Preservation

SITE:

17224

COURIER:

Greg Alderson & Associates

LABORATORIES:

EAL

Contact:

Graham Lancaster

Laboratory Analysis Required

Sample ID

Date of Collection

Plastic Bag

Plastic Bottle

Glass Bottle

Soil

Soil Composite

Water

Other

Esky

Esky & Ice

Other

1e

5/2/18

✓

✓

✓

AS PACK-001

1f

"

✓

✓

✓

"

1G

"

✓

✓

✓

"

1H

"

✓

✓

✓

"

Investigator: I attest that the proper field sampling procedures were used during the collection of these sample/s.

Signed:

[Signature]

Sampler Name (print):

Dylan Brooks

Date:

5/2/18

Relinquished by:

[Signature]

Date:

5/2/18

Time:

4:05pm

Received by:

[Signature]

Date:

5.2.18

Time:

4:05

Relinquished by:

Date:

Time:

Received by:

Date:

Time:

G7121 x4 soil

CHAIN OF CUSTODY FORM

Sheet 1 of 1

INVESTIGATOR:

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E-mail:

office@aldersonassociates.com.au

Contact: Wendy Attrill

Container

Sample Matrix

Sample Preservation

SITE:

17224

COURIER:

Greg Alderson & Associates

LABORATORIES:

EAL

Contact:

Graham Lancaster

Laboratory Analysis Required

Sample ID

Date of Collection

Plastic Bag

Plastic Bottle

Glass Bottle

Soil

Soil Composite

Water

Other

Esky

Esky & Ice

Other

2a

22/9/17

✓

✓

✓

AS-PACK-001

2b

"

✓

✓

✓

"

2c

"

✓

✓

✓

"

2d

"

✓

✓

✓

"

3a

"

✓

✓

✓

"

3b

"

✓

✓

✓

"

3c

"

✓

✓

✓

"

Investigator: I attest that the proper field sampling procedures were used during the collection of these sample/s.

Signed:

[Signature]

Sampler Name (print):

Dylan Brooks

Date:

22/9/17

Relinquished by:

[Signature]

Date:

22/9/17

Time:

Received by:

[Signature]

Date:

22.9.17

Time:

4 pm

Relinquished by:

Date:

Time:

Received by:

Date:

Time:

G3456 x 7 Soil

F7194

x4 Soil

CHAIN OF CUSTODY FORM

Sheet 1 of 1

INVESTIGATOR:

GREG ALDERSON AND ASSOCIATES

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Scarrabelottis Rd, Nashua 2479

Ph: 02 6629 1552

Fax: 02 6629 1566

E-mail:

office@aldersonassociates.com.au

Contact: Wendy Attrill

Container

Sample
MatrixSample
Preservation

SITE:

17224

COURIER:

Greg Alderson & Associates

LABORATORIES: EAL

Contact: Graham Lancaster

Laboratory Analysis Required

Sample ID

Date of
Collection

Plastic Bag

Plastic Bottle

Glass Bottle

Soil

Soil Composite

Water

Other

Esky

Esky & Ice

Other

1a

23/2/17

✓

✓

✓

AS-PACK-001

1b

"

✓

✓

✓

"

1c

"

✓

✓

✓

"

1d

"

✓

✓

✓

"

Investigator: I attest that the proper field sampling procedures were used during the collection of these sample/s.

Signed:



Sampler Name (print):

Dylan Brooks

Date: 23/2/17

Relinquished by:



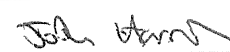
Date:

24/2/17

Time:

8:10am

Received by:



Date:

24/2/17

Time:

4:10 am

Relinquished by:

Date:

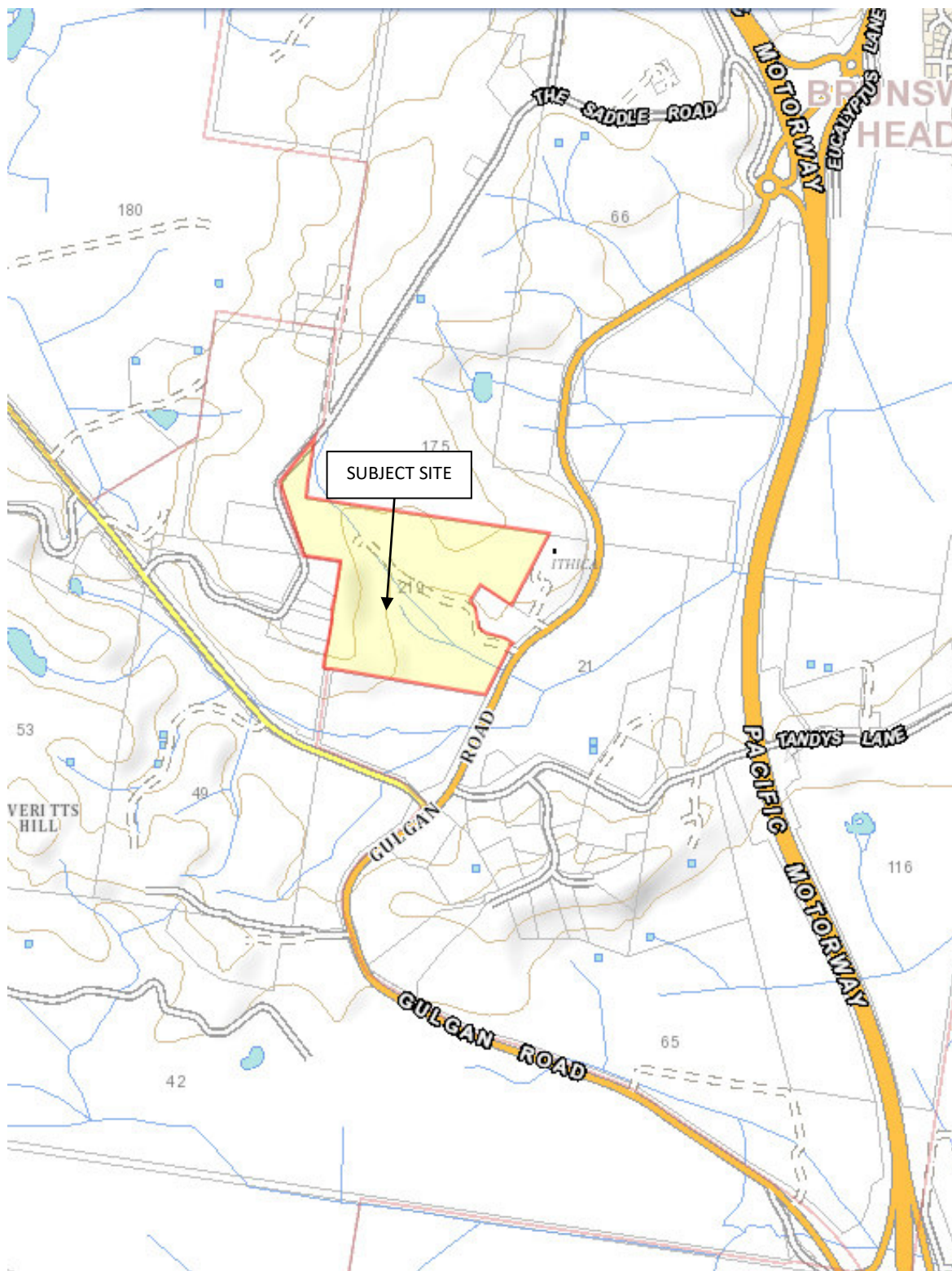
Time:

Received by:

Date:

Time:

24-2-17



Source: NSW LPI Spatial Information
Exchange (2017)
Date 28/02/2018
Project No. 17224_ASS Rev B
Scale: NTS

GREG ALDERSON AND ASSOCIATES
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Exhibit No. 1.
SITE LOCATION
Lot 4 DP 810118,
219 The Saddle Road, Brunswick Heads