

## PLANNING SYSTEM

Varying Development Standards

<b>Circular</b>	PS 18-003
<b>Issued</b>	21 February 2018
<b>Related</b>	Revokes PS17-006 (December 2017)

# Variations to development standards

This circular is to advise consent authorities of arrangements for when the Secretary's concurrence to vary development standards may be assumed (including when council or its Independent Hearing and Assessment Panel are to determine applications when development standards are varied), and clarify requirements around reporting and record keeping where that concurrence has been assumed.

## Overview of assumed concurrence

This circular replaces Planning Circular PS 17-006 and issues revised assumed concurrence, governance and reporting requirements for consent authorities.

All consent authorities may assume the Secretary's concurrence under:

- clause 4.6 of a local environmental plan that adopts the *Standard Instrument (Local Environmental Plans) Order 2006* or any other provision of an environmental planning instrument to the same effect, or
- *State Environmental Planning Policy No 1 – Development Standards*.

However the assumed concurrence is subject to conditions (see below).

The assumed concurrence notice takes effect immediately and applies to pending development applications.

Any existing variation agreed to by the Secretary of Planning and Environment to a previous notice will continue to have effect under the attached notice.

## Assumed concurrence conditions

### Lot size standards for dwellings in rural areas

The Secretary's concurrence may not be assumed for a development standard relating to the minimum lot size required for erection of a dwelling on land in one of the following land use zones, if the lot is less than 90% of the required minimum lot size:

- Zone RU1 Primary Production, Zone RU2 Rural Landscape, Zone RU3 Forestry, Zone RU4 Primary Production Small Lots, Zone RU6 Transition
- Zone R5 Large Lot Residential
- Zone E2 Environmental Conservation, Zone E3 Environmental Management, Zone E4 Environmental Living

- a land use zone that is equivalent to one of the above land use zones

This condition will only apply to local and regionally significant development.

### Numerical and non-numerical development standards

The Secretary's concurrence may not be assumed by a delegate of council if:

- the development contravenes a numerical standard by greater than 10%; or
- the variation is to a non-numerical standard.

This restriction does not apply to decisions made by independent hearing and assessment panels, formally known as local planning panels, who exercise consent authority functions on behalf of councils, but are not legally delegates of the council (see section 231, to be renumbered 4.8 from 1 March 2018).

The purpose of the restriction on assumed concurrence for variations of numerical and non-numerical standards applying to delegates is to ensure that variations of this nature are considered by the council or its independent hearing and assessment panel and that they are subject to greater public scrutiny than decisions made by council staff under delegation.

In all other circumstances, delegates of a consent authority may assume the Secretary's concurrence in accordance with the attached written notice.

## Independent hearing and assessment panels

From 1 March 2018, councils in Sydney and Wollongong will be required to have independent hearing and assessment panels that will determine development applications on behalf of councils (see section 231, to be renumbered section 4.8 from 1 March 2018).

The attached notice allows independent hearing and assessment panels to assume the Secretary's concurrence because they are exercising the council's functions as a consent authority.

Independent hearing and assessment panels established by councils before 1 March 2018 also make decisions on behalf of councils. The attached notice applies to existing panels in the same way as it will apply to panels established after 1 March 2018.

## Regionally significant development

Sydney district and regional planning panels may also assume the Secretary's concurrence where development standards will be contravened.

The restriction on delegates determining applications involving numerical or non-numerical standards does not apply to all regionally significant development. This is because all regionally significant development is determined by a panel and is not delegated to council staff.

However, the restriction on assuming concurrence to vary lot size standards for dwellings in rural areas will continue to apply to regionally significant development. The Secretary's concurrence will need to be obtained for these proposals in the same way as it would for local development.

## State significant development and development where a Minister is the consent authority

Consent authorities for State significant development (SSD) may also assume the Secretary's concurrence where development standards will be contravened. This arrangement also applies to other development for which a Minister is the consent authority for the same reasons.

Any matters arising from contravening development standards will be dealt with in Departmental assessment reports.

The restriction on assuming concurrence to vary lot size standards for dwellings in rural areas will not apply to SSD or where a Minister is the consent authority for the same reasons.

## Notification of assumed concurrence

Under clause 64 of the *Environmental Planning and Assessment Regulation 2000*, consent authorities are notified that they may assume the Secretary's concurrence for exceptions to development standards for applications made under clause 4.6 of the SILEP (or any other provision of an environmental planning instrument to the same effect), or clause 6 of SEPP 1.

The notice takes effect on the day that it is published on the Department of Planning's website (i.e. the date of issue of this circular) and applies to pending development applications.

## Procedural and reporting requirements

In order to ensure transparency and integrity in the planning framework the below Departmental monitoring and reporting measures must be followed when development standards are being varied:

- Proposed variations to development standards cannot be considered without a written application objecting to the development standard and dealing with the matters required to be addressed by the relevant instrument.
- A publicly available online register of all variations to development standards approved by the consent authority or its delegates is to be established and maintained. This register must include the development application number and description, the property address, the standard to be varied and the extent of the variation.
- A report of all variations approved (including under delegation) must be submitted to [developmentstandards@planning.nsw.gov.au](mailto:developmentstandards@planning.nsw.gov.au) within 4 weeks of the end of each quarter (ie March, June, September and December) in the form provided by the Department.
- A report of all variations approved under delegation from a council must be provided to a meeting of the council meeting at least once each quarter.

Councils are to ensure these procedures and reporting requirements are carried out on behalf of Independent Hearing and Assessment Panels and Sydney district or regional planning panels.

## Audit

The Department will continue to carry out random audits to ensure the monitoring and reporting measures are complied with. The Department and the NSW Independent Commission Against Corruption will continue to review and refine the audit strategy.

Should ongoing non-compliance be identified with one or more consent authorities, the Secretary will consider revoking the notice allowing concurrence to be assumed, either generally for a consent authority or for a specific type of development.

## Further information

*A Guide on Varying Development Standards 2011* is available to assist applicants and councils on the procedures for managing SEPP 1 and clause 4.6 applications to vary standards.

Links to SEPP 1 and the Standard Instrument can be found on the NSW Legislation website at: [www.legislation.nsw.gov.au](http://www.legislation.nsw.gov.au)

For further information please contact the Department of Planning and Environment's information centre on 1300 305 695.

Department of Planning and Environment circulars are available at:

[www.planning.nsw.gov.au/circulars](http://www.planning.nsw.gov.au/circulars)

**Authorised by:**

**Carolyn McNally**  
**Secretary**

---

**Important note:** This circular does not constitute legal advice. Users are advised to seek professional advice and refer to the relevant legislation, as necessary, before taking action in relation to any matters covered by this circular.

© State of New South Wales through the Department of Planning and Environment [www.planning.nsw.gov.au](http://www.planning.nsw.gov.au)

**Disclaimer:** While every reasonable effort has been made to ensure that this document is correct at the time of publication, the State of New South Wales, its agencies and employees, disclaim any and all liability to any person in respect of anything or the consequences of anything done or omitted to be done in reliance upon the whole or any part of this document.

## ENVIRONMENTAL PLANNING AND ASSESSMENT REGULATION 2000

### Assumed concurrence notice

I, Carolyn McNally, Secretary of the Department of Planning and Environment, give the following notice to all consent authorities under clause 64 of the *Environmental Planning and Assessment Regulation 2000*.

#### Notice

All consent authorities may assume my concurrence, subject to the conditions set out in the table below, where it is required under:

- clause 4.6 of a local environmental plan that adopts the *Standard Instrument (Local Environmental Plans) Order 2006* or any other provision of an environmental planning instrument to the same effect, or
- *State Environmental Planning Policy No 1 – Development Standards*.

No.	Conditions
1	<p>Concurrence may not be assumed for a development that contravenes a development standard relating to the minimum lot size required for the erection of a dwelling on land in one of the following land use zones, if the variation is greater than 10% of the required minimum lot size:</p> <ul style="list-style-type: none"><li>– Zone RU1 Primary Production, Zone RU2 Rural Landscape, Zone RU3 Forestry, Zone RU4 Primary Production Small Lots, Zone RU6 Transition</li><li>– Zone R5 Large Lot Residential</li><li>– Zone E2 Environmental Conservation, Zone E3 Environmental Management, Zone E4 Environmental Living</li><li>– a land use zone that is equivalent to one of the above land use zones</li></ul> <p>This condition does not apply to State significant development or development for which a Minister is the consent authority</p>
2	<p>Concurrence may not be assumed for the following development, if the function of determining the development application is exercised by a delegate of the consent authority:</p> <ul style="list-style-type: none"><li>– development that contravenes a numerical development standard by more than 10%</li><li>– development that contravenes a non-numerical development standard</li></ul> <p><b>Note.</b> Local planning panels constituted under the <i>Environmental Planning and Assessment Act 1979</i> exercise consent authority functions on behalf a council and are not delegates of the council</p> <p>This condition does not apply to State significant development, regionally significant development or development for which a Minister is the consent authority</p>

This notice takes effect on the day that it is published on the Department of Planning's website and applies to development applications made (but not determined) before it takes effect.

The previous notice to assume my concurrence contained in planning system circular PS 17–006 *Variations to development standards*, issued 15 December 2017 is revoked by this notice. However, any variation to a previous notice continues to have effect as if it were a variation to this notice.

Dated: 21 February 2018



**Carolyn McNally**  
Secretary, Department of Planning and Environment



All communications to be addressed to:

Headquarters  
4 Murray Rose Ave  
Sydney Olympic Park NSW 2127

Telephone: 1300 NSW RFS  
e-mail: records@rfs.nsw.gov.au

Headquarters  
Locked Bag 17  
Granville NSW 2142

Facsimile: 8741 5433



The General Manager  
Byron Shire Council  
PO Box 219  
MULLUMBIMBY NSW 2482

Your Ref: 10.2017.661.1  
Our Ref: D17/4624  
DA17121310830 BS

**ATTENTION:** I C Holland

4 December 2018

Dear Mr Holland

**Integrated Development Application - 1//201626, 2//542178, 1//780242, 2//818403, 1//520063 & 7020//1113431 - Ewingsdale Road, 364, 394 & 412 Ewingsdale Road & Melaleuca Drive Byron Bay**

I refer to your correspondence dated 11 October 2018 seeking general terms of approval for the above Integrated Development Application.

The New South Wales Rural Fire Service (NSW RFS) has considered the information submitted. General Terms of Approval, under Division 4.8 of the 'Environmental Planning and Assessment Act 1979', and a Bush Fire Safety Authority, under Section 100B of the 'Rural Fires Act 1997', are now issued subject to the following conditions:

1. The development proposal is to comply with the following specified plans prepared by Chris Abbott Surveying that are all dated 10/9/18;
  - 'Plan Showing Proposed Subdivision of Lot 1 DP 201626, Lot 2 DP 542178, Lot 1 DP 780242, Lot 2 DP 818403 & Lot 1 DP 520063 – West Byron Ewingsdale Road', identified as Ref. No. 15024 - 8G and also noted as Sheet '1 of 9',
  - 'Plan Showing Proposed Subdivision of Lot 1 DP 201626, Lot 2 DP 542178, Lot 1 DP 780242, Lot 2 DP 818403 & Lot 1 DP 520063 – West Byron Ewingsdale Road', identified as Ref. No. 15024 - 9G and also noted as Sheet '2 of 9',
  - 'Plan Showing Proposed Subdivision of Lot 1 DP 201626, Lot 2 DP 542178, Lot 1 DP 780242, Lot 2 DP 818403 & Lot 1 DP 520063 – West Byron Ewingsdale Road', identified as Ref. No. 15024 - 10G and also noted as Sheet '3 of 9',

- 'Plan Showing Proposed Subdivision of Lot 1 DP 201626, Lot 2 DP 542178, Lot 1 DP 780242, Lot 2 DP 818403 & Lot 1 DP 520063 – West Byron Ewingsdale Road', identified as Ref. No. 15024 - 11G and also noted as Sheet '4 of 9',
- 'Plan Showing Proposed Subdivision of Lot 1 DP 201626, Lot 2 DP 542178, Lot 1 DP 780242, Lot 2 DP 818403 & Lot 1 DP 520063 – West Byron Ewingsdale Road', identified as Ref. No. 15024 - 12G and also noted as Sheet '5 of 9',
- 'Plan Showing Proposed Subdivision of Lot 1 DP 201626, Lot 2 DP 542178, Lot 1 DP 780242, Lot 2 DP 818403 & Lot 1 DP 520063 – West Byron Ewingsdale Road', identified as Ref. No. 15024 - 13G and also noted as Sheet '6 of 9',
- 'Plan Showing Proposed Subdivision of Lot 1 DP 201626, Lot 2 DP 542178, Lot 1 DP 780242, Lot 2 DP 818403 & Lot 1 DP 520063 – West Byron Ewingsdale Road', identified as Ref. No. 15024 - 14G and also noted as Sheet '7 of 9',
- 'Plan Showing Proposed Subdivision of Lot 1 DP 201626, Lot 2 DP 542178, Lot 1 DP 780242, Lot 2 DP 818403 & Lot 1 DP 520063 – West Byron Ewingsdale Road', identified as Ref. No. 15024 - 15G and also noted as Sheet '8 of 9', and
- 'Plan Showing Proposed Subdivision of Lot 1 DP 201626, Lot 2 DP 542178, Lot 1 DP 780242, Lot 2 DP 818403 & Lot 1 DP 520063 – West Byron Ewingsdale Road', identified as Ref. No. 15024 - 16G and also noted as Sheet '9 of 9'.

except where the following conditions modify the referenced plans.

### **Asset Protection Zones**

The intent of measures is to provide sufficient space and maintain reduced fuel loads so as to ensure radiant heat levels of buildings are below critical limits and to prevent direct flame contact with a building. To achieve this, the following conditions shall apply:

2. At the issue of subdivision certificates for each stage, and then in perpetuity, all residential lots shall be managed as an inner protection area (IPA) as outlined within section 4.1.3 and Appendix 5 of 'Planning for Bush Fire Protection 2006' and the NSW Rural Fire Service's document 'Standards for asset protection zones'.
3. A restriction to the land use, pursuant to section 88B of the 'Conveyancing Act 1919', shall be placed on all land areas (including road reserves) within the subdivision that are noted as being BAL-FZ or BAL-40 on the plan; titled "Figure 12 - BAL Contour Map", prepared by GEOVIEW and dated 14/11/17. These areas, identified as being BAL-FZ or BAL-40, shall be managed as an inner protection area (IPA) as outlined within section 4.1.3 and Appendix 5 of 'Planning for Bush Fire Protection 2006' and the NSW Rural Fire Service's document 'Standards for asset protection zones'.

Note: The “Indicative Super Lot/Community Title Lot 181 (to be created in Stage 8) shall have the same BAL contours applied to its eastern boundary as have been applied to the eastern side of Stage 9 and in accordance with the plan; titled “Figure 12 - BAL Contour Map”, prepared by GEOVIEW and dated 14/11/17.

4. A restriction to the land use, pursuant to section 88B of the 'Conveyancing Act 1919', shall be placed on any land that has become either residual land, super lots or community title lots (following the completion of any stage within the subdivision), requiring a 100m wide asset protection zone (APZ), managed as an inner protection area (IPA), to be provided where the residual land, super lots or community titled lots adjoins the completed stage(s).

The required IPA shall be managed as outlined within section 4.1.3 and Appendix 5 of 'Planning for Bush Fire Protection 2006' and the NSW Rural Fire Service's document 'Standards for asset protection zones'.

Note: The “Indicative Super Lot/Community Title Lot 181 (to be created in Stage 8) shall have the same BAL contours applied to its eastern boundary as have been applied to the eastern side of Stage 9 and in accordance with the plan; titled “Figure 12 - BAL Contour Map”, prepared by GEOVIEW and dated 14/11/17.

5. A restriction to the land use, pursuant to section 88B of the 'Conveyancing Act 1919', shall be placed upon any lot that has been noted to contain areas of BAL-FZ or BAL-40, as identified on the plan titled; “Figure 12 BAL Contour Map”, prepared by GEOVIEW and dated 14/11/17. The restriction shall prohibit a habitable dwelling being erected upon the areas of the lots identified as either BAL-FZ or BAL-40.

Note: The “Indicative Super Lot/Community Title Lot 181 (to be created in Stage 8) shall have the same BAL contours applied to its eastern boundary as have been applied to the eastern side of Stage 9 and in accordance with the plan; titled “Figure 12 - BAL Contour Map”, prepared by GEOVIEW and dated 14/11/17.

### **Asset Protection Zones**

The intent of measures is to provide sufficient space for fire fighters and other emergency services personnel, ensuring radiant heat levels permit operations under critical conditions of radiant heat, smoke and embers, while supporting or evacuating occupants. To achieve this, the following conditions shall apply:

6. The section of public road, that is located between proposed stages 7 and 9 (identified on plan ref. 15024-8G, as noted above in Condition No. 1), shall have the entire road reserve area managed as an IPA in perpetuity, prior to the release of a subdivision certificate for stage 7. The width of management, measured along the road reserve, shall be equivalent to the extent of the eastern and western edges of the vegetation (noted as E2 zoned strip of land) located to both the north and south of the road.

### **Water and Utilities**

The intent of measures is to provide adequate services of water for the protection of buildings during and after the passage of a bush fire, and to locate gas and

electricity so as not to contribute to the risk of fire to a building. To achieve this, the following conditions shall apply:

7. Water, electricity and gas are to comply with section 4.1.3 of 'Planning for Bush Fire Protection 2006'.

### **Access**

The intent of measures for public roads is to provide safe operational access to structures and water supply for emergency services, while residents are seeking to evacuate from an area. To achieve this, the following conditions shall apply:

8. The section of road, identified as Road 24, that links the south-western ends of roads 22 and 25 (i.e. part of stage 6) is to be constructed prior to the subdivision certificate for Stage 6 being released.
9. Public road access shall comply with section 4.1.3 (1) of 'Planning for Bush Fire Protection 2006'.
10. A restriction to the land use, pursuant to section 88B of the 'Conveyancing Act 1919', shall be placed on residual land created when an adjoining stage has been completed and a proposed through road temporarily dead ends, thereby requiring the construction of a temporary cul-de-sac upon the residual land.

This restriction can be released upon the completed development of the adjacent land and the continuing road has been constructed.

The intent of measures for fire trails is to provide suitable access for fire management purposes and maintenance of APZs. To achieve this, the following conditions shall apply:

11. Fire trails shall comply with section 4.1.3 (3) of 'Planning for Bush Fire Protection 2006'.

### **General Advice – consent authority to note**

- Any future development application lodged within this subdivision under section 4.14 of the 'Environmental Planning & Assessment Act 1979' will be subject to requirements as set out in 'Planning for Bush Fire Protection 2006'.
- Establishment of asset protection zones, within the proposed staged subdivision, may require the clearing of vegetation. This bush fire safety authority does not authorise the clearing of any vegetation, nor does it include an assessment of potential ecological impacts of clearing vegetation for the purpose of establishing asset protection zones. Approvals necessary for the clearing of vegetation should be obtained prior to the establishment of any asset protection zones.

This letter is in response to a further assessment of the application submitted and supersedes our previous general terms of approval dated 1 March 2018.

Should you wish to discuss this matter please contact Bradford Sellings on 1300 NSW RFS.

Yours sincerely

A handwritten signature in grey ink, appearing to read 'Alan Bawden', with a stylized 'B' and 'A'.

Alan Bawden

**Team Leader - Development Assessment and Planning**

For general information on bush fire protection please visit [www.rfs.nsw.gov.au](http://www.rfs.nsw.gov.au)

File No: NTH09/01682/05

Your Ref: 10.2017.661.1

The General Manager  
Byron Shire Council  
PO Box 219  
MULLUMBIMBY NSW 2482

Attention: Luke Munro

Dear Sir / Madam,

**Development Application No. 10.201.661.1 – Proposed 387 Lot Subdivision West Byron Urban Release Area 364, 394, & 412 Ewingsdale Road and Melaleuca Drive, Byron Bay**

I refer to your letter of 5 December 2017 received in our office on 11 December 2017 requesting comment from Roads and Maritime Services in relation to the abovementioned development application.

**Roles and Responsibilities**

The key interests for Roads and Maritime are the safety and efficiency of the road network, traffic management, the integrity of infrastructure and the integration of land use and transport.

Ewingsdale Road (MR545) is a classified (Regional) road. Byron Shire Council is the Roads Authority for all public roads (other than freeways or Crown roads) in the local government area pursuant to Section 7 of the *Roads Act 1993* (Roads Act). Roads and Maritime is the Roads Authority for freeways and can exercise roads authority functions for classified roads in accordance with the Roads Act.

Council is responsible for setting standards, determining priorities and carrying out works on Local and Regional roads. Roads and Maritime's concurrence is required prior to Council's approval of works on the classified (Regional) roads pursuant to Section 138 of the Roads Act. Roads and Maritime's consent is required for the installation of Traffic Control Signals under 87 of the Road Act and consent is provided under the terms of a Works Authorisation Deed (WAD).

In accordance with Clause 101 of the *State Environmental Planning Policy (Infrastructure) 2007* (ISEPP) the Consent Authority is to have consideration for the safety, efficiency and ongoing operation of the classified road as the development has frontage to a classified road. Roads and Maritime is given the opportunity under Clause 104 to provide comment on traffic generating developments listed under Schedule 3.

**Roads and Maritime Response**

Roads and Maritime has reviewed the referred information and provides the following comments to assist the consent authority in making a determination;

- The Traffic Impact Assessment (TIA) identifies existing traffic flow along the subject section of Ewingsdale Road as being in the order of 20,000 vehicles per day (vpd), with seasonal variations identified as being up to 26,000vpd. The TIA identifies the proposed West Byron Urban Release Area (WBURA) is forecast to generate an additional 14,000vpd.
- The assumed rate of annual background traffic identified in the TIA should be consistent with Council's current strategic planning for the local government area to ensure modelling reflects likely future traffic conditions on Ewingsdale Road. Council should be satisfied that the assessment has considered any expected increases in background traffic arising from approved or proposed developments in the subject area over the future horizon.

- The TIA has forecast that the proposed roundabout at the intersection of Ewingsdale Road and Bayshore Drive will be saturated during the AM peak hour by 2028; partly due to increasing demand for U-turn movements generated by any restriction to right turn movements at the Banksia Drive intersection.
- The TIA recommends that retention of the existing eastbound right-turn facility at Banksia Drive and suggests that signalisation of the intersection may assist in reducing demand at the abovementioned roundabout whilst providing improved safety for pedestrians and cyclists crossing Ewingsdale Road.
- The proposed development will increase demand for active and public transport modes, including the need for appropriate connectivity across Ewingsdale Road. Council should ensure that the proposed intersection treatments, active and public transport facilities along the Ewingsdale Road corridor will operate in a complimentary manner to accommodate the needs of all road users.
- The staging of any interim and final intersection treatments should be identified under relevant determinations to ensure suitable road infrastructure is delivered to accommodate the increase in demand generated by the proposed development and the cumulative impact of other developments in the subject area.
- All works within the classified road reserve are to be designed and constructed in accordance with the current Austroads Guidelines, Australian Standards and associated Roads and Maritime supplements.
- It is recommended that construction traffic impacts on Ewingsdale Road be managed under coordinated Construction Traffic Management Plans prepared by suitably qualified persons in accordance with the current RTA Traffic Control at Worksites Manual.
- Regulatory signs and devices will require the endorsement of the Local Traffic Committee prior to Council approval.

It would be appreciated if Council could forward a copy of the Notice of Determination for our records. If you have any further enquiries regarding the above comments please contact Matt Adams, A/Manager Land Use Assessment on (02) 6640 1362 or via email at: [development.northern@rms.nsw.gov.au](mailto:development.northern@rms.nsw.gov.au)

Yours faithfully



For Liz Smith  
A/Network & Safety Manager, Northern Region  
Date: 12 January 2018





Office of  
Environment  
& Heritage

BYRON SHIRE COUNCIL
DOC NO: .....
REC'D: 25 JAN 2018
FILE NO: A73568
ASSIGNEE: A. Wilson

Our Ref: DOC17/616748  
Your Ref: 21700D x 10.2017.661.1

General Manager  
Byron Shire Council  
PO Box 219  
Mullumbimby NSW 2482

Attention: Mr Luke Munro

Dear Mr Gainger

**Re: Proposed subdivision of six lots into 387 lots in eleven stages at Ewingsdale Road, West Byron Bay**

Thank you for your letter dated 5 December 2017 about the proposed subdivision of six (6) Lots into three hundred and eighty-seven (387) Lots at Ewingsdale Road in the West Byron urban release area seeking comments from the Office of Environment and Heritage (OEH). I appreciate the opportunity to provide input.

The OEH has statutory responsibilities relating to biodiversity (including threatened species, populations, ecological communities, or their habitats), Aboriginal and historic heritage, National Parks and Wildlife Service estate, flooding and estuary management.

We have reviewed the Statement of Environmental Effects and companion documents for the proposal and have identified several issues with respect to biodiversity, Aboriginal cultural heritage, estuaries and flooding. These issues are discussed in detail in **Attachment 1** to this letter.

In summary, the OEH recommends that:


1. The proposal should be redesigned to avoid any intrusion into land subject to E zones and the prescribed buffer zones in the Development Control Plan for ecologically sensitive values (SEPP 14, E zones, EEC & threatened species habitats).
2. Consideration should be given to formal road closure of the road reserve that traverses the West Byron precinct and the land in that road reserve added to the E zone conservation lands.
3. The proponent should demonstrate that the proposed offset provided by management of E zoned lands is adequate to compensate for the loss of Swamp Sclerophyll vegetation and threatened species habitat within the development footprint. Proposed offsets should be in accordance with the *OEH principles for the use of biodiversity offsets in NSW*.



4. A suitable management mechanism which is funded 'in perpetuity' should be established for the E zoned lands to ensure that rehabilitation and management is implemented beyond an initial five (5) years. Such a mechanism should be secured before any on-site subdivision works commence.
5. The various management plans require a collective review to improve how they work together, to remove conflicting and confusing components, and to address specific details identified in **Attachment 1** to this letter. Ideally an integrated implementation table should be developed and the plans reconciled to reflect required changes to management time frames.
6. The registered Aboriginal parties identified in the Aboriginal cultural heritage report should be engaged with as part of the delivery of the relevant cultural heritage site induction program.

If you have any further questions about this issue, Mr Ross Wellington, Senior Conservation Planning Officer, Regional Operations, OEH, can be contacted on 6640 2511 or at [ross.wellington@environment.nsw.gov.au](mailto:ross.wellington@environment.nsw.gov.au).

Yours sincerely

 19 January 2018

**DIMITRI YOUNG**  
**Senior Team Leader Planning, North East Branch**  
**Regional Operations**

Contact officer: ROSS WELLINGTON  
6640 2511

Enclosure: Attachment 1: Detailed OEH Comments Ewingsdale Road West Byron Residential Subdivision.



## **Attachment 1: Detailed OEH Comments Ewingsdale Road West Byron Residential Subdivision**

### Overview

The current proposal is a component of the West Byron urban release area. The subject land is collectively comprised of Lot 1//DP201626, Lot 2//DP542178, Lot 1//DP780242, Lot 2//DP818403, Lot 1//DP520063, and Lot 7020//DP1113431. These six Lots are proposed for subdivision into 378 residential lots, two business lots, two industrial lots, one recreation lot and four residue lots.

This proposal forms a major component of the West Byron Urban release area, the other major component being the Villaworld-Harvest proposal, also on exhibition.

A Voluntary Planning Agreement (VPA) between West Byron landowners and the Minister for Planning and Environment requires the preparation and funded implementation of a vegetation management plan for the West Byron precinct conservation zone lands.

The Byron Bay Development Control Plan (DCP) also prescribes the preparation of other management plans, including comprehensive biodiversity management plans, threatened species management plans and Koala Plans of Management, to accompany development proposals in this area.

The OEH has reviewed the Statement of Environmental Effects the various ecology related management plans, the Aboriginal cultural heritage assessment report and the flood study produced in support of the proposal. The following selective comments and recommendations are provided.

#### **1. Biodiversity Assessment**

##### Avoiding biodiversity impacts

Plans for the proposal show that the footprint appears to intersect with E zoned land as well as the DCP prescribed buffers to E2, E3 and SEPP 14 wetlands at several locations (see Biodiversity Conservation Management Plan p.32). The applicant should demonstrate how Section E8.10.5.1 Objective 4 of the Byron DCP has been incorporated in the proposal. OEH considers Endangered Ecological Community (EEC) vegetation, SEPP 14 Wetland and threatened species habitats as constituting ecologically sensitive values. Intrusions of the proposal into E zoned land is not supported by the OEH and should be avoided. Buffers are intended to protect the intent of E zones and other sensitive ecological values and therefore the buffer intrusions proposed should be reconsidered.

The Byron DCP 2014 Chapter E8 stipulates objectives, performance criteria and prescriptive measures to be achieved as part of any development in the West Byron precinct. The DCP also further prescribes the content of various required management plans. The DCP emphasises enhancement to connectivity values, the application of environmental protection zone buffers and improved habitat values for Koala, among its key objectives for biodiversity in the West Byron precinct. The largely vegetated north-south road reserve that traverses the West Byron precinct provides important connectivity value and should be secured. Consideration should be given to formal closure of the road reserve and the land added to the E2 zone in addition to the proposed rehabilitation of the Belongil Creek riparian zone corridor.

##### Securing biodiversity offsets

The key issues for OEH are that biodiversity values are avoided or where unavoidably impacted that they are adequately offset and that the offset areas are managed in perpetuity through an adequate and funded mechanism.

The current footprint of the development proposal will require the clearance of at least 4.87 Ha of native vegetation along with identified habitat values for several threatened species. This loss is proposed to be offset by 24.14 Ha of environmental protection zone land proposed for rehabilitation, habitat enhancement and management. However, whilst the proposed offset area ratio might appear adequate, this assumption is predicated on the satisfactory rehabilitation of the E zoned lands and their management in perpetuity. Permanent management has been identified and conceded as being necessary for all the E zoned lands if biodiversity losses are to be adequately offset, particularly the loss of EEC vegetation and threatened species habitats due to the development.



OEH considers that a biodiversity stewardship agreement would likely be the best way to achieve an in-perpetuity conservation outcome across at least the E2 zoned lands, although it may also be possible to incorporate E3 zoned lands in such an agreement. Alternatively, the E zoned lands might be ceded to the council, if it is agreeable, with some other ongoing funding mechanism applied. The retention of the E zoned lands across various current land owners is not considered a suitable mechanism that would guarantee biodiversity conservation offset outcomes. Community title arrangements would likely create ongoing compliance issues and uncertainty for conservation outcomes. This issue of ongoing management and ownership needs to be clarified.

Currently, only five (5) years of rehabilitation and management is proposed as part of the development after which this responsibility is 'envisaged' as being undertaken by community volunteers and without further guaranteed funding. The OEH considers this to be an unsatisfactory arrangement as it would not provide the fundamental need for in-perpetuity management that is necessary to secure the offsets. This proposal is not in keeping with Clause 3 (b) iv) of the Voluntary Planning Agreement (VPA) with the Minister for Planning.

Ideally, the rehabilitation areas should have a performance based undefined period of rehabilitation with an aim of achieving a self-maintaining vegetation community that requires minimal ongoing management. This is particularly relevant if the lands are proposed to be ceded to the council to reduce any possible ongoing management costs to the council.

#### Vegetation mapping

The OEH considers that much of the on-site native vegetation conforms with Swamp Sclerophyll Forest, an EEC, some of which has been incorrectly assigned within the Flora and Fauna assessment report. All the Plant Community Type (PCT) assignments in Table 5.2 pp 21-23, and mapped (poorly) in Figure 5.1 p.25, are non-existent in the NSW OEH Vegetation Information System (VIS) database. Information provided elsewhere within the report and by the Byron LGA vegetation mapping, indicates that much of the remaining native vegetation is Swamp Sclerophyll Forest. Updated vegetation mapping with recognised PCT assignments should be provided for the site.

A large part of the E zoned land requires substantial rehabilitation and management. The updated mapping should also provide an indication of what PCT's will be established within the E zones. This will provide a clearer analysis of the suitability of this area as an offset for the proposed biodiversity impacts of the development.

#### DCP required management plans

Several DCP required management plan documents have been prepared for the proposal and include a: Vegetation Management Plan, Biodiversity Conservation Management Plan, Threatened Species Management Plan and a Koala Plan of Management. The scope and purpose of these differing plans is confusing and in fact a brief review shows that they are sometimes duplicative and compromise or contradict one another in places.

These management planning documents need revision particularly as they relate to staging and so that they better relate to one another and can be reconciled against a need for in-perpetuity management. An overarching implementation table detailing all works specified from the various management plans should be developed and should include timeframe, a performance indicator and the responsible party identified. Similarly, the various plans need to be adaptive but a workable mechanism or trigger for review and modification needs to be provided. The SEE at times uses different names for these sub plans interchangeably which adds to the confusion.

Some further comments on selective aspects of sub plans are provided below.

#### Threatened Species Management Plan

- If rehabilitation or habitat enhancement initiatives for threatened frog species are undertaken then the placement of ground covers is suggested as an additional component to improve effectiveness.



- The term 'translocation' is used in relation to the proposed capture and assisted movement of frogs from the proposed development footprint areas of the site to constructed and rehabilitated habitat areas within the E zoned land. An issue with this proposed mitigation/compensatory measure is the terminology used. Translocation is defined as being for the (a) introduction of a species into an area where it has not previously been found; (b) re-introduction of a species into an area where it used to live but has become locally extinct or (c) supplementing an existing population, by adding new individuals of that species from another area. Such initiatives are regulated by the OEH (including the requirement of a biodiversity conservation licence) and are generally undertaken in relation to specific threatened species conservation and recovery actions and not as part of a development proposal. The currently proposed measures do not fit this definition and hence should instead be referred to as a 'within site' relocation which is restricting the movement of any individuals to only short distances of displacement. This is specifically within the subject land and undertaken to move individuals out of the way of direct harm or from a proposed impact zone to a rehabilitation zone. Such facilitated movement is generally over no greater distance than that likely undertaken during natural migration of the relevant species. (see Policy for the translocation of threatened fauna in NSW <http://www.environment.nsw.gov.au/resources/nature/policyFaunaTranslocation.pdf> ). Such actions would need to be undertaken by a suitably experienced and licensed individual and with a strategy in place in accord with the hygiene protocol for control of disease in frogs - <http://www.environment.nsw.gov.au/research-and-publications/publications-search/hygiene-protocol-for-the-control-of-disease-in-frogs>. It is recommended that the TSMP be amended to clarify this issue and the proposal be conditioned accordingly.
- Wallum frogs have been recorded from several locations across the subject land, including parts of the proposed development footprint area. The species is known to inhabit shallow inundated areas but the species will also utilise less easily identified and mapped habitat for foraging and over-wintering. The TSMP does not identify how direct impact to individual threatened frogs generally might be avoided prior to and during development. Consequently, consideration should be given to providing guidance as to how this might be achieved prior to construction. Similarly, staging is also important and hence the replacement habitat within the E2 zoned areas needs to be undertaken and established prior to development and the need for relocating frogs. This initiative may also require the placement of materials for frog shelter around any created or augmented habitat, at least as an interim measure, and whilst rehabilitated habitat becomes established.
- The timing and actual implementation of any threatened species mitigation measures is fundamental to success of these activities. Whilst these initiatives may be a condition of approval the fact that the subject land is across several land ownerships means that ensuring a strategy of identifying responsibility/liability is necessary. A single plan implemented across fragmented ownership will require a workable arrangement to ensure that the various components are all funded, carried out, monitored and reported on as required across the whole site.

#### Koala Plan of Management

- The KPoM needs to be more consistent in providing its stated objectives and outcomes. It should also be consistent with timeframes or staging of the development process. The Plan states that the conservation/rehabilitation areas need to be established first and be fenced off. It also states that the management of the areas needs to be in perpetuity. However, these objectives are contradicted throughout the report. OEH considers that management of the rehabilitated E Zoned lands needs to be in perpetuity.
- Section 4.7.1 Koala Monitoring should include a sighting reporting strategy with email, phone and/or website for reporting sightings. This could be facilitated via signage at strategic locations throughout the development where it adjoins the E zone land.
- Education and Community Awareness is an important aspect of Koala conservation in and around urban areas. The KPoM has not adequately addressed how this important component of Koala conservation will be locally fostered.



## Vegetation Management Plan

- The VMP needs to clearly identify the lands to which it applies and be revised to better link with other management plans that depend on it. The VMP should also reflect any recommended changes to subsidiary plans. The VMP must provide a mechanism or a feasible methodology that ensures environmental management works are undertaken in perpetuity.

## Biodiversity Conservation Management Plan (BCMP)

Sections 6.3 of the BCMP suggests that long term management of E zoned lands post five years of restoration will be undertaken by community volunteers. This is not a viable scenario and does not provide the secure in perpetuity management required for all the E zone lands to offset the development and meet the requirements of the VPA with the Minister Environment and Planning.

## OEH Recommendations

- i. Intrusion by the proposal into DCP prescribed buffer zones for ecologically sensitive values (SEPP 14, E zones, EEC & threatened species habitats), should be reconsidered.
- ii. Consideration should be given to formal road closure of the road reserve that traverses the west Byron precinct and the land added to the E zone conservation lands.
- iii. The proponent should demonstrate that the proposed offset provided by E zoned lands is adequate to compensate the loss of Swamp Sclerophyll Forest EEC vegetation and threatened species habitat within the development footprint.
- iv. The proponent should further demonstrate how a suitable 'in perpetuity' funded management implementation mechanism has been established for all the E zoned lands and in accordance with Section 3 b) (iv) of the VPA. This is essential to ensure that rehabilitation and management is implemented beyond an initial five (5) years and should be secured before any on-site subdivision works commence.
- v. The various management plans require a collective review to improve how they work together and to remove conflicting and confusing components and consistent staging advice. Ideally an integrated implementation table should be developed and the plans reconciled to reflect required changes to management time frames.

## 2. Aboriginal Cultural Heritage

An important component of the environmental assessment process undertaken in support of development proposals is the consideration of Aboriginal cultural heritage values. The importance of protecting Aboriginal cultural heritage is reflected in the provisions of the *National Parks and Wildlife Act 1974* (NPW Act).

The NPW Act clearly establishes that Aboriginal objects and places are protected and may not be damaged, defaced or disturbed without appropriate authorisation. Importantly, approvals under Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) do not absolve the proponent of their obligations under the NPW Act. In addition, section 79C of the EP&A Act provides for the assessment of intangible Aboriginal cultural heritage.

As part of any development proposal, it is critical that tangible and intangible Aboriginal cultural heritage is appropriately assessed and considered. The OEH's preference is to avoid impacting Aboriginal cultural heritage values as a component of any proposal and to ensure the proper care, conservation and preservation of those values.

Accordingly, the OEH has reviewed the *West Byron Urban Release Area Development Application Cultural Heritage Assessment* (September 2017) prepared by Adise Pty Ltd and supports the detailed management recommendations relating to Aboriginal cultural heritage documented on page 21 – (page 23 of the report).

The OEH encourages the proponent to consider the inclusion of representatives of the registered Aboriginal parties, referred to in the report, in the development and delivery of any Aboriginal cultural



heritage component of the proposed site induction program. This would be of particular benefit for those areas around the known Aboriginal site and within the area of the mapped paleo sand ridge. Any proposed ecological rehabilitation works within the Environmental Protection zones must also consider potential impact to cultural heritage values.

Providing these management recommendations are implemented, the OEH has no further concerns relating to Aboriginal cultural heritage.

#### OEH Recommendation

- vi. That the registered Aboriginal parties identified in the ACH report are engaged with as part of the delivery of the relevant cultural heritage site induction program.

#### 3. Flooding

The flood impact assessment by BMT-WBM in October 2017 indicates that the cumulative fill development for the West Byron Urban Release Area and the Byron Business Park do not adversely impact on the surrounding floodplain. OEH have no further comments to offer or issues regarding flooding.



Our Ref: C17/553

7 February 2018

The General Manager  
Byron Shire Council  
PO Box 219  
MULLUMBIMBY NSW 2482  
Via email: [council@byron.nsw.gov.au](mailto:council@byron.nsw.gov.au)

Attention: Mr Luke Munro

Dear Mr Munro

**Re: Development Application – 10.2017.661.1 – Subdivision of six Lots into 387 Lots consisting of 378 Residential Lots, two Business Lots, One Recreation Lot and four Residue Lots, Lots 1 DP 201626, 2 DP 542178, 1 DP 780242, 2 DP 818403, 1 DP 520063, and 7020 DP 1113431, 364, 394 and 412 Ewingsdale Road and Malalueca Drive, Byron Bay, Byron LGA**

Thank you for your referral letter of 5 December 2017 providing the opportunity for DPI Fisheries, a division within the Department of Primary Industries, to provide advice regarding the subject development application. The following comments are provided with reference to the *Marine Estate Management Act 2014* (MEM Act) and the *Fisheries Management Act 1994* (FM Act), both of which are administered by DPI Fisheries. We apologise with the delay of this response.

**Marine Estate Management Act 2014**

In accordance with section 56 of the MEM Act, before determining a development application under Part 4 of the *Environmental Planning and Assessment Act 1979* for the carrying out of development that is in the locality of a marine park, a consent authority must take into consideration the objects of the MEM Act, and any advice given to it by the relevant Ministers. The development site is adjacent to Belongil Creek which is a Special Purpose Zone within the Cape Byron Marine Park (CBMP). Furthermore, it is noted that the assessment reports for the subject proposal indicate that the southern union drain is tidal to the west of the West Byron Urban Release Area. Though the drain is not considered part of the Cape Byron Marine Park or a key fish habitat, the hydrological connectivity highlights that actions undertaken at the site can directly impact on the Belongil Creek estuary including the special purpose zone.

In considering the objects of the MEM Act, Council must consider the waters of the marine park when identifying potential impacts associated with the proposed development, including but not limited to, stormwater and nutrient inputs resulting from runoff from the development as well as additional treated sewage going into the creek, building debris, silt run off, plastic litter, and contaminated or potential acid sulphate soils.

Consequently, it is essential that adequate (at least 50m) buffers of natural vegetation are maintained (and planted in areas where a 50m buffer of vegetation does not currently exist) between the development and the marine park, and that the works and final development do not have any adverse or ongoing impact on those waters, particularly from stormwater runoff or other pollutants. It is considered that consent should be contingent on the revegetation of buffer zones and the establishment of robust fencing before other aspects of the development proceed. The natural values of this area warrant that this aspect be guided by a suitably qualified ecologist.

In addition, the development must not result in any impacts to Belongil Creek Special Purpose Zone – further degradation of this waterway would contravene the MEM Act. It is appropriate that the proponent (or Council) demonstrates, at an early stage, effective plans and actions to manage the amount of nutrients and other pollutants entering the system, particularly through the management of catchment, stormwater and other inputs such as the additional treated sewage going into the creek from the development.

It would be a matter of serious concern if Belongil Creek and its management are compromised by the development or any subsequent effects, such as an increased demand or expectation for the artificial opening of this Intermittently Closed and Open Lake or Lagoon (ICOLL). Consequently, this development proposal should be able to demonstrate that it will not result in changes to stormwater input, hydrology or flood regimes that are likely to affect the level of the Belongil Creek ICOLL and therefore trigger more frequent artificial opening events. In accordance with government and departmental policy, it is recommended that modifications to the Belongil Creek ICOLL are kept to a minimum and that a detailed entrance opening strategy is developed to maintain the ICOLL in a state as close to natural as possible.

The current New South Wales Marine Estate Threat and Risk Assessment Draft Report (Nov 2016) identifies estuary entrance modification and urban stormwater discharge as the top two priority threats to the environmental assets of the Marine Estate (Table ES 1-2). This proposed development potentially concerns the two highest priority risks identified in that Report.

The artificial opening of the Belongil Creek ICOLL requires permission from DPI-Fisheries (Marine Parks) and would be best managed through an Estuary Management Plan and Opening Strategy for Belongil Creek prepared prior to the commencement of consented development.

It is expected that the management of any potential impacts, particularly stormwater runoff during and post construction, is in accordance with requirements of State Environmental Planning Policies. In addition, all works must be undertaken in accordance with or exceeding the recommendation of “*Managing Urban Stormwater - Soils and Construction Vol 14th Edition March 2004*” Published by the NSW Government (“the Blue Book”) <http://www.environment.nsw.gov.au/stormwater/publications.htm>. It is also recommended that any consent issued for this proposal includes a condition requiring a comprehensive ongoing monitoring regime to measure and report on the water quality of Belongil Creek. In addition, a proportion of developer contributions should be allocated towards an ongoing stormwater education program for new residents in the West Byron development area.

In order to mitigate any impacts on the water quality of Belongil Creek, it is essential that riparian vegetation should remain undisturbed. Consequently, it is expected that initiatives to control weeds, protect existing habitat and rehabilitate riparian areas with appropriate native species would be required in any consent.

In addition, extractive uses (e.g. fishing/crabbing) and otherwise interfering with the natural resources of Belongil Creek Special Purpose Zone are generally prohibited so it is essential that the development does not result in unrestricted access and inappropriate use of the creek. Planting native vegetation and adequate fencing is required to achieve this outcome. A proportion of developer contributions should be allocated to the manufacturing and installation of appropriate signage.

The prohibition of dogs and other domestic animals in the development is supported. The Belongil Creek ICOLL currently supports a range of protected wildlife, including endangered resident and migratory shore birds protected under the *Threatened Species Conservation Act 1995* and various international agreements that are at risk from dogs being taken there unlawfully. Any increase in the number of dogs residing in a nearby area would almost certainly add to this significant issue. A proportion of the developer contribution should be allocated to the ongoing enforcement of the domestic animal prohibition.

In conclusion, the proposed development is only supported provided that it does not result in any adverse impacts on the Belongil Creek Special Purpose Zone – further degradation of this waterway would be inconsistent with the objects of the MEM Act and the Marine Park Zone.

### **Fisheries Management Act 1994**

DPI Fisheries assesses proposals under the FM Act. In administering this legislation, DPI Fisheries is responsible for ensuring that fish stocks and key fish habitats are conserved and ensuring the sustainable management of commercial, quality recreational fishing and viable aquaculture within NSW. The Department assesses proposals according to DPI Fisheries' *Policy and Guidelines for Fish Habitat Conservation and Management 2013 Update* (P&G). Where a proposal is to be undertaken consistent with DPI Fisheries P&G, the Department may authorise or prepare General Terms of Approval for dredging and reclamation works, harm marine vegetation or the obstruction of fish passage.

DPI Fisheries acknowledge the subject proposal does not trigger an integrated referral under the FM Act. However, DPI Fisheries has chosen to provide comment on this proposal due to the importance of the fish habitat immediately adjacent to the subject site, including Belongil Creek, and because of previous involvement and assessment of the subject area.

### **Buffers to SEPP 14 Coastal Wetlands and other Key Fish Habitat**

The subject site includes areas of mapped State Environmental Planning Policy (SEPP) 14 Coastal Wetland. It is noted that the proposal includes a light industrial lot (proposed Lot 401) at the south-western corner of the development which would be in close proximity and provide minimal buffering to the SEPP 14 Coastal Wetland. DPI Fisheries' P&G categorises SEPP14 Coastal Wetlands as Highly Sensitive Key Fish Habitat. The provision and appropriate management of buffers to these sensitive wetlands is important to minimise the potential construction and operational impacts of adjacent developments on these sensitive key fish habitats.

Within the P&G, Policy section 3.2.3.2 (4) states:

*NSW DPI will generally not approve developments or activities that do not incorporate foreshore buffer zones of 50 – 100m width adjacent to TYPE 1 marine vegetation and at least 50m width adjacent to TYPE 2 marine vegetation. Where a buffer zone of at least 50m is physically unachievable due to land availability constraints, the available buffer width must be maximised to achieve protection of TYPE 1 and 2 marine vegetation (i.e. from edge effects, changes to water quality, flood protection and to allow for climate change adaption). The buffer zone should not be used for other asset protection purposes (e.g. as a bushfire or mosquito buffer).*

Guideline section 3.2.3.2 (b) is also relevant, and states:

*Buffer zones should be clearly delineated (e.g. fences or other markers) and well managed to avoid degradation (e.g. weed and stock access management). They should also not be subject to under scrubbing (e.g. for mosquito control) or other clearing activities that will reduce their value as a buffer zone.*

DPI Fisheries recommends that an adequate buffer of at least 100m be provided to Highly Sensitive Key Fish Habitats, including SEPP 14 Coastal Wetlands, and that other Key Fish Habitats on or adjacent to the site are afforded appropriate buffers consistent with DPI Fisheries P&G. In addition, the management of buffers to SEPP 14 Coastal Wetlands should be planned for in a manner consistent with DPI Fisheries P&G.

### **Stormwater Management and Water Sensitive Urban Design (WSUB)**

DPI Fisheries supports the objective of the Stormwater Management Strategy including the plan for WSUD to be implemented in order to maintain and/or improve water quality and hydrological regimes. Consistent with DPI Fisheries P&G, to ensure adequate buffers to aquatic habitats, such as SEPP 14 Coastal Wetlands, stormwater treatment areas should be located outside of these buffer zones. Equally, DPI Fisheries stresses the need to ensure that stormwater treatment infrastructure is sited and positioned at elevations sufficient to accommodate (with adequate freeboard tolerance) the current agreed opening level of the entrance of Belongil Creek which is 1.1m AHD. DPI Fisheries also stress that the development should incorporate sufficient detention capacity to ensure there are no changes to stormwater input, hydrology or flood regimes within Belongil Creek, and that the development will not affect the water level of the Belongil Creek ICOLL which would lead to an increase in the frequency of artificial opening events.

If you have any queries regarding comments made with reference to the *Marine Estate Management Act 2014*, please contact David Maguire, Ranger (Marine), Cape Byron Marine Park on 6620 9322 or [david.maguire@dpi.nsw.gov.au](mailto:david.maguire@dpi.nsw.gov.au). If you have any queries regarding comments made with reference to the *Fisheries Management Act 1994*, please contact Jonathan Yantsch, Fisheries Manager, Aquatic Ecosystems (North Coast) on 0447 537 168.

Yours sincerely

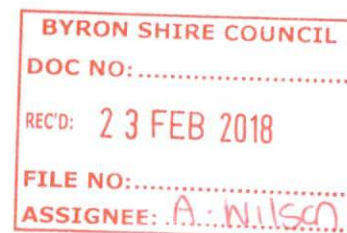


Jonathan Yantsch  
**Fisheries Manager, Aquatic Ecosystems  
(North Coast)**  
Authorised delegate of the Minister for  
Primary Industries



Andrew Page  
**Manager  
Cape Byron Marine Park**  
Delegate of the Department of Primary  
Industries - Marine Parks





Our Ref: 18/00086

19 February 2018

The General Manager  
Byron Shire Council  
PO Box 219  
MULLUMBIMBY NSW 2482

Dear Sir

**Re: DA 2017/661 – part West Byron Urban subdivision – Site R & D**

I refer to your notification of 5 December 2017 relating to the above development application.

As advised in our letter of 7 February 2018, the Minister for Lands has granted landowner's consent (LOC) to Site R & D Pty Ltd for lodgement of the DA with respect to the Crown Public Road separating Lot 1 DP 201626 & Lot 2 DP 542178 from Lot 1 DP 780242. LOC was given without prejudice so that assessment of the proposed development may proceed.

Notwithstanding the above, the Department of Industry – Lands & Water will require that any section/s of Crown public road required to be constructed as part of the approved development be transferred to the control of Byron Shire Council in accordance with Section 151 – Road Act 1993 prior to the commencement of works.

Please also note the development envelope also includes Lot 7020 DP 1113431 comprising an un-notified Drainage Reserve 150 links wide (the Union Drain) within Lots 1 & 2 DP 542178. As previously advised, the department is of the view of that the land was vested in the local government authority (Byron Shire Council) on commencement of the former Local Government Act 1919.

If you require any further clarification or assistance with this matter please contact me by email [peter.baumann@crowmland.nsw.gov.au](mailto:peter.baumann@crowmland.nsw.gov.au) or phone on (02) 6642 9201.

Yours sincerely

Peter Baumann  
Natural Resource Management Project Officer  
Department of Industry – Crown Lands, Grafton



Your Ref:  
Our Ref: IDAS1103900  
Contact: J Findlay  
Telephone: 0266 416500



The General Manager  
Byron Shire Council  
P O Box 219  
Mullumbimby NSW 2482

8<sup>th</sup> January 2018

Attention: Luke Munro

Dear Sir,

**Reference: Development Application 10.2017.661.1 – Site R & D Pty Ltd – Proposed Staged Residential Lot Development – Ewingsdale Road Byron Bay.**

I refer to your recent letter regarding Development Application (DA) proposed for the subject property.

The properties at this location are within the Tweed – Brunswick Coastal Sands Aquifer within the Water Sharing Plan for the North Coast Coastal Sands Groundwater Sources. As the proposed development requires excavation for the construction of pipelines and other infrastructure there is a high likelihood that dewatering groundwater will be required.

At this location, dewatering of groundwater less than 3 megalitres or for less than 12 months would not require a licence or approval under the *Water Management Act 2000*.

Dewatering greater than 3 megalitres or for more than 12 months would require a water supply work approval and a water access licence under the *Water Management Act 2000*. The water access licence would need to be purchased through either a controlled allocation order, if an order is operating, or on the open market in accordance with the rules of the relevant Water Sharing Plan.

It is the consent holder's responsibility to assess and monitor water take and determine whether a licence or approval is required.

The consent holder should note the condition relating to the need for a WaterNSW approved DeWATERING Management Plan and be aware that the current Acid Sulphate Soils Management Plan would require amendment to provide for more adequate pH testing and correction of all water prior to discharge. WaterNSW recommends the plan be altered to include either an online pH monitoring and dosing system, or storage of the full capacity of the daily discharge for testing prior to discharge. The consent holder should also note that WaterNSW will include a condition identifying discharge water quality criteria to be between 7 and 8.5 pH consistent with the EPA Brunswick River Water Quality Objectives.

The consent holder has not identified that post construction dewatering is required and therefore an extended approval should not be necessary.



Finalisation of any licence or approval can take up to eight (8) weeks from the date WaterNSW receives all documentation (to its satisfaction). Applicants must complete and submit (to the undersigned) an application form for a licence or approval together with any required plans, documents, the appropriate fee and security deposit or bank guarantee (if required by the WaterNSW) and proof of Council's development consent.

Application forms for a licence or approval are available from the undersigned or from WaterNSW website:

[www.waternsw.com.au](http://www.waternsw.com.au)      [Water licensing](#) > [Approvals](#) >

If you require further information please contact John Findlay on 02 6641 6500 or by email at [john.findlay@waternsw.com.au](mailto:john.findlay@waternsw.com.au)

Yours sincerely



J Findlay  
Senior Water Regulation Officer  
**North Coast**



# TWEED BYRON LOCAL ABORIGINAL LAND COUNCIL

---

Your Reference: 21700D x 10.2017.661.1 /#A2017/31101

9 January 2018

General Manager  
Byron Shire Council  
PO Box 219  
Mullumbimby NSW 2482

Attention: Luke Munro

**Re Referral for Consideration and Advice: DA No. 102017.661.1 (West Byron Urban Release Area)**

Dear Luke


Thank you for contacting the Tweed Byron Local Aboriginal Land Council (TBLALC) and requesting our feedback response to the proposed West Byron Urban Release Area – DA No. 10.2017.6661.1. We note that the proposal is substantial and includes 387 Residential Lots, 2 Business Lots, 2 Industrial Lots, 1 Recreation Lot and 4 Residue Lots.

The TBLALC has reviewed the relevant sections of the DA, including the Cultural Heritage Assessment (CHA) prepared by J.P. Collins Consultant Archaeologist of Adise Pty Ltd and dated September 2017. As a Registered Aboriginal Party the TBLALC provided both consultation advice and a written response to the draft CHA in August 2017. A copy of our comments are appended to the CHA report and have been addressed by the consultant prior to finalisation.

The TBLALC considers that matters of cultural heritage have been adequately addressed and the CHA report has been prepared in accordance with current NSW legislative requirements. The TBLALC supports the eight (8) recommendations for management as provided in Section 9 of the CHA report.

Please contact us should clarification or further comment be required.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Ian Fox', with a stylized, cursive script.

Ian Fox  
Conservation Planning Officer

*ABN: 44 992 419 248*

## Environmental Referral and Assessment Sheet

**ADMIN – ONLY PRINT FIRST PAGE FOR REFERRAL**

<b>DA No.</b>	<b>10.2017.661.1</b>
<b>Proposal:</b>	Subdivision of Six (6) Lots into Three Hundred and Eighty Seven (387) Lots consisting of Three Hundred and Seventy Eight (378) Residential Lots, Two (2) Business Lots, Two (2) Industrial Lots, One (1) Recreation Lot and Four (4) Residue Lots
<b>Property description:</b>	LOT: 1 DP: 201626, LOT: 2 DP: 542178, LOT: 1 DP: 780242, LOT: 2 DP: 818403, LOT: 1 DP: 520063, LOT: 7020 DP: 1113431 Ewingsdale Road BYRON BAY, 394 Ewingsdale Road BYRON BAY, 412 Ewingsdale Road BYRON BAY, Melaleuca Drive BYRON BAY, 364 Ewingsdale Road BYRON BAY
<b>Parcel No/s:</b>	21700, 151400, 21720, 152550, 114340, 241870
<b>Applicant:</b>	Site R & D Pty Ltd
<b>Owner:</b>	Telicove Pty Ltd
<b>Zoning:</b>	Zone No. DM Deferred Matter
<b>Planning Officer:</b>	Mr L J Munro
<b>Referral Date:</b>	5 December 2017

### **Concurrent Section 68 (Onsite): Not applicable**

*A copy of all supporting material & GIS locality map is attached.*

**Date Received by Specialist Team**

**Initial Assessment Due Date:**

**Full Assessment: Due Date**

<b>Environmental Health Officer:</b>	Mr T J Fitzroy	
<b>Initial Assessment</b>		
<input type="checkbox"/> Additional Information required	<input type="checkbox"/> No additional information required	
<i>Comment:</i>		
<b>Doc Number:</b> <a href="#">Click here to enter text.</a>	<b>Officer:</b>	<b>Date</b> <a href="#">Click here to enter a date.</a>
<b>Full Assessment</b>		
<input type="checkbox"/> Additional Information required	<input type="checkbox"/> No additional information required	
<i>Comment:</i>		
<input type="checkbox"/> Comments and conditions included in report		
Officer Tim Fitzroy	Date 19/12/2018	

## ASSESSMENT

	Satisfactory	Unsatisfactory	Not applicable
Acid Sulfate Soils (CI 6.1 BLEP 2014)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p>Comment: The majority of the subject site is mapped as low risk (Class 3), with the occurrence of PASS/ASS within 1 metre of the ground surface. To the east and southwest of the site adjoining Belongil Creek ASS risk increases to High (Class 2).</p> <p>A preliminary assessment was undertaken by EAL Consulting Services in 2010. Subsequently in 2015 Australian Wetland Consulting (AWC) undertook a Detailed Acid Sulfate Soil Investigation. The detailed investigation included sampling and laboratory analysis of 40 soil in bores across the site and found that whilst there are Potential Acid Sulfate Soil conditions on the site they are not widely distributed and are generally at depth.</p> <p>The location of ASS is mostly restricted to the periphery of the site on land largely outside of the development area and within the sites designated environmental protection zones.</p> <p>The major risk associated with the disturbance of site soils relate to the installation of:</p> <ul style="list-style-type: none"> <li>Services (water, sewer, electricity); and</li> <li>The construction of sewerage drainage networks and stormwater infrastructure</li> </ul> <p>The subject site adjoins the Belongil Creek and estuary. Any unmitigated disturbance of acid sulfate soils has the potential to impact on this waterway.</p> <p>A large constructed drain occurs within the central and eastern portions of the (the main drain) and intersects another substantial constructed drain in the east and south (the union drain), both of these drain into the Belongil Creek.</p> <p>Geotech investigations by Shaw (2015) show the topsoil to be high in organic matter, tending towards peat while subsoils vary across the site with many areas having been filled.</p> <p>Fills range in thickness from 0.1 to 1.5m and is predominately sand and silty sand. Beneath the fill, alluvial sands and silty sands are present to varying degrees of induration.</p> <p>During all previous investigations groundwater was elevated ranging from 0.05m to 1.3m below ground surface. The mean depth to water table was 0.48m. Both the preliminary ASS Investigation (EAL , 2010), the AWC Report (2015) and Shaw (2015) consistently encountered groundwater within 1m of the ground surface.</p> <p>Soil sampling indicated that there appears to be two potential layers of PASS across the site:</p> <ul style="list-style-type: none"> <li>At around 1.1 - 1.5m deep, corresponding to 2.0-2.3 m AHD;</li> <li>At around 2.0 - 2.5m deep, corresponding to 1.3-1.8 m AHD</li> </ul> <p>Net acidity in the soils sampled ranged between 19 and 44 mole H+ /tonne of soil (neutralising rate of 1.4 and 3.0 kg CaCo3/tonne dry weight respectively).</p> <p>Of the sampling bores located in the developable area 2 boreholes showed the presence of PASS materials.</p> <p>Construction and operational activities associated with the development that may impact on PASS/ASS include:</p> <ul style="list-style-type: none"> <li>Localised cutting of high land;</li> <li>Wide spread filling of the low land;</li> </ul>			

Satisfactory	Unsatisfactory	Not applicable
--------------	----------------	----------------

- Excavation of trench of installation of service (water, sewer, drainage, power),
- Wide spread paving of land, preventing infiltration of rain water into the shallow groundwater

The fill depth ranges from between 0.0m to >2.5m with the majority of the site filled to a depth of 0.5-1m above the current level. There are 2 locations where there will be cut between 0 and 1.0m depth. In the cut area soil bores were excavate to 3.0m depth equalling the Class 3 ASS Risk Map requirements.

The ASSMP (Project # 1-17819, AWC, 19 September 2017) includes management methods for:

1. Exposure of PASS during bulk earthworks;
2. Exposure of PASS during construction activities associates with drainage for the spine roads; and
3. Oxidation of PASS fro the lowering of the water table

The approximate level of PASS extends from 1.52 to 2.74m AHD.

The ASSMP states that any works that occur below 2.8m AHD will invoke soil stockpiling and treatment in an ASS Containment Area in accordance with Dear et al. (2002) and detailed within a future Construction Environmental Management Plan (CEMP).

*Any material excavated from below 2.8m AHD will be assumed to be PASS, unless tested to prove otherwise. This material must be neutralised using a minimum rate of 3.3 kg Ca CO<sub>3</sub>/tonne material dry weight.*

*Details on containment area size, catch pond size, location and specific treatment methods are to be provided in a CEMP. All excavated soil material from below 2.8mAHD must be transported to the containment area within 1 day of excavation to prevent the release of acid waters to the environment.*

*Verification of the successful treatment of PASS is required prior to reuse. The pH, Cl/SO<sub>4</sub> ratio, total iron, aluminium and salinity levels of any leachate produced from the bunded areas should be measured prior to discharge.*

The ASSMP states:

- that there is a **moderate risk** of oxidisation of pyrite due to lowering of groundwater from the broad scale pavement of soil and the resultant conveyance of rainwater normally infiltrating the soil profile to a receiving water course.
- The broad scale infiltration of rainwater post development can be achieved via the use of bio-retention swales, basins and dedicated dispersion areas.
- The stormwater management strategy adopted for the development will ensure the maintenance of water tables that saturate the ASS layer found at the site
- A minimum area of 200m<sup>2</sup> of infiltration/dispersion zones is required per ha of development to ensure the wide spread infiltration of rainwater and maintenance of groundwater levels

**There is a discrepancy between infiltration rates required as noted below**

The applicant is to provide details of the hydrogeological assessment that supports the view that:

- *A minimum area of 200m<sup>2</sup> of infiltration/dispersion zones is required per ha of development to ensure the wide spread infiltration of rainwater and maintenance of groundwater levels*

While the Stormwater Management Strategy states that:

- *An area of 258m<sup>2</sup> of infiltration / dispersion zones is needed per ha of development.*



<b>Satisfactory</b>	<b>Unsatisfactory</b>	<b>Not applicable</b>
---------------------	-----------------------	-----------------------

### Acid Sulfate Soil Assessment (ASSA)

The Acid Sulfate Soil Assessment for the Draft West Byron Urban Release Area (Project 1-14541\_C, AWC, September 2015) assesses the potential impact of planned bulk earthworks and spine road development. Additional ASS assessment will be required for subsequent development over the site.

#### A discrepancy exists as follows:

1. A sampling density of 1 bore per 1.5ha was adopted for assessment of PASS and AASS. The ASSMAC Guidelines stipulate a minimum of 2 bores per ha for this scale of development. *AWC has justified the reduced density based on the relatively uniform site and planned lack of significant excavation and that PASS and ASS will be further investigated in detail upon the submission of individual lot/s development applications.*

The Stormwater Management Strategy (Project # 1-17818-01c, AWC, August 2017) states that

During all previous site investigations, the high groundwater table on the site has been evident. The most recent Acid Sulphate Soils Assessment included sampling at a total of 40 bore locations. During those investigations groundwater varied from a minimum depth of 0.05m and a maximum depth of 1.3m below ground surface. The mean depth to water table was 0.48m.

#### Key recommendations of Acid Sulfate Soil Investigation

1. Implement a groundwater monitoring regime to assess the current quality of the groundwater and level of water table variation;
2. Prepare a Construction Environmental Management Plan that:
  - Details the specific details in handling, storage, treating and disposing of PASS/ASS
  - Based on recommendation 1, provides a framework for a groundwater quality monitoring regime that assesses likely impacts to groundwater (quality and height)

#### Groundwater

Groundwater levels are not to be significantly altered by stormwater works in areas of actual or potential acid sulphate soils or such impacts are appropriately managed

Under E8.10.8.3 Groundwater - Stormwater detention devices and bio-retention devices are to have a base excavation 1m above the water table, **or use impermeable liners**. The STMP relies on the use of permeable bases to all basins - demonstrate the proposed stormwater detention and infiltration devices will not have an impact on the level of the water table.

#### Performance Criteria

1. Groundwater to be managed in accordance with best practice guidelines including the Acid Sulfate Soils Manual.

Please find below list of items that have not been provided, or not satisfactorily provided in regard to the application, which prohibits conditions being proposed as part of an approval determination.

Under E8.10.8.3 Groundwater - Stormwater detention devices and bio-retention devices are to have a base excavation 1m above the water table, **or use impermeable liners**. The STMP relies on the use of permeable bases to all basins - demonstrate the proposed stormwater detention and infiltration devices will not have an impact on the level of the water table.

#### There is a discrepancy between infiltration rates required as noted below

The applicant is to provide details of the hydrogeological assessment that supports the view that:



	Satisfactory	Unsatisfactory	Not applicable
<ul style="list-style-type: none"> <li>A minimum area of 200m<sup>2</sup> of infiltration/dispersion zones is required per ha of development to ensure the wide spread infiltration of rainwater and maintenance of groundwater levels</li> </ul> <p>While the Stormwater Management Strategy states that:</p> <ul style="list-style-type: none"> <li>An area of 258m<sup>2</sup> of infiltration / dispersion zones is needed per ha of development.</li> </ul> <p>I have reviewed the additional provided by DAC Planning Pty Ltd, dated 19 September 2018 in response to Council's request for further information dated 20 April 2018, 14 May 2018, 19 June 2018 and 3 July 2018 there does not appear to be any response to the discrepancy in infiltration rates as noted below:</p> <p>The applicant is to provide details of the hydrogeological assessment that supports the view that:</p> <ul style="list-style-type: none"> <li>A minimum area of 200m<sup>2</sup> of infiltration/dispersion zones is required per ha of development to ensure the wide spread infiltration of rainwater and maintenance of groundwater levels</li> </ul> <p>While the Stormwater Management Strategy states that:</p> <ul style="list-style-type: none"> <li>An area of 258m<sup>2</sup> of infiltration / dispersion zones is needed per ha of development.</li> </ul>			
Contaminated Land (SEPP 55)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p>Comment:</p> <p><b>1) Preliminary Site Investigation (Environmental Analysis Laboratory (EAL) 2010)</b></p> <p>As part of the West Byron Rezoning Application for the subject site and adjoining site( currently being considered for subdivision under DA 10.2017.661.1) a Preliminary Contaminated Land Assessment was undertaken in 2010 (EAL, 2010) which undertook a site history review, site investigation, broad scale and targeted soil sampling and site characterisation. EAL (2010) determined that the site was largely free of contamination and suitable for urban development, however there were a few areas (identified in Figure 19) where further assessment was recommended.</p> <p><b>BROADSCALE INVESTIGATION</b></p> <p>Based on the results of the broadscale soil analysis effort, and the application of the adopted trigger levels relevant to the proposed land use structure, no indications of significant broadscale contamination was identified. Composite sample 19 recorded a breach of the adjusted trigger level for Lead, indicating that there is potential for Lead to be within this localised region in concentrations that may represent a risk of harm to end users.</p> <p>The most likely source of Lead within soils in this area was the presence of waste stockpiles within the immediate vicinity of this particular composite sample set. No other targeted contaminant was found to exceed the adopted trigger values during the broadscale analysis effort.</p> <p><b>TARGETED INVESTIGATION DISCUSSION</b></p> <p>Soils surrounding the residential dwelling and associated shed within Lot 3 DP551947, and the disused shed south-east of the residence within Lot 1 DP542178 were found to contain residual Lead contamination in excess of the adopted trigger levels. The most likely source of lead within soils in this location is the degradation of lead-based paint historically applied to the structures.</p> <p>Targeted sampling of waste piles and areas of machinery storage, historical vehicular storage and wrecking, disused and actively utilised structures (dwellings, sheds etc.) indicates hotspots of Lead, Copper and hydrocarbon contamination; in only one instance were all three identified contaminants in association with one another (i.e. WB269).</p>			

Satisfactory	Unsatisfactory	Not applicable
--------------	----------------	----------------

Concentrations of TPH above the Limits of Reporting (LOR) were recorded in the disused shed south-east of the residence within Lot 1 DP542178 and within machinery and waste storage areas observed and targeted within Lot 1 DP 780242. Significant concentrations were detected at TS16 (sheds immediately south of residence on Lot 1 DP 542178) and TS22 (shed immediately adjacent and north of residence on Lot 1 DP 542178).

#### RESIDENTIAL CONTAMINATED SOILS

As defined in Fig. 10 (EAL, 2010), three specific residential dwellings and their associated sheds recorded concentrations of Lead in soils surrounding the structures that breached the respective guideline values for each. Prior to development (that may include disturbance of soils identified as contaminated), further detailed testing is required to accurately define the extent and degree of contamination, and to provide suitable information to allow the production of an appropriate remediation strategy. Specifically with regard to the above, the following actions were recommended:

- 1) Undertake further sampling of soils immediately surrounding the existing structures upon Lot 3 DP 551947, the aged shed structure immediately south of the dwelling on Lot 1 DP542178 and the dwelling and sheds within the central portion of Lot 1 DP 780242 in accordance with the sampling frequency requirements stipulated in EPA (1995);
- 2) Identify the extent of lead-based paint contamination of soils surrounding each structure via total and leachable Lead analysis; and
- 3) Prepare a suitable site specific remediation action plan for the sites (individually or concurrently), undertake the remediation works and perform the necessary site validation works to declare the site suitable.

In addition to the works stipulated above, the demolition of structures on site should be pre-empted by a hazardous building assessments to identify the presence of asbestos related building products. Further, sub slab analysis should also be conducted to confirm the absence of persistent contaminants such as termiticides historically applied to sub slab areas. Both of these actions are recommended prior to any demolition works of structures on site.

#### COMMERCIAL/INDUSTRIAL CONTAMINATED SOILS

As defined in Fig. 10 (EAL, 2010), shed structures within the southern portion of Lot 1 DP 780242 recorded concentrations of Copper in soils surrounding the structures that breached the respective guideline values. Prior to development (that may include disturbance of soils identified as contaminated), further detailed testing is required to accurately define the extent and degree of contamination, and to provide suitable information to allow the production of an appropriate remediation strategy. Specifically with regard to the above, the following actions are recommended:

- 1) Undertake further sampling of soils as identified to the east of sheds within the southern portion of Lot 1 DP 780242 in accordance with the sampling frequency requirements stipulated in EPA (1995);
- 2) Identify the extent of copper contamination of soils within the identified area via total and leachable copper analysis; and
- 3) Prepare a suitable site specific remediation action plan for the sites (individually or concurrently), undertake the remediation works and perform the necessary site validation works to declare the site suitable.

#### WASTE PILE CONTAMINATED SOILS

As defined in Fig. 10 (EAL, 2010), areas of stockpiled wastes (building and demolition products) such as the area identified immediately south of the border separating Lot 6 DP622736 and Lot 2 DP 818403.

	Satisfactory	Unsatisfactory	Not applicable
<p>Prior to development (that may include disturbance of soils identified as contaminated), further detailed testing is required to accurately define the extent and degree of contamination, and to provide suitable information to allow the production of an appropriate remediation strategy. .Specifically with regard to the above, the following actions are recommended:</p> <ol style="list-style-type: none"> <li>1) Undertake further sampling of soils as identified above in accordance with the sampling frequency requirements stipulated in EPA (1995);</li> <li>2) Identify the extent of Lead and petroleum hydrocarbon contamination of soils within the identified area via total and leachable Lead analysis and TPH analysis; and</li> <li>3) Prepare a suitable site specific remediation action plan for the sites (individually or concurrently), undertake the remediation works and perform the necessary site validation works to declare the site suitable.</li> </ol> <p>In addition to the works stipulated above, the removal of demolition and construction wastes from site should be pre-empted by a hazardous building assessments to identify the presence of asbestos related building products. Further, sub slab analysis should also be conducted to confirm the absence of persistent contaminants such as termiticides historically applied to sub slab areas. Both of these actions are recommended prior to any demolition works of structures on site.</p> <p><b>Detailed Site Assessment (Australian Wetlands Consulting (AWC) September 2017)</b> A Preliminary Contaminated Land Assessment was undertaken in 2010 (EAL, 2010) which undertook a site history review, site investigation, broad scale and targets soil sampling and site characterisation. The report determined that the site was mostly free of contamination and suitable for urban development however there were a few areas where further assessment was recommended. This report details the additional assessment as recommended.</p> <p>Targeted and systematic soil sampling was undertaken in the 'Areas of Concern' determined by EAL (2010). Analysis results were compared with Health Investigation Levels (HILs) as detailed by the National Environment Protection (Assessment of Site Contamination) Measure 1999. Targeted sampling was undertaken on Lot 2 DP 818403 where the EAL report had nominated an 'Area of Concern' where lead was potentially elevated. A total of 22 samples were collected over two sampling episodes and all results showed values below the HIL of 300mg/kg for residential land use. Based on the results of the EAL (2010) assessment and the results of the sample collection and analysis it is determined the area is suitable for the proposed development and is not constrained by contamination.</p> <p>Targeted sampling was also undertaken on Lot 1 DP 780242 where the EAL (2010) report had determined the previous land use as an auto wrecker yard and automotive work shop, amongst other previous land uses, was a likely source of lead, copper and TRH contaminants. The north of the property has a land use zoning of E2 – Environmental Conservation, whereas the south of the lot has a land use zone of R2 – Low Density Residential planned. The NEPM (1999) provides HIL values for different land uses.</p> <p>The sampling and analysis undertaken in the residential zone showed all valued recorded were below the HIL and therefore the area is unconstrained by contamination and suitable for the proposed residential development. Sampling showed that three of the 46 samples analysed in the Environmental Conservation (E2) zone had lead concentrations above the HIL of 600mg/kg with a high variation in values in the remaining samples. As a result it is recommended that remediation around the dwelling and shed structures be undertaken as part of the structure removal process.</p> <p>The following is recommended:</p> <ol style="list-style-type: none"> <li>1. All waste materials are to be removed from the site and disposed of in accordance with the Waste Classification Guidelines (EPA, 2014) and Schedule 1 Clause 49 of the Protection of</li> </ol>			

	Satisfactory	Unsatisfactory	Not applicable
<p>the Environment Operations Act 1997. No waste is to be buried or burned on site.</p> <p>2. If during construction and/or excavation works unusual materials (drums, odours, stained soils, asbestos) that may indicate contamination are uncovered, works should cease and a suitably qualified consultant engaged to determine if contamination is present. This procedure should be detailed within the site based Construction and Environmental Management Plan.</p> <p>3. Any soil imported to the site for fill material is to comply with the provisions of the West Byron – Detailed Contaminated Land Investigation Australian Wetlands Consulting Pty Ltd   1-17819_01a 39 excavated natural material exemption 2014 and the excavated natural material order 2014, under Part 9, Clause 91, 92 and 93 of the Protection of the Environment Operations (Waste) Regulation 2014</p> <p>4. A remediation action plan is to be prepared for the removal of structures in the E2 (Environmental Conservation) zone of Lot 1 DP 780242. A number of lead analysis results were above the HIL in this zone due to the historic land use of a car wrecker yard and automotive workshop.</p> <p>5. The Remedial Action Plan can be undertaken as part of a Consent Condition prior to issue of a Construction Certificate.</p> <p>Additional Ground water Sampling undertaken by ENV Solutions (May 2018) for the adjoining Villa Wood Development (DA10.2017.201.1) indicates that TRH levels have desisted and that the groundwater compliant with the exception of elevated zinc for which there does not appear to be any plausible source.</p> <p><b>No further information is required at this stage.</b></p> <p>These matters can be addressed by standard conditions</p>			
On-Site Sewage Management (CI 6.6 BLEP 2014)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comment:			
Food Premises	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comment:			
Waste Management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comment:			
Land Use Conflicts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p>Comment:</p> <p>Review of Land Use Conflict Risk Assessment (LUCRA) prepared by Land Partners date 20<sup>th</sup> December 2010 was prepared to identify land use compatibility and potential conflict between neighbouring land uses, and the identification of conflict avoidance or mitigation measures.</p> <p><u>Please find below list of items that have not been provided, or not satisfactorily provided in regard to the application, which prohibits conditions being proposed as part of an approval determination.</u></p> <p>The Land Use Conflict Risk Assessment (LUCRA (Land Partners December 2010) does not consider preliminary plans provided by the applicant that indicate potential land use conflicts including (but not limited to) road pavement and attenuation mounds that encroach areas of vegetation identified on Council's GIS Mapping (Geocortex) as being HEV.</p> <p><b>I have reviewed the additional provided by DAC Planning Pty Ltd, dated 19 September 2018 in response to Council's request for further information dated 20 April 2018, 14 May 2018, 19 June 2018 and 3 July 2018 there does not appear to be any response to the LUCRA clarification as noted above</b></p>			

	Satisfactory	Unsatisfactory	Not applicable
Hazardous and Offensive Development (SEPP33)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comment:			
Noise Impacts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p>Comment:</p> <p>TTM (20.09.2017) conducted an environmental noise assessment of the proposed West Byron development. The report assessed the eastern and western areas of the development known as Part A and Part B. Noise monitoring of the existing road traffic and ambient noise environment was undertaken to establish noise levels and the applicable noise criteria. In accordance with these criteria, road traffic noise impacts and noise generated by the commercial and light industrial components of the development was assessed.</p> <p>Discussion is provided to show that noise generated by offsite commercial premises complies with the criteria. The development is predicted to comply with the road traffic noise criteria with the inclusion of a 4m high acoustic barrier (comprising a 2m high mound + 2m high acoustic barrier) fronting Ewingsdale Road.</p> <p>Internal road traffic noise levels in single storey dwellings are predicted to comply using standard building constructions with windows and doors closed. Upper floors of any residential dwellings located in the first row of lots off Ewingsdale Road will require a lot specific acoustic report once building plans are available to determine the building treatments required for compliance with the internal noise limits.</p> <p>A further acoustic assessment would be required for industrial lots within Part B to accurately determine whether noise mitigation measures are required for each specific light industrial use. The same may also apply to retail or commercial uses located within Part A to ensure noise emissions comply at the adjacent residential lots.</p> <p>The NIA recommends:</p> <ol style="list-style-type: none"> <li>1. A landscaped buffer including both physical barriers and earth mounds adjacent to Ewingsdale Road to be incorporated into the subdivision design generally in accordance with Figure E8.11 for the full length of the West Byron Site zoned IN2, R2 and R3, subject to all required road, drainage, cycleway, services and landscaping being able to be located within the road reserve.</li> <li>2. The final height and design of the barrier to be supported by an acoustic noise assessment report prepared in accordance with the NSW Road Noise Policy 2011 demonstrating that future residential dwellings will not be adversely affected by traffic noise on Ewingsdale Road.</li> <li>3. The buffer to be landscaped with native trees and vegetation to conceal the mounds and barriers, and to provide a general visual screen to the development in West Byron. A concept landscape plan to be submitted with the development application in accordance with B9 of DCP 2014.</li> <li>4. The buffer can be erected in stages. Details to be submitted with the Development Application as to any staging arrangements.</li> </ol> <p><b>Comments:</b></p> <p>The final acoustic barrier / earth mound scenario to be constructed needs to be consistent of other planning issues such as cost effectiveness of the noise mitigation strategy, community views, social implications (i.e. passive surveillance), environmental effects and visual impact of acoustic barriers / earth mounds given that the site is along the main entry roads in Byron Bay.</p> <p>Whilst the NIA proposes to soften the acoustic barrier / earth mound, via landscaping treatments the impact the development will have on the Ewingsdale Road approach to the Byron Bay township with a</p>			

Satisfactory	Unsatisfactory	Not applicable
--------------	----------------	----------------

proposed 4m barrier is significant. In addition the proposed 4m acoustic barrier will be approximately 2m higher than the preferred Scenario1 barrier of DA10.2018.201.1 at the adjoining Villawood development to the immediate east. A reduction in the acoustic barrier height would inevitably result in single storey dwellings in addition to two or three storey residential development that would require building shell treatment to comply with internal noise criteria.

It should be noted that proposed industrial land within Part B could be developed into light industrial use/s; however, at the time of the preparation of TTM (2017) no detailed plans for lot layouts, internal road design or building envelope locations have been sourced. Final uses for the future light-industrial area is also unknown therefore a detailed acoustic assessment should be undertaken at the Development Application stage of Part B to ensure acoustic treatments and management controls are put in place to mitigate noise emissions to residential lots / dwellings within the "R & D" site. An assessment of this future light-industrial area at this time would be preliminary in nature only and need to rely on acoustic treatments at residential lots and dwellings, which ultimately may not be warranted depending on the final use/s on the land. The same may also apply to retail or commercial uses located within Part A to ensure noise emissions comply at the adjacent residential lots.

Please find below list of items that have not been provided, or not satisfactorily provided in regard to the application, which prohibits conditions being proposed as part of an approval determination.

#### Acoustic Barrier

Detailing of acoustic wall and landscape buffer – The plans include Figure 5 'Acoustic Mound and Utilities Allocations Section' which shows the Ewingsdale Road verge interaction with the property boundary. The drawings fail to address the DCP required acoustic wall and landscape buffer as shown in Figure E8.11 of the DCP. The plans are to be amended to show the layout of this acoustic wall (in plan) as well as the positioning of the wall wholly within private property (in section). The landscaping requirements of the 2m high landscape buffer mound is also to be detailed in the plans.

E8.10.8.8 Buffer to Ewingsdale Road - The returns of the Acoustic Barriers are to extend 15m back into the new lots. There is no detail of how the earthen berms will be returned in this area. The acoustic barriers are 4m high - the returns are located within private property and there will be no opportunity to have an earthen berm to the Spine Road with the future footpaths and road reserves.

The Applicant is to provide a section showing the acoustic barrier returns within the Spine Road (Road No. 5)

The Acoustic Report shows the general design of the acoustic barrier within the future lots - Show the location of the acoustic barriers on the lot plans by demonstrating the depth that these retaining walls will extend into the lots

**I have reviewed the additional provided by DAC Planning Pty Ltd, dated 19 September 2018 in response to Council's request for further information dated 20 April 2018, 14 May 2018, 19 June 2018 and 3 July 2018 and it appears that the applicant has clarified matters with respect to the Acoustic barrier as noted above.**

#### Construction Noise

Due to the size and scale of the proposed development extended construction activities have potential to result in noise impacts. Therefore, the applicant is requested to identify what measures are required to minimise noise impacts from the proposed works. Issues that should be considered include (but may not be limited to):



	Satisfactory	Unsatisfactory	Not applicable
<ul style="list-style-type: none"> <li>• description of the proposed works, including a discussion of alternative construction methods and justification for selected method. Clear justification of proposed works to be undertaken outside the recommended standard hours must be given;</li> <li>• identification of the residences and other sensitive land uses near the works;</li> <li>• description of proposed total duration of noise exposure at the identified assessment locations from the proposed works;</li> <li>• discussion of expected noise or blasting impacts at the most noise-exposed residences and other sensitive land uses. If a quantitative method is used, the predicted noise levels from the proposed construction works should be presented. A discussion of any community consultation undertaken in assessing the noise impacts should be included;</li> <li>• discussion of feasible and reasonable work practices and mitigation measures that will be applied to minimise noise impacts from the works; and</li> <li>• changes to the proposal in response to submissions and representations received.</li> </ul> <p>Note: Refer to DECC's 'Interim Construction Noise Guideline' (2009) for more information (see <a href="http://www.environment.nsw.gov.au/noise/constructnoise.htm">http://www.environment.nsw.gov.au/noise/constructnoise.htm</a>).</p> <p><b>I have reviewed the additional provided by DAC Planning Pty Ltd, dated 19 September 2018 in response to Council's request for further information dated 20 April 2018, 14 May 2018, 19 June 2018 and 3 July 2018 there does not appear to be any response to the request for clarification of construction noise impacts as noted above.</b></p> <p><i><b>Please note:</b> It is important that stormwater, road, ecological, visual, landscaping and amenity consideration are considered in the design and placement of the proposed acoustic barriers to ensure the acoustical integrity of the barriers whilst acknowledging the competing matters to be considered. Any changes to the location of acoustical barriers will require a review by an appropriately qualified acoustic consultant.</i></p>			
Other Impacts (Noise, Dust, Odours, Water Quality, EMR, Public Health, Skin Penetration)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Mosquito Management

The Mosquito Risk Assessment: West Byron Bay NSW (Sydney West Area Health Service, December 2010) is relevant to this section.

Recommendations include:

- Appropriate plant selection and management of garden vegetation to reduce habitat opportunities for mosquitoes;
- Location, design and management of any individual stormwater treatment systems;
- Leaf guard on roof guttering to reduce potential for water to pond in gutters; and
- The inlet and outlet (overflow) of rainwater tanks to be effectively screened with stainless steel or other durable materials to prevent entry to the tank by mosquitoes. Inlet filters must be readily removable for cleaning.

Please find below list of items that have not been provided, or not satisfactorily provided in regard to the application, which prohibits conditions being proposed as part of an approval determination.

### **Environmental Management Plan – Construction**

Due to the size and scale of the proposed development construction works are likely to be prolonged and result in potential adverse impacts to the surrounding area. Therefore, to allow Council to assess the likely scope and duration of works associated with the proposed subdivision, the applicant is requested to provide an Preliminary Environmental Management Plan prepared by a suitably qualified Environmental Consultant. The EMP must be prepared by a suitably qualified professional and contain details of measures to be undertaken to ensure that subdivision construction works do not result in any off-site impacts that could interfere with neighbourhood amenity by reason of acid sulphate, stormwater quality, soil, noise, vibration, smell, fumes, smoke, dust, wastewater or otherwise. In addition to the proposed days/hours of construction please indicate the likely volume and extraction point of any proposed fill material. The EMP should also include a Waste Management Strategy that details the management of wastes created as a result of the subdivision works including on-site storage and disposal of wastes. The EMP must give reference to NSW WorkCover Authority.

**I have reviewed the additional provided by DAC Planning Pty Ltd, dated 19 September 2018 in response to Council's request for further information dated 20 April 2018, 14 May 2018, 19 June 2018 and 3 July 2018 there does not appear to be any response to the request for a Preliminary Environmental Management Plan – Construction as noted above.**

### **Recommendation:**

<input type="checkbox"/> Supported		<input type="checkbox"/> Not Supported	
<input type="checkbox"/> Additional Information Needed	<input type="checkbox"/> Information to be requested by Planner	<input type="checkbox"/> Information already requested	

### **Additional Information Needed**

Prior to further consideration of the application from an environmental viewpoint, the applicant should be requested to provide the following additional information:

(( List outstanding items))

OR

## Supported

The development application is supported from environmental grounds. Should consent be granted then the following environmental conditions would be applicable:

## Parameters

---

### 1. Development is to be in accordance with approved plans

The development is to be in accordance with plans listed below:

Plan No.	Description	Prepared by	Dated:

The development is also to be in accordance with any changes shown in red ink on the approved plans or conditions of consent.

The approved plans and related documents endorsed with the Council stamp and authorised signature must be kept on site at all times while work is being undertaken.

## The following conditions are to be complied with prior to issue of a Construction Certificate for building works

---

### 2. Terms of approval for on-site sewage management required

Refer to Local Government Act Section 68 Application No. **XX.XXXX.XXX.X** or Local Government Act Section 68 approvals issued subsequent to this consent.

**Delete the following condition if concurrent s68 OSMS has been approved.**

### 3. On-site sewage management facility Section 68 approval required

An approval under Section 68 of the Local Government Act 1993 for on-site effluent disposal must be obtained from Council prior to issue of a Construction Certificate. Such approval must be issued after the date of this consent. The application for Section 68 approval must be accompanied by a report prepared by a suitably qualified professional with demonstrated experience in effluent disposal matters, which addresses the site specific design of sewage management in accordance with the requirements of the NSW Local Government Act, and Approvals Regulation and Guidelines approved by the Director General.

**Delete below if Rous Water connection (need S307 Certificate of Compliance issued by Rous Water condition)**

### 4. Water and Sewerage - Section 68 approval required

An Approval under Section 68 of the Local Government Act 1993 to carry out water supply work and sewerage work must be obtained.

### 5. Site Waste Minimisation and Management Plan

Chapter B8 of Byron Shire Development Control Plan 2014 (DCP 2014) aims to facilitate sustainable waste management in a manner consistent with the principles of Ecologically Sustainable Development. Prior to the issue of a Construction Certificate, a Site Waste Minimisation and Management Plan (SWMMP) must be submitted outlining measures to minimise and manage waste generated during demolition, construction and the ongoing operation and use of the development. The SWMMP must specify the proposed method of recycling or disposal and the waste management service provider.

A template is provided on Council's website to assist in providing this information  
[www.byron.nsw.gov.au/files/publication/swmmp-pro-forma.doc](http://www.byron.nsw.gov.au/files/publication/swmmp-pro-forma.doc)

---

**The following conditions are to be complied with prior to any building or construction works commencing**

---

**6. Erosion & sediment measures**

Erosion and sedimentation controls are to be in place in accordance with the *Guidelines for Erosion & Sediment Control on Building Sites*. A full copy may be downloaded from Council's web site at [www.byron.nsw.gov.au](http://www.byron.nsw.gov.au).

---

**The following conditions are to be complied with during construction**

---

**7. Inspection for on-site sewage management**

All plumbing and drainage works is to be installed by a suitably qualified person. The plumber must adhere to the requirements of the NSW Code of Practice and AS/NZ 3500. The plumber is to arrange for the following inspections to be undertaken:

- a) Internal drainage prior to covering of the works.
- b) External drainage prior to the covering of works.
- c) Irrigation installation prior to the covering of works.
- d) Final

**8. Construction times**

Construction works must not unreasonably interfere with the amenity of the neighbourhood. In particular construction noise, when audible on adjoining residential premises, can only occur:

- a) Monday to Friday, from 7 am to 6 pm.
- b) Saturday, from 8 am to 1 pm.
- c) No construction work to take place on Sundays or Public Holidays.

**9. Construction noise**

Construction noise is to be limited as follows:

- a) For construction periods of four (4) weeks and under, the L10 noise level measured over a period of not less than fifteen (15) minutes when the construction site is in operation must not exceed the background level by more than 20 dB(A).
- b) For construction periods greater than four (4) weeks and not exceeding twenty six (26) weeks, the L10 noise level measured over a period of not less than fifteen (15) minutes when the construction site is in operation must not exceed the background level by more than 10 dB(A).

**10. Builders rubbish to be contained on site**

All builders rubbish is to be contained on the site in a 'Builders Skips' or an enclosure. Footpaths, road reserves and public reserves are to be maintained clear of rubbish, building materials and all other items.

**11. Maintenance of sediment and erosion control measures**

Sediment and erosion control measures must be maintained at all times until the site has been stabilised by permanent vegetation cover or hard surface.

**12. Prevention of water pollution**

Only clean and unpolluted water is to be discharged to Council's stormwater drainage system or any watercourse to ensure compliance with the Protection of Environment Operations Act.

---

**The following conditions are to be complied with prior to occupation of the building**

---

**13. On-site sewage management system must be completed**

The on-site sewage management system is to be constructed in accordance with approved plans and in accordance with current specifications and standards. The system is not to be used and/or operated until a Council Officer has inspected the system and authorised its use.

**14. Approval to Operate required**

In accordance with the Local Government Act, an Approval to Operate the onsite sewage management system must be obtained from Council. Forms may be downloaded from Council's website with '<http://www.byron.nsw.gov.au/on-site-sewage>'.

**The following conditions will need to be complied with at all times**

---

**The following conditions will need to be complied with prior to issue of a Construction Certificate for subdivision works**

---

**The following conditions must be complied with prior to commencement of subdivision works**

---

**The following conditions must be complied with during construction of subdivision works**

---

**The following conditions must be complied with prior to issue of a Subdivision Certificate**

---

**Notes**

---

**Protection of the Environment Operations Act 1997:**

It is an offence under the provisions of the Protection of the Environment Operations Act 1997 to act in a manner causing, or likely to cause, harm to the environment. Anyone allowing material to enter a waterway or leaving material where it can be washed off-site may be subject to a penalty infringement notice ("on-the-spot fine") or prosecution.

OR,

**Not Supported**

The development application is not supported from environmental grounds and should be refused for the following reasons: (( List Reasons for Refusal ))

Mrs E L Holt Mr T Fitzroy  
Environmental Health Officer

Click here to enter a date.  
Date

## Request for update of information on Contaminated Land Management System

<b>To:</b>	Planning Admin Staff
<b>From:</b>	Mr L J Munro
<b>Date:</b>	<a href="#">Click here to enter a date.</a>
<b>Subject:</b>	Ewingsdale Road BYRON BAY, 394 Ewingsdale Road BYRON BAY, 412 Ewingsdale Road BYRON BAY, Melaleuca Drive BYRON BAY, 364 Ewingsdale Road BYRON BAY, LOT: 1 DP: 201626, LOT: 2 DP: 542178, LOT: 1 DP: 780242, LOT: 2 DP: 818403, LOT: 1 DP: 520063, LOT: 7020 DP: 1113431
<b>Parcel No:</b>	21700, 151400, 21720, 152550, 114340, 241870

Please update Council's contaminated land management system in response to Council's receipt and consideration of the following reporting: (please check box)

### Site contamination reports/information submitted to Council:

<input type="checkbox"/>	Preliminary Investigation
<input type="checkbox"/>	Detailed Investigation
<input type="checkbox"/>	Remedial Action Plans
<input type="checkbox"/>	Validation and Monitoring
<input type="checkbox"/>	Site Audit Statements received by Council
<input type="checkbox"/>	EPA declarations and orders issued under the CLM Act (including voluntary investigation & remediation proposals agreed by the EPA).
<input type="checkbox"/>	Prior notification of category 2 remediation works
<input type="checkbox"/>	Notification of completion of category 1 and category 2 remediation work.
<input type="checkbox"/>	Information of which Council is aware in relation to current or former land uses/pollution incidents.
<input type="checkbox"/>	Development Application

### Report Details:

Input information from Environmental Assessment Report SEPP 55 findings (eg cut and paste from environmental officer's assessment).

Include document / report title

Include DA no and doc # of environmental assessment

### TRIM Ref: Doc # of above report(s):

<b>Property Description:</b>	Ewingsdale Road BYRON BAY, 394 Ewingsdale Road BYRON BAY, 412 Ewingsdale Road BYRON BAY, Melaleuca Drive BYRON BAY, 364 Ewingsdale Road BYRON BAY, LOT: 1 DP: 201626, LOT: 2 DP: 542178, LOT: 1 DP: 780242, LOT: 2 DP: 818403, LOT: 1 DP: 520063, LOT: 7020 DP: 1113431		
<b>Property Affected:</b>	<input type="checkbox"/> Whole of property	<input type="checkbox"/> Adjoining land	<input type="checkbox"/> Building envelope(s)
<b>Actions required:</b>	<input type="checkbox"/> Contamination Assessment	<input type="checkbox"/> Further information	
	<input type="checkbox"/> Remediation Required	<input type="checkbox"/> Validation Report Required	
	<input type="checkbox"/> Site inspection	<input type="checkbox"/> Add to 149 Certificate (*see below)	
	<input type="checkbox"/> Refer to EHO	<input type="checkbox"/> Nil	



**Determination** (at completion of assessment):

<input type="checkbox"/> Not contaminated	<input type="checkbox"/> Contaminated	<input type="checkbox"/> Assessment required
<input type="checkbox"/> Remediated – full	<input type="checkbox"/> Remediated – partial	<input type="checkbox"/> Approved potential contaminating land use

**\*Descriptor on s149(5) certificate ADMIN STAFF PLS ADD THIS TEXT AS A MEMO ON AUTHORITY:**

Environmental officers to insert details of any contamination or subsequent remediation.

Refer to s149(5) certificates for the following parcels for examples of suggested wording – PN 241972, 111080, 134080, 134060, 65320, 239419, 222100, 21650- Leave blank if site is 'not contaminated'

**Health-based Investigation Level Assessed:**

- ☐ Residential with Gardens (NEHF A)
- ☐ Residential with Minimal Access (NEHF D)
- ☐ Parks Recreational Open Space (NEHF E)
- ☐ Commercial or Industrial (NEHF F)

**Name of officer making request:** Emma Holt


**Signature:** .....

**Date:** Click here to enter a date.

**Input to Authority Register (56):**

*C: Current / H: Historic*

Activity	C	H	Activity	C	H	Contaminant	☒
Abattoir	<input type="checkbox"/>	<input type="checkbox"/>	Fuel storage depot	<input type="checkbox"/>	<input type="checkbox"/>	Acids/alkalis	<input type="checkbox"/>
Abrasive blasting	<input type="checkbox"/>	<input type="checkbox"/>	Glass manufacture	<input type="checkbox"/>	<input type="checkbox"/>	Antifouling paints	<input type="checkbox"/>
Agriculture – Banana Farm	<input type="checkbox"/>	<input type="checkbox"/>	Intensive animal	<input type="checkbox"/>	<input type="checkbox"/>	Asbestos	<input type="checkbox"/>
Agriculture – Cattle	<input type="checkbox"/>	<input type="checkbox"/>	Landfill sites/waste depots	<input type="checkbox"/>	<input type="checkbox"/>	Fertilizer	<input type="checkbox"/>
Agriculture – Orchards	<input type="checkbox"/>	<input type="checkbox"/>	Macadamia Farm	<input type="checkbox"/>	<input type="checkbox"/>	Flocculants	<input type="checkbox"/>
Agriculture – Turf Farm	<input type="checkbox"/>	<input type="checkbox"/>	Market gardens	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
Airport	<input type="checkbox"/>	<input type="checkbox"/>	Metal finishing	<input type="checkbox"/>	<input type="checkbox"/>	Fungicides	<input type="checkbox"/>
Asbestos disposal	<input type="checkbox"/>	<input type="checkbox"/>	Mining and extractive industries	<input type="checkbox"/>	<input type="checkbox"/>	Herbicides	<input type="checkbox"/>
Automotive repair/engine works	<input type="checkbox"/>	<input type="checkbox"/>	Pest control depots	<input type="checkbox"/>	<input type="checkbox"/>	Hydrocarbon	<input type="checkbox"/>
Battery manufacturing/recycling	<input type="checkbox"/>	<input type="checkbox"/>	Printing shops	<input type="checkbox"/>	<input type="checkbox"/>	Inorganics	<input type="checkbox"/>
Boat building/maintenance	<input type="checkbox"/>	<input type="checkbox"/>	Radioactive sand fill	<input type="checkbox"/>	<input type="checkbox"/>	Metals	<input type="checkbox"/>
Breweries/distilleries	<input type="checkbox"/>	<input type="checkbox"/>	Railway yards	<input type="checkbox"/>	<input type="checkbox"/>	Organics	<input type="checkbox"/>
Bus depot	<input type="checkbox"/>	<input type="checkbox"/>	Residential	<input type="checkbox"/>	<input type="checkbox"/>	Paints – heavy metals	<input type="checkbox"/>
Chemical storage	<input type="checkbox"/>	<input type="checkbox"/>	Scrap metal recovery	<input type="checkbox"/>	<input type="checkbox"/>	Pesticides	<input type="checkbox"/>
Commercial	<input type="checkbox"/>	<input type="checkbox"/>	Service stations	<input type="checkbox"/>	<input type="checkbox"/>	Pharmaceuticals	<input type="checkbox"/>
Communication tower	<input type="checkbox"/>	<input type="checkbox"/>	Sewage treatment plant	<input type="checkbox"/>	<input type="checkbox"/>	Photography	<input type="checkbox"/>
Compost manufacturing	<input type="checkbox"/>	<input type="checkbox"/>	Shipping facilities	<input type="checkbox"/>	<input type="checkbox"/>	Plastics	<input type="checkbox"/>
Concrete batching	<input type="checkbox"/>	<input type="checkbox"/>	Shooting or gun clubs	<input type="checkbox"/>	<input type="checkbox"/>	Radioactive sands	<input type="checkbox"/>
Council works depot	<input type="checkbox"/>	<input type="checkbox"/>	Spray painting	<input type="checkbox"/>	<input type="checkbox"/>	Rubber	<input type="checkbox"/>
Defense works	<input type="checkbox"/>	<input type="checkbox"/>	Stock dipping sites	<input type="checkbox"/>	<input type="checkbox"/>	Soap/detergent	<input type="checkbox"/>
Dip buffer	<input type="checkbox"/>	<input type="checkbox"/>	Timber preserving/treatment	<input type="checkbox"/>	<input type="checkbox"/>	Solvents	<input type="checkbox"/>
Dry cleaning	<input type="checkbox"/>	<input type="checkbox"/>	Underground storage tanks	<input type="checkbox"/>	<input type="checkbox"/>	Unknown	<input type="checkbox"/>
Electricity generation/power station	<input type="checkbox"/>	<input type="checkbox"/>	Unknown	<input type="checkbox"/>	<input type="checkbox"/>	Waste disposal general	<input type="checkbox"/>
Fibreglass reinforced plastic manufacture	<input type="checkbox"/>	<input type="checkbox"/>	Utility depots	<input type="checkbox"/>	<input type="checkbox"/>		
Filling (imported soil)	<input type="checkbox"/>	<input type="checkbox"/>	Vacant	<input type="checkbox"/>	<input type="checkbox"/>		

Activity	C	H	Activity	C	H	Contaminant	
Fuel storage	<input type="checkbox"/>	<input type="checkbox"/>	Waste disposal	<input type="checkbox"/>	<input type="checkbox"/>		

<b>Risk:</b>	<input type="checkbox"/> High	<input type="checkbox"/> Low	<input type="checkbox"/> Medium
<b>Remediation required</b>	<input type="checkbox"/> No	<input type="checkbox"/> Yes – Provide details (eg. Prior to issue CC)	
<b>Validation Report</b>	<input type="checkbox"/> No	<input type="checkbox"/> Yes – TRIM Ref # <a href="#">Click here to enter text.</a>	

# Development Engineering Comments

<b>DA No.</b>	<b>10.2017.661.1</b>
<b>Proposal:</b>	Subdivision of Six (6) Lots into Three Hundred and Eighty Seven (387) Lots consisting of Three Hundred and Seventy Eight (378) Residential Lots, Two (2) Business Lots, Two (2) Industrial Lots, One (1) Recreation Lot and Four (4) Residue Lots
<b>Property description:</b>	LOT: 1 DP: 201626, LOT: 2 DP: 542178, LOT: 1 DP: 780242, LOT: 2 DP: 818403, LOT: 1 DP: 520063, LOT: 7020 DP: 1113431 Ewingsdale Road BYRON BAY, 394 Ewingsdale Road BYRON BAY, 412 Ewingsdale Road BYRON BAY, Melaleuca Drive BYRON BAY, 364 Ewingsdale Road BYRON BAY
<b>Parcel No/s:</b>	21700, 151400, 21720, 152550, 114340, 241870
<b>Applicant:</b>	Site R & D Pty Ltd

**This engineering assessment is based on the documents in Schedule A:**

<b>Date</b>	<b>Description</b>	<b>TRIM Doc. No.</b>
22/11/17	Part 1 - DA Form, Owners Consent	E2017/107579
Nov. 2017	Part 2 - SEE	E2017/107585
14/09/17	Part 3 – Locality Plan	E2017/107587
08/09/17	Part 4 – Proposed Plan of Subdivision 15024-8A	E2017/107588
08/09/17	Part 5 – Proposed Plan of Subdivision 15024-8B	E2017/107590
08/09/17	Part 6 – Proposed Plan of Subdivision 15024-8C	E2017/107591
11/10/17	Part 7 – Engineering Assessment & Plans	E2017/107592
31/10/17	Part 8 – Flood Impact Assessment	E2017/107593
6/10/17	Part 9 – Traffic & Transport Report	E2017/107595
12/9/17	Part 10 – Geotech Report	E2017/107596
30/10/17	Part 18 – Stormwater Management Strategy	E2017/107608
9/10/17	Part 20 – Landscape Plan Part 2	E2017/107611
13/11/17	Part 22 – Bushfire Assessment Part 1	E2017/107613
13/11/17	Part 23 – Bushfire Assessment Part 2	E2017/107615
31/10/17	Part 25 – Elec & Telecomms Infrastructure Report	E2017/107617
15/11/17	Part 26 – DCP 2014 Compliance Checklist	E2017/107618
4/9/17	Part 29 – Master Plan Layouts	E2017/107621
11/10/17	Part 30 – West Byron Design Guidelines	E2017/107622
12/1/18	RMS referral response - email	E2017/3229
19/1/18	OEH referral response - email	S2018/1518
31/1/18	Belongil Swamp Drainage Union - email	E2018/7597
2/2/18	PlanIt Submission – adjoining subdivision	E2018/8660
20/4/18	RFI sent to applicant	A2018/12354
23/4/18	Council's landowners consent	E2018/34520
1/3/18	RFS response	E2018/37398
19/9/18	Applicants RFI response email	E2018/77579
19/9/18	Dropbox documents from email of 19/9/18 (E2018/77579)	E2018/90104

## **Schedule A – List of Documents**

## **RECOMMENDATION**

Not supported from an engineering viewpoint due to the reasons provided in this report

## ASSESSMENT

A detailed assessment has been carried out of the applicant submitted listed documents in Schedule A, against relevant planning provisions and Council's engineering specifications. The focus of the engineering assessment can be categorised into the following engineering related matters:

- Access
- Traffic
- Road and Drainage Design
- Stormwater Management,
- Earthworks
- Geotechnical
- Flooding
- Other Engineering Matters

Below is an assessment of the engineering matters above, with reference to the relevant planning provision or Council specification to which it relates.

The initial assessment report was dated 09 August 2018 and further comments have been included in blue text in relation to the additional information submitted 19 September 2018.

### 1. Access (Byron Shire DCP 2014 Chapter D6)

☐ Satisfactory                      ☒ Unsatisfactory                      ☐ Not applicable

*Comments:*

The engineering plans provided propose a single access point from the proposed subdivision internal road network to the existing road network at a new roundabout located at the Ewingsdale Road/ School of Audio Engineering intersection. The Byron Shire DCP 2014 Chapter D6 Section D6.2.1.1 requires the development application consider a raft of site design issues, with sub-part (b)(iv) being site access. One aspect of site access that has not been addressed is the provision of alternate access to the development to provide for incident management and emergency access, to assist in general emergencies as well as flood and fire events. Considering the application seeks to provide nearly 380 residential land lots in a bushfire and flood prone vicinity, provision of this secondary emergency access is considered vital.

*Further comment following assessment of information provided September 2018 – The engineering plans provided by ACOR Consultants, Project No. NE160352 Figures 1 to 26 (77 sheets) dated 22.08.18 and of various revisions, show an alternate access point to Ewingsdale Road via a '4m Fire Access' path connected to Road 8. This access point has the potential to be used in emergency situations by emergency services or road users exiting the estate under the supervision of police in evacuation situations. The provision of this access point may require:*

- *Appropriate gating to ensure the access point is not use in non-emergency situations*
- *Culverts under the access path to allow stormwater conveyance to continue in the area*
- *Acoustic wall returns to deal with the break in the wall*
- *The fire access path construction to be suitable for vehicle traffic*

*The above matters are considered conditionable, hence the matter of providing alternate secondary access to the site is considered satisfactory.*

The engineering plan set includes figures that are replications of concept design longitudinal sections for Ewingsdale Road works, with the design by Lambert & Rehbein. The tie in of the entrance road to the proposed development, proposed Road 5, with Ewingsdale Road occurs at the SAE Access roundabout which is Ch 1800 of Ewingsdale Road as per the Lambert & Rehbein plans. The longitudinal section of Ewingsdale Road shows a proposed level of RL 4.895 at this chainage. Proposed Road 05 which intersects at this point is shown to have a design level of RL 6.365 – some 1500mm higher than the road it adjoins. The levels at this point are required to match to allow access to the site. The design is non-compliant with the Byron Shire DCP 2014 Chapter D6 Section D6.2.1.1 in this respect also.

*Further comment following assessment of information provided September 2018 – The tie in levels at the intersection of Road 5 and Ewingsdale Road are unchanged in the plans, hence this matter remains unsatisfied. The levels of proposed Road 05 can be seen on ACOR Consulting drawing NE160352 FIG 9.3, and the (future) levels of Ewingsdale Road can be seen on drawing NE160352 FIG 24.1.*

Proposed lots 18 to 60 and 401 to 402 in the subject application do not have access to a public road until the neighbouring development builds the road networks fronting these lots and connecting to Ewingsdale Road as part of the adjoining development application (10.2017.201.1 – currently under assessment). Proposed lots 18 to 60 require the neighbouring development to build 'Road 01' and 'Road 02' (as noted in the subject development application) to gain access to a public road. Proposed lots 401 and 402 are shown in the engineering plans to gain access from a public road titled 'Road 03' (as noted in the subject development application) which is again a road shown to be provided as part of the neighbouring development, however the engineering plans provided for the neighbouring development do not show this road 'Road 03' being constructed. Lots 18 to 60, 401 and 402 do not have public road access hence are non-compliant with the referenced DCP clause and should not form part of a development application until arrangement for public road access has been made.

*Further comment following assessment of information provided September 2018 – The lots in previous Stage 11 and 12 noted as 18 to 60 and 401 to 402 have had their name revised and the appropriate lot numbers are now 19 to 61 and 185 to 186 (lot number references as per 'Amended Subdivision Plans – Staging' by Chris Abbott Surveying Ref: 15024-9G Sheet 2 of 9 dated 10.09.2018). The lots remain to be shown in proposed Stages 11 and 12.*

*In RFI dated 14<sup>th</sup> May 2018, Byron Shire Council requested the provision of evidence of legal access to Lot 2 DP 818403 and Lot 10 DP 1143215 to enable vehicle access back to Bayshore Drive roundabout at Ewingsdale Road, in an effort to show compliance with Chapter E8 West Byron Urban Release Area DCP 2014 (Chapter E8.10.1). The applicant's engineering consultant has provided two solutions to this in their response letter dated 5 September 2018 –*

*1 – 'Melaleuca Drive is not proposed to be closed by the Villaworld development until their early stages construction provides a new connection therefore, access remains for Lot 2 DP818403 and Lot 10 DP1143215'.*

*2 – 'Access and servicing of stages 11 and 12 independent of Harvest can be provided by the construction of Bayshore Drive extension from the Ewingsdale Road roundabout. Refer to Report 11.7 and new Figure 25 – Bayshore Drive Extension'.*

*Melaleuca Dr may remain open as part of the early stages of the Villaworld works, which once complete would provide access from the roundabout at Ewingsdale Road and Bayshore Dr extension to this area, however Melaleuca Dr is not shown to connect to the internal road network for Stage 11 or Stage 12 of the proposed development, hence Melaleuca Dr potentially remaining open does not completely solve the issue. The subdivision plan nor the staging plans show any temporary road connection from the Stage 11 internal road network to the nearby Melaleuca Dr. Note – Melaleuca Dr remaining open as part of the early stages of the neighbouring Villaworld works is in line with the current DA plans provided by Villaworld (Planit Engineering plans SK03 Rev E dated 01/06/18). These plans are not approved, and any consent that may be issued in relation to the Villaworld development application may modify this arrangement.*

*It is agreed that the Bayshore Dr extension from the roundabout at Ewingsdale Rd could be provided by the applicant for this application rather than the neighbouring developer whose land the road is located on, however consent for these works would be required - **Council's PLANNER must confirm that owners consent has been submitted for these works.***

*If no owners consent has been given, this matter remains to be unsatisfactorily addressed.*

The 'construction accesses' plan provided in the engineering set shows a number of locations along Ewingsdale Road where construction access is proposed. A number of these proposed access points are via land which does not form part of this application, or from roads that require construction by others. Any access points proposed to be used for construction purposes are to be within the land

subject to the application or with consent of the appropriate land owner. Consent for access over land that is not subject to the application has not been provided, hence several the proposed construction access points are not supported.

*Further comment following assessment of information provided September 2018 – As part of the new information submitted for this application the construction access points were modified slightly such that there are now four locations of construction access:*

- 1 – Between SAE access road and the existing Sunrise Blvd roundabout on Ewingsdale Rd*
- 2 – At the proposed roundabout at the SAE access road and Ewingsdale Rd intersection*
- 3 – Via Melaleuca Dr*
- 4 – At the proposed roundabout at the Bayshore Dr and Ewingsdale Rd intersection*

*Construction access locations 1, 2 and 3 could be supported with the submission of at least a concept Construction Traffic Management Plan (CTMP) which would be required to include measures proposed to avoid, minimise or mitigate the impacts of the development as required by Byron Local Environmental Plan 1988 Part 4 Division 2 Clause 98B (3) (j). Such CTMP would be required to address measures to limit construction vehicle volumes, discuss appropriate construction periods and build framework for the policing of these matters. Location 4 is over land not subject to the subject application, hence would be required to be accompanied by consent for access from the appropriate landowner.*

*Without the submission of at least a concept CTMP and the consent for access this matter remains to be unsatisfactorily addressed.*

## 2. Traffic (Byron Shire DCP 2014 Chapter E8, Byron Shire DCP 2014 Chapter B4)

☐ Satisfactory ☒ Unsatisfactory ☐ Not applicable

*Comments:*

Byron Shire DCP 2014 Chapter E8 Section E8.10.1 and Byron Shire DCP 2014 Chapter B4 Section B4.2 require the submission of a detailed traffic impact assessment as part of the application lodgement. An original traffic study 'Traffic and Transport Report – West Byron Urban Release Area' provided by Veitch Lister Consulting dated October 2017 has been provided as part of the assessment process to quantify the expected traffic volumes that the proposed development will generate and address the acceptability of the existing and proposed road network to handle these traffic volumes. The Chapter E8 DCP requires that the traffic study is based on the full West Byron Urban Release Area being developed.

The submitted traffic impact assessment provides current traffic volumes that are in the order of the traffic expected, however notes in Table 2-3 that the forecast growth for years 2018 – 2028 would be in the order of 1.0 – 1.5%pa, see extract of table below.



**Table 2-3: Forecast Traffic on Ewingsdale Rd (Without West Byron Urban Release Area)**

Location	Period	Direction	2008	2018	2028	Growth 2018-2028
West of Bayshore Drive	AM 1hr	Eb	811	1,032	1,178	+1.4% pa.
		Wb	374	499	554	+1.1% pa.
	PM 1hr	Eb	596	790	881	+1.2% pa.
		Wb	891	1,186	1,349	+1.4% pa.
	24hr	Eb	7,690	10,341	11,644	+1.3% pa.
		Wb	7,420	10,143	11,418	+1.3% pa.
Between Bayshore Drive and Sunrise Boulevard	AM 1hr	Eb	599	772	892	+1.6% pa.
		Wb	476	581	639	+1.0% pa.
	PM 1hr	Eb	673	826	907	+1.0% pa.
		Wb	672	912	1,046	+1.5% pa.
	24hr	Eb	7,260	9,476	10,561	+1.1% pa.
		Wb	7,030	9,348	10,410	+1.1% pa.
East of Sunrise Boulevard	AM 1hr	Eb	611	779	900	+1.6% pa.
		Wb	513	621	683	+1.0% pa.
	PM 1hr	Eb	707	866	955	+1.0% pa.
		Wb	690	927	1,063	+1.5% pa.
	24hr	Eb	7,530	9,784	11,006	+1.2% pa.
		Wb	7,290	9,631	10,834	+1.2% pa.

In the external referral comments from the Roads and Maritime Services (RMS) dated 12 January 2018, the RMS have noted that the traffic forecasts used for determining the future traffic volumes on Ewingsdale Road should be based upon the Council's current and future traffic data to ensure the consent authority is satisfied with the 'base' traffic volumes and the expected increases into the future. Council's traffic data by comparison indicates that Ewingsdale Road experienced traffic growth close to 3.4%pa since 2008, a much higher increase than the modelled 1-1.5% and indicating that the applicants traffic volumes have not considered Council's available traffic data as required by the RMS.

*Further comment following assessment of information provided September 2018 – The additional information and response to Council RFI's provided by the applicant does not provide any information related to traffic forecasting.*

*This matter remains unsatisfactorily addressed.*

The traffic impact assessment report provided does not include seasonal variation as per Austroads Guide to Traffic Management Part 3 for Ewingsdale Road AADR numbers and peak hour movements, and is required to do so. The report also fails to include the required additional 25% vehicle trips made from the low residential areas of the development site for trips made internal to the subdivision. This is a requirement of the RMS Guide to Traffic Generating Development – Updated Traffic Survey 4a. The traffic impact assessment is lacking information and not considered to satisfactorily address Byron Shire DCP 2014 Chapter E8 Section E8.10.1 and Byron Shire DCP 2014 Chapter B4 Section B4.2.

It is well known that the traffic on Ewingsdale Road both into and out of Byron Bay is problematic. While there are commitments to construct a Byron Bay bypass which is expected to relieve much of these traffic pressures on Ewingsdale Road, the timing of construction of this bypass is not confirmed. The additional vehicle movements on Ewingsdale Road expected and as modelled in the applicant's traffic impact assessment will only worsen the traffic situation in the local and extended area, causing further delays and extensions to traffic peak times until this bypass is operational. As a result it is vital that the traffic volume generation modelling considers all available data and incorporates best practice and industry standard guidelines to provide the most accurate traffic volume estimates.

*Further comment following assessment of information provided September 2018 – The additional information and response to Council RFI's provided by the applicant does not provide any information related to seasonal traffic increases or additional vehicle movements made internal to the subdivision.*

*This matter remains unsatisfactorily addressed.*

The statement of environmental effects lodged with the application notes that 329,500m<sup>3</sup> of fill is required to be imported to the site, which is expected to produce several hundred truck movements on Ewingsdale Road travelling to site each day for a likely period of months. In the RMS referral response, it was recommended that a Construction Traffic Management Plan (CTMP) be prepared by a suitably qualified person to manage construction traffic impacts on Ewingsdale Road during construction. As these truck movements will significantly affect the operation and traffic volume on an already congested Ewingsdale Road, this CTMP is required to outline truck routes to and from the site, quantify truck numbers per day and specify site movements once the import trucks are on site. This CTMP is required as part of the concept stage of this development application rather than being conditioned prior to the issue of a construction certificate as it is vital for the applicant to show how the construction traffic will be managed, how it will affect the traffic movements on Ewingsdale Road and show how access can be provided for the import trucks to the several stages of the proposed subdivision. The use of any of the newly built/ dedicated roads created as part of the preceding subdivision stages by these import trucks would drastically reduce the design life of these roads and is a maintenance liability for the Council, hence not supported. The engineering assessment report provided by ACOR Consultants (Document No: NE 160352 R05 – Issue 5) dated October 2017 recognises this and made note in Section 10 ‘Staging’ that “*trafficking of completed works will be minimised and avoided where possible*”. Since there has been no CTMP submitted, the recommendation of the RMS, which is fully supported, has not been addressed by the applicant.

*Further comment following assessment of information provided September 2018 – The applicants Traffic Consultant Veitch List Consulting (VLC) has advised the following in relation to construction traffic:*

*“Construction Traffic 1st para; we did not mention the source of fill material as, since it would only involve 10 truck movements an hour, it won’t matter a damn which direction it comes from.  
2nd para; we’ve already stated (in Section 5.3 of our report) that once the eastern roundabout on Ewingsdale Road is constructed, there will be no need for traffic management on Ewingsdale Road. Management of traffic during construction of the roundabout will be the responsibility of the chosen contractor. We can provide a fuller discussion of the above issues, but we can’t provide the level of detail and assessment that Council seem to think is necessary at this stage”*

*A CTMP is yet to be provided and is required as per comment in order to quantify the truck movements on Ewingsdale Rd, provide vehicle routes for such and propose construction periods. At a minimum a concept CTMP is required to be provided as a measure proposed to avoid, minimise or mitigate the impacts of the development as required by Byron Local Environmental Plan 1988 Part 4 Division 2 Clause 98B (3) (j). The amended staging plans by ACOR Consultants, Project No. NE160352 Figures 22.2 to 22.14 Rev A, provided do show construction traffic routes indicatively, and notes for each stage that the ‘Approx imported volume – 43,000m<sup>3</sup>’. This same volume is noted for each of the stages, and there is no evidence of correlation between these staging plans approximate volume and the 10 truck movements per hour noted by VLC. It is also considered doubtful that each stage requires the same amount of imported fill considering the varying size and finished level of each of the stages.*

*Without at least a concept CTMP that includes quantitative data on the required number of truck movements for each stage of development works, commentary on how these additional movements on Ewingsdale Rd will affect the already congested road and a commitment to this number of vehicle movements per hour/day, this matter and LEP Cl 98B (3) (j) remain unsatisfactorily addressed.*

3. Road and Drainage Design (Byron Shire DCP 2014 Chapter E8, Byron Shire DCP 2014 Chapter B3, Byron Shire DCP 2014 Chapter D6 and Northern Rivers Design Specifications D1 and D5)

☐ Satisfactory ☒ Unsatisfactory ☐ Not applicable

Comments:

The application provides engineering plans for a road and drainage network to service their proposed subdivision layout. The Byron Shire DCP 2014 Chapter E8 provides for a rudimentary road layout in Appendix B but does not specify an indicative layout plan for the internal road network, hence the applicant has provided an internal road network to suit their proposed residential development. The proposed design is however lacking in information or is not compliant with the Byron Shire policies in several aspects. Below is a list of the missing critical information or non-compliances in the plans in regard to either the road or the stormwater design:

- The subdivision is shown to be carried out in multiple stages, however the engineering requirements of staged subdivision such as temporary turning head provision and temporary drainage outlets have not been shown. The Byron Shire DCP 2014 Chapter E8 Section E8.10 (s) requires that the general timing and sequencing of the works be provided, and Byron Shire DCP 2014 Chapter D6 Section D6.3.3 (7) requires that manoeuvring areas are provided at the ends of roads. The plans are non-compliant in addressing either of these staging related requirements.

*Further comment following assessment of information provided September 2018 – The applicant's engineering consultant has noted in their response dated 5 September 2018 that 'Turning facilities to usual practice are shown on amended staging Figure 23.2 to 23.14'. The staging plans provided by ACOR Consultants, Project No. NE160352 Figures 22.2 to 22.14 Rev A, do not show turning heads at the end of roads terminated at the boundary of various stages of development.*

*This matter is reconcilable by way of a condition of consent.*

- Several of the typical road sections provided in the engineering plans does not match the road cross sections provided for road types in Appendix D of the Byron Shire DCP 2014 Chapter E8. Similarly, Road 9 is not listed in any of the typical road cross sections. The road types used by the applicant look to be in part those shown in Council's adopted 'Geometric Road Design Table D1.5', however as there is a site specific DCP (Chapter E8) the DCP specified road types should take precedence in this case.

*Further comment following assessment of information provided September 2018 – The amended engineering drawings package did not change the proposed typical road cross sections to suit the DCP, nor does it show a road a section for Road 9.*

*This matter remains unsatisfactorily addressed.*

- The proposed road layout provided does not tie in with the road layout on the adjoining land, which has a Development Application lodged over it (10.2017.201.1) currently under Council assessment. There is a clear lack of information as to how the roads for the subject development connect and correlate with the proposed adjoining development, which is contrary to the Objectives and Performance Criteria of Byron Shire DCP 2014 Chapter E8 Section E8.10.1 – Staging Plan.

There are several road connections/ continuations joining the subject development to the neighbouring development across the boundary of the two sites, making design consistency at these points vital. While the subject development road design should not dictate the adjoining development road design and vice-versa, the following are a list of inconsistencies between the two designs at points where the two designs rely on each other and must show consistency:

- The subject development shows Road 05 in the typical section to be a 'Distributor Road' type with a 4m carriageway and 2.3m parallel parking lane each side of a 3m central median. This is inconsistent with the DCP road formation and with the engineering plan shown for this same road as only *part* of Road 5 is shown in plan with a median, however there is no secondary typical section for Road 05. This road connects with the adjoining development across the boundary between the two sites, and the formation of the road once the boundary is crossed is shown in application 10.2017.201.1 as a centrally-crowned road with no median made up of two 5.5m wide carriageways. The road is required to continue over the boundary seamlessly, which cannot be done with two different road formations joining as proposed.

*Further comment following assessment of information provided September 2018 – The amended engineering drawings package by ACOR Consultants, Project No. NE160352 Figures 1 to 26 dated 22.08.18, did not change the proposed typical road cross sections to suit the DCP, nor does it show a road formation which matches the formation at the continuation of this road in the adjoining development as part of application 10.2017.201.1. If the applicant were to plot the roads on the neighbouring land on their plans they would identify that the road formations do not match, and this plotting of adjacent proposal is highly recommended.*

*This matter remains unsatisfactorily addressed.*

- At the various continuations or junctions of the roads that cross the boundary between the two developments, the levels of the road centrelines at this point are to match or be very similar at concept stage. The point in the road where the two developments join is noted below, with the difference in the two design levels noted:
  - i. West Byron (subject development) Road 05 Main Drain Crossing and Harvest Estate (adjoining development 10.2017.661.1) Road 05 Main Drain Crossing – road level difference of ~500mm

*Further comment following assessment of information provided September 2018 – Level difference at this junction point remains to be ~500mm between the two engineering drawing sets.*

- ii. West Byron Road 22 junction with Harvest Estate Road 10 – road level difference of ~1000mm

*Further comment following assessment of information provided September 2018 – Level difference at this junction point has been amended to suit the adjacent development.*

- iii. West Byron Road 25 junction with Harvest Estate Road 10 – road level difference of >500mm

*Further comment following assessment of information provided September 2018 – Level difference at this junction point has been amended to suit the adjacent development.*

- iv. West Byron Road 26 junction with Harvest Estate Road 10 – road level difference of >500mm

*Further comment following assessment of information provided September 2018 – Road 26 has been deleted from the engineering plan set*

- v. West Byron Road 06 junction with Harvest Estate Road 08 – road level difference of ~200mm

*Further comment following assessment of information provided September 2018 – Level difference at this junction point remains to be ~200mm between the two engineering drawing sets.*

As per above there are a number of instances where the subject development engineering plans rely on the neighbouring development road levels, and the engineering plans for the subject development shows the neighbouring developments road longitudinal sections. In the engineering plans for the subject development, the longitudinal section shown for Road 02 is the neighbouring development's 'Road 05', and there is a level difference between the two applications engineering plans on the same road in excess of 500mm. Similarly, the longitudinal section shown for Road 24 is the neighbouring developments 'Road 10', and there is a longitudinal level difference between the two engineering plans in excess of 500mm.

*Further comment following assessment of information provided September 2018 - Level difference shown on what should be the same road remains to be excessive and road longitudinal profile is significantly inconsistent between the two application drawing sets.*

- The road layout across the boundary of the two developments does not match, in that road centrelines or intersection treatments are not consistent between the two applications at the boundary crossing. This is evident in the following instances:
  - At the crossing of the Main Drain, centrelines of continuing roads do not match between the two applications
  - West Byron Road 06 and Harvest Estate 'Road 08' junction – the subject application shows a roundabout and the neighbouring development shows no connection at all.

*Further comment following assessment of information provided September 2018 – The road layout for the subject application has been amended and looks to correlate in plan with the road layout at the*



*boundary with the neighbouring development. It is recommended that the applicants for both developments provide the information in regards to GIS data and levels of the roads which affect the other application so that consistency can be provided across both applications.*

The large number of inconsistencies between the plans for the subject development and the neighbouring development at points where it is critical that the designs match or are at least close to matching indicates a non-compliance with Byron Shire Council DCP 214 Chapter E8 for staging and Chapter B3 for provision of services. The inconsistency of the road design between the two adjoining sites also creates orderly development issues, hence Byron Shire DCP 2014 E8 Section E8.10.1 Objective 1 to 'Enable the orderly development of the site' is not met.

*Further comment following assessment of information provided September 2018 - With the above additional comments provided, a number of the matters previously raised have been satisfactorily addressed and a number remain unsatisfactorily addressed.*

- Byron Shire Council DCP 2014 Chapter E8 Section E8.10.2 (7) requires that for vacant land lot R3 'small lot' subdivision that access be provided by way of a rear lane, secondary street or reciprocal right of way, and that where 4 or more small lots are proposed in a street section that the street be provided with nose-in or 45 degree parking across the frontage of those lots. Neither of these provisions looks to be applied in areas of the R3 zoning. The applicant has also failed to address the related waste collection in the R3 zoned areas where such parking provisions are provided as required by the DCP.

*Further comment following assessment of information provided September 2018 – The amended engineering drawings set does not provide nose-in or 45-degree parking, rear lane or reciprocal rights of way access for all lots in the R3 zoned areas. Waste collection also remains unaddressed. The road configuration as shown on the amended plans relates now to the access of super lots rather than the small lots which are expected in this area. The road layout cannot be determined to be suitable for the small lots nor compliant with the DCP requirement for the R3 arrangement without at least an indicative lot layout.*

*This matter remains unsatisfactorily addressed.*

- Section D1.21 of the NSW Development Design Specification D1 – Geometric Road Design (Urban and Rural) sets a target of 95% of the potential dwellings being within 400m of public transport access. The 'Traffic and Transport Report – West Byron Urban Release Area' provided by Veitch Lister Consulting dated October 2017 provides Figure 3-4 showing that the entire West Byron subject development area is within 400m of a proposed bus stop except for Stages 7 and 8, which combined provide a proposed 54 lots which is approx. 15% of the proposed residential lots in this development application. The bus stop locations provided in Figure 3-4 show two of the three nominated bus stops within the adjoining development, where this is no certainty as to the bus stop locations. The bus stop locations are currently non-compliant with Section D1.21 referenced above, however bus stop locations are a design matter that could be conditioned in a consent.

*Further comment following assessment of information provided September 2018 – The amended engineering drawings set does not amend the bus stop locations – this matter remains conditionable.*

The Byron Shire DCP 2014 Chapter B3 Section B3.2.1.7 addresses road access to developments fronting or relying on access from a Council controlled road and specifies that construction or upgrade of the road for safety, amenity or accommodation of additional traffic generated by the development is applicable. This is directly relatable to the upgrade of Ewingsdale Road which provides access to the proposed development. The provision of two lanes in each direction on Ewingsdale Road between the proposed roundabout at Road 05/ Ewingsdale Rd intersection and the newly constructed Ewingsdale Road/ Bayshore Drive roundabout is considered reasonable upgrade to address this section of the DCP. The engineering plans and supporting reports do not address this section of the DCP or nominate any works on Ewingsdale Road beyond the roundabout which provides access to the site.

*Further comment following assessment of information provided September 2018 – The amended engineering drawings set does not show any upgrading of Ewingsdale Rd to provide for this second lane between the proposed roundabout at Road 05/ Ewingsdale Rd intersection and the newly constructed Ewingsdale Road/ Bayshore.*

*This matter remains unsatisfactorily addressed.*

- The road design fronting lots 74 and 75 ends in a dead-end road. As noted previous, the Byron Shire DCP 2014 Chapter D6 Section D6.3.3 (7) requires that manoeuvring areas are provided at the ends of roads and this has not been provided in this area.

*Further comment following assessment of information provided September 2018 – Changes to the subdivision plan has resulted in the deletion of a small road extension fronting proposed lots 74 and 75, hence this issue is no longer apparent – however the road configuration as shown on the amended plans relates now to the access of super lots rather than the small lots which are expected in this area. The road layout cannot be determined to be suitable for the small lots nor compliant with the DCP requirement for the R3 arrangement without at least an indicative lot layout.*

*The matter no longer exists, however has raised other issues noted in previous comments.*

- A number of road sag vertical curves are shown as 15m, which is less than the required minimum vertical curve of 25 m from the NSW Development Design Specification D1 – Geometric Road Design (Urban and Rural) Table D1.3. Vertical curves are required as the change in grade is > 1%. Any Collector Roads are to have a minimum sag vertical curve of is 35m (not including at intersection junctions). This matter is conditionable, however compliance with such will change the concept road design.

*Further comment following assessment of information provided September 2018 – The amended engineering drawings set does not change the non-compliant vertical curves. The matter remains conditionable as per previous comment.*

- The Byron Shire DCP 2014 Chapter E8 Section E8.10.6 notes that footpaths are to be provided on one side of Access Roads and both sides of Local, Collector and Distributor Roads. As the proposed road formations do not comply with the DCP standard road formations and the drawings do not label each road as a certain road 'type', the proposed footpath arrangement cannot be assessed for compliance, hence there is no evidence of compliance with the referenced DCP clause.

*Further comment following assessment of information provided September 2018 – The amended engineering drawings package did not change the proposed typical road cross sections to suit the DCP, hence there remains to be no evidence of compliance due to this inconsistency with the DCP.*

*This matter of footpath locations is considered to be a conditionable item.*

- The engineering plans show a 'typical swale section' for the case that the applicant proposes is a 'perimeter road'. There is no indication on the plans which roads are considered 'perimeter roads' and the stormwater infrastructure plans show many roads on the permitter of the residential subdivision, some with and some without swales.

*Further comment following assessment of information provided September 2018 – The amended engineering drawings package includes Figure 13 showing the location of the roadside swales.*

*This matter of the swale location has been satisfactorily addressed.*

- The applicant has failed to submit a suitable model to show compliance with the hydrological and hydraulic requirements of the NSW Development Design Specification Chapter D5 (Stormwater Drainage Design). Without such, design aspects such as those listed below cannot be assessed for compliance with Council stormwater requirements:



- Input parameters (catchment areas, rainfall data, ground conditions)
- Local flooding – particularly due to the proposed low road grades (typically 0.5%)
- Main Drain flow capacity/ velocity/ blockage factors
- Freeboard afforded to the Main Drain crossing along Road 05
- Overland flow paths
- Upstream drainage infrastructure allowances

Without a suitable model the concept drainage design cannot be properly assessed.

*Further comment following assessment of information provided September 2018 – No additional modelling has been provided as part of the applicant's response to the previous RFI's, hence no assessment of modelling has taken place. The six dot points listed above are critical issues that have the potential to significantly alter the road and drainage concepts plans, hence require assessment via a suitable model prior to progressing this application. The Main Drain flows are of particular interest as Byron Shire Council have commissioned an investigation into an alternative discharge route for the upstream Sewerage Treatment Plant's (STP) excess of recycled water produced from the treatment process. The excess recycled water is in the magnitude of 3ML/day currently and expected to reach up to 8ML/day in the future, and at least part of this excess recycled water is proposed to be discharged from the STP into the Main Drain (north) upstream of Ewingsdale Road. It is vital to ensure that these additional flows from the STP as well as the increase in flows from the development into the Main Drain have been accounted for in the hydraulic modelling for this application to ensure that the Main Drain is afforded the appropriate freeboards to its upper banks and to the bridge structures which will span across it.*

*This matter remains unsatisfactorily addressed.*

- As well as the modelling required in above, a corresponding drainage catchment plan showing overland flow paths and proposed drainage pipes has not been provided and is required as per the NSW Development Design Specification D5 Section D5.22. The sub-catchment plan provided in the Stormwater Management Strategy (SMS) by Australian Wetlands Consulting dated August 2017 does not appear to correlate with the proposed stormwater layout shown within the provided engineering plan.

*Further comment following assessment of information provided September 2018 – The applicant's engineering consultant has noted in their response dated 5 September 2018 that "AWC catchment plan and report are amended to correlate with Figures 15.1 to 15.3". The AWC catchment plan was included in the original SMS dated August 2017, and there has been no update to this report including the catchment plan. The engineering plans are required to include a correlating catchment plan so that the stormwater concept can be properly assessed and the water sensitive urban design elements appropriately designed and assessed.*

*This matter remains unsatisfactorily addressed.*

The SMS does not provide details as to whether the existing Main Drain has the capacity for the additional flows generated from the developed site. Further to this, the engineering plans show one cross-section of the Main Drain with what looks to be a water level of RL 2.3. It is not clear what this water level represents in terms of a particular storm event, however it should be noted that the location of the cross-section shown in the figure corresponds with 'Reporting Location 7' in the BMT WBM 'West Byron Flood Impact Assessment' (Document R.B22567.000.01.docx) Revision 1 dated 31/10/2017, which shows that the 100-year flood level at this location in the pre-developed scenario (current climate condition) is RL 2.60 – 2.72 (depending on upgrade of Ewingsdale Road) and in the post-developed case is RL 2.59 – 2.74 (depending on upgrade of Ewingsdale Road). According to the figure provided in the plans, flood water levels above RL 2.60 would result in a breach of the Main Drain bank which is contrary to the NSW Development Design Specification D5.13 (2) which requires that major flows are to be maintained within the drain. Again, without a suitable model the concept drainage design cannot be properly assessed.

Further comment following assessment of information provided September 2018 – The new cross section of the Main Drain provided in ACOR Consultants, Project No. NE160352 Figure 16.2 of the engineering drawing set shows an unnamed line, which looks to be a top water level, at RL 2.7. Figure 16.2 does not indicate if the level shown in the cross section relates to a particular storm event, and the engineering report accompanying the plans offers no explanation. Considering this water level is in line with the WDM report referenced above, it looks to be the Q100 flood level in the Main Drain, however this is unconfirmed.

Assuming the water level shown in the cross section is representative of the Q100 flood level in the Main Drain, the cross section also shows that the southern bank of the Main Drain at RL 2.584 is breached, which is not compliant with the requirements of the NSW Development Design Specification D5.13 (2) which requires the major flows to be maintained within the drain. It is unknown but expected that the water levels in the Main Drain do not account for the additional flow from the STP as per previous comments also.

*This matter remains unsatisfactorily addressed.*

- The NSW Development Design Specification Chapter D5 Section D5.09 notes that the maximum spacing of pits where the stormwater pipes are <1200mm is 100m. There are several non-compliances to this pit spacing. This non-compliance could be addressed with a condition.

Further comment following assessment of information provided September 2018 – *This matter remains conditionable.*

4. Stormwater Management (Byron Shire DCP 2014 Chapter E8, Byron Shire DCP 2014 Chapter D6, Byron Shire DCP 2014 Chapter B3)

☐ Satisfactory ☒ Unsatisfactory ☐ Not applicable

*Comments:*

Byron Shire DCP 2014 Chapter E8 Section E8.10.4.1 shows the objectives of the Stormwater Management Section of the DCP to be:

### **Objectives**

1. To facilitate the disposal of stormwater in a sustainable manner.
2. To maintain and improve the quality of water entering Belongil Creek.
3. To ensure groundwater levels are considered in the management of stormwater.

Byron Shire DCP 2014 Chapter E8 Section E8.10.4.1 (d) as well as Byron Shire DCP 2014 Chapter B3 Section B3.2.3.3 (c) requires that applications must show that all stormwater outlets are provided with a lawful point of discharge. Much of the stormwater for the development is discharged into the Main Drain, and satisfactory consent from the asset owner to receive stormwater has not been received.

Further comment following assessment of information provided September 2018 – Email provided by Flood and Drainage Engineer at Byron Shire Council James Flockton shows that the existing Main Drain is a 'minor waterway' mapped on the Water Management (General) Regulation 2018 hydroline spatial data 1.0 and hence a legal point of discharge.

***Council's PLANNER will need to obtain advice from others whether the Belongil Swamp Drainage Union or any other drainage union are required to provide consent for the discharge of water into the Main Drain.***

Discharge of stormwater is also shown onto proposed residual lots 392, 396, 397, 398 and 399 on the engineering plans. These proposed residual lots are not watercourses, public drainage or easements and the concept looks to be to allow the water to flow according to the topography of the site, and potentially onto and over adjoining sites. The applicant has not demonstrated that each point of

stormwater discharge is provided with a legal point of discharge.

*Further comment following assessment of information provided September 2018 – The stormwater discharge points shown on the amended engineering plans provided by ACOR Consultants, Project No. NE160352 Figures 15.1 to 15.3 Revisions E, D and E respectively show very similar discharge points to the original engineering plans. The swale shown through proposed part lot 182 (previously proposed residual lot 398) discharges into the Main Drain and relates to comments above regarding the Main Drain being a legal point of discharge. The discharge points shown in Figures 15.1, 15.2 and 15.3 that do not release water into the Main Drain are required to be shown to be legal points of discharge, and that the receiving infrastructure (swale, drain, other) has the capacity to receive these flows without detriment to the structure or downstream properties. This will likely require showing that the post-developed flows at all discharge points are not more than the pre-developed flows at this point, together with details to demonstrate compliance with prescriptive measure 4a) of section B3.2.3 of Byron Shire Council DCP 2014.*

#### 4. Lawful Point of Discharge

a) A **lawful point of discharge** exists at a particular location, if:

- i) the location of the discharge is under the lawful control of the Council or other statutory authority from whom permission to discharge has been received; and
- ii) in discharging in that location, the discharge will not cause an actionable nuisance.

*This matter remains unsatisfactorily addressed.*

Further to above, rainfall over the area bound by proposed Roads 16, 23, 27 and Fire Access No.1 will be landlocked with no escape route. This area has not been shown to be provided with a legal point of discharge.

*Further comment following assessment of information provided September 2018 – A pipe has been provided under the proposed fire trail which landlocks the area to allow any surface water to escape via the natural route. This method of drainage is acceptable for this undeveloped portion of land.*

*This matter has been satisfactorily addressed.*

The Main Drain is shown to receive much of the flows from the proposed development. Sufficient information on the existing form of the Main Drain by way of longitudinal and cross sections, as well as details on the required upgrade works to the Main Drain have not been provided in any detail and are required as per Byron Shire DCP 2014 Chapter E8 Section E8.10.1 (h) and E8.10.4.1 (e).

*Further comment following assessment of information provided September 2018 – The amended engineering drawings set does not show a long section or any more than a single cross section through the Main Drain. This is likely due to the correspondence in the accompanying engineering report which notes in Section 7.5 that the works in the Main Drain will include minor trimming and cleaning up only. The applicant proposes no significant upgrade to the Main Drain, which may be acceptable if the drain is shown to have the required capacity for the forecast flows, but this has not yet been shown as per previous comments.*

*This matter remains unsatisfactorily addressed.*

Byron Shire Council DCP 2014 Chapter B3 Section B3.2.3.6 (b)(i) notes that residential, commercial and industrial developments require on-site detention (OSD). In this same section, Part (c) (i) to (vii) lists the instances where OSD is not required. In the Engineering Assessment provided by ACOR Consultants (Document No: NE 160352 R05 – Issue 5), Section 6 relating to stormwater notes that:

6.7 Stormwater detention is not required because there are no under capacity downstream drainage systems affected. Discharge is spread, dissipated and dispersed directly to the non-urban areas, mirroring the existing situation. This is in conformance with BSC NR-LG Development Design Specification D5 Stormwater Drainage Design D5.16.

Part (c) (vi) of the referenced DCP does note that OSD is not required where dispersion or infiltration is used as the means of stormwater discharge from the site. For the applicant to rely on the infiltration and dispersion of stormwater up to the major storm event (100-year ARI) to show that the downstream areas have capacity to handle this stormwater (hence are not under capacity) and avoid OSD, supporting calculations and geotechnical data should be provided to conclusively show that these methods can handle the infiltration required for up to the major storm event. It is expected that such data would include permeability tests, in-situ soil hydraulic conductivity tests and borehole logs of the downstream area – none of which have been provided to support the stormwater management concept.

*Further comment following assessment of information provided September 2018 – The applicants engineering consultant has reiterated that there is no requirement for OSD as the submitted Flood Impact Assessment by BMT WBM dated 31 October 2017 shows that in the pre- and post-developed case the Q100 flood levels downstream of the site increase by only up to 10mm – and that this is proof that OSD provides no benefit to any downstream drainage system.*

*The BMT WBM 'Future Development Assessment of the Belongil Creek Floodplain Risk Management Study and Plan' dated April 2013 notes in Section 3.1 that the sensitivity of the Byron Bay urban area is such that an acceptable change in flood level is one that is +/- 10mm relative to the base case peak flood levels.*

*The results of the Flood Impact Assessment by BMT WBM dated 31 October 2017 show that an acceptable change in flood level is achieved from the pre- to post-developed case for the site.*

*The applicants engineering consultant claims that this can be relied upon to show that OSD would provide no beneficial effect to the downstream drainage features. The Flood Impact Assessment however does not consider the proposed local drainage in its modelling, instead considering the post-developed case to be where the sites (the 31 October 2017 report covers both the West Byron and Harvest Estate sites) are fill pads rather than containing road drainage, swales and similar as proposed in the engineering plans. BMT WBM report is also focused on large scale flood impacts rather than benefits to any downstream drainage system.*

*The local drainage network has the potential to affect the downstream drainage system by way of increasing flow rates and velocities in drainage features such as the Main Drain and the Belongil Creek. This may result in scour, erosion, degradation of banks and the change of the geomorphology of the Main Drain and Belongil creek – and these are considered non-beneficial outcomes.*

*The drawings and stormwater concept described in the SMS does include infiltration basins/ dispersion areas. As per previous comments it is expected that the Main Drain through the site will be receiving additional flows from the upstream STP, which with the combination of the flows added to this infrastructure from the developed site could show that the Main Drain in its current form does not have the capacity requirements required.*

*It is suggested that the applicant maintain the provision of infiltration and dispersion areas on site for multiple reasons - reduce formal OSD, decrease the discharge into the Main Drain and assist with the water quality measures required. The SMS would be required to nominate the area of filtration and dispersion required in each sub-catchment to accommodate the 100-year flows and the ground parameters such as permeability and hydraulic conductivity required to achieve this, and the engineering plans amended to show that these areas can be provided in each sub-catchment. In the provision of infiltration and dispersion areas, the applicant is recommended to consider the West Byron DCP Chapter E8 – Typical Stormwater House Connection in Appendix F.*

*Modelling is required to show that the Main Drain has the capacity for the water that is discharged to this point, as well as the STP discharge water as per previous comments. This hydraulic modelling would also need to include the proposed road drainage layout as well as the provision of the required water storage tanks for each dwelling as per the requirement of the West Byron DCP Chapter E8 Table E8.3 Performance Criteria number 17, to give a wholistic view of the post-developed hydraulics of the site.*

*Currently this matter remains unsatisfactorily addressed.*



The submitted SMS notes in Table 5-3 the area of infiltration/ dispersion required for each catchment to adequately disperse and infiltrate the runoff from the 50-year rainfall event. The engineering plans submitted show no evidence of achieving these infiltration/ dispersion area targets within each catchment, and more importantly Council's stormwater policy requires concept designs address the 100-year rainfall event (major event) not the 50-year rainfall event.

*Further comment following assessment of information provided September 2018 – The amended engineering drawings set does not show the required areas of infiltration to match the SMS report. There is no amended SMS to show the infiltration parameters required to handle to Q100 flows either.*

*This matter remains unsatisfactorily addressed.*

Alternatively to infiltration and dispersion, on-site detention can be avoided where an engineer undertakes a detailed analysis of the entire catchment by a time-area model and demonstrates that the provision of detention on the subject property, including consideration of the cumulative effect of detention provision across the catchment, will provide no benefit to any downstream drainage system for all storm frequencies up to 100-year ARI. If this approach is pursued, such study and reporting would be required to address all downstream drainage systems including the Belongil Creek which is an intermittently closed and open lagoon/ lake (ICOLL) rather than a permanently open water body discharging to the ocean. No such study has been provided.

*Further comment following assessment of information provided September 2018 – This matter has been commented on above. The BMT WBM dated 31 October 2017 suggests that there is no need for OSD on the development site, however the Main Drain forecast flows have not yet been shown to be properly addressed. The use of infiltration and dispersion on site potentially solves the Main Drain flow issues, addresses the matter of OSD and will assist with water quality measures. Modelling and further design is required to justify this however.*

Council document 'Handbook of Stormwater Drainage Design D5 – Stormwater Drainage Design notes in Part 1 (12) "Works which may impact on the quality and quantity of stormwater runoff discharging from a development site requires the preparation and submission for approval by the local government authority, of a SWMP that demonstrates how post-development flow volumes and stormwater quality are controlled to pre-development conditions by achieving neutral or beneficial effect (NorBE) on the natural environment and receiving constructed system, waters or wetlands."

There has been no calculations or hydrological/ hydraulic model submitted nor does the stormwater management strategy address the pre- and post- developed flow rates, demonstrating the achievement of neutral or beneficial effect on the natural environment and receiving constructed system, waters or wetlands. As such the requirements of Byron Shire Council DCP 2014 Chapter B3 Section B3.2.3.6 and Council's Handbook of Stormwater Drainage Design D5 have not been met, and the provisions of such are not considered to be conditionable aspects.

*Further comment following assessment of information provided September 2018 – This matter has been commented on in previous comments, and a recommendation provided to the applicant to resolve the issue.*

Byron Shire Council DCP 2014 Chapter B3 Section B3.2.3.7 (b) notes that "Applications for subdivisions and developments involving an area of land greater than 2,500m<sup>2</sup> must provide measures to address the "key" pollutants in accordance with Table B3.2 for all stormwater flows up to 25% of the 1-year ARI peak flow from the development site"

**Table B3.2 – Pollutants and Retention Criteria**

Pollutant / Issue	Retention Criteria
Litter	70% of average annual load greater than 5mm.
Coarse Sediment	80% of average annual load for particles 0.5mm or less.
Fine Particles	50% of average annual load for particles 0.1mm or less.
Total Phosphorous	45% of average annual load.
Total Nitrogen	45% of average annual load.
Hydrocarbons, motor fuels, oils & grease	90% of average annual load.

The development proposal includes stormwater management by way of bio-retention swales which are described in the SMS and shown in the engineering plans. The SMS does address the matter of pollutant loads by way of providing MUSIC model (industry standard software for stormwater quality treatment analysis) results, however applications relying on software modelling of this sort are required to submit the model for assessment and such model has not been submitted for assessment.

*Further comment following assessment of information provided September 2018 – The additional information provided by the applicant does not include the required MUSIC model for assessment.*

*This matter remains unsatisfactorily addressed.*

The SMS shows that in some of the proposed catchments the swales provided on the plans are required to be replaced or accompanied by bio-retention basins to make up the shortfall of water quality treatment area for the said catchment. The engineering plans do not show these basins or nominate areas for such, which is inconsistent with the modelling results and SMS.

*Further comment following assessment of information provided September 2018 – The amended engineering drawing set does not show the required areas of infiltration to match the SMS report. The engineering plans do show swales and area of infiltration and dispersion, however, the SMS calls for large areas (150-600m<sup>2</sup>) of bioretention to meet the water quality targets, and this is not provided in the plans. The plans should be amended to show how the areas of swale and bioretention required for each sub-catchment as noted in the SMS have been provided.*

*This matter remains unsatisfactorily addressed.*

The engineering drawings submitted show that to construct at least some of the swales, there is a cut depth required of up 1.5m, similarly there are stormwater dispersion areas at outlets shown to be 500mm deep. The water table has been shown in the provided supporting geotechnical report Shaw:Urquhart 'Geotechnical Investigation for proposed West Byron Development Ewingsdale Road, Byron Bay' Document 171076/1-B dated 12 September 2017 as being as high as 200mm below existing surface levels. With such high groundwater it is unclear how swales and dispersion areas will function as they could be soaked by the groundwater.

*Further comment following assessment of information provided September 2018 – The SMS notes in 'Section 1.2.3 Hydrogeology' that the mean depth to the water table (is) 0.48m. Figure 16.2 of the amended engineering plans shows a cross section of the Main Drain and two swales either side, and both swales are shown to have an invert level that is ~1m below the existing surface level. The typical section for swales is shown in Figure 14.1 and shows that under the swale invert is 400mm of filter media. This media is ~1.4m and up to 1.6m under the existing surface levels, and expected to be water logged due to the high water table. A water-logged filter media will not function as required.*

*Similarly, the amended engineering plans include Figures 15.1 to 15.3 which show the layout of the proposed swales on the site. The swale invert and the natural surface at various points is noted on these figures, and where the swale invert is below the natural surface level it is expected that the filter media under this invert will also be water-logged and non-functional.*

*The use of swales and basins that have an invert or filter media below existing surface levels requires further investigation into the water table and groundwater conditions in these nominated areas.*

*Figure 3.4 'Earthworks Sections' is provided and shows a red line under the natural surface. It is unclear if this line is representative of the water table as it is not labelled. If this line is representative of the water table, the levels shown should be noted and justified.*

*This matter remains unsatisfactorily addressed.*

Without confidence of a working concept for stormwater quality treatment the application fails to address the stormwater quality requirements of the various DCP's mentioned above, in particular Byron Shire DCP 2014 Chapter E8 Section E8.10.4.

5. Earthworks (Byron Shire LEP 1988 Part 4 Division 2 Cl 98B, Byron Shire DCP 2014 Chapter E8)

☐ Satisfactory ☒ Unsatisfactory ☐ Not applicable

*Comments:*

The application proposes to import a large amount of fill, noted as 329,500m<sup>3</sup> in the Statement of Environmental Effects, to the site to lift the developable area above the flood level and provide adequate clearance (freeboard) from this flood level to roads and residential land.

Due to the large amount of fill required to be imported to the site to lift the development area above the flood level, there are existing open drains and flow paths that will be affected by the earthworks. Byron Shire LEP 1988 Part 4 Division 2 Cl 98B (3) notes that '*In deciding whether to grant development consent for earthworks (or for development involving ancillary earthworks), the consent authority must consider the following matters*'. Sub-part (a) lists '*the likely disruption of, or any detrimental effect on, drainage patterns and soil stability in the locality of the development*'. The engineering plans provided show no redirection of upstream flows or catch drains at batter toes to address these flows, which is contrary to the requirements of Clause 98B of the LEP. This is of concern with regard to the flows expected to come from Ewingsdale Road and north of this, and there is no information provided in the plans to suggest that the stormwater from this catchment has been accounted for and addressed appropriately.

*Further comment following assessment of information provided September 2018 – The applicants engineering consultant provided the following comments in response to issue 16 raised in the RFI dated 20<sup>th</sup> April 2018 relating to the stormwater discharge from Ewingsdale Rd:*

*"1. There are two stormwater discharge points from Ewingsdale Road east end through the site. These are shown at new Figure 24.1 and 24.2 at chainages 1790m and 1950m. Development works will cater for these two discharge points until Ewingsdale road is upgraded as follows:*

- a. Chainage 1790m – (connects to new road pipework) discharge to existing open drain at Ewingsdale road frontage draining east or - construct Ewingsdale road final design stormwater pipework draining east.*
- b. Chainage 1950m – (discharges to site) discharge to the existing open drain at Ewingsdale road frontage draining east or - amend the Ewingsdale road final design stormwater pipework draining east to extend to chainage 2020m then discharge southeast to the existing open drain within the E2 zone land.*

*Explanation is provided at Report 11.5.*

- 2. There is stormwater discharge point from Ewingsdale Road west end and a drain through Lot 5 DP1222674 and Lot 2 DP818403 (Stage 12). This drain is intercepted and diverted by the development of Lot 2 (stages 11 & 12). Future industrial development of Lot 5 will intercept the drain and convey flows south and west. Explanation is provided at Report 11.6 and Figure 15.1."*

*For the two discharge points from Ewingsdale 'east end' through the site –*

- a) The existing discharge point is located at the entrance roundabout to the development site and the water flows east, which would be across this entrance road. The applicant needs to address these flows by piping the water under the intersection and at the very least into the existing open drain as per its natural course. This pipe system should be shown on the engineering plans.*

- b) *The acoustic mound cuts off the existing drain along Ewingsdale Rd frontage as it turns south into the site. Amending the Ewingsdale Rd final stormwater pipework design may resolve the matter, however, the asset designer and Council would need to be part of this process. As it is this development which cuts off this existing open drain, the development should provide the necessary infrastructure to divert this water to a legal point of discharge. This has not been provided.*

*The explanation in Report Section 11.5 reads:*

- 11.5 There is a stormwater discharge point from Ewingsdale Road east end through the site. This is shown in Figure 24.2 – Ewingsdale Road Upgrade Work. Drainage and flows are directed east via an existing open drain at the road frontage to discharge within E2 zoned land. When Ewingsdale Road is upgraded, stormwater pipework will be constructed to convey drainage flows to the same outlet.

*Until the Ewingsdale Rd upgrade is complete and this stormwater provides an alternative route for this water, the applicant is required to show how they plan to address these flows which are cut off by the proposed development.*

*For the discharge point from Ewingsdale 'west end' through the site the ACOR Consultants, Project No. NE160352 Figure 15.1 referenced shows no diversion drain/ swale. In fact, the Figure shows the existing open drain with no amendment whatsoever as it traverse Stages 11 and 12 of the proposed development. Section 11.6 of the engineering report (extract below) looks to then nominate that the diversion of the drain will occur when the industrial development takes place. The report and comments to the RFI response are conflicting and do not address the matter of the existing open drain location through the site.*

- 11.6 There is a stormwater discharge point from Ewingsdale Road west end and a drain through Lot 5 DP1222674 and Lot 2 DP818403 (Stage 12). This drain is intercepted and diverted by the development of Lot 2. Future industrial development of Lot 5 will intercept the drain and convey flows south and west. The drain is shown in Figures 15.1 – Stormwater Infrastructure.

*This matter remains unsatisfactorily addressed.*

The engineering plans provided include a 'Detailed Site Survey Plan' which shows an open stormwater channel/ swale which runs south from the west of the intersection of Bayshore Drive and Ewingsdale Road and into the area of proposed Stage 11 works. Stage 11 is shown to be filled with up to 3m of imported material and will block this open stormwater channel/ swale. No plans or supporting calculations have been provided to show how the water from this channel/ swale is redirected appropriately.

*Further comment following assessment of information provided September 2018 – This matter is commented on above.*

As the earthworks for the subdivision are to be staged there will be an ongoing requirement for temporary catch drains and other similar means to re-direct/ re-route upstream waters which are directed to the toe of fill batters for each stage. The Engineering Assessment provided by ACOR Consultants (Document No: NE 160352 R05 – Issue 5), aims to address this matter by noting in Section 11.3 'Earthworks filling will be undertaken to the adopted staging so that stormwater drainage is not impeded. Such catch drains have not been detailed or noted in the engineering plans or supporting reports, which is further example of unsatisfactorily addressing this LEP requirement.

*Further comment following assessment of information provided September 2018 – The amended engineering plans provide a number of figures related to staging of works, however these figures do not address upstream catchment flows towards each stage nor do they show any temporary catch drains or swales to divert flows around works zones or similar.*



*This matter remains unsatisfactorily addressed.*

Byron Shire LEP 1988 Part 4 Division 2 Cl 98B (j) notes the requirement to consider ‘any appropriate measures proposed to avoid, minimise or mitigate the impacts of the development’. As noted in the Traffic section of this report the additional truck movements on Ewingsdale Road as part of the fill operations on site will have a significant impact on the traffic on this road and this matter has not been addressed by the applicant.

*Further comment following assessment of information provided September 2018 – This matter is commented on in ‘Section 2. Traffic’ of this assessment report.*

There are several earth batters shown in the engineering plans to be constructed on land which is not part of the subject application. There is no indication that the appropriate landowner has provided consent for such batters on their land and this is also required.

*Further comment following assessment of information provided September 2018 – The applicants engineering consultant provided the following comments in response to issue 13 raised in the RFI dated 20<sup>th</sup> April 2018 relating to the interface with the neighbouring development:*

*“Interface with Villaworld development is correlated and included in amended plans. Land Owners Agreement refers.”*

*The amended engineering plans provided by ACOR Consulting continue to show earth batters on land that is not subject to the application. **Council’s PLANNER must confirm that owners consent has been submitted for these works.***

#### 6. Geotechnical (Byron Shire DCP 2014 Chapter D6)

☐ Satisfactory ☒ Unsatisfactory ☐ Not applicable

#### *Comments:*

The Shaw:Urquhart ‘Geotechnical Investigation for proposed West Byron Development Ewingsdale Road, Byron Bay’ Document 171076/1-B dated 12 September 2017 estimates that the factor of safety of the slope face of the existing drain traversing the site (assumed to be the Main Drain) are in the order of 0.9 – 1.0. This is concerning in the existing case and cause for greater concern as the drains are expected to experience increase flows as part of the development. There are no recommended actions listed in the geotechnical study, and the Engineering Assessment provided by ACOR Consultants (Document No: NE 160352 R05 – Issue 5) is silent on the matter. The plans show no definitive works within the Main Drain, but it is expected that if the development were to be approved that the Main Drain would undergo modifications as required by The Byron Shire DCP Chapter E8 Section E8.10.4. The engineering assessment and geotechnical investigation noted above fail to provide recommendations on improving slope stability as part of the required works within the Main Drain, and these stabilisation works methodology would form the subject of a condition of consent in any future approval.

The geotechnical report referenced above notes that the factor of safety increases to >2.0 at the location 1.0m behind the excavation face of the Main Drain slope batter.

*Further comment following assessment of information provided September 2018 – The amended engineering report notes that the works in the Main Drain are limited to minor trimming and cleaning up. The amended plans and report make no mention of stabilising of the Main Drain batter, and as noted in original comments and new comments there is expectation that the flows within the Main Drain will be increase due to the development and the additional discharge from the upstream STP. The stability of the Main Drain batters in the short and long term remains a cause for concern.*

*This matter remains unsatisfactorily addressed.*

The submitted Geotechnical investigation report introduces a sufficient level of concern relating to the in-situ conditions. As a result, it is anticipated that a greater amount of earthworks than the estimated import of 329,500m<sup>3</sup> of fill may be required to prepare the site. A significant amount of unsuitable in-situ material may need to be removed before any general and structural fill can be imported and compacted.

Alternatively, a structural / drainage layer may be adopted instead of unsuitable material removal and filling occur over the top of this drainage / structural layer. Such conditions may either result in a larger than expected level of construction traffic and may reasonably impact the final earthworks finished surface level if a drainage / structural layer is introduced. Therefore, typical concept level section details and cross sections indicating preliminary profiles are required as part of the application assessment and these have not been provided.

*Further comment following assessment of information provided September 2018 – The applicants engineering consultant provided the following comments in response to issue ‘p’ raised in the RFI dated 14<sup>th</sup> May 2018 relating to potential unsuitable material removal on site adding to the truck movements for this application:*

- “1. Refer Shaw Urquart report. The geotechnical report does not reflect concern relating to unsuitable insitu conditions. Greater earthworks and substantial removal are not reported.*
- 2. Site soils are identified as predominately silty sand and sand. Some fill is considered uncontrolled because it is loose. Such fill will be recompacted.*
- 3. No significant near surface clayey soils were encountered.*
- 4. Top soil is not suitable for use as structural fill and will be stripped, stockpiled and spread over final lot surfaces.*
- 5. With the exception of the top soil layers the site soils are considered suitable for use as engineered fill but are likely to require moisture conditioning before compaction.*
- 6. No general cut is proposed across the site.*
- 8. There will be no significant traffic movement associated with removal of unsuitable material and importation of replacement material. A Traffic Management Plan [TMP] is normally conditioned in the Consent as being required prior to start of work, when the Contractor is appointed and construction methods, work scope and fill sources are known.*
- 10. Information presented in a TMP is included in Figures 22.2 to 22.14 – staging plans.”*

*Comments 2 – 6 above are comments that have come directly from the referenced geotechnical report. The referenced report makes note of areas of uncontrolled fill and that these should be ‘assessed and treated appropriately’. Similarly, the areas of soft or loose material are noted to be “excavated out and, if the soil is suitable recompacted in a controlled manner or replaced with suitable material from elsewhere”. There is an element of unknown as to the quantity of unsuitable material that may require removal off site. It is expected however that the volume of unsuitable material required to leave the site will be significantly less than the volume of material required to be imported to site for fill. As this is the case, the CTMP should include an appropriate contingency, as a % of truck movements, to address the potential for trucks being required to remove material from the site.*

*The matter of the timing of the CTMP, its requirements and the proposed staging of fill works has been addressed previously in these additional comments. The truck movements related solely to the removal of the unsuitable material would likely not require a CTMP pre-determination, however the import of the 329,500m<sup>3</sup> of fill does warrant this be provided for assessment prior to determining this application.*

*This matter remains unsatisfactorily addressed.*

The submitted Engineering Assessment by ACOR Consultants (Document No: NE 160352 R05 – Issue 5) does not include a section on the Geotechnical conditions of the site to tie in the findings and recommendations of the Geotechnical investigation report with the context of the project. This is required as the geotechnical constraints of the site will affect the earthworks and subsequently the short and long-term drainage patterns that the earthworks dictate.

*Further comment following assessment of information provided September 2018 – The applicants engineering consultant provided the following comments in response to issue ‘p’ raised in the RFI dated 14<sup>th</sup> May 2018 relating to the inclusion of a geotechnical section in their engineering report:*

- 7. Geotechnical conditions are contained in the geotechnical report and repetition in the engineering report would serve no purpose.*
- 9. A section on geotechnical conditions is included in Report 2.9.*

*Besides the conflicting comments, the added geotechnical section of the engineering report fails to provide the following:*

- *Comment on the noted factor of safety of the existing Main Drain*
- *Subgrade treatment as noted in Section 5.4.1 of the geotechnical report*
- *The recommendations for monitoring settlement during the fill process as recommended in the geotechnical report*
- *The specification for sandy fill as noted in the geotechnical report. The geotechnical report recommends imported fill materials within the road to be 'free draining cohesionless sand with less than 5% by weight of particles passing a 0.0175mm sieve'. The engineering report notes that sand is necessary as fill under road swales and basin due to the requirement for infiltration.*

*Subgrade treatment, settlement monitoring and fill specification are all conditionable matters, however the investigation into the stability of the Main Drain batters if they are to be left untouched as the applicant proposes is required to be addressed. To date this potential instability has not been mentioned by the applicant.*

*This matter remains unsatisfactorily addressed*

7. Flooding (Byron Shire DCP 2014 Chapter E8, Byron Shire DCP 2014 Chapter D5, Byron Shire Council DCP 2014 C2)

☒ Satisfactory                      ☐ Unsatisfactory                      ☐ Not applicable

*Comments:*

The subject site is flood prone land in its existing condition, experiencing inundation to various levels as the Belongil Creek waters rise. The submitted flood impact assessment by BMT WBM dated 31 October 2017 shows that in as frequent as the 5-year rainfall event parts of the site experience inundation. As part of the proposed development, the areas of residential subdivision and road system are to be raised to be above the 100-year flood level and provide for the required freeboard. The existing peak flood level in the 100-year flood event is described to be at its highest 3.18m AHD in one location.

Byron Shire DCP 2014 Chapter E8 Section E8.10.8.1 lists the objectives of the DCP in regard to flooding as:

- 1. Minimise the flood risk to life and property associated with the use of land.*
- 2. Allow development on land that is compatible with the land's flood hazard, taking into account potential changes as a result of climate change.*
- 3. Avoid significant adverse impacts on flood behaviour and the environment.*
- 4. Ensure that development does not have a significant impact on pre-development flood levels and flows.*

Council's DCP indicates that Council will not consent to any development on flood liable land unless there is sufficient area on that land above the 1% AEP flood level on which to carry out the development.

The flood impact assessment submitted by the applicant provides information on various flood events:

- Existing case with no Ewingsdale Road upgrade
- Existing case with Ewingsdale Road upgrade
- Developed case with no Ewingsdale Road upgrade
- Developed case with Ewingsdale Road upgrade
- Impact of the development on the flood behaviour in the 5, 10, 20, 50 and 100-year flood events
- Climate change effect in the 100-year flood event
- Climate change sensitivity in the 100-year flood event

Of the numerous report conclusions, the following are generally considered agreeable:

- No adverse impacts on peak flood levels in the developed case for all events including the 1% AEP
- For Council's standard 1% AEP event (i.e. combining rainfall and ocean storm dominated events) for the current climate, 2050/2100 climate events and sensitivity tests, impacts were below 0.01m for the adjacent floodplain/wetland;

- The 1% AEP 2100 climate, sensitivity test 2 (2100 climate with 30% increase in rainfall) and sensitivity scenario 3 (sensitivity test 2 coinciding with an ocean storm surge event) are predicted to produce greater flood extents beyond the 1% AEP current climate event, however impacts are at or below 0.01 m;
- There is no significant change to the peak velocities across the development site and the adjacent floodplain across the modelled events;
- The development pad is well above all modelled peak flood levels with localised areas of impact due only to the fact that the model does not contain site drainage for the development
- The post-developed flood levels within the Main Drain will be 3.2-3.3 AHD, and outside the Main Drain are <2.5 AHD

The flood impact assessment shows figures of flood inundation up to the Probable Maximum Flood in the pre and post-developed conditions in Figures A-11 and B-11. Secondary/ alternate access provisions for emergency (such as flood evacuation) have not been provided as noted in the 'Access' section of this report, and it is expected that any future consent for approval would require secondary/ alternate access via proposed Road 03 or otherwise. In any future consent an Operational Environmental Management Plan (OEMP) would be conditioned to be submitted prior to issue of CC, and this report would be required to include flood evacuation routes and processes.

The flood impact assessment has been accepted as addressing the relevant 'General Assessment Criteria' in the Byron Shire Council DCP 2014 C2 Section C2.2.

The flood reporting does not include a figure to show the drains that have been modelled in the flood assessment, including the Ewingsdale Road upgrade drainage systems. Any future consent would require conditions to this affect. Similarly, any future consent would include a condition requiring the applicant to submit engineering plans that show the extent of the 2100 flood planning level (pre- and post- development) as shown in the flood impact assessment provided, in order to confirm appropriate earthworks levels for protection of residential lots and roadside infrastructure (swales).

*Further comment following assessment of information provided September 2018 – This matter remains satisfactory. Related matters have been commented on in the appropriate section of this amended report.*

#### 8. Other Engineering Matters

☐ Satisfactory                      ☒ Unsatisfactory                      ☐ Not applicable

#### Comments:

The engineering plans include a figure titled 'Acoustic Mound and Utilities Allocations Section' which shows the Ewingsdale Road verge interaction with the property boundary. The drawing is inconsistent with the Byron Shire DCP 214 Chapter E8 Figure E8.11, as it does not show the required acoustic wall and landscape buffer.

*Further comment following assessment of information provided September 2018 – The amended engineering drawing showing the acoustic mound shows the required acoustic wall. It is believed that other consultants have provided the information regarding the landscaping in this buffer zone.*

*This matter has been satisfactorily addressed*

As part of the external referral to the NSW Rural Fire Service (RFS), conditions were provided from this external authority relating to the development. The RFS conditions call for, amongst other things, the areas noted as BAL-FZ and BAL-40 in Figure 12 of the 'Bushfire Threat Assessment' provided by Bushfire Planning Australia (report dated November 2017) to be managed as an Inner Protection Area (IPA) in perpetuity. The engineering plans show that there will be vegetated swales within these areas required to be managed as IPA's and the suitability of the swale vegetation and the fire risk it presents has not been addressed by the applicant.



*Further comment following assessment of information provided September 2018 – The amended plans and report provided do not make comment on this matter. It is expected that the applicant's bushfire consultant would be best placed to make comment on the appropriateness of vegetated swales within IPA's. This matter is not yet resolved, however is not expected to be a major issue.*

As part of the external referral to the NSW Office of Environment and Heritage (OEH), comments were provided on 19 January 2018 which recommended that the proposal be 'redesigned to avoid any intrusion into land subject to E zones and the prescribed buffer zones in the Development Control Plan for ecologically sensitive values (SEPP 14, E zones, EEC and threatened species habitat)'. The engineering plans provided shows significant drainage infrastructure within the E2 zoned proposed part lot 397, which is contrary to this OEH recommendation. The applicant has not addressed this OEH recommendation, and in doing so would require significant stormwater drainage redesign prohibiting this matter from being conditionable.

*Further comment following assessment of information provided September 2018 – The amended engineering plans remain to show stormwater works such as swales, pipes and infiltration basins in the E zoned portions of the site.*

*This matter remains unsatisfactorily addressed.*

---

## RECOMMENDATION

Not supported from an engineering viewpoint due to the reasons provided in this report

---

The application 10.2017.661.1 is recommended for refusal from an engineering viewpoint.

The access provisions for the development do not meet the requirement of Byron Shire DCP 2014 Chapter D6 which requires site access to be considered as part of the site design. Part of the development is not provided with public road access, the proposed road levels at the tie in point with Ewingsdale Road are significantly different to the Ewingsdale Road upgrade design levels and construction access is shown to be through land which is not subject to the development with no evidence of consent provided. **Council's PLANNER to determine if consent has been provided.**

The traffic impact assessment provided has not complied with the recommendation of the RMS to adopt Council's traffic volume forecasts for Ewingsdale Road nor the recommendation to provide a Construction Management Traffic Plan to address the expected volume of truck movements associated with fill importation. The traffic impact statements also fail to address the seasonal variations to traffic as per the Austroads Guide to Traffic Management or include the internal vehicle movements as per RMS Guide to Traffic Generating Development.

The proposed road design is inconsistent with Byron Shire DCP 2014 Chapter E8 with regards to road cross section design, addressing the access and parking requirements of the R3 zoned areas, fails to address the staging affectations of the subdivision and has not shown regard to the neighbouring development road **design which it ties into and in parts relies on.**

The drainage design shown on the engineering plans is not supported by any hydrological and hydraulic modelling and does not provide for fundamental drainage assessment information such as consistent catchment plans and upstream drainage infrastructure, prohibiting these engineering aspects from assessment for compliance with the NSW Design Specifications D5 requirements. The drainage concept also relies on discharging into drainage infrastructure which the applicant has not shown has the capacity to receive such flows, **and for some points of discharge there is a query on whether they are legal points of discharge. Council's PLANNER to determine if consent has been provided.** This is a potential non-compliance with Byron Shire DCP 2014 Chapter E8 Section E8.10.4 and NSW Design Specifications D5.13 requirements

The applicant has not met the stormwater management requirements of the Byron Shire DCP 2014 Chapter B3 which requires on-site detention be provided for the site, and the justification for not

providing this is not supported by appropriate concept modelling or calculations. The application fails to address Council's Handbook of Stormwater Drainage Design D10 in demonstrating *'how post-development flow volumes and stormwater quality are controlled to pre-development conditions by achieving neutral or beneficial effect (NorBE) on the natural environment and receiving constructed system, waters or wetlands'*. The infiltration and dispersion measures described in the SMS which would reduce or eliminate the need for OSD are not shown to be appropriately met in the engineering plan set.

Further to this there has been no stormwater quality treatment modelling provided for assessment. The stormwater quality treatment concept proposed by the applicant also looks to have a fundamental design flaw in that the depth of the infrastructure looks to be deeper than the groundwater levels, making infiltration through filter media difficult if not impossible. Furthermore, the applicant has not demonstrated that the various stormwater discharge locations are lawful points of discharge, as required by Byron Shire DCP 2014 Chapter E8 Section E8.10.4. **Council's PLANNER will need to obtain advice from others whether the Belongil Swamp Drainage Union or any other drainage union are required to provide consent for the discharge of water into the Main Drain.**

The earthworks proposed in the development do not satisfy the requirements of Byron Shire LEP 1988 Part 4 Division 2 Cl 98B, by way of not providing details on redirection of drainage patterns in the fill areas or considering the traffic impacts related to the fill importation procedures.

The application shows various works on land which are not subject to the proposal without providing consent for such works and is not in line with the conditions required by the RFS or the recommendations made by OEH.

The application as currently proposed cannot be approved with conditions, and hence should be refused.

## **BYRON SHIRE COUNCIL - MEMORANDUM**

**MEMO TO:** Director Sustainable Environment and Economy

**MEMO FROM:** Principal Engineer - Systems Planning, Utilities

**SUBJECT:** Subdivision of Six (6) Lots into Three Hundred and Eighty Seven (387) Lots consisting of Three Hundred and Seventy Eight (378) Residential Lots, Two (2) Business Lots, Two (2) Industrial Lots, One (1) Recreation Lot and Four (4) Residual Lots  
Development Application: 10.2017.661.1  
LOT: 1 DP: 201626, LOT: 2 DP: 542178, LOT: 1 DP: 780242, LOT: 2 DP: 818403, LOT: 1 DP: 520063, LOT: 7020 DP: 1113431, Ewingsdale Road BYRON BAY, 394 Ewingsdale Road BYRON BAY, 412 Ewingsdale Road BYRON BAY, Melaleuca Drive BYRON BAY, 364 Ewingsdale Road BYRON BAY

**DATE:** 5 December 2017

**PLANNER:** Luke Munro

**FILE NO(s):** PR21700, 151400, 21720, 152550, 114340, 241870, 10.2017.661.1 /#A2017/31106

---

**Referral assessed by:** Anjila Finan

### Development History

88.2002.8.1	Parcels PR21700 & PR151400 Belongil Fields Conference and Holiday Centre (ET Assessment DM969650/A2017/14061)	Approved: 09/07/2010
10.2000.10.1	Parcel PR21720 Change of Use Factory Building	Approved: 09/05/2001
10.2000.519.1	Parcel PR114340 Additions to Factory and Office – Chocolate Factory (Water only – not connected to sewer)	Approved Delegation: 14/11/2000
10.2017.201.1	<b>West Byron Subdivision</b> – Staged Development Application – Stage 1 – Villa World Subdivision of Nine (9) Lots into Two Hundred and Ninety (290) Residential Lots in Nine (9) Sub- Stages	Approved Delegation: 14/11/2000

### Current Situation

Using the current day ET Policy 13/005, the existing bulk water, water and sewer entitlements are as follows, based on an allotment area of 1.143 Ha;

**Table 1 - Calculation of Existing Water & Sewer ETs**

Ref	Development Type	Standard Unit	Quantity	ET Rate (ET/unit)		ET Load	
				Water	Sewer	Water	Sewer
5.6 / 6.1	<b>PR21700 and PR151400</b> Belongil Fields Holiday Centre (ET Assessment DM969650/A2017/14061)	Site / Cabin	-	-	-	113.50	141.68
13.2	<b>PR21720</b> Light Industrial (Factory Building) (DA 10.2000.10.1) Connection to Water only	Floor Area m <sup>2</sup>	2275	0.003	N/A	6.825	N/A
	<b>PR152550</b> Currently no connection to Water or Sewer			N/A	N/A	N/A	N/A
13.2	<b>PR21720</b> Light Industrial (Factory Building - Chocolate) & Residence Connection to Water only	Floor Area m <sup>2</sup>	394.65	0.003	N/A	1.184	N/A
2.3		Lot	1	1.20	N/A	1.20	N/A
	<b>PR241870</b> Currently no connection to Water or Sewer (Crown Land)			N/A	N/A	N/A	N/A
<b>TOTAL</b>						<b>122.709</b>	<b>141.680</b>

Therefore, the existing ET entitlement for this property is:

- **122.71 ET** for Water
- **122.71 ET** Bulk Water;
- **141.68 ET** for Sewer.

### Proposed Development

Subdivision of Six (6) Lots into Three Hundred and Eighty Seven (387) Lots consisting of Three Hundred and Seventy Eight (378) Residential Lots, Two (2) Business Lots, Two (2) Industrial Lots, One (1) Recreation Lot and Four (4) Residual Lots.

**Note:** Where development intensity has not been defined the ET load has been designated as Equivalent Tenement Policy (13/005) – Category 1 - New Sub-division - Intensity not Defined. This includes:

- Community title (R3) lots (including lots with mixed low and medium density development designations, R2 & R3)
- Commercial (B1) lots
- Light industrial (IND2) lots.

All low density (R2) lots have been designated under Equivalent Tenement Policy (13/005) – Category 2 – Single Residential Lots.

The proposed development will generate the following load:

**Table 2 - Calculation of Proposed Development Water & Sewer ETs**



Ref	Development Type	Standard	Quantity	ET Rate (ET/unit)		ET Load	
		Unit		Water	Sewer	Water	Sewer
Stage 1							
1.1	Community Title - <b>Lots 107-123 &amp; 131-137</b>	Lot	24	1.00	1.00	24.00	24.00
1.2	Commercial (Business Centre) - <b>Lot 394</b>	Lot	1	1.00	1.00	1.00	1.00
1.2	Commercial (Business Centre) - <b>Lot 395</b>	Lot	1	1.00	1.00	1.00	1.00
Stage 2							
1.1	Community Title - <b>Lots 124-130, 138-182</b>	Lot	52	1.00	1.00	52.00	52.00
Stage 3							
1.1	Community Title - <b>Lots 183-205</b>	Lot	23	1.00	1.00	23.00	23.00
Stage 4							
1.1	Community Title - <b>Lots 206-220 &amp; 231-253</b>	Lot	38	1.00	1.00	38.00	38.00
Stage 5							
1.1	Community Title - <b>Lots 221-223 &amp; 230</b>	Lot	4	1.00	1.00	4.00	4.00
2.1	Standard Residential Lots (450m <sup>2</sup> to 2,000m <sup>2</sup> ) - <b>Lots 224-229 &amp; 261-264</b>	Lot	10	1.00	1.00	10.00	10.00
12.7	Recreation Zone (RE1) - <b>Lot 393</b> (8,896m <sup>2</sup> ) <b>No Irrigation</b>	N/A	1	N/A	N/A	N/A	N/A
Stage 6							
1.1	Community Title - <b>Lots 254-257 &amp; 273-275, 294 &amp; 312-316</b>	Lot	13	1.00	1.00	13.00	13.00
2.1	Standard Residential Lots (450m <sup>2</sup> to 2,000m <sup>2</sup> ) - <b>Lots 258-260, 268-272, 276-280, 288-293 &amp; 295-311</b>	Lot	36	1.00	1.00	36.00	36.00
2.2	Small Residential Lots (<450m <sup>2</sup> ) - <b>Lots 265-267 &amp; 281-287</b>	Lot	10	0.80	1.00	8.00	10.00
Stage 7							
2.1	Standard Residential Lots (450m <sup>2</sup> to 2,000m <sup>2</sup> ) - <b>Lots 338-371 &amp; 381-382</b>	Lot	36	1.00	1.00	36.00	36.00
Stage 8							
2.1	Standard Residential Lots (450m <sup>2</sup> to 2,000m <sup>2</sup> ) - <b>Lots 372-380 &amp; 383-391</b>	Lot	18	1.00	1.00	18.00	18.00
Stage 9							
2.1	Standard Residential Lots (450m <sup>2</sup> to 2,000m <sup>2</sup> ) - <b>Lots 317-337</b>	Lot	21	1.00	1.00	21.00	21.00
2.3	Large Residential Lots (>2,000m <sup>2</sup> ) - <b>Lots 16-17 &amp; 397</b>	Lot	3	1.20	1.00	3.60	3.00
Stage 10							
1.1	Community Title - <b>Lots 61-106</b>	Lot	46	1.00	1.00	46.00	46.00
Stage 11							
2.3	Large Residential Lots (>2,000m <sup>2</sup> ) - <b>Lot 18</b>	Lot	1	1.20	1.00	1.20	1.00
2.1	Standard Residential Lots (450m <sup>2</sup> to 2,000m <sup>2</sup> ) - <b>Lots 19-60</b>	Lot	42	1.00	1.00	42.00	42.00
1.1	Community Title - <b>Lot 400</b>	Lot	1	1.00	1.00	1.00	1.00
1.3	Light Industrial - <b>Lot 401</b>	Gross Ha	0.5485	15.00	15.00	8.23	8.23
1.3	Light Industrial - <b>Lot 402</b>	Gross Ha	0.8437	15.00	15.00	12.66	12.66
Residual Lots							

	<b>Residual Lot 392</b> Mixed Environmental Management & Environmental Conservation, SEPP 14 Wetland designations - <b>No ET allowance applied</b>	Lot	1	0.00	0.00	0.00	0.00
	<b>Residual Lot 396</b> - Environmental Conservation designations - <b>No ET allowance applied</b>	Lot	1	0.00	0.00	0.00	0.00
	<b>Residual Lot 398</b> - Environmental Management designations - <b>No ET allowance applied</b>	Lot	1	0.00	0.00	0.00	0.00
	<b>Residual Lot 399</b> - Environmental Conservation designations - <b>No ET allowance applied</b>	Lot	1	0.00	0.00	0.00	0.00
<b>Total</b>						<b>399.68</b>	<b>400.88</b>

**Table 3 - Calculation of Additional Water & Sewer ET Load**

	<b>Water</b>	<b>Bulk Water</b>	<b>Sewer</b>
<b>Existing ET Entitlements (Table 1)</b>	<b>122.71</b>	<b>122.71</b>	<b>141.68</b>
<b>Proposed Development ET loading (Table 2)</b>	<b>399.68</b>	<b>399.68</b>	<b>400.88</b>
<b>Additional ET loading</b>	<b>276.97</b>	<b>276.97</b>	<b>259.20</b>

Therefore, this development generates an additional load onto Councils Water, Bulk Water and Sewer System

Council requires Payment of Developer Servicing Charges (prior to issue of a construction/subdivision certificate) of:

- **276.97 ET** for Water
- **276.97 ET** Bulk Water; and
- **259.20 ET** for Sewer.

### **Conditions required**

**The following conditions will need to be complied with prior to issue of a Construction Certificate for subdivision works**

---

#### **Engineering Construction Plans**

Three (3) copies of engineering construction plans and specifications must accompany the construction certificate application. Such plans are to provide for the following works in accordance with Council's current Design and Construction Manuals and Specifications. The submission of the design plans must be accompanied by Northern Rivers Local Government Design and Construction Manual Design Checklist in accordance with Specification DQS:

#### **Sewerage and Water Mains**

An approval is to be obtained under Section 68 of the Local Government Act 1993 to carry out water supply and sewerage works.

Sewerage and water mains are to be extended to service all residential allotments in the subdivision. All Council gravity sewerage mains are to be a minimum 150 mm diameter and water mains are a minimum 100mm diameter.

A water trunk main of 250mm diameter is to be designed to service the development from the 300mm Trunk Main located along Ewingsdale Road linking through to the adjacent development to the east and ultimately connect to the existing 400mm diameter Trunk Main running from Coopers Shoot. No water service tapping will be permitted on  $\geq 250$ mm diameter trunk mains, all residential service tapping are restricted to water reticulations mains between 100mm diameter and <250mm in diameter.

Water supply and sewerage works are to comply with, as a minimum, Council's latest Standards and Policies including but not limited to:

- Development Design and Construction Manuals, Northern Rivers Local Government, 2009;
- Development Servicing Plan for Water Supply Services, Byron Shire Council, 2011;
- Development Servicing Plan for Sewerage Services, Byron Shire Council, 2011;
- Fire Flow Design Guidelines, Water Directorate, 2011;
- Water and Sewer Equivalent Tenement Policy (13/005), Byron Shire Council, 2013;
- Pressure Sewerage Policy (12/014), Byron Shire Council, 2012.
- Private Sewer Pump Station Policy (12/015), Byron Shire Council, 2012.

### **The following conditions must be complied with prior to commencement of subdivision works**

---

#### **Metered Stand Pipe required**

Prior to the commencement of any civil works requiring water from Council water main, a metered Stand Pipe for temporary water supply must be supplied and installed by Council. Contact Council's Infrastructure Services – Utilities department to arrange for this requirement.

**Note: Council may impose on-the-spot fines for non-compliance with this condition.**

### **The following conditions must be complied with during construction of subdivision works**

---

#### **Council Specification**

All works to be constructed to at least the minimum requirements of the "Northern Rivers Local Government Design and Construction Manual"

- Development Design and Construction Manuals, Northern Rivers Local Government, 2009;
- Development Servicing Plan for Water Supply Services, Byron Shire Council, 2011;
- Development Servicing Plan for Sewerage Services, Byron Shire Council, 2011;
- Fire Flow Design Guidelines, Water Directorate, 2011;
- Water and Sewer Equivalent Tenement Policy (13/005), Byron Shire Council, 2013;
- Pressure Sewerage Policy (12/014), Byron Shire Council, 2012.
- Private Sewer Pump Station Policy (12/015), Byron Shire Council, 2012.

### **The following conditions must be complied with prior to the issue of a subdivision certificate**

---

#### **Plan of Subdivision**

An Administration Sheet (Original plus one (1) copy) and four (4) copies of the plan of subdivision, in accordance with the approved, are to be submitted with the application for a subdivision certificate. The location of all buildings and/or other permanent improvements including fences and internal access driveways/roads must be indicated on 1 of the copies.

#### **Section 88B Instrument**

A Section 88B Instrument and one (1) copy are to be submitted with the application for a subdivision certificate. The final plan of subdivision and accompanying Section 88B Instrument are to provide for:

##### **a) Sewer Easements**

The creation of easements for drainage of sewage over all sewage pipelines and structures located within the proposed allotments in accordance with Council's Building Over Pipelines Policy 4.20.

**b) Water Supply Easements**

The creation of easements for water supply pipelines and structures located within the proposed allotments in accordance with Council's Building Over Pipelines Policy 4.20.

**Certificates for engineering works**

The submission of all test certificates, owners manuals, warranties and operating instructions for civil works, mechanical and/or electrical plant, together with a certificate from a suitably qualified engineer certifying that all works have been constructed in accordance with the approved plans and Council's current "Northern Rivers Local Government Design and Construction Manuals and Specifications".

**Works-As-Executed Plans**

Following completion of works and prior to issue of the subdivision certificate, Work-as-Executed Drawings, together with a Work-As-Executed Certification Report, in accordance with Council's requirements are to be submitted to Council. Two categories of Work-as-Executed Drawings are to be submitted to Council, being Amended Design Work-as-Executed Drawings and Summary Work-as-Executed Drawings.

Amended Design Work-as-Executed Drawings, being certified copies of all approved design plans with as constructed departures, deletions and additions clearly noted and detailed on the plans, are to be submitted to Council in the following formats:-

- a) One (1) paper copy at the same scale and format as the approved design plans, but, marked appropriately for as constructed information and with original signatures; and
- b) An electronic copy of above in PDF format and provided to Council on CD, DVD or via email.

Summary Work-as-Executed Drawings are to be prepared on a background plan of lot layout and kerb lines with a set of separate plans for stormwater drainage, sewerage, water supply and site works. The site works drawing/s shall include the 1 in 100 year flood and flood planning level extents and levels, where relevant. Such drawings are to be submitted to Council in the following formats:-

- a) One (1) paper copy of each drawing with original signatures and in accordance with Council's requirements.
- b) Electronic copy of the above in AutoCAD DWG or DXF format and provided to Council on CD, DVD or via email. The AutoCAD (DWG or DXF) files are to be spatially referenced to MGA Zone 56.
- c) Electronic copy of above in PDF format and provided to Council on CD, DVD or via email.

Note: Council's requirements are detailed in Council's adopted engineering specifications, currently the Northern Rivers Local Government Development Design and Construction Manuals, and on Council's website.

**CCTV Inspection and Report**

A Closed Circuit T.V. ('CCTV') Inspection and Report, certified by a qualified engineer, is to be submitted with the application for a Subdivision Certificate for the following works:

- a) Sewerage Reticulation.

**Certificate for services within easements**

The submission of a certificate from a registered surveyor certifying that all pipelines, structures, access driveways and/or services are located wholly within the relevant easements.

**Water service and meter to be connected to each lot**

A water service and water meter must be connected to all residential allotments in the subdivision using an approved backflow prevention device. It is the applicant's responsibility to engage a licensed plumber who shall liaise with council during this process.

Any new water service and meter will be at the applicants cost.



## **Certificate of Compliance – Water Management Act 2000**

Water and sewer services are to be provided to the land in accordance with an approval granted under Section 68 of the Local Government Act 1993.

Payment of developer charges to Byron Shire Council for water supply and sewerage.

A copy of the Certificate of Compliance under Section 307 of the Water Management Act 2000 is to be obtained from Byron Shire Council prior to the issue of a Subdivision Certificate.

Application forms are available from Council's administration building or online at [http://www.byron.nsw.gov.au/files/Forms/Section\\_305\\_Certificate.pdf](http://www.byron.nsw.gov.au/files/Forms/Section_305_Certificate.pdf) to be submitted for a Certificate of Compliance.

## **Notes**

---

### **Water payments under the Water Management Act 2000**

Charges will be calculated based on the additional water and sewerage load that the proposed development generates, shown in Equivalent Tenements (ET) by the following table:

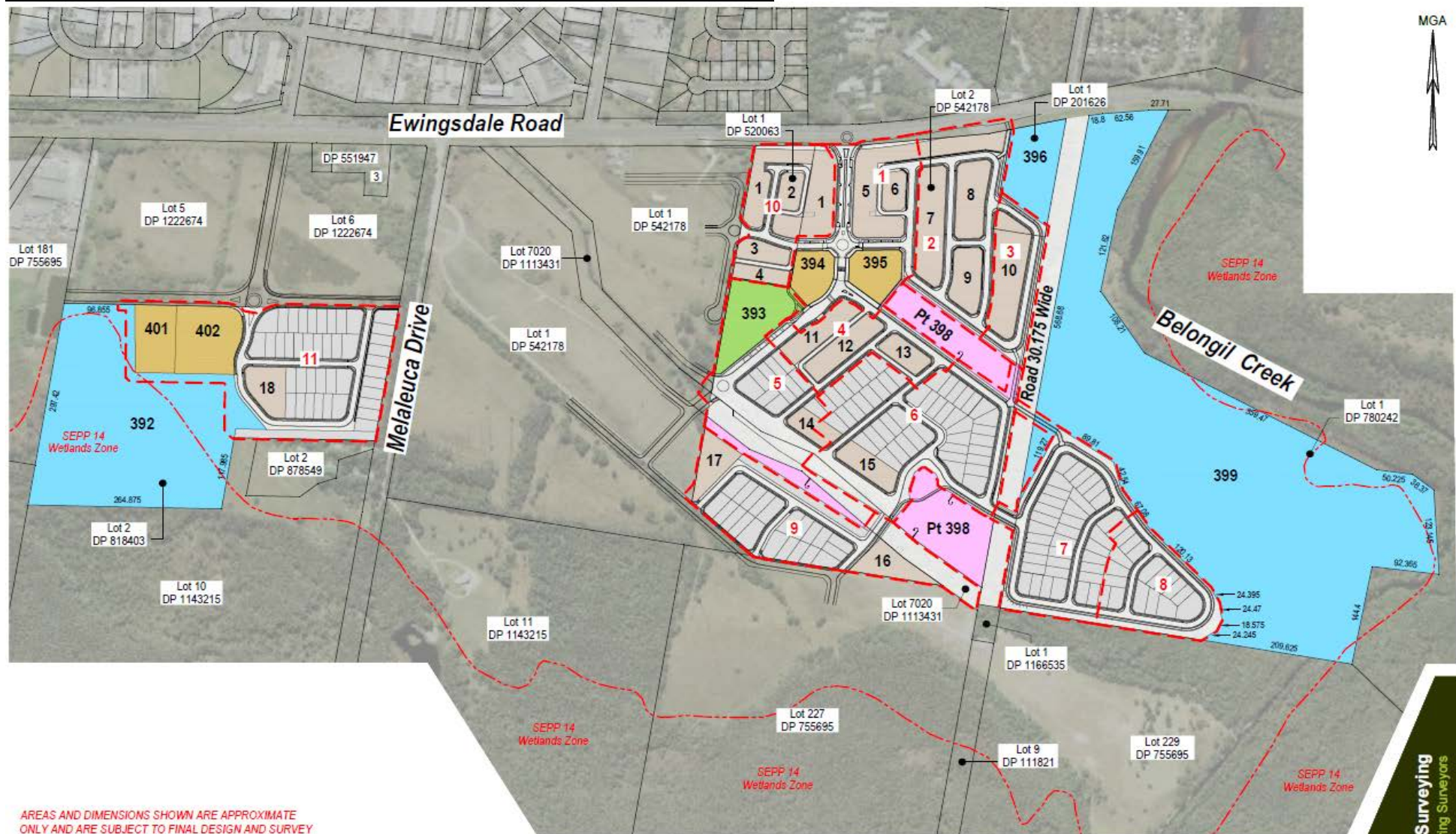
#### **ADDITIONAL WATER & SEWER LOAD OF DEVELOPMENT** **(ET Policy No:13/005)**

Water	276.97 ET
Bulk Water	276.97 ET
Sewer	259.20 ET

NB: Information regarding Development Servicing charges can be found on the Byron Shire Council website (<http://www.byron.nsw.gov.au/development-contributions-plans-section-94-and-64>). These charges will enable you to calculate the total contribution charges payable when you are ready to pay them. Developer charges will be calculated in accordance with the Development Servicing Plan applicable at the date of payment.

.....  
Anjila Finan  
Acting Principal Engineer - Systems Planning, Utilities

## Lot Layout – Overview (detail of lot layout can be found in E2017/107588)



AREAS AND DIMENSIONS SHOWN ARE APPROXIMATE  
ONLY AND ARE SUBJECT TO FINAL DESIGN AND SURVEY

Notes:

INDICATIVE SUPERLOTS / COMMUNITY TITLE LOTS  
STANDARD LOTS  
SEPP 14 - Coastal Wetlands Zone Boundary  
SEPP 14 digitised from AWC's Figure 1.2: Zoning, SEPP 14 & Cadastral plan  
Stage 11

Disclaimer:

- Aerial imagery source - SIX Portal 28.09.2017.
- The location of aerial imagery is approximate only.
- Easements have been omitted for clarity.
- All data has been scaled to MGA grid distance.

Locality: BYRON BAY  
LGA: BYRON  
Parish: BYRON  
County: ROUS  
FB, LB: N/A

Date: 08.09.2017  
RR: 1:5000 @ A3  
Datum: N/A  
Origin: N/A  
RL: N/A

Ref: 15024-8A  
Surveyor: CAA PF  
Drawn: SB  
Data: N/A  
Sheet: 1 of 9

PLAN SHOWING PROPOSED SUBDIVISION OF  
LOT 1 DP 201626, LOT 2 DP 542178,  
LOT 1 DP 780242, LOT 2 DP 818403  
& LOT 1 DP 520063 - WEST BYRON  
Ewingsdale Road



Chris Abbott Surveying  
Land and Engineering Surveys

STAGE 1			STAGE 2			STAGE 3			STAGE 4			STAGE 5			STAGE 6			STAGE 7			STAGE 8			STAGE 9			STAGE 10			STAGE 11		
LOT	AREA-m²	ZONE	LOT	AREA-m²	ZONE	LOT	AREA-m²	ZONE	LOT	AREA-m²	ZONE	LOT	AREA-m²	ZONE	LOT	AREA-m²	ZONE	LOT	AREA-m²	ZONE	LOT	AREA-m²	ZONE	LOT	AREA-m²	ZONE	LOT	AREA-m²	ZONE	LOT	AREA-m²	ZONE
107	288	R3	124	342	R3	183	415	R3	206	446	R3	221	533	R2 R3	254	593	R3	338	628	R2	372	475	R2	16	3386	R2	61	314	R3	18	3272	R2
108	205	R3	125	353	R3	184	288	R3	207	211	R3	222	462	R2 R3	255	495	R3	339	464	R2	373	451	R2	17	3240	R2	62	204	R3	19	515	R2
109	251	R3	126	363	R3	185	288	R3	208	257	R3	223	462	R2 R3	256	495	R2 R3	340	464	R2	374	452	R2	317	985	R2	63	204	R3	20	515	R2
110	251	R3	127	361	R3	186	385	R3	209	243	R3	224	497	R2	257	495	R2 R3	341	525	R2	375	506	R2	318	582	R2	64	204	R3	21	460	R2
111	205	R3	128	352	R3	187	401	R3	210	232	R3	225	840	R2	258	495	R2	342	478	R2	376	593	R2	319	568	R2	65	204	R3	22	515	R2
112	251	R3	129	342	R3	188	307	R3	211	231	R3	226	485	R2	259	495	R2	343	478	R2	377	596	R2	320	553	R2	66	204	R3	23	515	R2
113	945	R3	130	792	R3	189	293	R3	212	235	R3	227	570	R2	260	495	R2	344	478	R2	378	528	R2	321	693	R2	67	324	R3	24	771	R2
114	400	R3	138	349	R3	190	286	R3	213	251	R3	228	462	R2	265	320	R2	345	497	R2	379	630	R2	322	693	R2	68	475	R3	25	728	R2
115	328	R3	139	290	R3	191	286	R3	214	211	R3	229	462	R2	266	320	R2	346	575	R2	380	464	R2	323	553	R2	69	353	R3	26	460	R2
116	328	R3	140	290	R3	192	286	R3	215	211	R3	230	529	R2 R3	267	443	R2	347	545	R2	383	772	R2	324	568	R2	70	353	R3	27	460	R2
117	328	R3	141	290	R3	193	286	R3	216	259	R3	261	543	R2	268	531	R2	348	540	R2	384	523	R2	325	582	R2	71	353	R3	28	460	R2
118	328	R3	142	290	R3	194	286	R3	217	259	R3	262	425	R2	269	495	R2	349	519	R2	385	487	R2	326	757	R2	72	353	R3	29	460	R2
119	399	R3	143	290	R3	195	286	R3	218	211	R3	263	320	R2	270	495	R2	350	503	R2	386	485	R2	327	728	R2	73	350	R3	30	516	R2
120	864	R3	144	290	R3	196	362	R3	219	211	R3	264	320	R2	271	495	R2	351	594	R2	387	464	R2	328	540	R2	74	505	R3	31	787	R2
121	331	R3	145	290	R3	197	374	R3	220	259	R3	393	8896	RE1	272	528	R2	352	553	R2	388	1047	R2	329	499	R2	75	293	R3	32	510	R2

A Review and Ecological Assessment

Of

Development Application

DA10.2017.661.1

prepared for

Byron Shire Council

By

Mark Fitzgerald

Ecological Consultant

P.O. Box 237 Mullumbimby

NSW 2482

July 2018




## DISCLAIMER

The following review and ecological assessment is based on: documents provided by Byron Shire Council, references provided within the text, field work in the location, and opinions of the author.

The review is limited to ecological matters, and to selected documents directly assessing the ecological aspects and impacts of the proposal. While documents reviewed here sometimes apply to the entire WBURA, the separate “Harvest/Villaworld DA (DA10.2017.201.1) is not specifically assessed in this review.

## DOCUMENT REVIEW

VERSION	DATE	REVIEWER	SIGNED
1	11 July 2018	Sandy Pimm	



## ACRONYMS

APZ	Asset Protection Zone
BSC	Byron Shire Council
BC Act	NSW Biodiversity Conservation Act 2016
EPBC Act	Federal Environment Protection and Biodiversity Conservation Act 1999
SOEE	Statement of Environmental Effects
WBURA	West Byron Urban Release Area

## GLOSSARY

Eutrophication	Excessive richness of nutrients in a lake or other body of water, frequently due to run-off from the land, which causes a dense growth of plant life.
Philopatry	the tendency of an organism to stay in or habitually return to a particular area.

## TABLE of CONTENTS

1.0 Introduction	7
1.1 Documents Reviewed	7
2.0 Review of the Ecological Documents	8
2.1 Annexure 8A : WBURA Threatened Species Management Plan	8
2.2 Review Summary: Threatened Species Management Plan	13
3.0 Annexure 8B: Koala Plan of Management	15
3.1 Review Summary: Koala Plan of Management	20
4.0 Annexure 8C: Vegetation Management Plan	20
4.1 Review Summary: Vegetation Management Plan	21
5.0 Annexure 8D: Flora and Fauna Assessment	23
5.1 Review Summary: Flora and Fauna Assessment	28
6.0 Annexure 8E: Biodiversity Conservation Management Plan	29
6.1 Review Summary: Biodiversity Conservation Management Plan	32

## FIGURES

Figure 1: Southern Myotis *Myotis macropus* records from OEH Bionet Atlas 14

## TABLES

Table 1: Applicability of the documents	7
Table 2: Threatened species recorded at the site	8
Table 3: Threatened Species Management Plan Review	9
Table 4: Koala Plan of Management Review	15
Table 5: Vegetation Management Plan Review	20
Table 6: Flora and Fauna Assessment Review	23
Table 7: Biodiversity Conservation Management Plan Review	29

## APPENDICES

Appendix A: Supplementary Material	35
------------------------------------	----

## EXECUTIVE SUMMARY

Principal issues associated with the ecological components of the DA include the failure to consistently consider the impacts of the entire WBURA development. The division of the proposal into two separate DAs confounds the ability to determine realistically the nature and extent of impacts of a range of key parameters, certain to produce impacts on the local ecosystem. These include the impacts on hydrology and water quality, both within the WBURA, and within the receiving environment of the nearby Belongil Creek estuary which is part of the Cape Byron Marine Park. Close proximity to SEPP 14 coastal wetlands increases the probability of off-site effects from the physical nature of the proposed development, including from extensive amounts of fill, but also the proximity of an urban residential landscape with ~670 residential lots proposed for the overall WBURA.

It is impossible, for example, to provide meaningful provisions for the management of threatened species over the entire site without considering in detail the impacts on threatened species of the other DA for the Harvest/Villaworld development.

The increased loading on the West Byron Sewage Treatment works of ~670 additional residential lots, and subsequent impacts on local hydrology is not considered in ecological impact assessment in the DA.

Normal patterns of residential behaviour include: dog ownership, gardening and lawns which will introduce ongoing and perpetual loading of water and nutrients, which are not adequately considered in the impact assessment. Sandy soils require more water to sustain lawns, fruit trees and gardens, and the existing high groundwater table will ensure continuing input of water and nutrients into groundwater. The unrestricted ownership of dogs and cats in the R & D site will unavoidably affect the fauna of surrounding habitats, as well as within the development area, and is contrary to provisions in the DCP. Peri-urban habitats around Byron Bay township are visibly affected by eutrophication, weeds and uncontrolled human ingress, and the WBURA development will inevitably produce similar off-site effects, including in the Belongil Creek estuary and in coastal SEPP 14 wetlands south of the site.

The profound ecological impacts of Ewingsdale Road are inadequately considered in assessment of impacts from the development. The increase in traffic movements and intensity from the proposed development will produce unavoidable and unmanageable impacts for fauna movements in the locality. The transformation of essentially rural land into an urban residential landscape will adversely affect the capacity of fauna to move safely in the location. The proposal to install dog or Koala exclusion fencing around the residential precinct in the R & D site will further restrict fauna movement, as will the proposed acoustic fencing along Ewingsdale Road, residential lot fences and other fencing proposed for the development.

Impacts on fauna are inadequately addressed in the DA. The proposed provision of artificial ponds to mitigate impacts for the state and federally listed Olongburra Frog/Wallum Sedge Frog is more likely to hasten its demise than to compensate for the loss of known habitat for the species. Local examples of artificial ponds provided for Wallum frog species demonstrated that the first frogs to colonise these sites are Cane Toads, followed by common local frog species, one of which is a reservoir for the Chytrid fungus (Stockwell 2011), which is listed as a key threat to the Wallum Sedge Frog. Local flooding will distribute fish, including the Plague Minnow, from local drains to these ponds, and to retention swales to ensure they remain unsuitable for the Wallum Sedge Frog.

The well-known small population paradigm or 'extinction vortex' clearly applies to the Wallum Sedge Frog populations of the development area, yet is not considered in the DA. Essentially small populations are critically at risk from the following cycle of decline: small (isolated) population leads to inbreeding; lower heterozygosity (genetic variation) and impacts of recessive alleles are reduced fecundity & increased mortality resulting in a further decline in population size, and more inbreeding.

The common tendency for philopatry or site fidelity to natal ponds in frogs is ignored.

While a Bushfire Risk Management Plan is provided in the DA it remains unclear to what extent native vegetation will be impacted by the need to provide and maintain Asset Protection Zones and fire trails for the development.

The consistent assurances within DA10.2017.661.1 of no adverse ecological impact, or of minor adverse impacts that can be easily managed, are contrary to the observable practical difficulties and failures to manage ecological impacts that affect coastal communities throughout northeastern NSW. The scale, nature and bulk of the development with 329 500m<sup>3</sup> of unspecified fill, existing poor water quality in the main drain, and habitat loss are clearly inimical for local biodiversity, and will likely result in the extinction of at least one threatened fauna species, and the continuing degradation of both aquatic and terrestrial habitats.

Requirements in the DCP that existing groundwater levels and pH levels in the vicinity of Wallum Sedge Frog and Wallum Froglet habitats be maintained may be impossible to practically fulfil. If groundwater levels and pH become higher than pre-development regimes, it is unclear what practical and timely options are available, plausible and affordable to rectify these conditions over the life of the development. No such measures are provided in the DA.

Finally, the Assessments of Significance of impacts on threatened species required under the TSC Act & BC Act are incorrect, addressing impacts on species in the locality, rather than the likelihood of local population extinctions in the Subject Site or Study Area.

## 1.0 Introduction

Byron Shire Council has engaged Mark Fitzgerald Ecological Consultant to provide a review and ecological assessment of Development Application DA10.2017.661.1 (Site R & D West Byron).

### 1.1 Documents Reviewed

The following documents form part of a 3 volume Statement of Environmental Effects for Proposed Subdivision and Subdivision Works West Byron, prepared for West Byron by Darryl Anderson Consulting Planning Pty Ltd, Tweed Heads South, and dated November 2017.

#### Volume 1:

Annexure 8A : West Byron Urban Release Area Threatened Species Management Plan, February 2017

#### Volume 2:

Annexure 8B: Koala Plan of Management, October 2017

Annexure 8C: Vegetation Management Plan, February 2017

Annexure 8D: Flora and Fauna Assessment, October 2017

Annexure 8E: Biodiversity Conservation Management Plan, October 2017

All the above documents were prepared by Australian Wetlands Consulting Pty Ltd, for Byron Bay West Landholders Association.

Table 1: Applicability of the documents

Document	Applicability & extent
Threatened Species Management Plan	WBURA: 108ha
Koala Plan of Management	Site R & D 58ha
Vegetation Management Plan	WBURA: 108ha
Flora and Fauna Assessment	Site R & D 58ha
Biodiversity Conservation Management Plan	WBURA: 108ha



## 2.0 Review of the Ecological Documents

The ecological components of the DA are reviewed in the sequence in which they appear in the SOEE.

### 2.1 Annexure 8A : West Byron Urban Release Area Threatened Species Management Plan, February 2017

This plan prescribes management actions for threatened fauna species recorded at the overall WBURA site, and excludes Koalas, as a Koala Plan of Management is provided separately.

Species addressed are listed in the TSMP in the following table with their conservation status under the NSW *Threatened Species Conservation Act* 1995 and federal *Environment Protection and Biodiversity Act* 1999. Note that the TSC Act 1995 is now replaced by the NSW *Biodiversity Conservation Act* 2016.

Table 2: Threatened species recorded at the site in the TSMP. V = Vulnerable

Common Name	Scientific Name	TSC Act 1995	EPBC Act 1999
<b>Flora</b>			
Coolamon	<i>Syzygium moorei</i>	V	V
<b>Fauna</b>			
Black Bittern	<i>Ixobrychus flavicollis</i>	V	--
Common Blossom Bat	<i>Syconycteris australis</i>	V	--
Eastern Bentwing-bat	<i>Miniopterus schreibersii oceanensis</i>	V	--
Eastern Long-eared Bat	<i>Nyctophilus bifax</i>	V	--
Eastern Osprey	<i>Pandion cristatus</i>	V	--
Greater Broad-nosed Bat	<i>Scoteanax rueppelli</i>	V	--
Grey-headed Flying-fox	<i>Pteropus poliocephalus</i>	V	V
Koala	<i>Phascolarctos cinereus</i>	V	--
Little Bentwing-bat	<i>Miniopterus australis</i>	V	--
Masked Owl	<i>Tyto novaehollandiae</i>	V	--
Olongburra Frog*	<i>Litoria olongburensis</i>	V	V
Wallum Froglet	<i>Crinia tinnula</i>	V	--
Yellow-bellied Sheath-tail Bat	<i>Saccolaimus flaviventris</i>	V	--

Note: The Olongburra Frog *Litoria olongburensis* is also known as Wallum Sedge Frog.

Specific elements of the Threatened Species Management Plan (TSMP) are provided with responses in the following table. A review summary follows.

Table 3: Threatened Species Management Plan Review

Threatened Species Management Plan	Response
Threatened species selection  <i>Considers 13 threatened species recorded at the site</i>	<p>Usual practice is to assess all threatened species recorded within an area (Study Area) containing the site (Subject Site).</p> <p>Using the NSW OEH Bionet Atlas search this is a 10km by 10km area with the site at its centre. This yields 64 threatened fauna species, some of which are likely to occur in the development area. See Appendix A for this list.</p> <p>There are 2 records in the Bionet Atlas, for the fishing bat (Southern Myotis) from the development site, but this species is not considered. See Figure 1.</p> <p>A suite of threatened wader species known from Belongil Creek which may be affected by increased human presence in the locality and by adverse impacts on water quality are also not considered.</p>
Profiles  Masked Owl  <i>Foraging requirements are unlikely to be significantly restricted or affected by development</i>	<p>Earthworks proposed within 42ha of WBURA, therefore substantial loss of foraging habitat, species unlikely to forage within developed residential area.</p>
Olongburra Frog/Wallum Sedge Frog	<p>Critical failure to acknowledge impacts of the loss of one known habitat area and population within the Harvest/Villaworld site for the remaining small population of this species in the east of the site.</p>
Threats  Olongburra Frog/Wallum Sedge Frog	<p>Failure to identify existing and future threats from Plague Minnow <i>Gambusia holbrooki</i>: recorded from the main drain, and the serious implications of isolating a small population in the east of the site, and barrier effects from habitat loss.</p>
Short Term Impacts  Olongburra Frog/Wallum Sedge Frog	<p>Ambiguous and contradictory. The reliance on “constructed habitat” is inadequate, and of doubtful utility given local experience</p>

<i>Two known habitat areas will be retained , but western habitat area will only be filled when constructed habitat within E zoned land is functional</i>	with constructed ponds being occupied by Cane Toads, and by common frog species including a species which is known reservoir for Chytrid fungus, a Key Threat for the WSF.
<p>Long term impacts</p> <p>Olongburra Frog/Wallum Sedge Frog</p> <p><i>Net gain of primary habitat by constructed habitat ponds within environmental zones</i></p>	<p>This is a dubious conclusion and obscures the loss of one population by filling, and the seriously threatening consequences of isolating the remaining very small population in an area with existing poor water quality and ongoing threats. The small population paradigm, though well preceded in ecology, is ignored.</p> <p>The common tendency for philopatry or site fidelity to natal ponds in frogs is ignored.</p> <p>See above.</p>
<p>Wallum Froglet</p> <p><i>Net gain of primary habitat by constructed habitat ponds within environmental zones</i></p>	<p>The reliance on “constructed habitat” is inadequate, and of highly doubtful utility given local experience with constructed ponds being occupied by Cane Toads, and by common frog species, including a species which is known reservoir for Chytrid fungus, a Key Threat for Wallum Frogs.</p>
<p>Koala</p> <p><i>Targetted plantings of Swamp Mahogany, restoration over 20 ha to join fragmented vegetation and improve connectivity.</i></p>	<p>Inadequate and inaccurate. The proposed installation of an acoustic fence in Ewingsdale Road, of dog/koala exclusion fencing around the entire residential precinct, fencing around Wallum Frog habitat and no-go areas, residential lot fences, the presence of domestic dogs in the residential precinct all seriously and adversely affect the ability of Koalas to move through the WBURA landscape.</p> <p>Complete omission of consideration of the impacts of increased traffic frequency and consequent road kill risk on Ewingsdale Road.</p>
<p>Mitigation Measures</p> <p>Microchiropteran bats</p> <p><i>Installation of bat boxes (1 per ha)</i></p>	<p>Inadequate, more bat boxes are required, combined with a monitoring program to ascertain if any occupation by target species takes place, and which includes measures to deal with occupation of boxes by pest and non-target species.</p>
Wallum Frogs	Inadequate. See above.

<i>Creation of artificial ponds within E zones.</i>	
Management Strategies	Inadequate. See above.
<i>Constructed wetland habitat for Wallum Frogs</i>	
<i>Despite the barrier effect of Ewingsdale Road it is likely that the species (Olongburra Frog/WSF) may cross from good quality habitat adjacent to WBSTP into Melaleuca Swamp forests to the south.</i>	<p>Urban landscapes are present north of Ewingsdale Road, for the entire northern boundary of the WBURA area. Emigration of WSF from these areas is highly unlikely. There are no records of this species west of the chicken farm. See Appendix A.</p> <p>Note that many frog species are poor dispersers which remain close to the sites where they developed as tadpoles for their entire lives.</p> <p>Surveys from 2003-2005 in 249 Ewingsdale Road found only one Wallum Sedge Frog close to the boundary with the WBSTP. The extensive sandplain habitats of this area immediately north of Ewingsdale Road did not support the species, perched wetlands were absent, and the site comprised poor quality habitat for the species.</p> <p>This is important to accurately assess the viability of the small and isolated population of WSF in the far east of the site where emigration (recruitment from other populations) may be crucial to its persistence.</p>
Habitat Creation	
<i>Habitat Creation is proposed within E zones at a number of strategic sites</i>	<p>The unsuitability of proposed habitat creation is described above. Any parsimonious assessment of the situation leads to a conclusion of the likely extinction of two small and highly isolated populations of Wallum Sedge Frog from the development as proposed.</p> <p>The proposed creation of habitat founders on the practical difficulties of manipulating and maintaining highly specific hydrological and water chemistry parameters while simultaneously excluding pest species in perpetuity.</p>
Habitat Loss at Lot 6	No mention or acknowledgment of the NSW OEH Hygiene Protocol for the

<p><i>Translocation of tadpoles; survey and translocation of adult frogs; if success criteria are established within constructed habitat ponds.</i></p>	<p>Control of Disease in Frogs.</p> <p>No acknowledgment of the risk of spreading Chytrid fungus from this activity.</p> <p>If the constructed ponds are unsuccessful for any reason (drought, flooding, failure to achieve or maintain critical water chemistry parameters, hydroperiods, and pest species exclusion), no discussion of what happens to the frogs and tadpoles to be translocated.</p>
<p>Management Strategies—Other Fauna</p> <p>Common Blossom Bat</p> <p><i>Planting of Coast Banksia</i></p>	<p>Appropriate strategy, but time to production of Banksia blossom means that a 5 year monitoring period unavoidably includes periods of little or no blossom (years 1 &amp; 2).</p>
<p>Hollow roosting microchiropteran bats</p> <p><i>Installation of Bat boxes: 1 per hectare</i></p>	<p>Appropriate strategy, but more boxes needed if any significant uptake by target species is anticipated. Recommend 3-5 boxes/ha minimum.</p> <p>Monitoring needs to include measures to deal with occupation of boxes by Black Rats, ants, non-target species.</p>
<p>Acid Frog habitat construction</p> <p><i>Loss of habitat by filling within Lot 6 requires specific offsets prior to any filling occurring.</i></p>	<p>No discussion of the local significance of loss of this population and habitat, or of what ensues if constructed ponds are not successful, or take years to meet water chemistry and hydroperiod targets.</p>
<p>Monitoring and Compliance</p> <p><i>Success criteria for plantings</i></p>	<p>Focus on vegetation, but fails to consider the management of pest species <i>e.g.</i> Plague Minnow, or of frog species which compete with Wallum Sedge Frog, <i>e.g.</i> Eastern Dwarf Tree Frog: see Acid Frog Recovery Plan.</p>
<p><i>Frog surveys at 6 monthly frequency for a period of three years</i></p>	<p>Five local constructed ponds at WBSTP were not occupied by Wallum Froglets for 2 years, and then only at 1 pond. Wallum Sedge Frogs did not colonise these ponds.</p> <p>Monitoring may need to proceed for at least 5 years and be timed for after suitable climatic events rather than at arbitrary 6 monthly intervals.</p>
<p>Frog Monitoring</p>	<p>No mention or acknowledgment of the NSW OEH Hygiene Protocol for the Control of Disease in Frogs, and its implications for the conduct of surveys and monitoring.</p>



Common Blossom Bat  <i>Monitoring of restored habitat via monitoring prescriptions in the VMP; no targetted trapping of field monitoring for this species</i>	I could find no reference to the Common Blossom Bat in the VMP.  Monitoring of vegetation is no surrogate for detecting the presence of the Blossom Bat.  If no trapping or field monitoring occurs it is impossible to determine the usefulness of mitigation measures proposed for this species.

## 2.2 Review Summary: Threatened Species Management Plan

The Threatened Species Management Plan (TSMP) restricts its considerations to 13 species which have been recorded at the site. It omits to consider the threatened Southern Myotis or fishing bat *Myotis macropus* which is recorded from 2 locations in the WBURA, and which is likely to forage along the main drain (see Figure 1). By limiting its scope to threatened species recorded at the WBURA site, the threatened estuarine wading birds of Belongil Creek and its near vicinity are omitted from consideration. Appendix A lists the 64 threatened fauna species recorded from a 10km by 10km area with the WBURA at its centre, and some of these species are likely to occur at times on the WBURA site, but are not considered *e.g.* Pale-vented Bush-hen, Common Planigale.

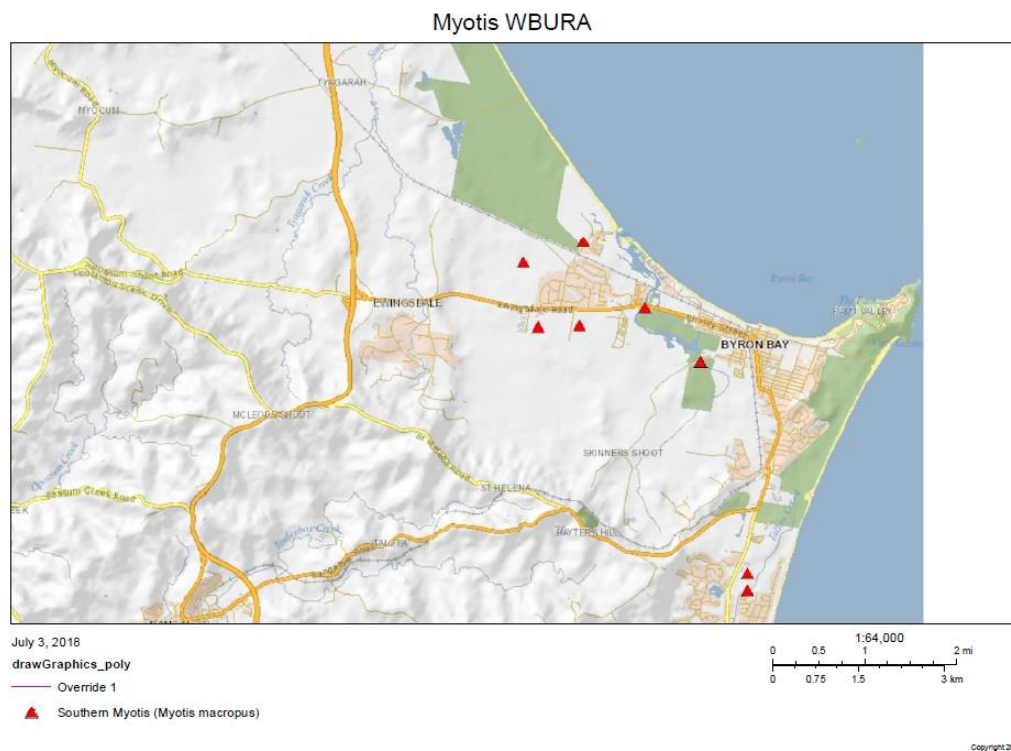
Much of the Threatened Species Management Plan is dedicated to the provision of constructed ponds as a mitigation measure for the Wallum Froglet and Wallum Sedge Frog/Olongburra Frog. Local experience in the West Byron Treatment Plant with 5 constructed ponds was that Wallum Sedge Frogs did not colonise these ponds and that Wallum Froglets took 2 years to occupy one of the 5 ponds. The failure to consider the possibility of extinction of the Wallum Sedge Frog from the site is a critical shortcoming in the TSMP. Given the predicted loss of the western population by filling, and the resultant severe isolation of the small population remaining in the far east of the site, this possibility of extinction should have been explicitly acknowledged and considered.

Water in a drain in the vicinity of the 2009 *olongburensis* record was found to be polluted by detergent and high nutrient loads when examined in June 2018, with algal blooms present and mature Swamp Mahoganies under stress and dying. While this factor (*inter alia*) signals severe practical difficulties for the proposed mitigation by habitat creation via constructed ponds, the fate of the eastern population of Wallum Sedge Frog is also severely threatened by its small population size: one record of a calling frog from 2009.

The ecological consequences for small populations are well known to be potentially severe, but are not considered for any threatened fauna species affected by the proposed development.

Other shortcomings in the TSMP are listed in the table above and reflect the consistently optimistic assumptions about the absence of significance of impacts from the development and especially regarding the practical ability to manage large scale environmental parameters. While technology proposed to monitor water chemistry and hydrology in constructed ponds are undoubtedly useful, it remains unclear how factors such as ph, high groundwater levels, and pollutant input from the main drain and from the development itself, can be practically managed in perpetuity.

Figure 1: *Myotis macropus* records from OEH Bionet Atlas.



### 3.0 Annexure 8B: Koala Plan of Management, October 2017

The Koala Plan of Management (KPoM) applies only to the site R &D development.

Specific elements of the Koala Plan of Management Plan (KPoM) are provided with responses in the following table. A summary of review follows.

Table 4: Koala Plan of Management Review

Koala Plan of Management	Response
<i>The actions proposed under the KPoM will improve the recovery of the Koala on the site and in the surrounding areas</i>	<p>Failure to adequately consider the existing barrier and roadkill impacts of Ewingsdale Road and the future and ongoing barrier impact of dog exclusion fences, domestic fencing within the development, an acoustic fence and significant increase in roadkill risk for local Koalas, from the increase in traffic caused by the development.</p> <p>An increased risk of bushfire through arson or misadventure and resultant impacts on Koalas also needs to be considered.</p>
<i>Urban areas are not likely to contain habitat critical to the survival of the Koala as the existing effects of habitat loss, fragmentation, vehicle strike, dog attack and other threats are likely to continue to degrade these areas over the medium to long term*</i>	<p>These listed factors are likely to result from the development: <i>habitat loss, fragmentation, vehicle strike, dog attack</i>, but also include barrier effects of the various fences proposed. The significant increase in traffic on Ewingsdale Road, and concomitant increase in the risk of roadkill inherent in the proposed development is ignored.</p>
<i>Actions proposed under the KPoM will improve the recovery of the Koala on the site and in the surrounding areas</i>	<p>Direct contradiction of the previous* statement: urban areas are poor habitat for Koalas. The rehabilitation of areas of native vegetation in the proposal, while well intentioned, will have to be weighed against the clearly negative factors such as the perpetual and cumulative barrier effects, isolation, impacts from the presence of dogs from 670 households in the overall WBURA, inbreeding, disease and increased roadkill in the location.</p>
<i>Creation of up to 16 ha of consolidated vegetation</i>	<p>Inadequate measure either considering “average home range size of 5ha for each animal”(Phillips and Jardine, 2013), and the barrier effects of the WBURA landscape, or the DA KPoM states 10ha as typical Koala home range in the locality.</p>

	<p>In the time it takes for planted Koala feed trees to grow to a useful size, local Koalas will be adversely impacted by the loss of Koala food trees removed for the development.</p> <p>The death and senescence of Swamp Mahoganies observed in the site is another existing and ongoing impact on Koala habitat at the site.</p>
<i>Construction of Koala proof fences to separate the urban areas from Koala habitat</i>	<p>It is unclear whether this is a useful strategy for Koalas. It is unclear how such fences will be constructed at roads, and whether Koalas will be able to enter residential areas, with their dogs and domestic fences and swimming pools and/or leave these areas if they enter them via roads or fence breaches.</p> <p>Long term maintenance of fences is costly and fauna proof fences along local highways are frequently and regularly breached by tree falls, dropping branches, overgrowth of vegetation, fire and human agency.</p>
<p>Compliance with the <i>Threatened Species Conservation Act 1995</i></p> <p><i>Connectivity through these corridors will be enhanced by the provision of a Koala bridge over Belongil Creek/drain linking restored and retained habitat on the site to Koala habitat areas in SEPP 14 wetland and nature reserves to the south</i></p>	<p>Replaced by the <i>Biodiversity Conservation Act 2016</i></p> <p>It is unclear where this Koala bridge is located, since Belongil Creek is on the eastern boundary of the site. Evidence from local highway monitoring demonstrates that Koalas are slow to use dedicated crossing structures, so the connectivity suggested may be theoretical rather than practical.</p>
<i>There is currently no viable local Koala population within the west Byron Area. Small areas of fragmented Swamp Mahogany habitat (3.7ha) are used from time to time by transient Koalas dispersing from other areas</i>	<p>Koala populations depend upon movement of individuals between populations.</p> <p>Barrier effects from the development will severely impair this ability to move through the WBURA landscape.</p> <p>See OEH Bionet Atlas Koala distribution map for the WBURA (Appendix A).</p>
<i>The small remnants of Swamp Mahogany on the site potentially represent a hazard to Koalas by attracting them across the busy Ewingsdale Road and exposing them to traffic</i>	<p>Swamp Mahogany on the site may also be used by Koalas occurring to the south and east, which do not need to cross Ewingsdale Road. Whatever the roadkill risk at present, the proposed development will significantly</p>

	<p>increase the roadkill risk for Koalas and other fauna by the substantial increase in traffic this development will generate.</p> <p>See OEH Bionet Koala distribution map for the WBURA (Appendix A).</p>
<i>Retention of the largest patches of Swamp Mahogany</i>	<p>The death and senescence of Swamp Mahoganies observed in the site is another existing and ongoing impact on Koala habitat at the site, which undermines the significance of this measure.</p> <p>This includes areas mapped as Koala Habitat in Figure 2-1.</p>
<i>Construction of a Koala bridge over Belongil Creek/drain improves connectivity with populations to the south</i>	<p>This assumes timely and significant usage of the structure by Koalas, which is optimistic given local data on the infrequent use by Koalas of purpose built fauna crossings.</p>
<p>Applicability of SEPP 44 to the site</p> <p><i>Koalas periodically observed on the site are considered to be transients that have dispersed onto the site from more extensive primary Koala habitat elsewhere, most likely to the north of Ewingsdale Road. The necessity for koalas to cross Ewingsdale Road, a potential blackspot for roadkill, to reach the site identifies it as a potential sink area where mortality may exceed reproduction.</i></p>	<p>Ewingsdale Road is considered to be a high roadkill risk area, and as an existing sink for fauna.</p> <p>The significant increase in traffic generated by this development will severely exacerbate this threat for Koalas and other fauna.</p> <p>The focus on primary habitat north of Ewingsdale Road ignores the large number of records southeast of the site. See Appendix A.</p>
<i>The plan (KPoM) will comply with the general aim of SEPP 44....to encourage a permanent free-living population over their present range and reverse the current trend of koala population decline</i>	<p>Compliance with the aim of SEPP 44, as claimed will depend upon the future impacts of the proposed development. The impacts of a significant increase in traffic on Ewingsdale Road generated by the proposal are likely to contribute to the ongoing decline of the local Koala population, but are not considered in the DA KPoM, despite being an acknowledged threat to Koalas.</p> <p>Barrier impacts of extensive fencing, impacts from dog attacks associated with 670 households, and the threat of arson are also not considered.</p>
<p>Local Government Requirements</p> <p><i>Maintain and improve habitat and</i></p>	<p>Adverse impacts on habitat and ecosystem connectivity are detailed above.</p>



<i>ecosystem connectivity at the local and landscape levels.</i>	
<p>Matters for Consideration</p> <p><i>Habitat at the site is small in area and highly fragmented and is unlikely to support a resident koala population</i></p>	<p>The site will be further fragmented by the proposed development, habitats retained for Koalas within the site are in decline.</p> <p>Habitat within the site is acknowledged to be relied upon by individual Koalas, and movement through the site may contribute to the viability and persistence of Koalas in the broader location.</p> <p>Contemporary (June 2018) distribution of Koala records within the WBURA locality is provided at Appendix A.</p>
Figure 3.2 Koala Records in the locality	<p>Figure 3.2 omits the significant number of records southeast of the locality, but likely to be influential of Koala habitat use in the WBURA area.</p> <p>See contemporary mapping of records at Appendix A.</p> <p>This influences later discussion of Koala Density and Home Range in the DA KPOM which focus on Koala populations north of Ewingsdale Road and omits consideration of the numerous Koala records to the southeast, where no surveys were undertaken.</p>
<p>Koala Threat Mitigation: Dispersal</p> <p><i>A fauna underpass shall be installed under Ewingsdale Road to facilitate the safe movement of Koalas to habitat areas to the north</i></p>	<p>It is unclear whether the <i>Construction of a Koala bridge over Belongil Creek/drain</i> is separate from or instead of the underpass nominated since neither structure is shown on plans.</p> <p>If the assumptions in the DA KPOM about low Koala numbers extant within the WBURA are correct, then this measure is unlikely to provide important connectivity for the local Koala population.</p> <p>Koalas are slow to use fauna crossing structures and underpasses.</p>
Roadkill	<p>Stipulations regarding traffic speed limits on roads within the site are of little merit.</p> <p>The residential area is described as separate from Koalas due to exclusion fencing.</p>

	<p>The real threat of roadkill on Ewingsdale Road is significantly exacerbated by the increased traffic generated by this development.</p>
<p>Dog Attack</p> <p><i>Installation of exclusion fencing is recommended</i></p>	<p>While the DCP recommends prohibition of dogs and cats the DA KPoM considers this to be an <i>unrealistic expectation</i>.</p> <p>It is unclear and not discussed how the exclusion fencing will operate where roads enter and exit the site. What structures will be provided which allow cars and pedestrian through, but which provide barriers for dogs and Koalas at these locations?</p> <p>In the long term, exclusion fencing will be breached by local residents seeking access into the adjoining landscape, by tree falls, by overgrowth of vegetation and by neglect.</p>
Annual inspection of fencing	<p>Observations of the condition of fauna fencing on local highways suggest that fence monitoring and maintenance needs to be reactive to local storm events, and to be sufficiently well-resourced that it remains a significant financial burden for the life of the development.</p>
Habitat Enhancement-existing	<p>The existing problems of waterlogging and pollution contributing to the death and decline of Swamp Mahoganies in the site are not acknowledged or addressed in the KPoM.</p> <p>In the event that the hydrological load and poor water quality entering the site from the main drain are not remediated, Koala habitat on the site may continue to decline.</p>
Koala Habitat Management Plan	<p>Fails to identify the existing problems of waterlogging and pollution contributing to the death and decline of Swamp Mahoganies in the site.</p>

### 3.1 Review Summary: Koala Plan of Management

The Koala Plan of Management is a requirement under SEPP 44, yet the KPOM commences with an argument that for the purpose of the EPBC Act impacts from the development on local Koalas are not important.

Statutory matters are adequately addressed, with the exception that a major and significant threat to local Koalas is ignored. The significant increase in vehicle traffic on Ewingsdale Road from the proposed development will increase the barrier effect of this road and greatly increase the risk of roadkill for local Koalas. The decision to separate the residential area from Koalas by the use of exclusion fencing will create additional barrier effects and may result in Koalas becoming trapped in the residential area. The decision to ignore the DCP recommendation regarding the prohibition of dogs and cats is also detrimental to the future persistence of Koalas in the location.

The decision to focus exclusively on Koala populations to the north of Ewingsdale Road in analysis of local Koala demography is faulty, because it omits consideration of the ecological significance of numbers of Koala records to the south and southeast of the site.

The division of the WBURA development into two separate proposal is problematic for reliably identifying the likely net impacts of the developments on the local ecosystem.

This is especially the case where some documents address the overall WBURA development and others only address the site R & D development. Without assessing the overall WBURA impacts, as well as synergistic effects *e.g.* on traffic in Ewingsdale Road, the identification and assessment of impacts are significantly underdone.

#### 4.0 Annexure 8C: Vegetation Management Plan, February 2017

Table 5: Vegetation Management Plan Review

Vegetation Management Plan	Response
Applies to entire WBURA: 108 ha	
<i>Acknowledges management of main and union drain by the Belongil Drainage Union</i>	There is no discussion about impacts of future drainage maintenance or works, or of a co-operative arrangement with the BDU.
Table 2.1 Vegetation Communities <i>Coastal Swamp Forest: good condition with little weed invasion</i>	The death and senescence of Swamp Mahoganies observed in the site in EPZ 2D, in 2018, with extensive algal blooms and polluted water is contrary to the assessment given of condition of this community.
Vegetation Impacts <i>Occupation Phase</i>	Fails to consider impacts from increased water and nutrient loads associated with 670 households. The proposal to install dog/Koala exclusion fencing around the

	<p>residential precinct encourages dumping and weed development.</p> <p>No discussion is presented on establishment and ongoing maintenance of Asset Protection Zones required for bushfire protection.</p>
Figure 4.1 Earthworks 0-0.5m Fill areas	<p>Extensive fill depicted in the urban zone does not include the Harvest/Villaworld Development.</p> <p>Proximity of fill areas to existing drains is likely to increase water loading in the drains and produce impacts on retained vegetation.</p>
Table 4.1 Planting Schedule for urban zone	Generally appropriate list of species, but inclusion of Koala preferred feed trees (Swamp Mahogany) may result in Koalas entering the fenced urban precinct, and being subject to dog attack.
Vegetation Management Environmental Zones  EPZ 2D	The death and senescence of Swamp Mahoganies observed in the site in EPZ 2D, in 2018, with extensive algal blooms and polluted water is not included in the description of vegetation in the zone.
Management Actions in EPZ 2D	Do not include addressing problems of waterlogging, eutrophication and pollution in the drain, and impacts on retained vegetation.
<p>Belongil Creek</p> <p><i>Up to 80 sea birds including three threatened species..... and thirteen vulnerable species</i></p>	The three “threatened” bird species listed are Endangered. Vulnerable and Endangered species are separate statutory categories under the umbrella classification of Threatened.
<p>Monitoring and Compliance</p> <p><i>Reporting Requirements</i> <i>Annual reports on the progress of on ground works should be provided to landowners</i></p>	Monitoring Reports should be provided to Byron Shire Council

#### 4.1 Review Summary: Vegetation Management Plan

The Vegetation Management Plan (VMP) is generally an appropriate and thorough document listing appropriate management actions, planting species list and community identification. While purporting to address the entire WBURA, it does not include important details of fill proposed in the western Harvest/Villaworld development.

The VMP lists 16 threatened bird species from Belongil Creek, only two of these are addressed in the Threatened Species Management Plan.



## 5.0 Annexure 8D: Flora and Fauna Assessment, October 2017

The Flora and Fauna Assessment is restricted to the R & D development (58ha).

Table 6: Flora and Fauna Assessment Review

Flora and Fauna Assessment	Response
<p>Description of the Proposed Development</p> <p><i>Upgrading and embellishment of the existing drainage channel within Lot 7020DP 1113431</i></p>	<p>This text is unclear as to what actually happens in the drain. Neither “upgrading” nor “embellishment” clearly describe proposed works on the drain.</p> <p>Embellishment means beautification, which has unclear consequences for ecological attributes.</p>
<p>Summary of Existing Ecological Surveys</p> <p><i>Koalas were not recorded in any previous survey</i></p>	<p>Koalas were recorded from the site in 2007, 2010, and 2012.</p> <p>Koala scats have been recorded at the site: 2010, 2015-2017.</p>
<p>Vegetation Types at the site</p> <p><i>Coastal Swamp Forest (Swamp Mahogany), Good condition</i></p>	<p>The death and senescence of Swamp Mahoganies observed in the site in EPZ 2D, in 2018, with extensive algal blooms and polluted water is not included in the description of condition in this vegetation community.</p>
Figure 5-1 Vegetation Communities	Unreadable
Potential for Threatened Fauna to Occur	Omission of Little Eagle and Square-tailed Kite which are both recorded nearby, and of numerous estuarine birds recorded in the Belongil Creek estuary. See Appendix A.
Pest Species	Failure to include the Plague Minnow <i>Gambusia holbrooki</i> recorded from the site (Fitzgerald 2005) and listed in the Recovery Plan as a significant threat for the Wallum Sedge Frog.
<p>Fauna habitat</p> <p><i>Hollows: scarce throughout site</i></p>	<p>The potential for bat roosts in the numerous buildings on Belongil Fields should be investigated.</p>
<p>Corridors</p> <p><i>The development of the site would be unlikely to have any significant impact on local wildlife movement</i></p>	<p>Difficult to understand this conclusion.</p> <p>The certain barrier effects of the proposed acoustic fence along Ewingsdale Road, fences within the residential precinct area, and the dog/Koala exclusion fencing surrounding it combine to produce significant impediments to fauna movement and should be considered as such.</p>
Habitat Removal – Threatened Species	The highest quality habitat for this species in the WBURA is to be filled in the

<p><i>Olongburra Frog</i></p> <p><i>No habitat for the Olongburra Frog would be removed and all known habitat retained.</i></p>	<p>Harvest/Villaworld development. This strongly influences the future viability of the eastern population, known from one call in 2009.</p>
<p>Habitat Removal – Threatened Species</p> <p><i>Olongburra Frog</i></p> <p><i>Potential impacts on Olongburra Frog in the east of the site (eastern watercourse) are likely to be relatively low due to the retention of habitat and the presence of an established watercourse with several pools for free movement of individuals....</i></p>	<p>This statement is contrary to the biology of the species, which <u>does not rely on permanent water, or on watercourses for movement</u>. Breeding sites are seasonally dry, such that fish are not present when the preferred natural perched wetlands are sufficiently inundated for reproductive activity to take place, and for tadpoles to undergo development.</p> <p>The contemporary condition of this watercourse, was observed in June 2018 to be highly eutrophied and polluted with detergent foam. The probable presence of the Plague Minnow further degrades the watercourse as acid frog habitat.</p>
<p>Habitat Removal – Threatened Species</p> <p><i>Koala</i></p> <p><i>Assisted regeneration of Swamp Mahogany in previously cleared parts of the site will result in the expansion of Koala habitat in the long term</i></p> <p><i>Other potential impacts to the Koala may include:</i></p> <p><i>....</i></p> <p><i>Injury/mortality from vehicle strike</i></p>	<p>The decline in Swamp Mahoganies retained on site due to intractable waterlogging and water quality issues, and the time to establishment of regenerated Swamp Mahoganies are impacts which are inadequately assessed.</p> <p>The contribution of this development (&amp; the overall WBURA development) to increased roadkill pressures on Ewingsdale Road combined with barrier effects from fences and the increase in dog attacks associated with 670 households are also inadequately considered.</p>
<p>Fragmentation</p> <p><i>The development of the site would be unlikely to have any significant impact on local wildlife movement</i></p>	<p>The certain barrier effects of the proposed acoustic fence along Ewingsdale Road, fences within the residential precinct area, and the dog/Koala exclusion fencing surrounding it combine to produce significant impediments to fauna movement and should be considered as such.</p> <p>The reliance upon corridors or specific linkages for Koala movement is contrary to the tendency for socially driven dispersal movements by Koalas (Martin <i>et al</i> 2008).</p> <p>That is, if a corridor is occupied by a resident male, other males and subordinate</p>

	animals are attacked if they enter this home range.
<p>Impacts on Adjacent Land</p> <p><i>Cumbebin Nature Reserve</i></p> <p><i>The proposed proposal has the potential for indirect impacts to the NR, primarily from disturbance by people and risks to native fauna from straying dogs/cats. However these impacts already exist within the current context of the NR from surrounding urban and rural land</i></p>	<p>The proposed development of 670 residential lots will greatly increase the numbers of people and dogs/cats in the locality, therefore existing impacts identified here will increase proportionally, resulting in additional and ongoing degradation of habitats within the Cumbebin Nature Reserve.</p>
<p>SEPP 14 Wetlands</p> <p><i>Maintenance of existing hydrology and water quality must be demonstrated via detailed monitoring.....such that threatening processes are not exacerbated, nutrient levels are controlled and sensitive environments are not adversely affected.</i></p>	<p>Existing water quality in drains in the site is affected by stormwater drainage from the Arts and Industrial estate and the internal drainage in Belongil Fields.</p> <p>Observations in June 2018 revealed water pollution and eutrophication in one drain, and water quality throughout the site is likely to be affected by its peri-urban location, past and current landuses.</p> <p>Unless there is improvement in the water quality in the site, off site effects in Belongil Creek and the adjacent SEPP 14 wetlands are likely to result. It is unclear whether management can practically effect these changes in water quality or quantity.</p>
<p>Water Quality and Hydrology</p> <p><i>The potential of the proposal to alter water chemistry has also been addressed by the Water and Carbon Group (2010), and modelling of typical urban catchments applied.</i></p>	<p>With its highly permeable soil, high groundwater levels, Wallum water chemistry and close proximity to sensitive receiving environments <i>e.g.</i> Belongil Creek, Cumbebin Nature Reserve, and SEPP 14 Wetlands, the development site may not be a typical urban catchment.</p>
<p>Water Quality and Hydrology</p> <p><i>The proposal will also be guided by a stormwater management strategy which maintains the current hydrological regime and no worsening in water quality post development.</i></p>	<p>If the existing water quality is sufficiently poor to adversely affect the survival of native vegetation in drains retained on the site, a strategy which at best proposes “no worsening” of water quality will ensure continuing degradation of habitats at the site.</p>
<p>Vegetation/Habitat Buffering SEPP Wetlands</p> <p><i>....assessing the changes to hydrology and water quality will require specific</i></p>	<p>Failure to acknowledge the recorded presence of the Plague Minnow <i>Gambusia holbrooki</i> at the site (Fitzgerald 2005) ensures that the impacts of this species, which is listed as a key threatening process</p>

<i>consideration. This assessment would need to determine if the impacts from changes to hydrology and water quality will lead to any threatening processes on threatened flora and fauna species at the site – and within the Belongil estuary – and propose means of preventing the impacts from occurring.</i>	under the TSC Act and in the Acid Frog Recovery Plan, are not considered in the impact assessment for this DA.
Other Environmental Buffer Considerations  <i>Perimeter roads will be incorporated into urban design such that the potential for residential activity encroaching into areas of Koala (and other) habitat areas is minimised</i>	It is unclear how perimeter roads will minimise the potential for residential activity (or domestic dogs) to encroach into habitat areas (if at all), and this needs to be clarified.
Threatened Species Management Plan  <i>Managing threatened species at the site by means of vegetation restoration and for acid frogs constructed wetlands</i>	Problems with the condition of existing drain vegetation and with constructed wetlands are addressed above in the review of the Threatened Species Management Plan.
General Recommendations  <i>If the keeping of cats and dogs are permissible ....strategies such as a fencing plan will need to be developed in conjunction with Byron Shire Council and Villaworld.</i>	The keeping of cats and dogs is prohibited in the development area in the WBURA DCP.  It is unclear how fencing can be a useful management strategy in this case without substantially also affecting the capacity for native wildlife to move around the site.
<i>Residents to be discouraged from creating new bush walking tracks</i>	Since this hasn't worked in any coastal community in eastern Australia it is difficult to consider this discouraging being an effective management strategy here.
<i>Residents to be educated on the ecological importance of their surrounding environment and be discouraged from: feeding native fauna, causing noise and light disturbance, and discarding rubbish in the surrounding vegetation communities.</i>	See above.  The proposed installation of a dog/Koala exclusion fence around the residential precinct encourages the dumping of rubbish and garden waste
Statutory Assessment  Section 5A of the EP&A Act 1979  <i>....if all mitigating measures are implemented the proposed works would not result in significant impacts to any threatened species, population or community</i>	An excessive and unjustified amount of confidence is placed in the value of constructed ponds for the Olongburra Frog in an area already occupied by the Plague Minnow which is listed as a key threat to this species. A known population of the Olongburra Frog in the Villaworld site is to be lost to filling.  The remaining population of the Olongburra Frog in the far east of the site is based on a single call record from 2009, and is in an

	<p>area of poor water quality and vegetation decline.</p> <p>The viability of this small population was not considered and it must be considered at risk on the basis of population size alone.</p>
<p>EPBC Act 1999</p> <p>Unlikely to result in a significant on any threatened species</p>	<p>Uncertainties regarding the eastern population of the Olongburra Frog are not adequately addressed in the assessment.</p> <p>An excessive amount of confidence is placed in the value of constructed ponds, where local experience was that the Olongburra Frog did not occupy any of 5 ponds constructed for this purpose in the WBSTP area.</p>
<p>Threatened fauna</p> <p>Assessment of Significance</p> <p>Olongburra Frog</p> <p><i>Restricted to the watercourse in Lot 1 DP</i></p> <p><i>Habitat areas subject to a number of threatening processes such as altered water quality, weed invasion and invasion by species such as Cane Toads and Mosquito Fish.</i></p> <p><i>As such there is no likelihood of the proposal contributing towards the local extinction of the species within the locality.</i></p>	<p>The conclusion reached is illogical and technically incorrect for the TSC Act/BC Act requirements.</p> <p>The TSC Act (BC Act) defines a significant effect as... <b>“whether the life cycle of the species is likely to be disrupted such that a viable local population of a species is likely to be placed at risk of extinction”</b>.</p> <p>It is not about the extinction of a <u>species</u> in a locality. Thus conclusions provided for all the Assessments of Significance for threatened species are technically erroneous.</p> <p>The known proposed extinction of the nearest population of Olongburra Frog, by filling of its known habitat in the Villaworld proposal, the existing degradation of habitats in the DA site, and the proposal to construct ponds and retention swales where Chytrid fungus is likely to proliferate(in its carrier species the common local frog <i>Limnodynastes peroni</i>), in a site where flooding and high water tables are likely to ensure regular spread of Plague Minnows (Mosquito Fish) and Cane Toads, are factors which have not been adequately considered.</p> <p>The isolation of this population by the development is also inadequately considered.</p> <p>There is sufficient uncertainty regarding the</p>



	<p>persistence of this small population of the Olongburra Frog to assume that the local population may not persist on the DA site after the development. .</p>

## 5.1 Review Summary: Flora and Fauna Assessment

Assessments of Significance provided for threatened fauna species are all technically incorrect being predicated upon the following inappropriate conclusion:

*As such there is no likelihood of the proposal contributing towards the local extinction of the species within the locality.*

The TSC Act 1995 ( & BC Act 2016) define a significant effect as... “**whether the life cycle of the species is likely to be disrupted such that a viable local population of a species is likely to be placed at risk of extinction**”.

A significant effect is not about the risk of extinction of a **species** in a locality, but of a local population of that species, of which there may be one or many. Thus all the Assessments of Significance for threatened fauna species are technically erroneous, as they lack informed assessment and consideration of the status of local populations, and of the significance of threats at this scale.

Similarly, the term **locality** is incorrect for the terms of the TSC Act (and BC Act) where the **Subject Site** is taken to be *the area directly affected by the proposal*, and the **Study Area** means the **Subject Site** and any additional areas which are likely to be affected by the proposal, either directly or indirectly. The **Study Area** should extend as far as is necessary to take all potential impacts into account (DECC 2007).

## 6.0 Annexure 8E: Biodiversity Conservation Management Plan, October 2017

The Biodiversity Conservation Management Plan (BCMP) addresses the Site R & D area only (58 ha), however the DCP requires that the BCMP address the entire WBURA area (108ha).

Table 7: Biodiversity Conservation Management Plan Review

Biodiversity Conservation Management Plan	Response
<p>Biodiversity at the landscape level</p> <p>Wildlife Corridors</p> <p><i>The majority of the urban zoned land is not mapped as being in a wildlife corridor, reflecting its disturbed and fragmented nature where the majority of habitat has been cleared or modified.</i></p>	<p>Wildlife corridor mapping does not confine fauna, nor exclude fauna from moving through modified landscapes.</p> <p>Any assessment of the future barrier effects caused by the proposed development needs to acknowledge that the present landscape within the development site presents little or no barriers to fauna movement.</p>
<p>Cumbebin Swamp Nature Reserve</p> <p><i>The reserve provides known habitat for 4 threatened species (OEH 2010)</i></p>	<p>A Bionet Atlas search in July 2018 reveals 5 threatened fauna species recorded from the reserve.</p>
<p><i>It is not intended to provide access from the development to the reserve</i></p>	<p>The Koala Plan of Management includes the following statement:</p> <p><i>Connectivity through these corridors will be enhanced by the provision of a Koala bridge over Belongil Creek/drain linking restored and retained habitat on the site to Koala habitat areas in SEPP 14 wetland and nature reserves to the south.</i></p>
<p><i>Future development of the site has potential for indirect impacts to the NR, primarily from disturbance by people and risks to native fauna from straying dogs/cats.</i></p> <p><i>However these impacts already exist</i></p>	<p>The existence of threats does not diminish the importance of increasing these threats.</p> <p>The provision of 359 residential lots and failure to comply with the DCP clause prohibiting dogs and cats within the WBURA ensure that existing threats to Cumbebin Nature Reserve will be significantly exacerbated by this development. The risk of arson will also increase.</p>
Table 3-1 Existing Ecological Surveys	No systematic fauna survey since 2010.
Figure 3-3 Vegetation Communities	The figure is unreadable.
Pest Species	Failure to include the important pest Plague Minnow <i>Gambusia holbrooki</i> recorded from the site in 2005 and present in drains

	<p>throughout the Byron area. Plague Minnow is listed as a Key Threatening Process under the NSW TSC/BC Acts, and is listed in the Recovery Plan as a significant threat for the Wallum Sedge Frog/Olongburra Frog.</p> <p>The species was reported from Belongil Fields (Fitzgerald 2005) which is included in references in this document.</p>
<p>Fauna</p> <p><i>It is also highly probable that the Southern Myotis occurs at the site</i></p>	<p>The OEH Bionet Atlas includes Southern Myotis recorded from 2 locations in the WBURA. See Figure 1.</p>
<p><i>Thirteen threatened fauna species have been confirmed at the site</i></p>	<p>No systematic fauna surveys since 2010, thus contemporary data on fauna and threatened fauna occurrence at the site and nearby was not available for this assessment.</p> <p>Impact assessment should also include fauna species known from the vicinity and for which suitable habitat is present on the site.</p>
<p>Environmental Management Zones</p> <p><i>Management Details</i></p> <p><i>Creation of Acid Frog Habitat through the creation of constructed habitat ponds</i></p>	<p>The reliance on “constructed habitat” is inadequate, and of doubtful utility given local experience with constructed ponds being occupied by Cane Toads, and by common frog species including a species (<i>Limnodynastes peroni</i>) which is known reservoir for Chytrid fungus, a Key Threat for the Wallum Sedge Frog/Olongburra Frog. (Stockwell <i>et al</i> 2010).</p> <p>A better strategy would be to stop slashing wetlands and sedges to allow native groundlayer vegetation to recover.</p>
<p>Habitat Protection</p>	<p>No discussion of vegetation impacts to establish and maintain Asset Protection Zones around the development.</p>
<p>Habitat Protection</p> <p><i>Exclusion fencing is required to protect regeneration and offset areas</i></p>	<p>Consideration of the barrier effects of the development must include assessment of the aggregate effects of multiple fences: namely an acoustic fence along Ewingsdale Road, dog/Koala exclusion fencing around the entire residential precinct, internal lot fencing for 359 residential lots, and this exclusion fencing (otherwise unspecified) around regeneration and offset areas.</p>

	If these fences are well constructed, the barrier effect resulting from the proposed development for terrestrial fauna [including the terrestrial movements of Koalas] must be substantial.
<p>Habitat Creation</p> <p><i>Acid Frog Ponds</i></p> <p><i>Requirements for constructed habitat include: A suitable hydroperiod...of at least 6 weeks</i></p>	<p>No mention is made here of managing water quality, or of problems with existing groundwater levels and water pollution.</p> <p>No practical measures regarding how hydroperiods or water chemistry would be manipulated in dry or flooding conditions.</p> <p>Constructed ponds certain to be occupied by Cane Toads and local common frog species and by the Plague Minnow once flooding or inundation occurs</p>
<p>Bat Boxes</p> <p><i>Shall be installed at the rate of one per hectare</i></p>	Inadequate, more bat boxes are required, combined with a monitoring program to ascertain if any occupation by target species takes place, which includes measures to deal with occupation of boxes by pest and non-target species.
Buffers	No mention of Asset Protection Zones required for Bushfire Risk protection
<p>Fauna Friendly Design</p> <p><i>Preventing Bird Strike</i></p>	Include as a mitigation measure the installation of insect screens which eliminates reflections in glass windows
<p><i>Aquatic Habitat Management</i></p> <p><i>As Belongil Creek runs adjacent to the site environmental management must ensure no adverse impacts upon sensitive receiving environments including discharge of poor quality water.....</i></p>	<p>The existing poor condition of water draining through the site from stormwater from the Arts and Industrial Estate is not addressed in the DA.</p> <p>Examination of a watercourse in the far east of the site in June 2018 found it to be highly eutrophied and polluted with detergent foam. Mature Swamp Mahoganies exhibited canopy death and dead trees were present in the drain.</p> <p>No mention of how existing water quality problems are to be remediated.</p>
<p>Fire Management</p> <p>Provision of adequate setbacks (APZs)</p>	No depiction of APZs in vegetation mapping
<p>Funding Tenure and Long Term Implementation</p> <p><i>It is envisaged that the long term</i></p>	It is recommended that the proponents provide an environmental fund to ensure continuation of restoration works for at least 3 years after the initial 5 year program

<i>implementation of restoration works at the site will be undertaken by the community</i>	period.
Monitoring  <i>Frog Monitoring</i>	<p>Five local constructed ponds at WBSTP were not occupied by Wallum Froglets for 2 years, and then only at 1 pond. Wallum Sedge Frogs did not colonise these ponds.</p> <p>Monitoring may need to proceed for at least 5 years and take place after suitable climatic events rather than at 6 monthly intervals.</p> <p>No mention or acknowledgment of the NSW OEH Hygiene Protocol for the Control of Disease in Frogs, and implications for the conduct of surveys and monitoring.</p>
Monitoring  <i>Hollow roosting Microchiropteran bats</i>	A plan for monitoring must include measures to manage non-target and pest species.
Performance Criteria  <i>Acid Frog Habitat and populations (from the TSMP)</i>  <i>Olongburra Frog and Wallum Froglet confirmed within constructed habitat within two years</i>	<p>It is unclear whether within 2 years means: within 2 years of the completion of the development or within 2 years of completion of the constructed ponds?</p> <p>What response if neither species occupies any constructed ponds after 2 years?</p> <p>Five local constructed ponds at WBSTP were not occupied by Wallum Froglets for 2 years, and then only at 1 pond. Wallum Sedge Frogs did not colonise these ponds.</p>

## 6.1 Review Summary: Biodiversity Conservation Management Plan

The usefulness of a Biodiversity Conservation Management Plan depends upon its comprehension and analysis of the detailed ecology of species and ecosystems to be managed, including their contemporary status at the site, and in the surrounding area. This needs to be combined with an accurate grasp of the practicality of management measures proposed, and of their likely efficacy and plausibility. It is unclear whether the contemporary situation in regards to existing poor water quality entering the site is reflected in the BCMP. The possibility of this being an intractable and possibly worsening future problem is not acknowledged or examined.



The Biodiversity Conservation Management Plan incorporates the same unjustified optimism about the usefulness of constructed ponds as a mitigation measure for the Acid Frogs, fails to include the impacts and management of APZs, but does acknowledge the risks from the development to the sensitive receiving environments of the Belongil Creek estuary.

It is unclear whether the construction of a Koala Bridge across the Belongil Creek/drain will facilitate human access to Cumbebin Nature Reserve, but certain that this would be an adverse outcome if it did. The absence of contemporary systematic and targeted fauna survey data from the location since 2010 may undermine confidence in conclusions for particular species. For example the most recent record (of a single call) for the Olongburra Frog from the site is dated from 2009, and it is unclear what the status of this important species is on the site. This becomes more critical once it is acknowledged that the nearest known population of the species is to be lost under 2.5m of fill.

## REFERENCES

DECC (2007) Threatened species assessment guidelines. The assessment of significance. Department of Environment and Climate Change, Goulburn Sydney.  
[www.environment.nsw.gov.au](http://www.environment.nsw.gov.au)

Fitzgerald. M. (2005) “Fauna of the Belongil Fields Property; Results of a winter survey and prediction of spring/summer results”. Prepared for VillageSounds, Byron Bay.

Martin R.W., Handasyde K.A. and A. Kockenberger. (2008) “Koala” in “The Mammals of Australia”. Eds Steve Van Dyck and Ronald Strahan. 3rd Edition. Reed New Holland Sydney.

Meyer W., Hero J-M., Shoo L. and Lewis B. (2006) National Recovery Plan for the wallum sedge frog and other wallum-dependent frog species. Report to the Department of Environment and Water Resources, Canberra. Queensland Parks and Wildlife Service Brisbane.

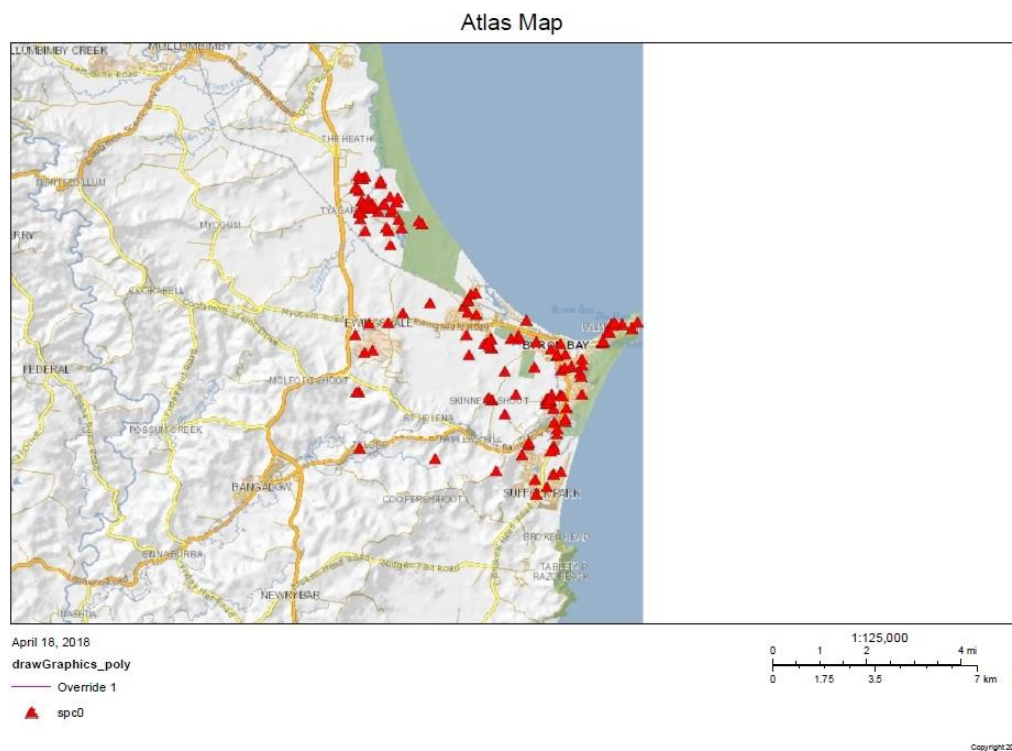
Phillips S. and Jardine D. (2013) “Draft Byron Coast Comprehensive Koala Plan of Management”. Biolink Ecological Consultants

Stockwell M. (2011) Impact and mitigation of the emerging infectious disease Chytridiomycosis on the endangered green and golden bell frog. Ph D thesis University of Newcastle.

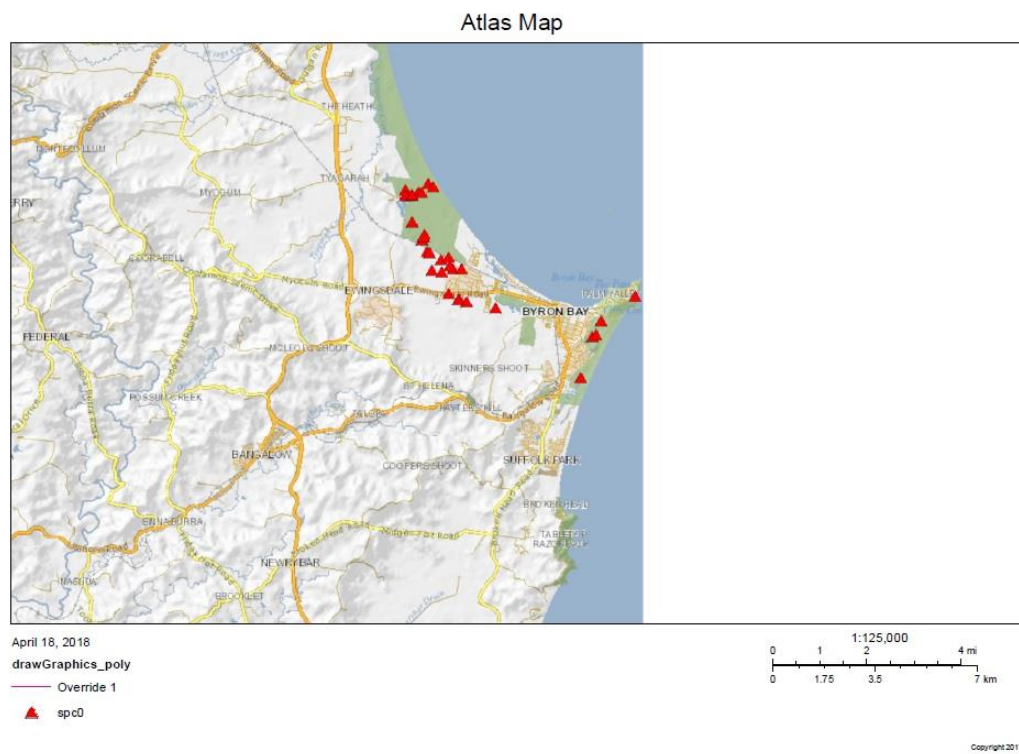
Stockwell M., Clulow S. and Mahony M. (2010) “Host species determines whether infection load increases beyond disease-causing thresholds following exposure to the amphibian chytrid fungus”. *Animal Conservation* **13** pp32-71. The Zoological Society of London.

## Appendix A: Supplementary Material

### (i) Koala records from the WBURA and vicinity from OEH Bionet Atlas



(ii) Olongburra Frog/Wallum Sedge Frog WBURA distribution from OEH Atlas Search



(iii) Threatened fauna species from WBURA and vicinity from OEH Bionet Atlas

Scientific Name	Common Name	NSW status	Comm. status	Records
<i>Crinia tinnula</i>	Wallum Froglet	V,P		125
<i>Litoria aurea</i>	Green and Golden Bell Frog	E1,P	V	3
<i>Litoria alongburensis</i>	Olongburra Frog	V,P	V	37
<i>Caretta caretta</i>	Loggerhead Turtle	E1,P	E	22
<i>Chelonia mydas</i>	Green Turtle	V,P	V	90
<i>Ptilinopus magnificus</i>	Wompoo Fruit-Dove	V,P		7
<i>Ptilinopus regina</i>	Rose-crowned Fruit-Dove	V,P		8
<i>Ptilinopus superbus</i>	Superb Fruit-Dove	V,P		2
<i>Podargus ocellatus</i>	Marbled Frogmouth	V,P		3
<i>Macronectes giganteus</i>	Southern Giant Petrel	E1,P	E	39
<i>Macronectes halli</i>	Northern Giant-Petrel	V,P	V	6
<i>Pterodroma leucoptera leucoptera</i>	Gould's Petrel	V,P	E	1
<i>Pterodroma neglecta neglecta</i>	Kermadec Petrel (west Pacific subspecies)	V,P	V	1
<i>Pterodroma nigripennis</i>	Black-winged Petrel	V,P		1
<i>Ephippiorhynchus asiaticus</i>	Black-necked Stork	E1,P		35
<i>Botaurus poiciloptilus</i>	Australasian Bittern	E1,P	E	3
<i>Ixobrychus flavicollis</i>	Black Bittern	V,P		14
<i>Haliaeetus leucogaster</i>	White-bellied Sea-Eagle	V,P	C	9
<i>Hieraaetus morphnoides</i>	Little Eagle	V,P		1
<i>Lophoictinia isura</i>	Square-tailed Kite	V,P,3		3
<i>Pandion cristatus</i>	Eastern Osprey	V,P,3		17
<i>Grus rubicunda</i>	Brolga	V,P		1
<i>Amaurornis moluccana</i>	Pale-vented Bush-hen	V,P		32
<i>Burhinus grallarius</i>	Bush Stone-curlew	E1,P		6
<i>Esacus magnirostris</i>	Beach Stone-curlew	E4A,P		12
<i>Haematopus fuliginosus</i>	Sooty Oystercatcher	V,P		2
<i>Haematopus longirostris</i>	Pied Oystercatcher	E1,P		35
<i>Irediparra gallinacea</i>	Comb-crested Jacana	V,P		13
<i>Calidris ferruginea</i>	Curlew Sandpiper	E1,P	CE,C,J,K	1
<i>Calidris tenuirostris</i>	Great Knot	V,P	CE,C,J,K	3
<i>Gygis alba</i>	White Tern	V,P		1
<i>Onychoprion fuscata</i>	Sooty Tern	V,P		2
<i>Procelsterna cerulea</i>	Grey Ternlet	V,P		1
<i>Sternula albifrons</i>	Little Tern	E1,P	C,J,K	11
<i>Calyptorhynchus lathami</i>	Glossy Black-Cockatoo	V,P,2		2
<i>Cyclopsitta diophthalma coxeni</i>	Coxen's Fig-Parrot	E4A,P,2	E	1
<i>Glossopsitta pusilla</i>	Little Lorikeet	V,P		1
<i>Tyto longimembris</i>	Eastern Grass Owl	V,P,3		16
<i>Tyto novaehollandiae</i>	Masked Owl	V,P,3		4

<i>Tyto tenebricosa</i>	Sooty Owl	V,P,3		1
<i>Carterornis leucotis</i>	White-eared Monarch	V,P		7
<i>Stagonopleura guttata</i>	Diamond Firetail	V,P		46
<i>Dasyurus maculatus</i>	Spotted-tailed Quoll	V,P	E	4
<i>Planigale maculata</i>	Common Planigale	V,P		20
<i>Phascolarctos cinereus</i>	Koala	V,P	V	156
<i>Potorous tridactylus</i>	Long-nosed Potoroo	V,P	V	10
<i>Pteropus poliocephalus</i>	Grey-headed Flying-fox	V,P	V	32
<i>Syconycteris australis</i>	Common Blossom-bat	V,P		11
<i>Saccolaimus flaviventris</i>	Yellow-bellied Sheath-tail-bat	V,P		1
<i>Mormopterus norfolkensis</i>	Eastern Freetail-bat	V,P		1
<i>Miniopterus australis</i>	Little Bentwing-bat	V,P		29
<i>Miniopterus schreibersii oceanensis</i>	Eastern Bentwing-bat	V,P		4
<i>Myotis macropus</i>	Southern Myotis	V,P		31
<i>Nyctophilus bifax</i>	Eastern Long-eared Bat	V,P		24
<i>Scoteanax rueppellii</i>	Greater Broad-nosed Bat	V,P		5
<i>Pseudomys gracilicaudatus</i>	Eastern Chestnut Mouse	V,P		1
<i>Dugong dugon</i>	Dugong	E1,P		3
<i>Arctocephalus pusillus doriferus</i>	Australian Fur-seal	V,P		1
<i>Megaptera novaeangliae</i>	Humpback Whale	V,P	V	3
<i>Phyllodes imperialis southern subspecies</i>	Southern Pink Underwing Moth	E1	E	9
<i>Argynnis hyperbius</i>	Laced Fritillary	E1	CE	1
<i>Petalura gigantea</i>	Giant Dragonfly	E1		2
<i>Petalura litorea</i>	Coastal Petaltail	E1		7
<i>Thersites mitchellae</i>	Mitchell's Rainforest Snail	E1	CE	161



# REVIEW OF ECOLOGICAL COMPONENTS OF RESPONSES TO REQUESTS FOR ADDITIONAL; INFORMATION

SITE R & D. DA10.2017.661.1

## INTRODUCTION

Byron Shire Council has engaged Mark Fitzgerald, Ecological Consultant to review additional information provided in relation to the WBURA site R & D Development Application DA10.2017.661.1

Byron Shire Council provided separate Requests for Information (RFIs) to the proponent in April, May, June and July 2018.

The following documents responding to ecological aspects of the RFIs were reviewed:

- Annexure 1 Amended Subdivision Plans – Air Photo.pdf dated 7/8/18
- Annexure 3 AWC Response updated.pdf dated 17/9/18
- Annexure 5 AWC Technical Memorandum dated 19/8/18  
West Byron Fencing Plan
- WBL DA 10.2017.661.1 dated 19/9/18  
Letter from Daryl Anderson Consulting to Byron Shire Council

Review Annexure 1 Amended Subdivision Plans – Air Photo.pdf

Eight plans overlaid on aerial photographs depicting amended subdivision layout.

Annexure 3 AWC Response updated.pdf, 29 pages, addressing individual Council RFIs, success criteria for Wallum Sedge Frog constructed ponds, and rewriting of Tests of Significance under the *Threatened Species Conservation Act 1995*.

A Table itemising the BSC query, AWC response, relevant Report & Action was provided in the document.

The responses generally fail to provide any additional information, being instead predominantly re-statement and re-assertion of previous material in the DA. For example, each response includes references to existing material in the DA. In particular there remains a failure to thoroughly research and analyse the status of the threatened Wallum Sedge Frog *Litoria olongburensis* at the site. As the adjacent Villaworld population and habitat of this species is to be lost; the status and likely fate of the remaining small population(s) on the R & D site remains unclear.

Suitable weather conditions for survey of Wallum Sedge Frog have been prevalent in the intervening winter/spring period of 2018, yet no current or recent survey data are presented. Assessment of impacts on the local population(s) of this species based on limited 2015 data is inadequate.

Many of the threats and impacts inadequately addressed in the DA are not readily amenable to management and/or mitigation, particularly at the scale of this proposal, and particularly given the environmental constraints prevailing at the site (poor water quality, high groundwater levels, susceptibility to flooding). Underestimation of the severity of such extant threats leads to optimistic predictions of outcomes for fauna and ecosystems, and consequent likely ongoing ecological degradation.

The specific review responses are provided in the table below.

#### Review

BSC QUERY	AWC RESPONSE	COMMENT
Failure to consider impacts on public sewer system, water quality, flooding	Not relevant to ecological reports	Substantial increased loading on public sewer has a direct and ongoing impact on hydrology, and thus on ecology within WBURA, because the STP discharges water into a drain which flows through the WBURA site and discharges into the

		Belongil estuary.
Failure to consider impacts and barrier effects from proposed fencing: acoustic barrier for north/south wildlife movement. fence along Ewingsdale Road, & dog proof fencing/exclusion fencing around the residential development.	Ewingsdale Road already acts as a physical barrier for north/south wildlife movement.  Fencing with in development needs to be considered further.	Additional fencing proposed for site R & D development exacerbates existing barrier effects for fauna in the location
Failure to consider impacts from the domestic dogs and cats from 378 residential lots: R & D).	Impacts of domestic dogs and cats discussed and considered in various reports. Page 49, 63, and 65 ecology report. Page 10, 35, and 37 of BCMP.	No Additional Information provided.
Net loss of habitat; failure to consider time lag for rehabilitation area to compensate for native vegetation loss.	4.87 Hectares of native habitat to be removed (Page 45 ecology report). Approximately 28.3 hectares available for restoration/ offset (Page 53 ecology report).  Also discussed on page 27 of the BCMP, along with a recommendation that offset works commence as soon as possible (and preferably) before clearing commences.	No Additional Information provided.
Inevitable increased human presence in coastal wetlands, around Belongil Creek and associated impacts, trailbikes, arson, not adequately considered.	This is a generic and speculative statement. Impacts and associated with the proposed development are specifically discussed in relevant reports.	No Additional Information provided.  Inadequate response to real and predictable peri-urban disturbance regimes.
Inadequate mapping, insufficient recent survey data for <i>L.olongburensis</i> ; reliance upon ineffective mitigation	<i>L.olongburensis</i> was last recorded in 2015 at the site. There is no direct impact on this frog species from the development footprint.	Acknowledging the likely presence of Chytrid fungus at the site, therefore there is a high likelihood of it infecting constructed ponds,

<p>measures (constructed ponds likely to be first occupied by common frogs; and failure to address risk of introducing Chytridiomycosis (especially in the common Brown-striped Marsh Frog <i>Limnodynastes peroni</i>) which is a reservoir for the disease <i>Limnodynastes peroni</i> recorded from BF drain (2005).</p>	<p>Mitigation in the form of constructed habitat is a proven method endorsed by the Australian Government as an acceptable strategy under the EPBC Act. Chytridiomycosis is likely to be common throughout amphibian populations in Byron Shire and as such it is unlikely that the development would be introducing the disease to the amphibian population. Brown-striped Marsh Frog (<i>Limnodynastes peroni</i>) is already common throughout site and we do not accept that creating wallum habitat for <i>L. olongburensis</i> will exacerbate pressure on this species.</p>	<p>thus proposed mitigation measures for <i>L. olongburensis</i> may be entirely ineffective, if not counterproductive.</p> <p>The suggestion was not in relation to <u>introduction</u> of Chytrid, but rather its likely proliferation in the numerous artificial waterbodies proposed.</p> <p>The effectiveness of constructed ponds may be critically dependent upon suitable local ecological conditions.</p> <p>Locally constructed ponds in West Byron were not occupied by <i>L. olongburensis</i>, and no alternative mitigation is proposed if constructed ponds are not effective in a reasonable time frame.</p> <p>Areas where this frog was recorded by Council were not surveyed.</p>
<p>5 Constructed ponds at WBSTP were not used by <i>olongburensis</i>, were first occupied by Cane Toads and common frogs; it was &gt;2 years before <i>tinnula</i> (Wallum Froglet) used only 1 of 5 constructed ponds.</p>	<p>It would be expected that the construction of Wallum Sedge Frog ponds would take a number of years to establish. As such the restoration of existing habitat and known populations would be the focus of restoration works. The construction of Wallum Sedge Frog Habitat at West Byron is extensively discussed in Section 4 pages 29- 36 of the TSMP. Long term monitoring of the created Wallum Sedge Frog ponds is discussed in Section 7 of the TSMP</p>	<p>Areas where this frog was recorded by Council were not surveyed, and the viability of <i>L. olongburensis</i> populations on the site is poorly understood. Ongoing threats from the existing poor water quality, and from the development may result in the extinction of the population before constructed ponds achieve minimum required ecological parameters. (e.g. water chemistry, hydroperiod, aquatic vegetation).</p>

		No Additional Information provided.
There must be no translocation of any (Wallum) Frogs without screening for Chytridiomycosis. Refer to NSW Hygiene protocol for the control of disease in frogs (2008).	Agreed. No translocation of frogs has been confirmed, if this action is undertaken all the necessary licenses will be acquired.	--
Translocation of threatened species requires permission from NSW OEH assumptions about the manufacture of long term suitable habitat for Wallum Sedge Frog are untested and unlikely to be achievable in time frames discussed.  Therefore underestimation of impacts likely for <i>olongburensis</i> .	The TSMP applies to the whole site, including the Villaworld site. There is at this stage there is no proposed translocation of the Wallum Sedge Frog on our site as Lot 6 DP 1222674 is on the Villaworld site and this (p37, is what Page 37 of the TSMP pertains too. Thsppmgt Plan).	No Additional Information provided.
Failure to consider viability of <i>olongburensis</i> population remaining after Villaworld population is lost.  Small population paradigm (also applicable to Koalas) not considered.	We cannot control what happens on the Villaworld site. The Wallum Sedge Frog population on our site is already a small population and sits outside the development footprint.  Restoration works will aim to increase the population and improve its viability as discussed in Section 4 pages 29- 36 of the TSMP.	No Additional Information provided.  Failure to identify and to consider <u>the local population dynamics</u> of this threatened frog species, and the likely impacts of loss of a known population and habitat for the remaining small population(s).
Extinction vortex: small (isolated) population leads to inbreeding; lower heterozygosity; impacts of semi-lethal recessive alleles;	This is a broad statement. The population on the site is already small and is likely genetically identical to secure populations	This is basic ecology; many faunal populations at west Byron are small, fragmented and in decline. This critically affects their



reduced fecundity & increased mortality; further decline in population.	at the West Byron Wetlands and Tyagarah Nature Reserve, Page 28 of TSMP. Restoration works will aim to increase the population and improve its viability as discussed in Section 4 pages 29- 36 of the TSMP.	viability and susceptibility to threatening processes.  Failure to adequately consider impacts for the threatened species arguably most likely to become extinct in the WBURA site is inexplicable.  No Additional Information provided.
Cane Toads and fish will likely occupy constructed ponds, and prey upon <i>alongburensis</i> .	The construction methodology of the Wallum Sedge Frog ponds will aim to exclude Cane Toads (Page 37 of BCMP). Re-creation of habitat and hydrological regimes will aim to reduce the risk of predation from fish species.  Creating additional habitat (in addition to rehabilitating existing habitat). is considered preferable to no habitat creation	No Additional Information provided.  This relates to the excessive and unjustified reliance on constructed ponds as an effective mitigation measure for the Wallum Sedge Frog.  Considering the precautionary principle; what is the impact for the local WBURA Wallum Sedge Frog population(s) if constructed ponds are ineffective, or take years to achieve suitable ecological parameters ?  This question has not been addressed.
Stormwater detention ponds/swales likely to be occupied by <i>Bufo</i> , <i>Lim peroni</i> , <i>L fallax</i> , Chytrid. Recovery Plan notes <i>L. fallax</i> (Eastern Dwarf Tree Frog) as a significant competitor with <i>alongburensis</i> .	Stormwater detention ponds and swales are not intended as habitat for <i>L.olongburensis</i> ; however they will be designed to mimic wallum wetland vegetation and function to limit their suitability for competitor species.	No Additional Information provided.  The likely proliferation of Cane Toads, common frogs and Chytrid fungus increases threats to the local WBURA Wallum Sedge Frog population(s), which are not included in the assessment of impacts from the proposed development.

<p>Failure to adequately address the impact of likely changes in stormwater quality, due to 329 500m<sup>3</sup> of unspecified fill, inevitable nutrient loads and eutrophication from occupation phase; existing poor condition of water in main drain, likely to deteriorate because of the development, <i>e.g.</i> degraded peri-urban wetlands around Byron Bay.</p>	<p>Issues relating to stormwater management are addressed within the Stormwater Management Plan prepared for the site.</p> <p>This plan provides specific and measurable criteria for protecting water quality and hydrological regimes post development.</p>	<p>No Additional Information provided.</p>
<p>Failure to adequately address the impact of the Plague Minnow <i>Gambusia holbrooki</i> known from main drain (and likely to be present in all Byron Bay area drains), and likely to occupy constructed ponds. Olongburensis does not breed in water where fish are present, and <i>Gambusia</i> is a listed Key Threatening Process.</p> <p>Fish eat eggs and larvae of <i>olongburensis</i> (Recovery Plan 2006).</p>	<p>As mentioned <i>Gambusia</i> already present throughout the Belongil catchment. This is a catchment wide issue that is not a result of the proposed development.</p> <p>However <i>L.olongburensis</i> is present in the catchment and has historically been recorded at the site. As such, habitat restoration and habitat construction will aim to exclude <i>Gambusia</i> from Wallum Sedge Frog habitat.</p>	<p>No Additional Information provided.</p> <p><i>Gambusia</i> is a listed Key Threatening Process which is inadequately considered in impact assessment.</p> <p>By construction of stormwater detention ponds/swales, the proposed development is likely to increase available habitat for the Plague Minnow <i>Gambusia holbrooki</i> and to increase the impact of this pest species which eats the eggs and larvae of Wallum Sedge Frogs.</p>
<p>Insufficient information relating to the practicalities of long term maintenance of hydrology and water quality parameters for Wallum Frogs. Unmanageable impacts; and responsibility for costs of future &amp; ongoing management effort?</p>	<p>The BCMP, TSMP, VMP and the ecology report all outline mitigation, management, and monitoring strategies. Funding, Tenure Long- Term Implementation shown on page 44 of the BCMP. However a cost table will be produced as part of</p>	<p>No Additional Information provided.</p> <p>This relates to an optimistic and unjustified reliance on the success of long term manipulation of large scale environmental parameters.</p> <p>The impacts of climatic extremes on proposed</p>

	the detailed design stage.	mitigation measures are not considered.
Insufficient contemporary information on the ecology of local Wallum Sedge Frog populations, and inadequate consideration of the probable impacts on this species of the development. Inadequate mapping of local records for the species. Test of significance is therefore inadequate.	Area where the Wallum Sedge Frog was recorded at the site is not within the development footprint. There are many records throughout the catchment in better habitat. Restoration works will focus on restoring and creating Wallum Sedge Frog habitat.	<p>No Additional Information provided.</p> <p>Areas where this frog was recorded by Council were not surveyed,</p> <p>No recent surveys despite suitable conditions.</p> <p>Fails to examine what the 'local population' of Wallum Sedge Frog is.</p>
Draft Referral Guidelines indicate a referral under the EPBC Act is necessary when uncertainty exists about the importance of the population and impacts from the proposal.	The area of habitat where Wallum Sedge Frog has been recorded is not in the development footprint. It is the aim of the restoration activities to improve and restore proposal. Wallum Sedge Frog Habitat at the site while avoiding direct and/or indirect impacts. On this basis referral under the EPBC Act is not required.	<p>No Additional Information provided. Impacts for the species of existing water quality on WBURA are not addressed.</p> <p>Areas where this frog was recorded by Council were not surveyed, and no recent survey data is available.</p> <p>The local population status on WBURA is poorly known, uncertainty prevails and effective further investigation of the species status in the WBURA is recommended.</p>
Proposal conflicts with the principal objective of the Acid Frog Recovery Plan (Meyer <i>et al</i> 2006). Namely: To improve conservation status of wallum sedge and other wallum-dependent frogs through effective management, protection rehabilitation of wallum frog habitat.	It is the aim of the restoration activities to improve and restore Wallum Sedge Frog Habitat at the site, while ensuring there are no direct and indirect impacts upon the species. On this basis the proposed actions and are consistent with the recovery plan.	<p>No Additional Information provided.</p> <p>Inadequate assessment of the existing and likely future threats for the local population(s) of this species.</p> <p>For example: potential impacts for this species due to 329 500m<sup>3</sup> of unspecified</p>

		fill (via groundwater hydrology and water chemistry) are not addressed.
Will Belongil Swamp Drainage Union relinquish control of drain maintenance in the Main & Union Drains ?	The Union Drain is irrelevant to the in proposed development site, being located to the south. The main drain is owned by Council.	--
Cannot create offsets where the impacted species is already present; need adequate recent survey data to have confidence in the suitability of offset areas.	<p>The area where Wallum Sedge Frog habitat already exists will be improved and restored. There are no records of Wallum Sedge Frog in locations where artificial ponds are proposed, though confirmation via follow up survey prior to the creation of artificial Wallum Sedge Frog habitat would be appropriate.</p> <p>Update map showing restoration areas at detailed design and undertake survey if conditions allow.</p>	<p>No Additional Information provided.</p> <p>Proponents acknowledge the need for surveys, but despite suitable conditions for survey in winter/spring 2018, no recent survey data is presented.</p>
Koala are slow to use purpose built crossings (YTOC & BTOY data), Koala movements will be affected by extensive fencing, and loss of access to food trees, presence of dogs, & increased traffic on Ewingsdale Road. Breaches in the fence will soon occur following residential occupation. Annual maintenance interval for fences is inadequate: who funds fence maintenance long term?	Funding for any fencing maintenance to be part of VMP and BCMP maintenance program.	No Additional Information provided.

Location of all fences needs to be shown in order to accurately assess barrier effects and isolation for fauna associated with the development. Where Koala exclusion fences intersect with internal roads, how will Koalas be prevented from entering and becoming trapped in the enclosed residential area?	Location of and design of any fences to be determined at detailed design.	Fencing diagrams provided at Annexure 5, include koala grids, but also bottleneck and potential traps for Koalas: see Figure 1 below.  Suggest Fencing Plan should be revised, with consideration of adjacent development fencing, and net barrier effects.
Vegetation Management Plan nominates use of Koala Feed Trees for infill plantings contrary to the use of exclusion fencing to keep Koalas out of the urban residential residential zone.	The plantings described in the VMP are in relation to the Vegetation Management Zones not landscape plantings in the urban It is clear that the aim of these plantings is to provide habitat for Koalas in the VMZ's not the urban residential areas	--
Fencing at rear of residential lots encourages dumping of garden waste and the proliferation of weeds	Only 4-5 lots back onto bushland all others have roads on their borders. If lots don't have fences, residents have easier access to bushland	No Additional Information provided.
Failure to address impacts of the overall WBURA development on traffic levels and ensuing roadkill pressure on Ewingsdale Road for native fauna.	Traffic impacts discussed in Section 4 on page 36 of the KPOM. Ewingsdale road already pose a threat to Koalas. Threats to koalas on Ewingsdale Rd require a coordinated response from key landholders and Council to ensure Koalas are excluded from areas of high traffic.	No Additional Information provided.

Provision of literature to landowners/residents is an inadequate measure for the control of domestic dogs & cats.	This is not the only control measure suggested but forms part of a strategy which includes Koala fencing refer to Section 4 pages 37-38 of the KPOM. Furthermore the Draft Byron Coast Comprehensive Koala Plan of Management page 49 suggests education and extension to promote responsible dog ownership and koalas as a management strategy.	No Additional Information provided.
Conclusion that the development will not have any significant impact on wildlife movement fails to adequately consider impacts of koala exclusion fencing, acoustic fencing, and uncontrolled ownership of domestic dogs & cats in the development.	Wildlife movement is currently substantially limited by Ewingsdale Road and while the development will limit and/or prevent movement of certain fauna through what is currently open grassland areas, this will be compensated for via the provision of a large and continuous corridor through lands adjoining Belongil Creek east of the site and south and west within environmental zones, meaning that on balance the movement of fauna will be maintained or improved compared to existing.	No Additional Information provided.  Fencing Plan includes bottleneck and potential traps for Koalas. See Figure 1 below.  Suggest Fencing Plan should be revised, with consideration of fencing planned for the adjacent development and net barrier effects.
APZs; absence of consideration of vegetation impacts from APZs and their management. APZs shown to overlap with E Zones in west of site, but no detail on tree removal	Asset protection zones for bushfire management are intended to sit outside E zones and occupy public open space, road reserve and private lots. Any discrepancies from this approach will be identified and addressed.	No Additional Information provided.

Figure 1: Fencing Plan; barriers and potential Koala traps & bottleneck





### Wallum Sedge Frog Constructed ponds

Five (5) constructed ponds in West Byron were not used by Wallum Sedge Frogs. However; if the development includes ponds constructed specifically for this species, the nominated planting mix may be improved.

Considering Table 2 Wallum Sedge Frog Constructed ponds– success criteria, it is recommended that proponents read the article detailed below, and revise the planting species to consider for inclusion the following species:

*Schoenus*, and *Chorizandra*, *Restio pallens*, *Gahnia spp.* *Empodisma minus* and *Banksia ericifolia*.

Shuker, J. Hero J-M. (2012) Australian Journal of Zoology 60(4), 219-224.

“Perch substrate use by the threatened wallum sedge frog *Litoria olongburensis* in wetland habitats of mainland eastern Australia”.

## Amended 7 part tests/Assessments of Significance

The initial Assessments of Significance of impacts on threatened species required under the TSC Act & BC Act were incorrect, addressing impacts on species in the locality, rather than the likelihood of local population extinctions in the Subject Site or Study Area.

Amended Assessments provided have addressed the likelihood of local population extinctions, as required. Assessments provided for threatened flora and Endangered Ecological Communities (EECs) are agreed.

However, the conclusion of no significant impact in the assessment provided for Wallum Sedge Frog is not agreed, because proponents have not considered the local population, apparently restricting their consideration to the R & D site, and ignoring the “local population” known from the overall WBURA, by describing the species (on the basis of 1 record) as:

### ***Restricted to the watercourse in Lot 1 DP780242 an Environmental Zone.***

It is inadequate to limit the assessment of impacts on a local population to a given cadastral area, when the local population is known to extend beyond it. Given the probable extinction of a known population and habitat of Wallum Sedge Frog in the Villaworld component of the WBURA, the demographic and ecological implications for the remaining acknowledged small population of this species on the R & D site warrants examination and consideration, which is not provided in the assessment.

The conclusions of the remaining Assessments of Significance for threatened fauna are agreed, but the Wallum Sedge Frog assessment needs to be supported by a considered analyses of local population dynamics, preferably supported by recent survey data of the local population (s) of the WBURA. Areas where this frog was recorded by Council were not surveyed,

The seven part test provided for all threatened fauna species fails to acknowledge conflict of elements of the proposal with the main objectives of the Wallum Frog and Koala Recovery plans, namely:

#### Wallum Frogs

“To improve the conservation status of the wallum sedge frog and other wallum-dependent frog species through effective management, protection and rehabilitation of wallum frog habitat.”

Conflict: Loss of habitat; contribution to likely increases in threatening processes: *e.g.* Plague Minnow and Chytridiomycosis

Koala

“...to reverse the decline of the Koala in New South Wales, to ensure adequate protection, management and restoration of koala habitat, and to maintain healthy breeding populations of Koalas throughout their range.”

Conflict : Loss of habitat, substantially increased risk of roadkill, barriers and habitat fragmentation, inadequate mitigation.

Dr. Mark Fitzgerald

Ecological Consultant

P.O. Box 237 Mullumbimby

NSW 2482

Signed

A handwritten signature in black ink, appearing to read 'M. Fitzgerald', written in a cursive style.

3/10/18

## REFERENCES

DECC 2008 Koala Recovery Plan. NSW Department of Environment and Climate Change. 59 Goulburn Street Sydney.

Meyer W., Hero J-M., Shoo L. and Lewis B. (2006) National Recovery Plan for the wallum sedge frog and other wallum-dependent frog species. Report to the Department of Environment and Water Resources, Canberra. Queensland Parks and Wildlife Service Brisbane.

Shuker, J. Hero J-M. (2012) "Perch substrate use by the threatened wallum sedge frog *Litoria olongburensis* in wetland habitats of mainland eastern Australia". Australian Journal of Zoology 60(4), 219-224.



**HOLDING REDLICH**

*Redl 21/10/14*

**Minister for Planning and Infrastructure**

ABN 38 755 709 681

and

**NSPT Pty Limited**

ACN 103 118 190

**Telicove Pty Limited**

ACN 078 197 707

**Gousse Holdings Pty Ltd**

ACN 003 591 366

**Anthony Roy Smith**

**Julia Deborah Smith**

**Fletcher Project Developments Pty Ltd**

ACN 089 163 664

**David John O'Connor**

**Carol Fay O'Connor**

## **Planning Agreement**

Environmental Planning and Assessment Act 1979

Sydney . Melbourne . Brisbane

Level 65 MLC Centre 19 Martin Place Sydney NSW 2000 DX 529 Sydney  
GPO Box 4118 Sydney NSW 2001 T +61 2 8083 0388 [www.holdingredlich.com](http://www.holdingredlich.com)

ABN 15 384 527 724



## TABLE OF CONTENTS

<b>1</b>	<b>DEFINITIONS AND INTERPRETATION</b>	<b>4</b>
1.1	Definitions	4
1.2	Interpretation	7
<b>2</b>	<b>OPERATION AND APPLICATION OF THIS DEED</b>	<b>9</b>
2.1	Operation	9
2.2	Planning agreement under the Act	9
2.3	Application	9
<b>3</b>	<b>APPLICATION OF SECTIONS 94, 94A AND 94EF OF THE ACT</b>	<b>9</b>
<b>4</b>	<b>DEVELOPMENT CONTRIBUTION</b>	<b>9</b>
4.1	Developer to provide Development Contribution	9
4.2	Acknowledgement	9
<b>5</b>	<b>INTEREST</b>	<b>10</b>
5.1	Interest for late payment	10
<b>6</b>	<b>ENFORCEMENT</b>	<b>10</b>
6.1	Developer to provide security	10
<b>7</b>	<b>REGISTRATION</b>	<b>11</b>
7.1	Registration of deed	11
7.2	Evidence of registration	11
7.3	Release and discharge of deed	11
7.4	Developer's interest in Land	11
<b>8</b>	<b>DISPUTE RESOLUTION</b>	<b>12</b>
8.1	Not commence	12
8.2	Written notice of dispute	12
8.3	Attempt to resolve	12
8.4	Mediation	12
8.5	Court proceedings	13
8.6	Not use information	13
8.7	No prejudice	13
<b>9</b>	<b>GST</b>	<b>13</b>
9.1	Definitions	13
9.2	Intention of the parties	13
9.3	Reimbursement	13
9.4	Consideration GST exclusive	14
9.5	Additional Amounts for GST	14
9.6	Non-monetary consideration	14
9.7	Assumptions	14
9.8	No merger	14

<b>10</b>	<b>ASSIGNMENT</b>	<b>14</b>
10.1	Developer's right to assign or novate	14
10.2	Developer's right to transfer Land	15
<b>11</b>	<b>CAPACITY</b>	<b>15</b>
11.1	General warranties	15
11.2	Power of attorney	16
<b>12</b>	<b>REPORTING REQUIREMENT</b>	<b>16</b>
<b>13</b>	<b>GENERAL PROVISIONS</b>	<b>17</b>
13.1	Entire deed	17
13.2	Variation	17
13.3	Waiver	17
13.4	Further assurances	17
13.5	Time for doing acts	17
13.6	Governing law and jurisdiction	17
13.7	Severance	18
13.8	Preservation of existing rights	18
13.9	No merger	18
13.10	Counterparts	18
13.11	Relationship of parties	18
13.12	Good faith	18
13.13	No fetter	18
13.14	Explanatory note	19
13.15	Expenses and stamp duty	19
13.16	Notices	19
	<b>SCHEDULE 1</b>	<b>21</b>
	<b>SCHEDULE 2</b>	<b>23</b>
	<b>SCHEDULE 3</b>	<b>26</b>
	<b>SCHEDULE 4</b>	<b>27</b>
	<b>SCHEDULE 5</b>	<b>29</b>

THIS deed is dated

**PARTIES:**

*120 Glenard 21/10/14*

**MINISTER FOR PLANNING AND INFRASTRUCTURE** (ABN 38 755 709 681) of Level 33, Governor Macquarie Tower, 1 Farrer Place, Sydney, New South Wales, 2000 (**Minister**)

**NSPT PTY LIMITED (ACN 103 118 190)** of "Northpoint" Suite 3204, Level 32, 100 Miller Street North Sydney, NSW, 2060

**TELICOVE PTY LIMITED (ACN 078 197 707)** of c/- Brock Partners Lawyers, Suite 605, Level 6, 22 Market Street, Sydney, New South Wales, 2000

**GOUSSE HOLDINGS PTY LTD (ACN 001 319 651)** of c/- WHK, 157 Barker Street, Casino, New South Wales, 2470

**ANTHONY ROY SMITH** of 37 Gloria Street, South Golden Beach, New South Wales, 2483

**JULIA DEBORAH SMITH** of 37 Gloria Street, South Golden Beach, New South Wales, 2483

**FLETCHER PROJECT DEVELOPMENTS PTY LTD (ACN 089 163 664)** of Suite 6, 13-15 Francis Street, Dee Why, New South Wales, 2099

**DAVID JOHN O'CONNOR** of PO Box 1036, Byron Bay, New South Wales, 2481

**CAROL FAY O'CONNOR** of PO Box 1036, Byron Bay, New South Wales, 2481

(together the **Developer**)

**INTRODUCTION:**

- A** The Developer owns the Land.
- B** The Developer proposes to carry out the Development on the Land.
- C** The Developer has sought a change to the zoning of the Land by means of the Planning Instrument.
- D** The Developer has offered to enter into this deed with the Minister to secure the Development Contribution in relation to the proposed the Planning Instrument.

**IT IS AGREED:**

**1 DEFINITIONS AND INTERPRETATION**

**1.1 Definitions**

In this deed, unless the context clearly indicates otherwise:

**Act** means the *Environmental Planning and Assessment Act 1979* (NSW).

**Address for Service** means the address of each party appearing in Schedule 2 or any new address notified by any party to all other parties as its new Address for Service.

**Australian Bank** means an Australian-owned bank, foreign subsidiary bank, branches of foreign banks, building societies and credit unions operating in Australia as "Authorised Deposit-taking Institutions" under the *Banking Act 1959* (Cth) and prudentially supervised by the Australian Prudential Regulatory Authority.

**Authority** means any Federal, State or local government or semi-governmental, statutory, judicial or public person, instrumentality or department.

**Bank Guarantee** means an irrevocable and unconditional undertaking:

- (a) by an Australian Bank; and
- (b) on terms acceptable to the Minister (acting reasonably),

to pay the face value of that undertaking (being such amount as is required under this deed) on demand.

**Base CPI** means the CPI number for the quarter ending 31 March 2014.

**Business Day** means any day that is not a Saturday, Sunday, gazetted public holiday or bank holiday in Sydney, and concludes at 5 pm on that day.

**Byron Bay bypass** means the Byron Bay town centre bypass being a facility identified in the Urban and Rural Roads Works Schedule in the Byron Contribution Plan.

**Byron Contribution Plan** means the *Byron Shire Developer Contribution Plan 2012*.

**Conservation Contribution** means the preparation and implementation of the vegetation management plan in accordance with Schedule 4.

**Conservation Land** means the site comprising approximately 35 hectares of the Land to be zoned E2 Environmental Conservation.

**Contribution Amount** means the amount of the monetary contribution to be paid by the Developer as described in Schedule 4.

**CPI** means the Sydney Consumer Price Index (All Groups) published by the Commonwealth Statistician, or if that index no longer exists, any similar index which the Minister determines in its sole discretion.

**CPI Adjustment Date** means 1 July 2014 and each anniversary of 1 July 2014 thereafter.

**Current CPI** means the CPI number for the quarter ending immediately before 31 March in the relevant adjustment year.

**Development** means the subdivision of the Land to achieve approximately 1100 Urban Lots.

**Development Application** has the same meaning as in the Act.

**Development Consent** has the same meaning as in the Act.

**Development Contribution** means the:

- (a) Contribution Amount; and
- (b) Conservation Contribution

to be provided by the Developer in accordance with Schedule 4.

~~Secretary~~  
~~Director-General~~ means the ~~Secretary~~ of ~~Planning and Infrastructure~~ from time to time. *Environment*  
*Department of Planning and Environment*  
*REC*

**Explanatory Note** means the note exhibited with a copy of this deed when this deed is made available for inspection by the public pursuant to the Act, as required by the Regulation. *21/10/14*

**General Register of Deeds** means the land register maintained under the *Conveyancing Act 1919 (NSW)* and so titled.

**GST** means any form of goods and services tax payable under the GST Legislation.

**GST Legislation** means the *A New Tax System (Goods and Services Tax) Act 1999 (Cth)*.

**Land** means the land described in Schedule 3 of this deed.

**Mediation Program** means the Mediation Program of the Law Society of New South Wales as published on its website and as varied from time to time.

**Notified** means the commencement of the Planning Instrument in accordance with section 34(5) of the Act.

**Plan of Subdivision** means a registered plan of subdivision under Part 23 Division 3 of the *Conveyancing Act 1919 (NSW)*.

**Planning Application** means:

- (a) a Development Application; or
- (b) any other application required under the Act,

which seeks approval for the subdivision of the Land.

**Planning Instrument** means any draft environmental planning instrument within the meaning of the Act that seeks to rezone the Land for residential and other urban purposes.

**Real Property Act** means the *Real Property Act 1900* (NSW).

**Register** means the Torrens title register maintained under the Real Property Act.

**Regulation** means the *Environmental Planning and Assessment Regulation 2000* (NSW).

**Security** means a Bank Guarantee or any other form of security for an amount equivalent to \$20,000 that is agreed with the Minister.

**Strata Certificate** has the same meaning as in the Strata Schemes Act.

**Strata Plan** means a strata plan or strata plan of subdivision within the meaning of the Strata Schemes Act.

**Strata Schemes Act** means the *Strata Schemes (Freehold Development) Act 1973* (NSW).

**Subdivision Certificate** has the same meaning as in the Act.

**Super Lots** means a lot located on the Land which, following the registration of a Plan of Subdivision, is intended for further subdivision for residential purposes.

**Tax** means a tax, duty (including stamp duty and any other transaction duty), levy, impost, charge, fee (including a registration fee) together with all interest, penalties, fines and costs concerning them.

**Urban Lot** means a lot located on the Land to be created by the registration of a:

- (a) Plan of Subdivision and is intended to be developed for residential purposes, or
- (b) Strata Plan and has been or is being developed for residential purposes, but excluding any Super Lots.

## 1.2 Interpretation

In this deed unless the context clearly indicates otherwise:

- (a) a reference to **this deed** or another document means this deed or that other document and any document which varies, supplements, replaces, assigns or novates this deed or that other document;
- (b) a reference to **legislation** or a **legislative provision** includes any statutory modification, or substitution of that legislation or legislative provision and



any subordinate legislation issued under that legislation or legislative provision;

- (c) a reference to a **body or authority** which ceases to exist is a reference to either a body or authority that the parties agree to substitute for the named body or authority or, failing agreement, to a body or authority having substantially the same objects as the named body or authority;
- (d) a reference to the **introduction**, a **clause**, **schedule** or **annexure** is a reference to the introduction, a clause, a schedule or an annexure to or of this deed;
- (e) **clause headings**, the **introduction** and the **table of contents** are inserted for convenience only and do not form part of this deed;
- (f) the **schedules** form part of this deed;
- (g) a reference to a **person** includes a natural person, corporation, statutory corporation, partnership, the Crown or any other organisation or legal entity;
- (h) a reference to a **natural person** includes their personal representatives, successors and permitted assigns;
- (i) a reference to a **corporation** includes its successors and permitted assigns;
- (j) a reference to a right or obligation of a party is a reference to a right or obligation of that party under this deed;
- (k) an **obligation** or **warranty** on the part of 2 or more persons binds them severally and an obligation or warranty in favour of 2 or more persons benefits them severally;
- (l) a requirement to do any thing includes a requirement to cause that thing to be done and a requirement not to do any thing includes a requirement to prevent that thing being done;
- (m) **including** and **includes** are not words of limitation;
- (n) a word that is derived from a defined word has a corresponding meaning;
- (o) **monetary amounts** are expressed in Australian dollars;
- (p) the singular includes the plural and vice-versa;
- (q) words importing one gender include all other genders;
- (r) a reference to a thing includes each part of that thing; and

- (s) neither this deed nor any part of it is to be construed against a party on the basis that the party or its lawyers were responsible for its drafting.

## **2 OPERATION AND APPLICATION OF THIS DEED**

### **2.1 Operation**

- (a) This deed, other than clause 10, will commence from the date that is the later of the date that:
  - (i) this deed is signed by all the parties; and
  - (ii) the Planning Instrument is Notified.
- (b) Clause 10 commences when this deed is signed by all of the parties.

### **2.2 Planning agreement under the Act**

This deed constitutes a planning agreement within the meaning of section 93F of the Act.

### **2.3 Application**

This deed applies to:

- (a) the Land; and
- (b) the Development.

## **3 APPLICATION OF SECTIONS 94, 94A AND 94EF OF THE ACT**

The application of sections 94, 94A and 94EF of the Act are excluded to the extent stated in Schedule 1.

## **4 DEVELOPMENT CONTRIBUTION**

### **4.1 Developer to provide Development Contribution**

The Developer undertakes to provide to the Minister or the Minister's nominee, the Development Contribution in accordance with the provisions of Schedule 4 to this deed.

### **4.2 Acknowledgement**

The Developer acknowledges and agrees that the Minister:

- (a) must comply with section 93E of the Act but has no obligation to repay the Development Contribution to the Developer; and
- (b) in circumstances where the Development Contribution is transferred to any Authority, has not made any representation or warranty that the Development Contribution will or must be used for a particular purpose by that Authority.

## **5 INTEREST**

### **5.1 Interest for late payment**

- (a) If the Developer fails to pay a Contribution Amount due to the Minister on the due date for payment in accordance with Schedule 4, the Developer must also pay to the Minister interest at a rate of 2% above the corporate loan reference rate charged by the Commonwealth Bank of Australia from time to time.
- (b) Interest will be payable on the daily balance of amounts due from the due date for payment of those amounts until all outstanding amounts (including interest on those amounts) have been paid to the Minister.

## **6 ENFORCEMENT**

### **6.1 Developer to provide security**

- (a) The Developer has agreed to secure the performance of the Developer's obligations under this deed by:
  - (i) registering this deed on the title to the Land, in relation to the Contribution Amount; and
  - (ii) providing the Security to the Minister in accordance with Schedule 5, in relation to the Conservation Contribution.
- (b) The parties agree that the requirement to make a payment under Schedule 4, to the extent that it relates to an application for a Subdivision Certificate, is a restriction on the issue of a Subdivision Certificate within the meaning of section 109J(1)(c1) of the Act.

## **7 REGISTRATION**

### **7.1 Registration of deed**

Within 30 Business Days of receiving a copy of this deed executed by the Minister, the Developer at its own expense will take all practical steps and otherwise do anything to procure, in relation to the Land:

- (a) the consent of each person who:
  - (i) has an estate or interest in the Land registered under the Real Property Act; or
  - (ii) is seized or possessed of an estate or interest in the Land; and
- (b) the execution of any necessary documents; and
- (c) the production of the relevant certificates of title; and
- (d) the lodgement and registration of this deed, by the Registrar-General in the relevant folio of the Register, or in the General Register of Deeds if this deed relates to land not under the Real Property Act.

### **7.2 Evidence of registration**

The Developer will provide the Minister with a copy of the relevant folio of the Register and a copy of the registered dealing within 10 Business Days of registration of this deed.

### **7.3 Release and discharge of deed**

- (a) The Minister agrees to do all things reasonably required by the Developer to:
  - (i) execute the relevant forms to remove the registration of this deed from any or all folios of the Register in relation to the relevant Land; and
  - (ii) release and discharge this deed with respect to any part of the Land,

upon the Developer satisfying all of its obligations under this deed in respect of that part of the Land, including without limitation, providing the Developer with any deed of release executed by the Minister.

### **7.4 Developer's interest in Land**

The Developer represents and warrants that it is:

- (a) the owner of the Land; or
- (b) legally and beneficially entitled to become the owner of the Land and will become the legal and beneficial owner of the Land, prior to the date that this deed is required to be registered under clause 7.1 of this deed; and
- (c) legally and beneficially entitled to obtain all consents and approvals and to compel any person referred to in or contemplated by clause 7.1(a) to assist, cooperate and to otherwise do all things necessary for the Developer to comply with its obligations under clause 7.

## **8 DISPUTE RESOLUTION**

### **8.1 Not commence**

A party must not commence any court proceedings relating to a dispute under or in relation to this deed unless it complies with this clause 8.

### **8.2 Written notice of dispute**

A party claiming that a dispute has arisen under or in relation to this deed must give written notice to the other party specifying the nature of the dispute.

### **8.3 Attempt to resolve**

On receipt of notice under clause 8.2, the parties must endeavour in good faith to resolve the dispute expeditiously using informal dispute resolution techniques such as mediation, expert evaluation or other techniques agreed by them.

### **8.4 Mediation**

If the parties do not agree within 21 Business Days of receipt of notice under clause 8.2 (or any further period agreed in writing by them) as to:

- (a) the dispute resolution technique and procedures to be adopted;
- (b) the timetable for all steps in those procedures; or
- (c) the selection and compensation of the independent person required for such dispute resolution technique,

the parties must mediate the dispute in accordance with the Mediation Program. The parties must request the president of the Law Society of NSW or the president's nominee to select the mediator and determine the mediator's remuneration.

## **8.5 Court proceedings**

If the dispute is not resolved within 60 Business Days after notice is given under clause 8.2 then any party which has complied with the provisions of this clause 8 may in writing terminate any dispute resolution process undertaken under this clause and may then commence court proceedings in relation to the dispute.

## **8.6 Not use information**

The parties acknowledge the purpose of any exchange of information or documents or the making of any offer of settlement under this clause 8 is to attempt to settle the dispute. No party may use any information or documents obtained through any dispute resolution process undertaken under this clause 8 for any purpose other than in an attempt to settle the dispute.

## **8.7 No prejudice**

This clause 8 does not prejudice the right of a party to institute court proceedings for urgent injunctive or declaratory relief in relation to any matter arising out of or relating to this deed.

# **9 GST**

## **9.1 Definitions**

Words used in this clause that are defined in the GST Legislation have the meaning given in that legislation.

## **9.2 Intention of the parties**

The parties intend that:

- (a) Divisions 81 and 82 of the GST Legislation apply to the supplies made under and in respect of this deed; and
- (b) no additional amounts will be payable on account of GST and no tax invoices will be exchanged between the parties in relation to the Development Contribution.

## **9.3 Reimbursement**

Any payment or reimbursement required to be made under this deed that is calculated by reference to a cost, expense, or other amount paid or incurred will be limited to the total cost, expense or amount less the amount of any input tax credit to which any entity is entitled for the acquisition to which the cost, expense or amount relates.



#### **9.4 Consideration GST exclusive**

Unless otherwise expressly stated, all prices or other sums payable or consideration to be provided under this deed are GST Exclusive. Any consideration that is specified to be inclusive of GST must not be taken into account in calculating the GST payable in relation to a supply for the purposes of this clause 9.

#### **9.5 Additional Amounts for GST**

To the extent an amount of GST is payable on a supply made by a party under or in connection with this deed (**GST Amount**), the Recipient will pay to the Supplier the GST Amount. However, where a GST Amount is payable by the Minister as Recipient of the supply, the Developer will ensure that:

- (a) the Developer makes payment of the GST Amount on behalf of the Minister, including any gross up that may be required; and
- (b) the Developer provides a Tax Invoice to the Minister.

#### **9.6 Non-monetary consideration**

Clause 9.5 applies to non-monetary consideration.

#### **9.7 Assumptions**

The Developer acknowledges and agrees that in calculating any amounts payable under clause 9.5 the Developer will assume the Minister is not entitled to any input tax credit.

#### **9.8 No merger**

This clause will not merge on completion or termination of this deed.

### **10 ASSIGNMENT**

#### **10.1 Developer's right to assign or novate**

- (a) Prior to seeking the consent of the Minister to a proposed assignment or novation of its rights or obligations under this deed, the Developer must:
  - (i) satisfy the Minister (acting reasonably) that the person to whom the Developer's rights or obligations are to be assigned or novated (**Incoming Party**) has sufficient assets, resources and expertise required in order to perform the Developer's obligations under this deed insofar as those obligations have been novated to the Incoming Party; and

- (ii) procure the execution of an agreement by the Incoming Party with the Minister on terms satisfactory to the Minister (acting reasonably) under which the Incoming Party agrees to comply with the terms and conditions of this deed as though the Incoming Party was the Developer.
- (b) The Developer will pay the Minister's reasonable legal costs and expenses incurred under this clause 10.1.

## **10.2 Developer's right to transfer Land**

- (a) The Developer must not sell or transfer the whole or part of any part of the Land:
  - (i) for which a Development Contribution has not been paid or performed and a release and discharge has not been given under clause 7.3; or
  - (ii) unless prior to the proposed sale or transfer, the Developer:
    - (A) satisfies the Minister (acting reasonably) that the person to whom that Land is to be transferred (**Transferee**) has sufficient assets, resources and expertise required in order to perform the Developer's obligations under this deed insofar as those obligations apply to the part of the Land the subject of the sale or transfer; and
    - (B) procures the execution of an agreement by the Transferee with the Minister on terms satisfactory to the Minister (acting reasonably) under which the Transferee agrees to comply with the terms and conditions of this deed as though the Transferee was the Developer.
- (b) The Developer will pay the Minister's reasonable legal costs and expenses incurred under this clause 10.2.

## **11 CAPACITY**

### **11.1 General warranties**

Each party warrants to each other party that:

- (a) this deed creates legal, valid and binding obligations, enforceable against the relevant party in accordance with its terms; and
- (b) unless otherwise stated, it has not entered into this deed in the capacity of trustee of any trust.

## 11.2 Power of attorney

If an attorney executes this deed on behalf of any party, the attorney declares that it has no notice of the revocation of that power of attorney.

## 12 REPORTING REQUIREMENT

- pele 21/10/14*
- (a) On each anniversary of the date of this deed or as otherwise agreed with the ~~Director General~~ <sup>Secretary</sup>, the Developer must deliver to the ~~Director General~~ <sup>Secretary</sup> a report which must include those matters set out in clauses (b) and (c), as applicable.
- (b) If the Developer has not provided a Contribution Amount in the 12 month period immediately preceding the relevant anniversary of this deed, the report must include:
- (i) a description of the status of the Development;
  - (ii) a forecast in relation to the anticipated progression and completion of the Development; and
  - (iii) an estimated date for when the Developer expects to lodge the first Planning Application.
- (c) If the Developer has provided one or more Contribution Amounts under this deed, the report must include:
- (i) details of all Development Consents granted in relation to the Development;
  - (ii) a schedule that details all Contribution Amounts provided under this deed as at the date of the report; and
  - (iii) an estimated date for when the Developer expects to lodge the next Planning Application.
- pele 21/10/14*
- (d) Within 10 Business Days after receiving the ~~Director General's~~ <sup>Secretary's</sup> written request, the Developer must deliver to the ~~Director General~~ <sup>Secretary</sup> all documents and other information which, in the reasonable opinion of the ~~Director General~~ <sup>Secretary</sup> are necessary for the ~~Director General~~ <sup>Secretary</sup> to assess the status of the Development.

## **13 GENERAL PROVISIONS**

### **13.1 Entire deed**

This deed constitutes the entire agreement between the parties regarding the matters set out in it and supersedes any prior representations, understandings or arrangements made between the parties, whether orally or in writing.

### **13.2 Variation**

This deed must not be varied except by a later written document executed by all parties.

### **13.3 Waiver**

A right created by this deed cannot be waived except in writing signed by the party entitled to that right. Delay by a party in exercising a right does not constitute a waiver of that right, nor will a waiver (either wholly or in part) by a party of a right operate as a subsequent waiver of the same right or of any other right of that party.

### **13.4 Further assurances**

Each party must promptly execute all documents and do every thing necessary or desirable to give full effect to the arrangements contained in this deed.

### **13.5 Time for doing acts**

(a) If:

(i) the time for doing any act or thing required to be done; or

(ii) a notice period specified in this deed,

expires on a day other than a Business Day, the time for doing that act or thing or the expiration of that notice period is extended until the following Business Day.

(b) If any act or thing required to be done is done after 5 pm on the specified day, it is taken to have been done on the following Business Day.

### **13.6 Governing law and jurisdiction**

(a) The laws applicable in New South Wales govern this deed.

(b) The parties submit to the non-exclusive jurisdiction of the courts of New South Wales and any courts competent to hear appeals from those courts.

**13.7 Severance**

If any clause or part of any clause is in any way unenforceable, invalid or illegal, it is to be read down so as to be enforceable, valid and legal. If this is not possible, the clause (or where possible, the offending part) is to be severed from this deed without affecting the enforceability, validity or legality of the remaining clauses (or parts of those clauses) which will continue in full force and effect.

**13.8 Preservation of existing rights**

The expiration or termination of this deed does not affect any right that has accrued to a party before the expiration or termination date.

**13.9 No merger**

Any right or obligation of any party that is expressed to operate or have effect on or after the completion, expiration or termination of this deed for any reason, will not merge on the occurrence of that event but will remain in full force and effect.

**13.10 Counterparts**

This deed may be executed in any number of counterparts. All counterparts taken together constitute one instrument.

**13.11 Relationship of parties**

Unless otherwise stated:

- (a) nothing in this deed creates a joint venture, partnership, or the relationship of principal and agent, or employee and employer between the parties; and
- (b) no party has the authority to bind any other party by any representation, declaration or admission, or to make any contract or commitment on behalf of any other party or to pledge any other party's credit.

**13.12 Good faith**

Each party must act in good faith towards all other parties and use its best endeavours to comply with the spirit and intention of this deed.

**13.13 No fetter**

Nothing in this deed shall be construed as requiring either the Ministers to do anything that would cause the Minister to breach any of the Minister's obligations at law and without limitation, nothing in this deed shall be construed as limiting or fettering in any way the discretion of the Ministers in exercising any of the Minister's statutory functions, powers, authorities or duties.

### 13.14 Explanatory note

The Explanatory Note must not be used to assist in construing this deed.

### 13.15 Expenses and stamp duty

- (a) The Developer must pay its own and the Minister's reasonable legal costs and disbursements in connection with the negotiation, preparation, execution and carrying into effect of this deed.
- (b) The Developer must pay for all costs and expenses associated with the giving of public notice of this deed and the Explanatory Note in accordance with the Regulation.
- (c) The Developer must pay all Taxes assessed on or in respect of this deed and any instrument or transaction required or contemplated by or necessary to give effect to this deed (including stamp duty and registration fees, if applicable).
- (d) The Developer must provide the Minister with bank cheques in respect of the Minister's costs pursuant to clauses 13.15(a) and (b).
  - (i) where the Minister has provided the Developer with written notice of the sum of such costs prior to execution, on the date of execution of this deed; or
  - (ii) where the Minister has not provided the Developer with prior written notice of the sum of such costs prior to execution, within 30 Business Days of receiving a written demand by the Minister for payment.
- (e) The Developer must pay its own and the Minister's reasonable legal costs and disbursements in connection with the negotiation, preparation and execution of any documentation required in relation a release of this deed for the purpose of clause 7.3.

### 13.16 Notices

- (a) Any notice, demand, consent, approval, request or other communication (**Notice**) to be given under this deed must be in writing and must be given to the recipient at its Address for Service by being:
  - (i) hand delivered; or
  - (ii) sent by facsimile transmission; or
  - (iii) sent by prepaid ordinary mail within Australia.
- (b) A Notice is given if:

- (i) hand delivered, on the date of delivery;
- (ii) sent by facsimile transmission during any Business Day, on the date that the sending party's facsimile machine records that the facsimile has been successfully transmitted; or
- (iii) sent by prepaid ordinary mail within Australia, on the date that is 2 Business Days after the date of posting.



## SCHEDULE 1

**Table 1 – Requirements under section 93F of the Act (clause 2.2)**

The parties acknowledge and agree that the table set out below provides for certain terms, conditions and procedures for the purpose of the deed complying with the Act.

REQUIREMENT UNDER THE ACT	THIS DEED
<b>Planning instrument and/or development application – (section 93F(1))</b>  The Developer has: <ul style="list-style-type: none"> <li>(a) sought a change to an environmental planning instrument.</li> <li>(b) made, or proposes to make, a Development Application.</li> <li>(c) entered into an agreement with, or is otherwise associated with, a person, to whom paragraph (a) or (b) applies.</li> </ul>	<ul style="list-style-type: none"> <li>(a) Yes</li> <li>(b) Yes</li> <li>(c) No</li> </ul>
<b>Description of land to which this deed applies – (section 93F(3)(a))</b>	See Schedule 3
<b>Description of change to the environmental planning instrument to which this deed applies – (section 93F(3)(b))</b>	The rezoning of the Land for residential and other urban purposes.
<b>The scope, timing and manner of delivery of contribution required by this deed – (section 93F(3)(c))</b>	See Schedule 4
<b>Applicability of sections 94 and 94A of the Act – (section 93F(3)(d))</b>	The application of sections 94 and 94A of the Act is not excluded in respect of the Development.
<b>Applicability of section 94EF of the Act – (section 93F(3)(d))</b>	The application of section 94EF of the Act is not excluded in respect of the Development.
<b>Consideration of benefits under this deed if section 94 applies – (section 93F(5))</b>	No
<b>Mechanism for Dispute Resolution – (section 93F(3)(f))</b>	See clause 8
<b>Enforcement of this deed – (section 93F(3)(g))</b>	See clause 6
<b>No obligation to grant consent or exercise functions – (section 93F(10))</b>	See clause 13.13

**Table 2 – Other matters**

<b>REQUIREMENT UNDER THE ACT OR REGULATION</b>	<b>THIS DEED</b>
<b>Registration of the Planning Agreement –</b> (section 93H of the Act)	Yes (see clause 7)
<b>Whether the Planning Agreement specifies that certain requirements of the agreement must be complied with before a construction certificate is issued –</b> (clause 25E(2)(g) of the Regulation)	No
<b>Whether the Planning Agreement specifies that certain requirements of the agreement must be complied with before an occupation certificate is issued –</b> (clause 25E(2)(g) of the Regulation)	No
<b>Whether the Planning Agreement specifies that certain requirements of the agreement must be complied with before a subdivision certificate is issued –</b> (clause 25E(2)(g) of the Regulation)	Yes (see Schedule 4)

**SCHEDULE 2****Address for Service (clause 1.1)****Minister**

**Contact:** ~~Director-General~~ *Secretary* *pgly 21/10/14*

**Address:** ~~Planning and Infrastructure~~ *Department of Planning and Environment*  
 23-33 Bridge Street  
 SYDNEY NSW 2000

**Facsimile No:** (02) 9228 6191

**Developer**

**Contact:** NSPT Pty Limited

**Address:** "Northpoint" Suite 3204, Level 32, 100 Miller Street,  
 North Sydney, NSW, 2060

**Facsimile No:** (02) 9923 1233

**Contact:** The Company Secretary, Telicove Pty Limited

**Address:** c/- Brock Partners Lawyers, Suite 605, Level 6, 22 Market Street,  
 Sydney, New South Wales, 2000

**Facsimile No:** (02) 9299 7151

**Contact:** The Company Secretary, Gousse Holdings Pty Ltd

**Address:** c/- WHK, 157 Barker Street, Casino, New South Wales, 2470

**Facsimile No:** (02) 6662 7688

**Contact:** Anthony Roy Smith

**Address:** 37 Gloria Street, South Golden Beach, New South Wales, 2483

**Contact:** Julia Deborah Smith

**Address:** 37 Gloria Street, South Golden Beach, New South Wales, 2483

**Contact:** The Company Secretary, Fletcher Project Developments Pty Ltd

**Address:** Suite 6, 13-15 Frances Street, Dee Why, New South Wales, 2099

**Contact:** David John O'Connor

**Address:** PO Box 1036, Byron Bay, New South Wales, 2481

**Contact:** Carol Fay O'Connor

**Address:** PO Box 1036, Byron Bay, New South Wales, 2481

**SCHEDULE 3**  
**Land (clause 1.1)**

**1 Lots proposed for development**

<b>Lot</b>	<b>Deposited Plan</b>	<b>Folio Identifier</b>	<b>Landowner</b>
5	622736	5/622736	NSPT Pty Limited
6	622736	5/622736	NSPT Pty Limited
1	542178	1/542178	NSPT Pty Limited
227	755695	227/755695	NSPT Pty Limited
229	755695	229/755695	NSPT Pty Limited
9	111821	1/111821	NSPT Pty Limited
1	1166535	1/1166535	NSPT Pty Limited
1	201626	1/201626	Telicove Pty Limited
2	542178	2/542178	Telicove Pty Limited
1	780242	1/780242	Gousse Holdings Pty Ltd
2	818403	2/818403	Anthony Roy Smith Julia Deborah Smith Fletcher Project Developments Pty Ltd
1	520063	1/520063	David John O'Connor Carol Fay O'Connor

## SCHEDULE 4

### Development Contributions (clause 4)

#### 1 Development Contribution

The Developer undertakes to make the Development Contribution:

Development Contribution	Timing
Contribution Amount - Cash contribution towards urban roads	The Developer must pay to the Minister or the Minister's nominee each Contribution Amount prior to the issue of the relevant Subdivision Certificate or Strata Certificate (as the case may be) in accordance with the requirements of clause 2 of this Schedule.
Conservation Contribution – Contribution towards the conservation of the Conservation Land	In accordance with the requirements of clause 3 of this Schedule.

#### 2 Calculation of the value of a Contribution Amount

- (a) Each Contribution Amount will be an amount equal to the sum represented by "X" in the following formula:

$$X = (N \times \$7,000) - A$$

"N" means the number of Urban Lots proposed in each Subdivision Certificate application or Strata Certificate application (as the case may be).

"A" means:

- (i) any section 94 contribution paid in relation to the Land for the funding of the Byron Bay bypass; or
  - (ii) any other amount agreed with the Director-General.
- (b) On each CPI Adjustment Date, the value of X in clause 2(a) will be adjusted by multiplying X by an amount equal to the Current CPI divided by the Base CPI.

#### 3 Conservation Contribution

- (a) This clause only applies to subdivision that requires development consent under the Act.



- (b) The Developer must, prior to the issue of each Subdivision Certificate that includes any part of the Conservation Land, commission a suitably qualified person to prepare a vegetation management plan for the Conservation Land that includes:
  - (i) a program for proposed environmental management works;
  - (ii) the identification of relevant environmental management works;
  - (iii) details of any staging of the environmental management works;
  - (iv) methodologies for the implementation of the environmental management works in perpetuity.
- (c) A vegetation management plan may relate to all or part of the Conservation Land and a vegetation management plan may be relied on in respect to one or more Subdivision Certificates.

## SCHEDULE 5

### Security (clause 6)

#### 1 Security

- (a) The Developer undertakes to provide the Security in order to secure the payment and performance of the Conservation Contribution in the manner set out in the table below.
- (b) The Minister has agreed to:
- (i) accept the Security as security for the payment and performance of the Conservation Contribution; and
  - (ii) return the Security to the Developer upon certain Trigger Events, in the manner set out in the table below.

Security	Value	Date to be provided by Developer	Trigger Event
1.  Conservation Contribution	\$20,000	Prior to the issue of the first Subdivision Certificate for a Plan of Subdivision that includes any part of the Conservation Land	<p>When each landowner comprising the Developer has complied with their several obligations in relation to the Conservation Contribution, the Minister must return the Security to each landowner in the following proportions:</p> <p>\$10,034.00 to NSPT Pty Limited being 50.17% of the value of the Security;</p> <p>\$6,100.00 to Telicove Pty Limited being 30.50% of the value of the Security;</p> <p>\$1,630.00 to Gousse Holdings Pty Ltd, being 8.15% of the value of the Security;</p> <p>\$1,694.00 to AR &amp; JD Smith &amp; Fletcher Project Developments Pty Ltd, being 8.47% of the value of the Security; and</p>

			\$542.00 to DJ & CF O'Connor, being 2.71% of the value of the Security.
--	--	--	---

(c) If the Security is in the form of a Bank Guarantee, it must:

- (i) name the "Minister for Planning and Infrastructure and Planning and Infrastructure ABN 38 755 709 681" as the relevant beneficiaries; and *Department of Planning and Infrastructure*  
*21/10/14*
- (ii) not have an expiry date.

## 2 Developer to provide Security

- (a) The Developer will provide security to the Minister for the value specified in column 2 in the table in clause 1 of this Schedule 5 (**Table**).
- (b) From the date of this deed up until each corresponding Trigger Event, the Minister will be entitled to retain the Bank Guarantee.

## 3 Claims under the Security

- (a) The Minister may:
- (i) call upon the Security where the Developer has failed to perform the Conservation Contribution by the date for performing the Conservation Contribution under this deed; and
- (ii) retain and apply such monies towards the costs and expenses incurred by the Minister in rectifying any default by the Developer under this deed.
- (b) Prior to calling upon the Security the Minister must give the Developer not less than 10 Business Days written notice to perform the required Conservation Contribution.
- (c) If:
- (i) the Minister calls upon the Security; and
- (ii) applies all or part of such monies towards the costs and expenses incurred by the Minister in rectifying any default by the Developer under this deed; and
- (iii) has notified the Developer of the call upon the Security in accordance with clause 3(b) of this Schedule 5,

then the Developer must provide to the Minister replacement Security to ensure that at the relevant time, the Minister is in possession of the required Security.

**4 Release of Security**

If the monies secured by the Security have not been expended and the monies accounted for in accordance with clause 3 of this Schedule 5, then the Minister will promptly return the Security to the Developer on the Trigger Event shown in the Table.

**EXECUTED** as a deed

Signed sealed and delivered for and on )  
behalf of the **Minister for Planning and** )  
**Infrastructure** in the presence of: *Pry 21/10/14*

*Elliott Hale*  
.....  
Signature of Witness

*Elliott Hale*  
.....  
Name of Witness in full

*Pry Goward*  
.....  
Signature of the Minister for Planning and  
Infrastructure *Pry 21/10/14*

*Pry Goward*  
.....  
Minister for Planning and Infrastructure

Signed sealed and delivered by **NSPT** )  
**Pty Limited (ACN 103 118 190)** in )  
accordance with Section 127 of the )  
Corporations Act:

*[Signature]*  
.....  
Signature of sole director and secretary

*TERRY J AONEW*  
.....  
Name of sole director and secretary

Signed sealed and delivered by )  
**Telicove Pty Limited (ACN 078 197 707)** )  
in accordance with section 127 of the )  
Corporations Act:

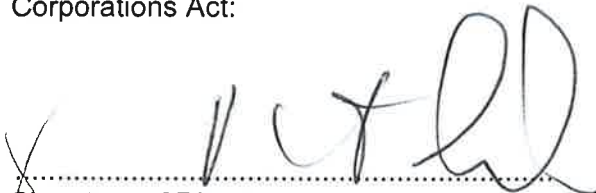
*Gary McDonald*  
.....  
Signature of Director

*GARY McDONALD*  
.....  
Name of Director / SECRETARY

*Mark Ernest Simopoulos*  
.....  
Signature of Director/Secretary

*MARK ERNEST SIMPOPOUS*  
.....  
Name of Director/Secretary

Signed sealed and delivered by  
**Gousse Holdings Pty Ltd (ACN 003 591 366)** in accordance with section 127 of the  
 Corporations Act:

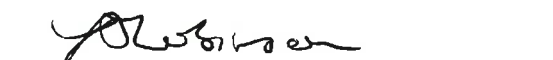
  
 Signature of Director

PETER CROKE  
 Name of Director


  
 Signature of Director/Secretary

HOLLIE CROKE  
 Name of Director/Secretary

Signed sealed and delivered by  
**Anthony Roy Smith** in the presence of:

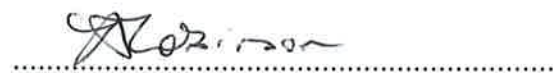
  
 Signature of Witness

PENELOPE ROBINSON  
 Name of Witness in full

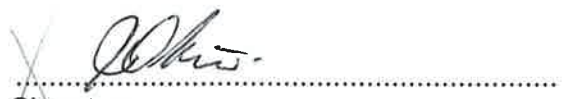
  
 Signature

Anthony Smith  
 Name

Signed sealed and delivered by  
**Julia Deborah Smith** in the presence of:

  
 Signature of Witness

PENELOPE ROBINSON  
 Name of Witness in full

  
 Signature

Julia Smith  
 Name

Signed sealed and delivered by  
**Fletcher Project Developments Pty Ltd**  
**(ACN 089 163 664)** in accordance with  
 section 127 of the Corporations Act:

.....  
 Signature of Director

.....  
 Name of Director

.....  
 Signature of Director/Secretary

.....  
 Name of Director/Secretary

Signed sealed and delivered by  
**David John O'Connor** in the presence of:

.....  
 Signature of Witness

.....  
 Name of Witness in full

.....  
 Signature

.....  
 Name

Signed sealed and delivered by  
**Carol Fay O'Connor** in the presence of:

.....  
 Signature of Witness

.....  
 Name of Witness in full

.....  
 Signature

.....  
 Name



# West Byron Subdivision Submissions

---

## Table of Contents

SUBMISSIONS OF OBJECTIONS .....	3
Environmental.....	3
Belongil Creek/Estuary/Cape Byron Marine Park/ .....	3
Flora and Fauna.....	11
Sustainability.....	26
Weather/Water/Sewer/Drainage.....	27
Climate Change .....	27
Flooding.....	32
Stormwater .....	38
Sewer .....	45
Acid Sulfate Soils/Groundwater.....	48
Amenity within the Proposed Development .....	62
Immediate Neighbourhood .....	64
Character & Community of Byron.....	67
Economy of Byron .....	73
Affordable Housing .....	78
Services/Infrastructure and Social Impact.....	81
Aesthetics.....	88

Heritage.....	89
Fill and Construction .....	90
Lack of Consistency with Other Policy .....	97
Best Practice.....	113
Issues within the DA.....	114
Combined Issues 661 & 201.....	114
Stand Alone Submissions .....	122
Residents of Melaleuca Drive .....	122
Local Community Groups.....	123
Local residents with specific knowledge (e.g., in relation to environmental matters, urban design and previous neighbouring development).....	124
The applicant for the adjoining subdivision (DA 10.2017.201.1).....	126
SUBMISSIONS OF SUPPORT .....	127

## SUBMISSIONS OF OBJECTIONS

### Environmental

#### Belongil Creek/Estuary/Cape Byron Marine Park/

Issue	DA
<p>The site is a low lying wetland that feeds directly into Belongil Creek. It is directly adjacent to the Belongil Creek, close to the estuary and the Cumbebin Swamp Nature Reserve. The drains in and around the site are tidal and thus part of the Belongil Estuary. The Cumbebin swamp, adjoining peat bogs and Belongil creek delta, together drain the lowlands surrounding Cape Byron and the current township. Many hundreds of millions of years ago the Cape would have been an island.</p> <p>The land developers are now considering building over marine silt that has infilled as the sea withdrew. This area forms a very sensitive wetland, wildlife corridor and ecosystem drained by the Belongil creek into a protected marine harbour. Water levels in this swampland are barely a meter below the surface and during the rainy season, the entire area goes underwater until the swamp and creek can do their job.</p> <p>Belongil Estuary is a Special Purpose Zone for environmental rehabilitation in the Cape Byron Marine Park. It is an important place for flora and fauna.</p> <p>The Belongil Estuary and Creek is now surrounded by a large industrial area and a large housing estate and is already impacted by these existing developments; adding another development of this size is scandalous.</p>	<p>10.2017.201.1 &amp; 10.2017.661</p>

The Belongil beach is a well loved and used beach that will irrevocably be negatively changed with the amount of run-off from the West Byron site that will inevitably flow into/onto it and even out to Julian Rocks. Belongil creek is completely silted up.

The Estuary is already degraded by major pollutants from the West Byron Sewerage Treatment Plant, stormwater runoff, point sources such as Sunnybrand Chicken Factory, leachate from the old Byron Bay tup, and runoff from ASS and agricultural lands. It is in need of environmental repair and is in such perilous state that it cannot cope with further degradation. The Office of Environment and Heritage's Water and Coastal Science Section (Scanes, P. 2009,pers.comm.) at that time, considered Belongil Creek among the most severely disturbed estuarine systems in NSW based on the results of water quality sampling by Australian Wetlands (2009) (as in Cumbebin Swamp Nature Reserves – Plan of Management 2012). This DA will greatly exacerbate this situation.

A 2001 study noted that the estuary is impacted by poor quality stormwater originating from urban and rural precincts, by acid runoff from rural areas during adverse seasonal conditions and by potential point sources of pollution (Parker and Pont, 2001).

A 1999 report notes fish kills in the creek have been attributed to high levels of dissolved aluminium and high acidity. (Tulau)  
Fish deaths have also been noticed more recently in Suffolk.

Considering that the Belongil is known by water authorities to be 'stressed' and in danger of further degradation **we certainly need more scientifically collected/collated data** to be able to even consider that this

system could handle an increase in run off from new residential housing properties.

The **required baseline studies to assess the current health of the Belongil estuary need to be undertaken and a Belongil Creek Plan of Management prepared in** accordance with DCP - before the pollution from the development can be considered in context. A Plan of Management for Belongil must be created prior to approval.

The development should not be allowed to direct runoff from the site directly into a central drain which is part of the Belongil Estuary. Drainage is bound to end up in Belongil Creek and into the Marine Park – causing Environmental problems. The likelihood of acid sulphate soil being released into local waterways is huge negative impact and will kill marine life. The quality of the fill is of particular concern as the potential of it will go into the Belongil Creek – particularly at the building phase – is a genuine concern. Belongil Creek and Estuary should not be allowed to be contaminated. A detailed assessment of the current health of the Belongil estuary and all waterbodies and groundwater on the site is needed. To identify the potential extent of disturbances to, and drainage of, ASS and to estimate the likely impact various development scenarios will have on the Estuary. Impacts and solutions need to be considered on a whole of site basis.

The creek will start to drain even more heavily polluted water into Byron Bay coastal water. Polluting the bay is contrary to NSW Government Policy. The State Government recognises the importance of protecting our natural environment, specifically referencing activities that this development is clearly a threat to. To quote the NSW DPI:  
“Important aspects of conserving marine biodiversity include marine

<p>pollution reduction programs, climate change responses, marine biosecurity, threatened species recovery, resource use and boating management, land-use planning and catchment management.’  NSW Dept of Primary Industries - [accessed 28/3/18]  <a href="https://www.dpi.nsw.gov.au/fishing/marine-protected-areas">https://www.dpi.nsw.gov.au/fishing/marine-protected-areas</a>  Thus, it is apparent that NSW Planning is contravening NSW DPI within this DA should therefore be rendered void.</p> <p>The DA has insufficient information as to how pollution to the waterways will be managed.</p>	
<p>Belongil Estuary is a Coastal Environment Area under the 2016 draft Coastal Management SEPP.</p> <p>The site contains land identified as Coastal Wetlands Area and Coastal Wetlands Proximity Area which falls within Coastal Management Area 1: Coastal Wetlands and Littoral Rainforests Area – SEPP Coastal Management. The discussion paper states: “Development consent must not be granted to development on land within the 100m perimeter area of a coastal wetland unless the consent authority is satisfied that the development will not significantly impact on: -the biophysical, hydrological or ecological integrity of the adjacent coastal wetland, or – the quantity and quality of surface and ground water flows to the coastal wetland if the development is on land within the catchment of the coastal wetland. This DA has not given due consideration to the draft State Environment Planning Policy (Coastal Management) 2016, with 2.1 ha of mapped SEPP Coastal</p> <p>Wetlands proposed to be filled and extensive works undertaken within their 100m proximity areas and a Coastal Environment Area. Proposed lot 401 sits partly within land marked as proximity area for coastal wetlands under the Draft State Environmental Planning Policy (Coastal</p>	

<p>Management) 2016 (Draft SEPP).</p> <p>Intent to construct drainage works and potentially undertake some fill works within the mapped coastal wetlands, and outside the 'low density residential zone' must be considered. The impact of urban and flood runoff being discharged directly into the Coastal Wetlands and Coastal Wetlands Proximity Area must be considered.</p> <p>Villa World has not considered the impacts they will have on the mapped coastal wetlands and littoral rainforest area as the south-eastern part of the development is mostly within the coastal wetlands proximity area.</p> <p>It seems some fill works will take place within the mapped Coastal wetlands. There will be significant effects resultant from urban and flood runoff being discharged directly into the Coastal Wetlands and Coastal Wetlands Proximity Area that must be considered.</p>	
<p><b>Natural systems</b> - have "tipping points" beyond which damaging change becomes irreversible (e.g. species loss, climate change, groundwater depletion, land degradation). However, these thresholds are in many cases not yet fully understood, nor are the environmental, social and economic consequences of crossing them (OECD, 2012, p. 4). The West Byron Development must be stopped, because it's approval will undoubtedly speed up the tipping point for this region. The environmental crisis originates with the inability to think about ecological patterns, systems of causation, and the long-term effects of human actions. Eventually these are manifested as soil erosion, species extinction, deforestation, ugliness, pollution, social decay, injustice and economic inefficiencies. (1994, p. 2).</p> <p>This area has been defined by a commitment to Ecologically Sustainable</p>	<p>10.2017.201.1 &amp; 10.2017.661.1</p>



Development since 1996.	
<b>Rubbish</b> – developments cannot mediate against all rubbish being disposed of in the proper way from any area. A new and large residential area on the banks of the Belongil can only increase the rubbish finding its way into the creek. There is considerable scientific evidence which now demonstrates the huge impact rubbish can have on both the birdlife and on the fish and turtles in the waterways.	10.2017.201.1 & 10.2017.661.1
Belongil Creek's eco system will be damaged beyond recovery during the construction period.	10.2017.201.1 & 10.2017.661.1
Can Council afford to keep mitigating beach erosion on Belongil Beach as demanded by private landholders in that vicinity?	10.2017.201.1 & 10.2017.661.1
It is clear that these are lands best returned to wetlands, rehabilitated as wild floodplains. Intensive residential and industrial development exacerbates conditions and degrades waters. The Belongil and the Cape Byron Marine Park are part of the whole-of-catchment planning which must be accounted for first. The developer's reports do not address these issues in the detail required and yet a DA such as this, drawing its authority from these inadequate reports is to be taken seriously?	10.2017.201.1 & 10.2017.661.1
<p>This area is important to aquatic life freshwater and marine.</p> <p>Pollution via the industrial estate drain (actually a channel) and the overall flow throughout the site is a serious issue and what the DA proposes will exacerbate this with widening, deepening, and facilitating a rapid flow through this already troubled channel. Some of the responsibility for better management and better outcomes for not only water flow but aquatic wildlife is part of the brief for the newly revived Union Drain Trust. The DA ignores its impacts on the channels of the Trust and of the waters of the catchment. The DA ignores the important requirements of buffer zones full of trees and extending 50-100 metres along each bank.</p>	10.2017.201.1 & 10.2017.661.1
Our wetlands are precious and must be protected, area is <b>SEPP 14</b> . Byron	10.2017.201.1 & 10.2017.661.1

is part of the Northern Rivers – gaining its regional name from the regular & heavy rains we receive. The Plan of Management Cumbebin Swamp Nature Reserve February 2012 states that this reserve was established in 1999 to protect a significant component of the Belongil-Cumbebin wetland. The proposed West Byron development is sited on part of the last active floodplain in the area. These wetland areas act like a sponge to absorb these rains & filter them before releasing clean water to the ocean. Therefore this area is integrally linked to our beaches, coastline & fishing resources.

The DAs show a lack of information and understanding of impacts of fill and resultant drainage on SEPP 14 wetlands and Belongil creek catchment. Swamplands are wonderful areas to be kept as National Parks.

Runoff from 19% of the urban area will be discharged directly into the Belongil Special Purpose Zone of the Cape Byron Marine Park, and 37% will be discharged into SEPP 14 wetlands, with 44% discharged into the central drain and thence into Belongil Creek.

The only regeneration project that has been implemented in over a decade is the West Byron Wetlands and the Melaleuca Plantation (*Extraordinary Water, Waste & Sewer Advisory committee meeting, December 2017*).

Creating potential new urban areas in a swamp northern sub tropics has the potential for heightened risk for Tick Typhus, Ross River and other insect borne diseases.

Wetland, with the effects of increasing climate change, is destined to become a coastal swamp. This land will return to swampland regardless of how much fill is dumped.

<p>Locals are working to regenerate the wetlands along with guidelines and the help of “land for wildlife” or “Wetland Care Australia” while the developer next door should be allowed to commit environmental vandalism.</p> <p>These swamps are imperative for Nature to function healthily, as they are the balancer of the salty ocean waters and the inland sweet waters.....plus all the animal life in it. There is NO soil that can be spared to fill a swamp....this is all estuary up and down the coast too. australia is the flattest and driest continent on earth.</p>	
<p>2.1 ha of mapped SEPP Coastal Wetlands proposed to be filled and extensive works undertaken within their 100m proximity areas and a Coastal Environment Area. The DA's must consider their impacts on currently mapped Coastal Wetlands (and the requirement for an EIS) and the Coastal Environment Area.</p>	10.2017.201.1 & 10.2017.661.1
<p>The area considered for development was once part of the Cumbebin Swamp. Before European settlement the proposed area was a paperbark wetland and a crucial component of the Belongil Creek ecosystem, reducing runoff and water flow from storm events, filtering the water and providing habitat for a myriad of terrestrial and aquatic creatures. The area was drained to provide pastures for grazing in the first half of the 20th century when no controls were placed on such significant works, and there was little understanding of the impact this would have on wetland ecosystems.</p> <p>Despite this, the area still retains many of its previous attributes: absorbing rainwater, reducing run-off and ameliorating flood events, locking up acid-sulphate soils thus preventing the leaching of acidic water into the estuary, and providing habitat for vitally important species.</p>	10.2017.201.1 & 10.2017.661.1

How will the leeching of fill into the wetland be managed?	10.2017.201.1 & 10.2017.661.1
<b>Flora and Fauna</b>	
<p>The site is part of a larger eco-system that will be affected. Previous State government studies and the award winning Biodiversity Conservation Strategy have identified this land as a regional wildlife corridor, containing high conservation value vegetation.</p> <p>Development will have negative impact on biodiversity, on the delicate ecology of the site and on the areas environmental diversity. Lack of realistic consideration for the protection of the flora, fauna and hydrological features of this vulnerable wetland site. Many species are at danger. Two threatened species (Wallum Froglet, Olongburra Frog) and three vegetation communities (Swamp sclerophyll forest, Freshwater wetland, Fernland) at the site are considered groundwater dependent (Australian Wetlands Consulting Pty Ltd 2010).</p> <p>Residents of the shire over many years have invested money and time to prevent the destruction of habitats for our flora and fauna, they understand the connectivity in the landscape for biodiversity survival, any native vegetation is important as habitat for a multitude of species that support biodiversity – it should not be available for the developer to destroy.</p>	
<b>Flora-</b> The NSW Office of Environment & Heritage profiles the Coastal floodplain forest of the NSW north coast bio-region as an endangered ecological community and its list of threats include further clearing for urban and rural development; flood mitigation and drainage works; management of water and tidal flows; landfilling and earthworks associated with urban and industrial development; changes in water	10.2017.201.1 & 10.2017.661.1

quality, particularly increased nutrients and sediments; activation of acid sulfate soils; and climate change.

The proposal will directly and indirectly adversely affect a number of Threatened Ecological Communities (NSW *Biodiversity Conservation Act 2016*), particularly *Freshwater wetlands on coastal floodplains of the NSW North Coast, Sydney Basin and South East Corner bioregions* and *Swamp sclerophyll forests on coastal floodplains of the NSW North Coast, Sydney Basin and South East Corner bioregions*;

Seven vegetation associations: Littoral rainforest, Swamp forest, Mangrove forest, Frontal Dune complex, and Grassland; and five species of flora in the catchment listed as threatened under the Threatened Species Conservation Act: Stinking Cryptocarya (***Cryptocarya foetida***), Red Lilly Pilly (***Syzygium hodgkinsoniae***), Durroby (***Syzygium moorei***), Arrowhead vine (***Tinospora tinoporoides***) and Swamp Orchid (***Phaius tancarvilleae***). Four Endangered Ecological Communities have been identified in the catchment by IERM (2005): Saltmarsh, Freshwater wetlands on coastal floodplains, Littoral rainforest, Lowland rainforest on floodplain, and Swamp Schlerophyll Forest.

The flora that grows in this area is specific to the ecology that exists and is needed for this highly wet low lands. The fauna seen on these wetlands, the swamp, the creek and the flats are native and have evolved to grow here to hold the balance of power.

The DAs should provide appropriately biologically-sensitive responses to the issues that will inevitably impact on the area, as listed below. Countries around the world are recognising the rights of Nature, as is the UN. The rights of this ecosystem as well as the community of the Byron

<p>area who are united in our opposition to this unsustainable development need to be respected.</p> <p>It is not too audacious a claim to say that Trees evolved on this planet before human beings and they made it possible for the conditions that gave rise to our existence. (refer to Morris Lake QQDMs' publication 'Australian Rainforest Woods')</p> <p>We have all but destroyed the Big Scrub in the past 150 years since settlement on the North Coast. Only a few scattered small remnants remain, and they are not secured. Bell Minor die back threatens 37,000 hectares currently of our surrounding forests. The road to Tweed which early settlers said they could "barely see the sky" for trees is now stripped bare of this once great forest.</p> <p>Australia is a cradle of biodiversity, with world significance. Our trees have had a continuous presence in our rainforests for over 240 million years. Australia has about 5300 native wood producing trees, of which approximately 1200 are found in our rainforests. By comparison, the UK has 47 indigenous tree species, Western Europe North of the Pyrenees and the Alps contains 67 indigenous tree species. Add to this the fact that Australian rainforests contain representatives of 12 of the world's 19 living primitive plants, plus 65% of our ferns and 30% of our orchids. That we know of.</p> <p>These forests once covered 60% of Australia. Today however they cover a mere 0.12% of the continent.</p>	
<p>Local landholders are proposing to clear 1.8ha of Environmental Zones, and have made no attempt to minimise intrusions or assess the areas affected. There are a number of unnecessary and unjustified intrusions</p>	<p>10.2017.661.1</p>

into environment zones that must be removed, and environmental assessments of the others need to be undertaken so that Koala feed trees and other important areas are avoided	
Local landholders are proposing to clear 18.4ha of Environmental Zones, and have made no attempt to minimise intrusions or assess the areas affected.	10.2017.661.1
There are 35ha of remnant native vegetation on the West Byron Urban Release Area, of which 10.6ha is proposed for clearing.	10.2017.?
Removal of Four hectares of native trees is not acceptable. Much of the land includes paperbarks and mangroves, both of which are integral to an ecosystem which mitigates heavy rainfalls and/or king tides and most particularly when both occur at once.	10.2017.?
There will be 2 “minor” incursions into E2 zones though these have not been identified and therefore cannot be considered. The DA also intrudes on E3 zones. The industrial site is within the draft SEPP. The area of Lot 146 and Lot 145 (undefined development Lot) should be part of the buffer to the adjacent E2 zone.	10.2017.?
<p><b>Fauna –</b></p> <p><b>Birds and Fish</b> - Belongil Estuary is a very important migratory and resident shorebird nesting, roosting and feeding area for the shire as well as being very important for local waterbirds and bush birds and fauna upstream. The Estuary is very important for twenty migratory and ten resident shorebirds that use the estuary. Belongil Creek and Estuary is a “Special Purpose Zone” of the Cape Byron Marine Park because of the fish breeding and bird roosting the contamination would have impact on humans but also the flora and fauna living in and along it. There are migrating shorebirds (Pacific Golden Plovers, and others travelling long</p>	10.2017.201.1 & 10.2017.661.1



distances) and resident shorebirds (eg the threatened Beach-stone Curlew, Red-capped plovers, Pied Oystercatchers) which live on the banks of the Creek.

Increased numbers at Belongil mean less undisturbed habitat for shorebirds and terns; disturbance decreases the bird's ability to nest and produce young and maintain population, disturbance reduces the ability to feed and roost properly. Feeding and resting is very important to a migrating shorebird's ability to make a successful migration to their breeding grounds in the Arctic.

The DAs fail to protect and enhance threatened species and habitat. Development will take away the natural habitat of many native species. 48 threatened species, 39 migratory species and 2 endangered ecological communities are present on site.

Regular heavy rains regularly top-up the water table and the sight of the wetlands after a big rain is breathtaking - rapid increases in bird-life population in surrounding areas to the development proposal are regularly evident.

There has been campaigns to save the Little Tern which nests in the mouth of the Belongil against Club Med and for the proper protection of the Belongil ecosystem for many years.

You should be strongly reminded that local councils have a responsibility under several international agreements for the conservation outcomes for migratory birds.

**Threatened species** - have not been addressed. Fifteen Threatened fauna

species under the NSW TSC Act 1995 have been recorded on West Byron, with 4 of these listed under the Commonwealth EPBC Act 1999. There has not been an attempt to consider impacts on threatened species and ecological communities in accordance with the Biodiversity Conservation Act 2016 instead of the repealed Section 5A of the Environmental Planning and Assessment Act 1979.

Coastal Petaltail *Petalura litorea*

Mitchell's Rainforest Snail *Thersites mitchellae*

Wallum Sedge Frog *Litoria olongburensis*

Wallum Froglet *Crinia tinnula*

Black Bittern *Ixobrychus flavicollis*

Pale-vented Bush-hen *Amaurornis moluccana*

Grass Owl *Tyto longimembris*

Common Planigale *Planigale maculata*

Koala *Phascolarctos cinereus*

Grey-headed Flying-fox *Pteropus poliocephalus*

Eastern Blossom-bat *Syconycteris australis*

Eastern Long-eared Bat *Nyctophilus bifax*

Little Bent-winged Bat *Miniopterus australis*

Greater Broad-nosed Bat *Scoteanax rueppellii*

Southern Myotis *Myotis macropus*;

Most of these animals will be affected to varying extent by the development.

**Other species** that will be impacted by the development:

Echidnas

Wallabies

Possums

Bandicoots

<p> Spoonbills  Cranes  Jacana  Swamp hens  Tawny frogmouth  Blue heron  turtles,  goannas,  black swans  Swamp Wallaby's  Jabiru  Fish  Eels  Water dragons  Freshwater turtles  Sugar gliders  Bats  snakes  Important insects  And all the microorganisms that allow the balance of nature to exist </p> <p> We cannot afford to lose any of these; already the Green Tree Frog has become a rarity here as a result of glyphosate spraying. </p> <p> Four species, the Coolamon tree, Grey Headed Flying Fox, koala and Wallum Sedge Frog are listed as 'vulnerable' under the <i>Environment Protection Biodiversity Conservation Act 1999</i>(Cth) (EPBC Act) </p> <p> The impacts on these species by the development are significant and therefore may require approval by the Federal Minister under s67 of the </p>	
---	--

<p>EPBC Act and should be referred by the proponent.</p> <p><u>No</u> dogs and cats should be allowed due to the adjacent wildlife, some endangered and threatened. Domestic dogs—alone and in packs—are already seen in the Belongil area and on our property mauling and killing wildlife (e.g. wallabies).</p>	
<p><b>Koalas:</b> Koalas are vulnerable species under the NSW Threatened Species Conservation Act 1995 and Federal Environmental Protection and Biodiversity Conservation Act 1999.</p> <p>West Byron contains core Koala Habitat and is a pivotal link in a corridor for movement of Koalas within the larger population between North and South. Council identified primary koala habitat within the West Byron development site well over a decade ago, classifying it as High Conservation Value Native Vegetation in the Byron Shire Biodiversity Conservation Strategy (2004). There is evidence of a resident population of koalas centred on Belongil Fields with 5 systematic koala scat searches since 2010 and they all indicate a widespread and permanent koala presence on the site. Council’s mapping identifies 3.3ha of Class one habitat and 3.4 ha of class two habitat at West Byron. Mapping criteria is consistent with SEPP 44. The 2010 Biolink study identified two areas of core Koala habitat extending onto the Villa World lands. Biolink 2012 study identified significant patches of primary Koala habitat as occurring at West Byron.</p> <p>The Ecological Assessment West Byron Project (Australian Wetlands Consulting 2010) concluded the likelihood of core koala habitat and therefore requirement of a Koala Plan of Management as per SEPP 44 for the future development of the site, “... once the rezoning process had been finalised”. The Byron Coast Koala Habitat Study (Biolink 2012)</p>	<p>10.2017.201.1 &amp; 10.2017.661.1</p>

identified significant patches of primary koala habitat at West Byron. Further, it identified a koala population “cell” west of the Byron Bay urban centre and extending towards Ewingsdale, through the Cumbebin Swamp to the site of the proposed suburb. Byron's Koala population comprises some 240 individuals. koalas have been recorded in this area consistently over a number of years which, according to SEPP 44, means it qualifies as Core Koala Habitat.

The following points are of serious concern;

- Loss of koala habitat and food trees;
- Fragmentation of koala habitat due to buildings, roads and fencing;
- Physical injury to koalas during tree clearance;
- Lack of food available to koalas in the period between clearance of existing food trees and development of new tree planting to provide suitable browse;
- Increased car hits of koalas due to the number of new cars driving along Ewingsdale Road;
- Increased mortality due to dog attacks on local koalas from new pets moving into the area;
- Increased disease due to the stress associated with habitat loss and the proximity of new development; and
- Insufficient duration of monitoring to be able to properly assess the impacts from the development.

West Byron has 5.5ha of scattered patches of core Koala habitat of which 2ha (37%) is intended to be cleared, with the remnants fragmented by houses, roads and fences. In the current wildlife corridor ticks travel with animals through the corridor, when the corridors are destroyed by land clearance & building estates, toxic tick populations increase therefore

running a high risk of affecting humans & leading to potential sickness & disease, eg 'Lime like disease'.

Anyone who understands koalas knows that they are deeply attached to their food trees and their ranges, and that its removal will expose them to significant stress. From our perspective, the stress caused by habitat removal is a significant factor in koala diseases such as Retrovirus and Chlamydia. It therefore fails to meet the SEPP 44 objective of encouraging *'the proper conservation and management of areas of natural vegetation that provide habitat for koalas to ensure a permanent free-living population over their present range and reverse the current trend of koala population decline'*. We are most concerned that it proposes fencing of unspecified areas to exclude Koalas/dogs, ignoring the potential impact of fences on koalas rather than excluding dogs from the development, which we believe is essential if the development proceeds.

Friends of the Koala's Inc. particular opposition to the West Byron proposal is founded on the adverse impact it will have on the koala population. West Byron Site is essential for maintaining connectivity between koalas in the north and south. The proposed development would undoubtedly displace the koalas that presently use the site for occupation and dispersal, isolating those in the north from those in the south and potentially making those populations unviable. This would more than likely lead to the demise of koalas south of Ewingsdale Road.

Friends of the Koala - is a voluntary regional community group whose mission is conserving koalas, particularly in the Northern Rivers region, in recognition of the contribution the species makes to Australia's biodiversity. We're licensed by the Office of Environment & Heritage to rescue, rehabilitate and release koalas in the region, and are also engaged in habitat protection and enhancement, community education, policy

reform and research. We maintain a database of koala records, both sightings and rescues, from 1989 which includes over 1776 from Byron Shire. We are more than happy to provide you with our data if requested.

Habitat for koalas is rapidly disappearing. Lilli Pilli alone has regular tree removal occurring due to a change in fire regulations. In Lilli Pilli Drive, I have witnessed at least 12 large habitat trees removed during the last six months.

A variety of standard mitigation measures of unknown veracity are proposed for internal roads, and from our perspective, we believe that as well as speed signs there should also be speed humps that limit speeds to below 20km per hour where roads are adjacent to, or cross, environmental zones.

Currently the increase in sub-urbanisation means destruction of koala habitat.

Domestic pets play a significant role in this as does traffic movement.

DoPE ignored the Byron Coastal Koala Plan of Management and did not gain independent advice on koalas.

The developers should be required to remake their plans so that they are consistent with the Byron Coast Comprehensive Koala Plan of Management, Byron Shire Development Control Plan 2014. A Koala corridor, 200m wide, should be a vital requirement.

There needs to be a Koala plan of management for the whole site (both DA's) that identifies stands of Koala habitat, location of all feed trees



>20cm dbh, and actual Koala movement corridors through the site. Impacts of clearing, fill drainage, roads, tracks and development on Koala habitat, koala feed trees, koala movements and koala mortality need to be detailed and specific protection and mitigation measures identified. The establishment of a 100m wide Koala corridor through the site that maximises the inclusion of core Koala habitat and avoids unsuitable habitat and lands subject to inundation due to climate change is considered a vital requirement for the persistence of Byron's Koalas.

We believe a robust Individual Koala Plan of Management with a focus on connectivity enhancement prepared under NSW law and Federal law (we have written to Minister Frydenberg reminding him of his predecessor's assurance that his Department will continue to engage with the proponents in regard to the potential for impact on the Federally-listed vulnerable koala) is the only chance that animals using West Byron for occupation and dispersal will have for their future survival. When stressed, koalas become more vulnerable to chlamydia. Habitat destruction and fragmentation are both extremely stressful to these protected and iconic native animals.

There are many other inadequacies in this plan and we believe that it meets the referral guidelines for the vulnerable koala and should therefore be referred to the Federal Environment Minister for consideration under the EPBC Act.

It will take us one step closer to the dire situation in the Tweed coast where koalas are now officially classified as 'endangered', with "a government-appointed scientist warning no such population has yet recovered from the grim label" (*"Tweed koala population is officially*

'endangered'." , Tweed Daily News, 9th May 2016).	
The DA proposes to remove 13 Swamp Mahogany Trees (key Koala feed) though does not identify these and their sizes. Proposing to replace these with seedlings that will take decades to grow large enough to function as feed trees is nonsense. Such a proposal needs to be clearly identified within the context of a Koala Plan of Management.	10.2017.?
The AWC Koala Plan of Management (which incidentally only covers the private landholder application) is inadequate in that not only does it fail to recognise this core koala habitat but also proposes the removal of 37% of it on the site. It fails on many grounds, and is not a management plan, but a species eradication blueprint. It fails to recognise core habitat, and endorses the removal of core Koala habitat and feed trees in Ezones. The PoM does not give regard to the whole site, and fails to identify the location and size of Koala feed trees throughout the site to enable a proper assessment of impacts and mitigation measures It ignores requirements in the draft Byron Coast Comprehensive Koala Plan of Management (2015) for 50m buffers around core Koala habitat, and fails to account for the time lag of decades between planting trees and their providing significant browse for the animals, and the increased use of trees with age. Is inconsistent with Byron Shire Development Control Plan 2014 - Chapter E8 - West Byron Urban Release Area. Although mitigation proposed for koalas includes retention of certain areas of habitat and new planting of swamp mahogany trees, this does not take into account the time lag between the planting of new trees and them becoming suitable to provide food and shelter to koalas. Also the retained areas of habitat will be totally surrounded by development, isolating the koalas even further. The mitigation proposed is based largely on keeping the koalas and their habitat separate from the developed area, as it is unrealistic to exclude dogs and cats from the development. I agree that excluding dogs	10.2017.661.1

<p>and cats is unrealistic, as there is neither the will nor the manpower to enforce such a restriction. However, one section of the KPoM says that fencing will be used to prevent dogs accessing koala habitat, while another says that “fencing of residential lots must not impede movement of koalas ..... bottom of the fence must be a minimum of 300mm above ground to let koalas move beneath.....” These two statements severely conflict with each other.</p> <p>The proposed mitigation also includes a Construction Environment Management Plan (CEMP) which requires that an ecologist must check the site immediately prior to any trees being removed. However, these checks are often ineffective as koalas can be difficult to see and are often missed, as evidenced by a number of koalas that have been taken into care at Friends of the Koala as a result of being injured when the tree they were sitting in has been cleared for felling by an ecologist. In addition, the CEMP is apparently only relevant when clearing in Preferred Koala Habitat or clearing Preferred Koala Food Trees, it does not take into consideration the fact that koalas regularly use non-food trees during the day for shelter, so these would also require checking prior to felling.</p> <p>Monitoring of mitigation measures is proposed for a five year period following granting of planning permission, or commencement of works. Five years is not sufficient for the new tree planting to benefit koalas and is also not sufficient to determine any impacts on the local koala population from construction or post construction once the development is occupied and more dogs and cats are brought into the area.</p>	
<p>For Wallum Sedge Frog is it just stated “A bio-banking assessment report is currently being undertaken for the wallum sedge frog”.</p> <p>Removing frogs with bio-banking agreement is not an appropriate offset</p>	<p>10.2017.?</p>

mechanism. We still do not fully appreciate the impact of removal or destruction of fragile eco-systems and potentially endangered species should be protected at all costs.	
<p><b>Suggestions –</b> Biodiversity Development Assessment Report needs to be done</p> <p>Environmental Impact Study needs to be done. An EIS should also ensure that the major components of development should be considered for the whole area and include plans that are applicable for all the lands for such key issues such as environment, traffic, stormwater and drainage, bushfire and emergency management.</p> <p>Species Impact Statements must be prepared for the Wallum Sedge Frog and Koala and these should be referred to the Commonwealth for consideration under the EPBC Act 1999.</p> <p>The sound buffer wall is to be “free of gaps and holes”, effectively blocking any movement of native animals.</p> <p>The plan does not allow for wildlife corridors and it should.</p> <p>Developers to provide overpass to the Arts and Industry Estate. Development area to have access to Skinnars Shoot Road also</p>	10.2017.201.1 & 10.2017.661.1
DAs are based on out-dated survey data and does not understand the science and actual topography of the land itself and its wider location within the surrounding landscape. The impacts of the proposal on the biodiversity attributes of the site and surrounding lands have been inadequately assessed and mitigated, with the design of protected areas and wildlife corridors significantly flawed and against the most basic principles of biodiversity conservation planning;	10.2017.201.1 & 10.2017.661.1

Sustainability	
<p>Development not in line with sustainability agenda and ethos of the Shire. The Building industry is one of the most intensive greenhouse gas intensive in Australia and any conventional building practices should be ceased and a focus on better quality design, building materials, and planning needs to come into play right now. We must protect the earth, we only have one planet!</p> <p>How can the development be considered without requirements for solar power, sustainable building and environmental amalgamation? If we must build on our living swamps and peat marshes, we can only reasonably look at highly innovative building designs that take the floodplain and fragile ecosystem into account at all levels - structural, plumbing and drainage, solar, water gardens, soil revitalization etc. In amongst the unique houses that could be developed, there would still be room for affordable housing should the designers become creative with their planning. Any housing on this site should be designed to world class sustainability standards.</p> <p>the DA ignores sustainability principles and best practice: the plans are to create a new type of slum: there is no emphasis on 'green' options: solar power, rain water collection, grey water plumbing, recycled water provisions and uses, whole-of-site drainage issues, social and ecological amenities and respect for site and community.</p>	10.2017.201.1 & 10.2017.66.1
Our community is working towards Zero Emissions by 2025 – this development will not help us.	10.2017.201.1 & 10.2017.66.1
There is more than enough evidence to show us that if we are to not only survive, but thrive as a species, we need to caretake the environment, not destroy it.	10.2017.201.1 & 10.2017.66.1

<p>I would only support an environmentally sensitive, sustainable, low-density development on naturally high ground, not requiring fill or minimal fill. Byron Bay does not have the infrastructure for the proposed Gold Coast-style mega-suburbia development.</p> <p>The proposed development is in denial of geo science and a world increasingly affected by Global Warming, rising oceans, increased flooding, extreme weather events, etc. Only best-practice sustainable housing should be considered. The developers' greed to maximize profits at all cost will destroy Byron Bay's amenity for residents and visitors alike. Byron Bay's point of difference, uniqueness and attraction is based on our natural beauty and our regard for it.</p>	10.2017.201.1 & 10.2017.66.1
<p>The Australian School curriculums (ACARA) major focus on sustainable living and sustainable communities. What is proposed to happen with the West Byron development contravenes the principles of sustainability taught to all Australian students. The development contravenes the ACARA teachings in the following ways; <u>Sustainable Transport</u>; <u>Healthy Water Systems</u>; <u>Sustainable Ecology</u>; <u>Engineering and Landfill</u></p>	10.2017.201.1 & 10.2017.66.1
<b>Weather/Water/Sewer/Drainage</b>	
<b>Climate Change</b>	
<p>Prior to rezoning the property owners thought only a small section of the site was flood prone and only a small amount of fill would be required – now with a re-assessment of the effects of climate change the whole site would seem to be considered flood-prone land. Many houses on flood prone areas already exist – new ones should not be allowed which will increase the risk to others. Will future landowners be able to get insurance to protect their investment or will it be the future taxpayer's that will need to compensate the land owners after each flood and storm event? Do residents and businesses in West Byron have a case to sue for damages?</p>	

**Sea-level rise** - The current CSIRO projections are for a 3.25 Centigrade temperature rise, which correlates to an approx. 6.5 Metre sea level rise, when the sea level rise comes into a final equilibrium with the temperature increase (and note that the sea level rise will likely be higher as the Federal Governments Greenhouse Gas quarterly Reports show that Australia's Greenhouse Gas levels have increased over the last 6 Quarters). This DA is based on a false allegation of a 2 degree rise by century end and on false eventual sea level rise statistics. This site will be inundated by the projected sea level rise, with the subsequent impact that owners will loose their land title, which will go back to the Crown. The State Government is acting like crooked car salesmen.

As sea-level rise it will become increasingly difficult to maintain the estuary at its reduced height. Belongil Estuary is naturally an Intermittently Closed and Open Lake and Lagoon. That natural height to which water would rise behind the sand bar at Belongil before it breached has been variously claimed as being 1.8, 2.3 and 2.6m, whatever height it reached it which would have resulted is a very extensive wetland system upstream covering a significant part of West Byron. For the past two decades the mouth of the Belongil Estuary has been artificially manipulated, initially to open the estuary mouth when the water level behind reached a height of 1.2m above MSL, which was recently reduced to 1.0m above MSL. This will have had major and profound effects on the estuary and greatly reduce the habitat available for water birds.

The latest sea-level projections provided by the American Association for the Advancement of Science (Climate Science Special Report: Nov 2017) show an increasing trend towards higher sea-level scenarios than previously predicted, with probable sea-level rises by the turn of the



century of between 1m and 2.5m. Current 5-year flood events will occur every 0.2 years; and minor tidal flood days per year will increase to more than 200 days.

According to the AAAS Climate Change Report:

*'Under the representative concentration pathways-based probabilistic relative sea level projections of Kopp et al. 2014, at tide gauge locations along the contiguous U.S. coastline, a median 8-fold increase (range of 1.1- to 430-fold increase) is expected by 2050 in the annual number of floods exceeding the elevation of the current 100-year flood event (measured with respect to a 1991–2009 baseline sea level). Under the same forcing, the frequency of minor tidal flooding (with contemporary recurrence intervals generally <1 year ) will increase even more so in the coming decades, and eventually occur on a daily basis.'*

We can expect a similar scenario in Australia. By the turn of the century large areas of Byron Bay will be subject to constant or permanent flooding (see sea-level rise maps produced by the Australian Government), including the proposed development area. This is an incremental process, and serious flooding issues will eventuate at an increasing frequency over the coming decades.

Geoff Summerhayes is an Executive Board Member of the Australian Prudential Regulation Authority (APRA), a leading Australian regulator. In an Insurance Council of Australia Annual Forum, held in Sydney last February Mr Summerhayes raised the matter in a speech, entitled ['Australia's new horizon: climate change challenges and prudential risk'](#). Mr. Summerhayes, described his remarks as “absolutely consistent with the approach that is being taken overseas” and

that leading global regulators including the Bank of England, the Financial Stability Board and others have been at pains to emphasise both the physical risks associated with climate change (which include the direct business impacts of a changing climate). His speech reiterated that approach and highlighted the importance of predictable, effective policy responses to meet emissions reductions commitments, noting that policy uncertainties, delays, and reversals make transition risks larger and more difficult to deal with. The latest report, from the US National Oceanic and Atmospheric Administration, cites studies that argue a sea level rise of between 2 and 2 point 7 metres is now a 'plausible worst case scenario'. Mapping tools like Coastal Risk Australia from geographical services company, NGIS, suggest a 2-metre rise would render most of the West Byron project unliveable.

Mr. Summerhayes made clear that APRA expects regulated financial-sector entities like insurers and banks to consider the impact of climate-related risks on their actions. Does this also apply to consent authorities like the JRPP?

The location of the proposed development is predicted to be inundated by sea water due to climate change if the planet warms at current predictions. So within 100 years this development will be defunct and the approval of it is not justified. (see image below- Source - Coastal Risk Australia <http://coastalrisk.com.au/>).

As per the extract from Councils Rural land use strategy "Constrained Land", the proposed West Byron area is in the '1:100yr flood or climate change risk' area, so it should not be allowed on that point alone.

<p>Planning authorities have a moral if not legal obligation to take into account the projected effects of sea-level rise and disallow development in areas that are subject to increasing inundation.</p> <p>The precautionary principal must apply. We cannot allow development in circumstances that will inevitably lead to homeowners investing in properties that will be subject to the catastrophic events outlined above. Sea-level rise is not a matter of debate, it is clearly laid out in thousands of peer-reviewed scientific papers and is taken deadly seriously by cities and communities in coastal areas in the United States and around the world.</p> <p><b>Weather Change</b> - Increase of storms and adverse weather due to global changes should be factored into the assessment. National Ocean Service (2017) "To ensure consistency with these recent updates to the peer-reviewed scientific literature, we recommend a revised 'extreme' upper-bound scenario for GMSL rise of 2.5 m by the year 2100". there is only 500mm freeboard on the site after fill is brought in makes it quite likely that in the long term with climate change there will be more frequent and severe flooding events such that flooding of the site will be increasingly frequent and will put at risk the whole development.</p> <p>With increasing ocean level and storm surge events predicted this is not a responsible addition to the load of potential impact on the Belongil coastal esturine system. The flood modelling underestimates the future increases in storm intensities and sea-levels likely to result from global warming and thus significantly underestimates the potential heights of floodwaters and the risk of inundation of the development later this century (or earlier). Similarly the stormwater</p>	
---	--

modelling makes no attempt to account for increasing rainfall intensities. Likely climatic changes on flooding and stormwater need to be fully accounted for. Sensitivity analyses need to be undertaken that account for realistic worst case scenarios, rather than just optimistic ones.	
The development will increase the temperature of the whole area.	10.2017.661.1 & 10.2017.661.1
<b>Flooding</b>	
<p><b>Flooding</b> – Water levels in this swampland are barely a meter below the surface and during the rainy season, the entire area goes underwater until the swamp and creek can do their job.</p> <p>Wetlands are precious and must be protected- if they are not, flooding is inevitable. It rains here every year and every year that site is flooded all the way back to the highway. The proposed area already has to cope with excess water flows generated by the hard surfaces/concrete/roads of the Arts &amp; Industry estate. By adding more development in West Byron, the sponge effect will be lost &amp; there will be an increase in hard surfaces, therefore increasing the amount of water running off &amp; increasing the speed this water travels at, which in turn increases its erosive &amp; destructive impacts.</p> <p>There has been no evaluation or study done regarding flooding. There has been no accounting for role the area already plays in flood mitigation. Run-off from increasing hard surfaces such as roads and slabs decreases the capacity of the land to absorb water</p> <p>Our community concern is that the West Byron Development Applications is sited within the Belongil Creek Floodplain Risk Management Study and Plan Summary. Three facts identified in Belongil Creek Floodplain Risk Management Study and Plan Summary that have impact on Cumbebin</p>	10.2017.201.1 & 10.2017.661.1

Swamp.

Much of the proposed site is a swamp. It is low lying and flood prone. It is the kidneys for the town of Byron Bay. As stated in The Belongil Creek Catchment Management Study and Plan 2015.

“it is important that the cumulative impact of progressive development be evaluated, particularly with respect to floodway and flood storage areas. Whilst the impact of individual developments may be small, the cumulative effect of the ultimate development of an area can be significant and may result in unacceptable increases in flood levels and flood velocities elsewhere in the floodplain.”

Recurrent flooding of roads in the nearby Arts & Industrial Estate as well as underground parking in town are examples of the flood sensitive nature of this area. There are many times of the year when you can kayak across the lands that are currently proposed to become residential. The Cavanbah Sporting Centre, which is on the fringes of these wetlands cancels sporting events on a regular basis because the grounds are flooded and unusable.

Proposed fill will result in flooding. For decades there has been a policy not to increase the level of the flood plain. These DAs are basically putting an extra storey on it. Once its covered by concrete, the water has nowhere to go. Not rocket science. The Byron Shire has an above average percentage of unemployed, under-employed and residents which live on below average levels of income which makes them particularly sensitive to crises such as flooding. The introduction of vast amounts of fill will not only alter the floodplain but displace water back into the town of Byron Bay via the Belongil Creek and associated wetlands of the Cumbebin Swamp. This is a gross violation of accepted flood plain management

guidelines and will do enormous harm to the local area by threatening the habitat of numerous species associated with the Belongil Creek and Estuary, and the people, infrastructure, surrounds and town of Byron Bay.

Replacing the natural landscape with hard surfaces will by definition create direct runoff into the nearest watercourse, Belongil Creek, causing major flooding, erosion, and damage to the estuary and foreshore where the creek meets the ocean. Runoff from 19% of the urban area will be discharged directly into the Belongil Special Purpose Zone of the Cape Byron Marine Park, and 37% will be discharged into SEPP 14 wetlands, with 44% discharged into the central drain and thence into Belongil Creek (including car washing effluent, fertilizers from gardens, etc).

See- *Figure 1 - Illustration of relationship between impervious surfaces and surface runoff February 2003, U.S. Environmental Protection Agency, Washington, D.C. [https://www3.epa.gov/npdes/pubs/nps\\_urban-facts\\_final.pdf](https://www3.epa.gov/npdes/pubs/nps_urban-facts_final.pdf)*

1/Catchment Pg 5 Speaks of restricted outflow from floodplain. The transport of catchment runoff to the creek is influenced by numerous manmade drains and infrastructure. These include the Union Drain, the Byron Bay town drain(or Butler Street Drain), the North Coast Railway line, Ewingsdale Road and numerous bridges and culverts.

Belongil Creek Entrance Opening - Belongil Creek operates as an intermittently closed and open lake or lagoon (ICOLL) system. When the creek entrance is closed, the Belongil Creek is separated from the ocean by a sand beach barrier (or berm). Following heavy rainfall, water levels in the closed creek system can rise rapidly and cause flooding in nearby properties. If the water level gets high enough, water will spill over the entrance sand berm and drain to the ocean. For the purpose of

this assessment, it has been estimated that the indicative cost associated with the design and construction of a trained entrance at the Belongil Creek entrance is likely to be in the order of \$10,000,000. On-going maintenance costs (eg. dredging) will be in addition to this.

2/ Catchment Pg 5 Speaks Already large areas of the flood plain has been filled. The township of Byron Bay is situated towards the eastern boundary of the catchment with a large proportion of the township development on higher ground. Parts of the catchment area have undergone urban development, but over one-third of the catchment area is covered by the Cumbebin Swamp. Large areas of swamp near the town have been reclaimed and developed.

Existing Flooding Model Results - The critical storm duration for the Belongil Creek catchment is 12 hours. In the 12 hour storm approximately 55% of the total rainfall falls within the first 3 hours. The Belongil catchment has a history of frequent moderate flood events, including 1974, 1984, 1995, 1998, 2003 and 2005.

**Cost of Flooding** - The cost last year of the flood in Lismore from bad planning was in the millions. Does the government seriously want to add to its yearly budget for flood protection and SES expenditure on the North coast so one developer can profit ? Who will pay to remediate homes built in an area that goes underwater with a rise in sea levels? It is not a satisfactory solution to sue Council down the track 'sometime' for inaction in the planning stages – as appears to be the case by some current residents at Belongil Beach!

**Flooding impact on adjacent areas** - Of major concern is the flooding of adjacent areas, including the industrial estate, Byron Bay town, Skinners

Shoot Road, Lilli Pilli residential community, the Belongil Estuary and the Cumbebin Swamp Nature Reserve. Flooding of the dead end Skinners Shoot Road across Cumbebin Swamp will be more likely, risking the isolation of the residence. Back up of water in this system affects flooding in the town centre already. The town of Byron Bay already floods in a small rain event. The entrance to Byron Bay at the Woolworths service station (opposite entry to the Belongil Beach area/Kendall St.) floods regularly limiting or excluding access altogether. The westward flow of flood water was so strong a few years back that a pedestrian was drowned trying to get across the main road into Byron Bay at the Cumbebin Swamp. He was swept off his feet and became entangled in a barbed wire fence. The impact of the West Byron site being filled will exacerbate occurrences and gravity of flooding in the area. If the West Byron site needs to be filled so as to facilitate development as it is too low-lying, then Byron Bay will end up being the swamp. The berm will be higher than the town of Byron Bay itself.

Will potential for flooding impact Byron CBD which is already now starting to flood and the surrounding areas? Look at Byron Bay town now in a heavy rain and businesses flood as there is nowhere for the water to go now that all the impervious surfaces in the CBD have been sealed. Consideration needs to be given to the operational needs of the electrical sub-station (Skinners Shoot) during major storm events or emergencies should black outs or other equipment defects occur in other words, flooding / inundation of Skinners Shoot road could impact on the whole town regarding power source during emergencies due to its inaccessibility.

**The Belongil Creek Catchment Management Study and Plan 2015** - “it is important that the cumulative impact of progressive development be



<p>evaluated, particularly with respect to floodway and flood storage areas. Whilst the impact of individual developments may be small, the cumulative effect of the ultimate development of an area can be significant and may result in unacceptable increases in flood levels and flood velocities elsewhere in the floodplain.”</p>	
<p><b>Flood Study</b> - The west Byron Area currently acts as a buffer and reservoir for flood waters during extreme events. These flood waters will need to find alternative space once the land is raised above the required AHD levels for development, posing an additional flood risk to low lying areas around the shire, including Sunrise and Lilli Pilli. It is apparent that the flood study has relied upon low estimates of a wide range of parameters known to affect flood levels in their flood modelling, including the effects of highest tides, extreme wave heights and potential sea-level rise on water levels, and increases in rainfall intensities due to climate change, on runoff.</p> <p>With very high tides and rain events the situations is compounded as the tide acts as a head of water and moves it back through the storm water outlets as it backs up causing serious flooding in perhaps other areas of Byron. Insurance and litigation are the problems that follow.</p> <p>The design does not adequately consider the 1:100 year flood events and Probably Maximum Floods.</p> <p>It is not accepted that the WBM 2010 Flood Study relied upon adequately considered flood risk and climate change increases in sea level rise and rainfall intensity.</p> <p>During a severe storm the combination of storm surges can result in sea levels rising by 1.1 to 2.1 metres for several hours. Wave uprush can reach</p>	<p>10.2017.201.1 &amp; 10.2017.661.1</p>

<p>3-6m higher. When this coincides with a high tide it forms an effective barrier for floodwaters and cause them to back-up, significantly raising flood levels.</p> <p>The sea level at the mouth of the estuary is referred to as the tail water level, the height of which depends on the intensity of the storm.</p> <p>A new flood study, which takes into account vulnerability of the site to climate change, should be carried out. We need an independent flood study on the impact of this development.</p> <p>Given that CSIRO long-term climate mapping for the region predicts reductions in overall rainfall and greater variation of periods of rain and drought – the population increase proposed will result in significant water restrictions for the whole region.</p>	
<p><b>Suggestions</b> - (a) Modify the layout of lots intended for structures and open spaces to sympathise with major flood flowlines.</p> <p>(b) Maintain at least statutory buffer zones around the boundary to protect Belongil Creek and wetlands.</p> <p>(c) Fence off the site from the edge of the watercourse buffer zones to protect the native flora and fauna. Most species will retreat from the urban environment. Access from the site to the protected areas can then be managed with a system of gates and designated trails.</p>	10.2017.201.1 & 10.2017.661.1
<b>Stormwater</b>	
<p><b>Stormwater</b> - We only have 1 main storm water channel, the Belongil creek.</p> <p>The development will result in stormwater drainage systems that will significantly alter overland flows and transport a large variety of urban</p>	10.2017.201.1 & 10.2017.661.1

pollutants. Uncontrolled stormwater can degrade land and downstream environments through erosion, sedimentation, altering of nutrient levels, increasing levels of pollution, the spread of weeds, and exacerbated flooding. The design of stormwater systems must be part of an overall stormwater management plan based on an assessment of potential impact on adjoining land. This must be done before any work is considered on the site.

Drainage issues not sufficiently addressed. Where will stormwater go?

The shallow depth of groundwater needs to be accounted for in the stormwater assessment particularly in discharge areas. Rainwater will no longer seep into the ground because of the concrete, roads, brought in fill and storm drains, the volume of waste water - once the development is finalised and in use - being passed through the nearby treatment plant and back into the catchment area will increase significantly. The urban area will generate a suite of pollutants, while reducing infiltration and concentrating runoff. The principal measures relied upon to mitigate runoff impacts are rainwater tanks and swales (infiltration drains) around the periphery of the development, on their own these have limited ability to reduce runoff and pollution, particularly during periods of high flows and frequent low flows due to saturation, which means that at times untreated stormwater will be discharged into the Belongil estuary. Swales can be effective in reducing some pollutants, though not others.

How will it stormwater and sewage issues affect neighbours, the Cumbebin Swamp and the nature reserve towards the Lilli Pilli area? Hundreds more houses and concrete directing rain into the creek will worsen the situation. The applicant appears to have falsely or incorrectly stated that there will not be pipes or pumps to carry water. I also request

clarification on this.

Water movement along the wetland is already not functioning properly as its unable to uptake the water past the nearby farms. Until the alternative flow path has been implemented to go further past the farms no new development should go ahead as the water problem is already unmanageable for the farms. Having the whole surrounding area to the farms raised of 3 metres will increment the water flowing into their properties to a level that is unpredictable.

Any runoff above a 1:10 year event is proposed to be dealt with by overland flow, quickly overwhelming the capacity of the swales and running straight into the streams and estuary. The Belongil estuary is already heavily degraded and cannot accommodate any increase in pollutants and has been identified as in need of environmental repair. The proposed drainage works should not be acceptable.

It is doubtful that the swales will cope with runoff in heavy events and thus it is likely that polluted storm runoff from roads and houses will directly enter the drains, SEPP wetlands and estuary. The existing western drainage line is to be buried under a couple of metres of fill, roads and houses.

There is a necessity to incorporate the full suite of Water Sensitive Urban Design measures to reduce runoff volumes and pollutants to safer levels (such as roadside swales and porous surfaces in urban areas, check dams on swales, and bio retention basins below them).

There needs to be a single Stormwater Plan prepared that addresses the cumulative impacts of runoff and associated pollutants in discharge areas

that takes into account the current health of the receiving waters. The high groundwater needs to be accounted for in the stormwater assessment, particularly in discharge areas.

**Drainage** - The enlarged storm drain the developers propose will be of not much use until and if the neighbouring property on the East side continues this drain at the proposed capacity as they only indicate that it will be enlarged up to their eastern border. What if this land next to it is not developed? Will this be taken into consideration when they put their DA through?

Drainage is bound to end up in Belongil Creek and out into the Marine Park causing further environmental problems.

The intent for drainage is to direct increase water volumes from a deepened and widened drain into the same drainage line as at present. This is an absurd proposal.

The drainage works need to be re-visioned to slow the movement of water through the site, improve infiltration, remove the need to deepen drains, increase the ability to trap pollutants, sediments and rubbish during periods of high flow, and expand riparian buffers to improve their capture of pollutants while providing ecological benefits to stream biota. The impacts and solutions need to be considered on a whole of site basis and not in a piecemeal manner.

The proposed urban area will generate a suite of pollutants, while reducing infiltration and concentrating run-off. The principal measures relied upon to mitigate run-off impacts are rainwater tanks and swales (infiltration drains) around the periphery of the development. On their

own these measures have limited ability to reduce runoff and pollution particularly during periods of high flows and frequent low flows. At times of high inundation it therefore highly likely untreated stormwater will be discharged into the Belongil estuary.

There is no single Stormwater Plan that addresses the cumulative impacts of this runoff or assessment of the current health of the receiving waters. Additionally without the required baseline monitoring having been undertaken of key water quality parameters in the drainage lines and the Belongil estuary, the consent authorities do not as yet have sufficient information to consider the proposed development. There needs to be a single Stormwater Plan prepared that addresses the cumulative impacts of runoff and associated pollutants in discharge areas and takes into account the current health of the receiving waters.

There is a compelling need to incorporate the full suite of Water Sensitive Urban Design measures to reduce runoff volumes and pollutants to safer levels (such as roadside swales and porous surfaces in urban areas, check dams on swales, and bio-retention basins below them).

Proposal includes on site detention and infiltration and dispersion methods for storm events. However when groundwater is near the surface it is hard to fathom how infiltration into waterlogged soils can be relied upon, while dispersal through the proposed swales is unlikely to be able to cope with high rainfall events.

If any increased impacts from flooding are a result of the development processes or drainage adjustments, pre-existing residents and land owners should have their land tenure and existence protected under

<p>common law.</p> <p>Untreated stormwater discharge must not be allowed to discharged into the Belongil Special Purpose Zone, Wetlands or drain to the Belongil Creek, because those areas are barely able to cope with heavy rains now, let alone if there tidal/storm surges or any sea level rises.</p>	
<p><b>Drainage</b> - Under the Water Management Act (Part 3 S214&amp;215) a new subdivision is not entitled to be connected to a Private Drainage Board. <i>'If a holding is subdivided, a new holding resulting from the subdivision is not entitled to be connected to a PDBs drainage works until a date determined by the board'</i>. It further states that: <i>"All works to be constructed must be constructed in accordance with the approval in writing of the board in respect of location, design, form, dimensions and construction"</i>. In regards to DA 10.2017.661.1, located within the drainage district, the BSDU was neither consulted nor informed.</p> <p>Neither the previous board nor the DPI received correspondence from the developer or council on the matter. A letter written by Colin Draper, falsely claiming to be secretary of the Belongil Swamp Drainage Union, was submitted by the developer with the DA. The letter was subsequently declared illegal by the board of directors (see correspondence with council 31/01/2018).</p> <p>In the public interest the board of directors of the BSDU cannot approve the connection of any new holdings created by the proposed subdivision until it is satisfied that this will not negatively impact on the efficient workings of the Union Drain system.</p> <p>DA 10.2017.661.1 will require extensive works which may adversely affect the flow hydrology for the catchment, increase the potential for acid</p>	<p>10.2017.661.1</p>

<p>sulphate within the drainage system (with subsequent adverse environmental impacts), reduction in the ability for the drain to effectively accommodate drainage from the catchment, affect existing land uses and increase the macro porosity of the catchment.</p> <p>The information given in the DA is not sufficient. It has not been demonstrated that storm water runoff is being directed into legal points of discharge. Detailed reports of acid sulphate soil management, runoff management during and after construction in regards to the imported soil and the management of storm water and waste water including as to how it will impact on the discharge of the West Byron STP into the drainage system are required. We believe an EIA (Environmental Impact Assessment) will be required due to the proposed drainage scheme of the proposed development. The currently submitted DA does not include such a statement. An EIS should also ensure that the major components of development should be considered for the whole area and include plans that are applicable for all the lands for such key issues such as environment, traffic, stormwater and drainage, bushfire and emergency management.</p> <p>A council report, presented to the Coastal Estuary Catchment Panel in March 2017, recommends that feasibility plans for the development of an additional flow path to deal with the outflow of the West Byron Sewer Treatment Plant should commence. It further recommends feasibility studies for the recommended STP 2025 upgrade.</p> <p>It is the strong belief of the BSDU board that the construction of the additional flow path and the STP upgrade must be undertaken before any new developments of considerable size are approved.</p>	
Both storm water run off and sewerage together in a flood event, if not	10.2017.201.1 & 10.2017.661.1



properly addressed could present a massive health and hygiene catastrophe. (We have already seen this happen in South Golden Beach and other low lying areas of the Shire, where the sewerage system and the storm water system adversely collided and raw sewerage entered the streets.)	
<b>Floodplain Hydrology</b> - Any works proposed upon the drain have the potential adversely affect the hydrology of the floodplain. As part of the Management Plan preparation, detailed consideration of all potential management options for the drain will be required to be assessed against the objectives and water management principles of the Water Management Act 2000. Potential future increases in non-stormwater discharges such as from the West Byron Sewer Treatment Plant will need to be considered within the context of the Management Plan.	10.2017.661.1
<b>Sewer</b>	
<b>Waste Water</b> - Plumbing for reticulation of recycled waster from the West Byron STP to the Harvest Estate should be included.	
<b>Sewer</b> - There is no management plan for effluent created by the development- where this will go?  Byron cannot afford such an increase in sewage. Current sewage system does not have capacity for this development. The west Byron sewerage works can probably cope with the increased load but even now cannot dispose of the treated water. Currently, the effluent from the Byron Sewerage Treatment Plant is over 3 mega litres a day. Its disposal is into the network of drains managed by the Union Drain Trust. The constructed wetlands of the Byron STP discharge treated water into the Belongil Creek. I believe the STP was not designed for an urban development of	

this scale. With the current tourist visitation with or without a wet weather event, I believe the STP has already reached its capacity. The surrounding land is saturated most of the time. The ponds, within the wetlands, are also full of water most of the time, contrary to a rotational management plan alternating wet and dry ponds to maintain their long term viability.

The increase on the demand for sewerage will erode significantly all the possibility of granny flats in all of the Bay area. The third stage of Byron Bay's 2004 Sewage Treatment Plan (STP) plan is still incomplete. The redistribution network of treated water from the STP was supposed to include distribution of effluent to recreation grounds, nearby farms and (re)constructed wetlands (alongside regeneration of backswamp and wetlands with acid sulfate soils created by existing drains), but this is still unfinished. No decision about development at West Byron was supposed to happen before this system was completed. The lands supposed to be regenerated as part of the STP include the proposed site of the West Byron development. The inflow capacity of the STP is growing, but the redistribution of outflow is not. How is that vital community infrastructure is left incomplete for a decade? The only regeneration project that has been implemented in over a decade is the West Byron Wetlands and the Melaleuca Plantation (*Extraordinary Water, Waste & Sewer Advisory committee meeting, December 2017*).

That the submission reference land holders and take into account concerns on the capacity of the receiving environment of the Byron STP for the extra sewage effluent that would be generated by development of West Byron. DoPE note that overload of the receiving environment has been an issue for landholders on the flow path from the STP to Belongil Creek, since sewage from the old South Byron STP was diverted to the

current Byron STP a decade ago.

The West Byron Sewerage works has been reported to be releasing treated effluent in excessive amounts. A full investigation of the existing plants ability to cope with extra population needs to be undertaken.

Since the augmentation of the South Byron STP in the early 2000's, the treated effluent discharge from the West Byron STP has been impacting our Agricultural lands, neighbouring lands and the Cumbebin catchment with treated effluent. This discharge has been escalating rapidly due to the increase in development in the Byron Bay area, resulting in parts of our 35-acre portion of effected agricultural land now being in such a degraded state that grass will no longer grow. Our property is currently receiving over 3 Olympic swimming pools of water per day and we have a water table of only 200 mm below ground level in dry weather. Byron Shire Council has started to work towards reducing the impact on our land although this process has already taken them at least 2 years with no end in sight. The flow path of this treated effluent runs through the union drain which was originally built to drain farm land but is over loaded with treated effluent that enters the Belongil Creek via the West Byron proposed development site. Any increase in outputs from the West Byron STP will affect not only our lands and neighbouring properties but also the development itself.

Council commissioned a study to (at a cost of \$350 000) investigate the on-the-ground claims and to establish the sustainable capacity of the Belongil catchment to accept treated effluent discharge with the finding presented in March 2017. After 15 years, the report showed cleary that there is ongoing effect on neighbouring landholders from having water released into their properties and it shouldn't continue. Byron Shire

<p>Councillors have only recently become aware of the findings of this report. The study was prepared by consultants chosen by staff who have much experience in the catchment. See report on Byron Shire Council website.</p> <p><b><u><a href="http://byron.infocouncil.biz/Open/2017/03/COA_16032017_AGN_651_AT_WEB.htm">http://byron.infocouncil.biz/Open/2017/03/COA_16032017_AGN_651_AT_WEB.htm</a></u></b></p> <p>Investigations into the preferred flow path option and the exact details of this flow path are still slowly progressing and the summary recommendation of the Catchment Panel was that either a strategy be found to achieve the level of reuse required OR for Council to consider calling a moratorium on development until the issues are resolved.</p> <p>Due to this ongoing issue with no immediate resolution in site, the development of West Byron Harvest Estate must be postponed until such time as these issues are resolved and an appropriate working alternative flow path is licensed and built.</p> <p>This situation is totally unacceptable and must be rectified before any increase in STP flows are accepted. Approval of this development should not be considered whilst these environmental issues remain unresolved. This development is going to exacerbate an already bad situation where 3 megalitres of effluent are flowing through private land in breach of 1998 LEP.</p> <p>The developer should be in charge to treat its sewerage itself on-site.</p>	
<b>Acid Sulfate Soils/Groundwater</b>	
<b>Acid sulphate soils</b> – will always be a risk necessitating management - disruption to the current soil has the potential to trigger release of acidic	10.2017.201.1 & 10.2017.661.1

waters from acid sulphate soils, which cause fish kills & spread other pollutants already on site (zinc, copper, lead, & petroleum hydrocarbons). Remember the mess at Ocean Shores as it was being constructed!

Opposition to all further building on acid sulphate soil due to potential of pollution. Any removal or use of existing soil structure is an unacceptable risk of releasing potential acid sulphate soils and subsequent impact of soil or water ph with the potential to contribute to fish and micro invertebrate kills.

There needs to be accurate and comprehensive mapping of groundwater and associated pollutants across the site. The likely impacts of the development on groundwater needs to be detailed. As part of this development process baseline water quality monitoring and a model for hydrological projections taking in all factors should be undertaken prior to any stage approved

There needs to be further sampling undertaken to clearly identify the extent of PASS in areas where they are likely to be disturbed or drained. All areas affected by the drainage of.

The depth of the current water table ranges from the surface down around a metre, and this groundwater is contaminated with aluminium, copper, iron, lead, zinc and petroleum hydrocarbons. Underlying the groundwater are Actual and Potential Acid Sulfate Soils which will generate sulphuric acid if drained and increase the contamination of groundwater.

The mobilisation of dissolved metals such as aluminium, iron, manganese and cadmium may have serious toxicological impacts upon aquatic and

<p>terrestrial biota exposed to suitably high concentrations of such substances. Elevated levels of mobilised trace heavy metals in soil and water can be toxic to aquatic life if released into the drainage system during high flow events or a rise in the local groundwater table.</p> <p>There is no plan for toxic runoff.</p> <p>The DA also says 12,800 m<sup>3</sup> of the fill will be found on site which means that some areas will be excavated up to 2m. This is especially concerning in a known acid sulfate hot spot.</p>	
<b>ASS 661</b> - 75% of the area is acid sulphate affected	10.2017.661.1
<p><b>Groundwater 661</b> - It is known that development within a catchment can result in changes in general groundwater behaviour from proposed hydraulic loading. In swamp areas such as Belongil any significant increases in overburden or increased drainage can affect acid groundwater storage and increases in discharge rates. Increases in groundwater levels are likely to affecting local landuses such as agricultural activities utilising low-lying farm lands.</p> <p>Considering those key issues and the size and impact of the development the board of directors of the BSDU suggests postponing a decision on the DA until the document being prepared by Southern Cross GeoScience is available and a Drainage Management plan is in place.</p>	10.2017.661.1
Maintenance of groundwater has important ecological functions which will be affected by changed drainage patterns.	10.2017.201.1 & 10.2017.661.1
<b>Ewingsdale road</b> is the only access to the CBD from the M1, Hospital and Ewingsdale. It is the primary access road for supply and for entry by people working in or visiting Byron. It is also the only viable road connecting the main population centres of Byron and Suffolk with the Industrial park, in which many of our services are located. Extra congestion on this road will cut off many residents, some aged and	10.2017.201.1 & 10.2017.661.1

unwell, from accessing vital services. You can make Ewingsdale road as many lanes as you want. But there will always be a bottle neck when the traffic reaches the town

Ewingsdale road is a classified road, as such consent authorities must not grant consent unless it is satisfied that “the safety, efficiency and ongoing operation of the classified road will not be adversely affected by the development”.

The current infrastructure cannot accommodate the existing traffic flow. Opus 2009 main road study (and other studies) identified that networks are already showing signs of operating close to or beyond capacity and more. Increasing congestion has exceeded predictions and estimates need revision. Ewingsdale Road already congested all year long and highly congested at peak times. Development at North Byron already going to negatively impact the traffic on Ewingsdale road. Cyclists are being seriously injured and even maimed due to the number and depth of potholes on our roads, one has recently died. Traffic volumes on Ewingsdale Rd / Shirley St already exceeding 22,000 vehicles per day<sup>1</sup> (projected to reach 26,000 vehicles per day by 2025<sup>2</sup>) an additional 14,000 vehicles per day from the West Byron Development could see 40,000 vehicles per day on Ewingsdale Rd within 7 years. These are traffic volumes similar to the M2 motorway in Sydney, and only slightly less than Military Rd. These are multi-lane roads in a city of five million people compared with a single lane rural road servicing a town of 10,000 people.

It can take one hour to get from the ozigo to the town centre! People living in Ewingsdale wanting to get to the town are having to spend long times in traffic jams already. Traffic is already gridlocked from town to the highway. During holiday times and on weekends gridlocked traffic is to be

expected throughout the day, not just peak hours.

Community Nurses/service providers etc are already taking the poorly maintained back roads in order to facilitate efficient services. These roads are narrow and unsealed and are themselves busy during severe traffic congestion times, raising once again the issue of decreased safety with the rise in traffic movements

To illustrate this further, this is a quote from the blog of the mayor of Byron Bay, Simon Richardson

*'Aside from resident's frustrations, either trying to move through Byron Bay for work purposes or simply to access the beach and town, the current traffic problems particularly along Ewingsdale Road/Shirley Street are seen very negatively by visitors. A recently commissioned visitor satisfaction report illustrated the negative impact traffic and parking has on visitors. The two highest areas of dissatisfaction for visitors surveyed were 'parking' and 'level of local traffic in Byron Bay'. [6] Doing nothing could jeopardize a nearly half a billion dollar a year industry.*

*It is clear that traffic is one of the constraints on the number of visitors Byron Bay can handle. There is only so much traffic Byron can handle before the very things that attracts visitors to Byron in the first place is destroyed. For residents, there is only so much traffic we will tolerate before we feel the tourism industry is impinging unacceptable on our quality of life.'*

<http://mayorsimonrichardson.com/council-actions/sustainable-traffic-parking-project-park-and-ride-pedestrian-zones-parking-management/>

Evidence on the internet is huge that people are already being kept away by this:



*Don't come to Byron by car. You'll sit in a line of other cars between 2 and 5 km long. All possible solutions to the problem have been exhausted - as I was by the time I got into town after 25 minutes crawling bumper to bumper. Lots of other drivers gave up and turned around and went somewhere else. Next time I'll take the bus. It's a pity they axed the train service a few year back.*

[http://www.tripadvisor.com.au/ShowUserReviews-g528934-r48026032-Byron\\_Bay\\_New\\_South\\_Wales.html](http://www.tripadvisor.com.au/ShowUserReviews-g528934-r48026032-Byron_Bay_New_South_Wales.html)

State of roads already poor. Who will maintain it as Council does not have funds to. Byron Shire Ratepayers have just agreed to over 33% in rate hikes in an attempt to catch up with the failing state of the roads. The proposed project makes no provision toward contributing to the rebuilding and widening of Ewingsdale road, which would be a normal expectation for a project of this scale.

Entering onto Ewingsdale Road from various streets is currently dangerous It is not uncommon to wait at the end of Quarry Lane to merge right onto Ewingsdale Road for 20 minutes to find “a gap” in traffic.

Since the introduction of the roundabout at the hospital entrance along Ewingsdale Road, congestion of traffic is so bad of an afternoon that traffic heading to the highway is usually at a standstill. This once again presents us with life threatening situations as we have to contend with the excess traffic going back into Byron at 80km/h as well as the blocked intersection turning right from traffic trying to make its way to the Highway.

The proposed bypass will not help and cost way too much for the little help it will offer. Bypass will do little to alleviate this problem, as the vast

number of vehicle trips are by people accessing Byron's CBD and beaches, i.e. not passing through. Both the so-called 'long bypass' from the Butler Street to Browning Street and 'short bypass' from Butler Street to Marvell Street are located several kilometres past the point at which traffic jams form. The current plans for these so-called bypasses are not bypasses, but are planned as roundabouts that will slow traffic flows rather than increase their speed. We read that the current VPA states that each of the 387 lots pay \$7000 each to aid in the bypass. What happened to that? Surely the traffic problems should be dealt with before you build houses for more people?

The Byron Bay LES 2005 recognises that there are major infrastructure constraints on further development of Byron Bay, including;

- "Narrow bridge over Belongil creek being an obstacle for emergency vehicles;
- The increase in traffic on Ewingsdale road being 20% between 2000 and 2002;
- Additional intersections will exacerbate existing problems and may require significant capacity upgrades;
- Development that increases car dependency should be discouraged".

Byron Bay does not have the infrastructure nor a sufficient way to upgrade the infrastructure to deal with the increased traffic generated by the development. An appropriate traffic study needs to be prepared.

Lack of sensible traffic flow solution and indeed the inevitable compounding of the current utterly unsatisfactory Byron (and Skinners Shoot) access and egress

In the absence of a workable traffic solution the developments needs to

<p>be scaled back to a level where the safety, efficiency and ongoing operation of Ewingsdale Road will not be adversely affected by the development.</p> <p>Jevons Paradox: when progress increases the efficiency, but the rate of consumption rises as per an increase in demand. Adding more roundabouts or lanes will not make the roads more efficient – rather they will increase demand and congestion.</p>	
<p><b>Pollution</b> - Vehicle engines already sit idling and causing maximum atmospheric pollution – more traffic means more congestion and more emissions.</p>	10.2017.201.1 & 10.2017.661.1
<p><b>Incorrect Application</b> - On the DA Application Form it asks the question under heading <b>Roads</b> - Will your development affect a public road and it is ticked No. The only access into the proposed subdivision is from Ewingsdale Road so it should be ticked Yes.</p>	10.2017.201.1 & 10.2017.661.1
<p>The Planning Minister granted rezoning based on a report that underestimated the new traffic load from the proposed estate – therefore the ‘State Significant Approval’ (the rezoning) should be rescinded.</p>	10.2017.201.1 & 10.2017.661.1
<p><b>Assessment</b> - The Zenith Model Scenario used to compare the daily development traffic generation and the forecast daily traffic on Ewingsdale Road assumes the following development and infrastructure projects are included:</p> <ul style="list-style-type: none"> <li>☑ West Byron Development (all stages);</li> <li>☑ Ewingsdale Road Four Lane Upgrade;</li> <li>☑ Mini-Bypass (Butler Street to Jonson Street / Marvell Street); and</li> <li>☑ Long-Bypass (Butler Street to Jonson Street / Browning Street).</li> </ul> <p>Figure 2.9 represents the percentage traffic generated only by the development in comparison to the total 2028 daily traffic forecast on</p>	10.2017.201.1 & 10.2017.661.1

<p>Ewingsdale Road.</p> <p>There is inadequate information available to assess this or the impact on the main road and other streets in town. There has been no study that has considered the full development. Development will impact surrounding road network, contrary to their belief it won't.</p> <p>The traffic study undertaken by the proponents is limited to only the western part of West Byron and the partial impacts on one of the two roundabouts. The traffic study does not include the impact of already approved and yet to be completed developments such as the North Byron Beach site, Bayshore Village, the new sports fields and the new hospital.</p> <p>Medium density, Super-lot and Industrial areas lack any meaningful detail, so cannot be assessed.</p> <p>Traffic assessment fails to consider the likely traffic generation from the eastern part of West Byron. The final stages of the development need to be taken into consideration when assessing the traffic impacts. As there are currently very limited details on the further stages of development, it is impossible to make an effective plan for future traffic flows.</p> <p>There has been no study that has considered the full development and that fully or accurately identifies the likely consequences that West Byron will have on "the safety, efficiency and ongoing operation" of Ewingsdale Road, Shirley Street or the town centre or roundabouts. There is objection to the proposed relocation of Melaleuca Drive. The proposed elevation of the road and how the road will continue onto the existing part of the road is not addressed at all.</p> <p>The proposal is based on <b>one car per house/unit making one trip</b> in and out of West Byron daily – this is an absurd underestimate. It doesn't</p>	
--	--

include residents out of the planned estate to travel to & from schools & services throughout the day.

In the latest census it was recorded that 36.4% of houses in Byron Bay have 2 cars and that 18% has 3 or more cars - yet this DA implied there is only one car per household. Most houses are likely to have 2 cars, and if there is a granny flat, and some blocks are big enough to make that probable, the real car usage is likely to be up to 4 times greater. High costs of housing in the Shire also lead to multiple occupancy, which means multiple cars for one dwelling. Take a look on most streets in Byron Bay and it is filled with cars because the house is filled with 3, 4, 5 or more people, each of who have a vehicle. Further future individual subdivision and building of granny flats on larger blocks also needs to be taken into account to traffic plans. The pattern established across the Shire of significant numbers (approximately one third) of properties operating as B&B establishments would logically be replicated in the new West Byron Estate. This would push up traffic movements higher than currently estimated, with the additional guest vehicles over and above the residents' own vehicles. Unemployment levels in the area will also contribute to more traffic as more people will have to find work elsewhere - Commuting to neighbouring areas such as Tweed, Ballina, Mullumbimby or Lismore to work increases traffic on our local roads and highways, not an environmentally wise move because of the petrol and fuel needed and carbon emissions that would result in these commutes.

The RMS Guide to Traffic Generating Developments – which the DA claims to use – says that regional dwellings in regional areas generate **7.4 traffic movements per day, not 1** as in this DA. This would result in 6000 trips per day for 856 dwellings with ONLY 1 car - not the 595 claimed in the DA. Furthermore, The Veitch Lister 2011 study is based on 856 dwellings,

which is a major flaw, as 1100 are now proposed.

A report from CRG traffic and transport engineering consultants was included in the 2011 submission by Design Collaborative P/L. This report concluded that the traffic generation estimates produced by Veitch Lister's model appear to be substantially lower than those derived manually using trip generation rates recommended by the RTA.

Using NSW RTA guide to Traffic Generating Developments, using the now proposed 1100 dwellings, the proposed development could generate in the order of 21,412 vehicle trips per day (2-3 cars per dwelling, 7.4 trips per day). This is over three times as much traffic as considered by Veitch Lister. This will be around 100,000 extra vehicle movements per week. Calculations talk about 230% traffic increase.

The rezoning of this area was approved by the Minister for Planning on the premise of an estimated traffic increase of 6,000 vehicle movements per day for the whole West Byron area.

Council and State should require a peer review of the traffic report supporting the rezoning as the traffic report appeared to underestimate traffic generation numbers from the site and the impacts on the major traffic blockages in Byron Bay. The consultant's rezoning report opined that the total west Byron development would increase traffic across the railway crossing into Byron Bay by less than 800 trips per day. Estimates of total traffic generated by West Byron vary between 6500 -9000 trips per day depending on density and the amount of internal "re-subdivision" undertaken after initial development. These values equate to approximately a third or half of the total load on Ewingsdale Road at the moment. The rezoning traffic report required increasing the capacity of

<p>Ewingsdale Road to four lanes to cover existing and long term capacity shortcomings and assumed this work and the current mini bypass proposal would be undertaken. I understand that the dual lane work will be a Council responsibility with some funding provided by the State and developers. Currently however the required upgrades are not funded. The geometrical incorporation of these upgrades into the development layout, their sequencing and funding arrangements together with the reliance of future developments such as West Byron on these upgrades are not investigated nor discussed in the report. It is therefore understandable that the community remains concerned and suspicious as to whether the logistics of such infrastructure has been considered and if it can be funded and therefore built</p>	
<p><b>Capacity of Roads</b> - Dual laneways would be needed (prior to approval) to cope with the extra traffic. However, a larger road on Ewingsdale road will only increase the congestion at the Butler St roundabout.</p> <p>Veitch Lister 2011 traffic study identifies existing chronic traffic problems and predicts rapidly deteriorating conditions as traffic volumes increase. This study is based upon Ewingsdale Road being four lanes, two new roundabouts (SAE and Ozigo), reduced speed limits and a town bypass being in place. The cost estimates for the town bypass have so far doubled and there is no funding source yet identified for the project. Its completion before Villa World cannot be assured and thus should not be assumed. Byron Shire Council was recently unsuccessful in an \$8M Commonwealth Government grant to complete the bypass<sup>4</sup>. It is unlikely that the Byron Bay Bypass will be adequately funded for the foreseeable future unless state and federal governments make substantial contributions.</p> <p>The location of West Byron eliminates many potential bypass routes</p>	<p>10.2017.201.1 &amp; 10.2017.661.1</p>

<p>which Byron Shire Council Infrastructure Services Director Phil Holloway says will be required in the future.<sup>5</sup></p> <p><i>"With one road in and one road out, the existing road network has reached its capacity and the Byron Bay Butler Street Bypass is part of the solution to help ease the pressure" "In the longer term an additional stage two bypass option further along Ewingsdale Road will need be explored"</i></p> <p>A stage two bypass is not possible if West Byron is built, because the only feasible locations are south of Ewingsdale Rd.</p> <p>Any DA of such magnitude can be approved, the traffic problem will need to be solved, not just mentioned. This means implementing any proposed bypass and/or road widening solutions for Byron Bay and determining whether this has solved our problem BEFORE new subdivisions of this magnitude are approved.</p>	
<p><b>Wider Impact</b> - There is no management plan to cope with increased traffic in town, causing delays in town and the detrimental effects likely to flow on to businesses in the town. The housing subdivision will be built before a shopping centre is constructed, which means residents will have to drive into Byron Bay CBD for all services, adding to traffic.</p> <p>The congestion on Ewingsdale Road is also impacting the safety of the highway. Traffic is often at a standstill way before the Byron Bay exit when heading in from the north. Ewingsdale Road is a nightmare now at any time of the day but it is frightening sitting on the freeway, unable to move while huge trucks keep hurtling down the freeway at 110kph. This is not safe. Therefore some of the traffic management for West Byron should be the extension of several kilometres of highway off ramps for Byron Bay, to reduce congestion and a subsequent risk of accidents on the</p>	<p>10.2017.201.1 &amp; 10.2017.661.1</p>



<p>Pacific Highway. The result of traffic banking up onto the southbound side of the M1 would not be good for the Byron Shire, it raises CONTINGENT LITIGATION issues for the shire council.</p> <p>But traffic chaos will extend much beyond Ewingsdale Rd, as residents will need to reach services, such as primary schools and Byron Bay High School. As it is at the moment, traffic near those schools is at a standstill during the school drop off and pick up periods. Turning right into Bangalow Rd from Old Bangalow Rd during those times is impossible or unsafe. A roundabout will therefore need to be built there, and at other intersections, should this development proceed.</p> <p>Does Byron Shire Council have a long term plan in place and funding for the additional road infrastructure expenditure that will be required should this development proceed?</p> <p>Getting into the schools from the rural areas is already difficult. From Burringbar to Byron Bay High School the travel to and from school takes over 3 hours each day due to traffic, when it should've been about 40 minutes. This impacts education hugely for the countless students who live rurally. If the development goes through that only means more traffic and even more of a disadvantage for the students who are travelling from out of town.</p> <p>It is also even difficult to find parks around the schools now, as they are so full, especially Byron Public Primary whereby parkers are clogging up the roads around.</p>	
<p><b>Construction Period</b> - This development will result in a negative increase in traffic and congestion and a negative impact on the state of the roads. The movement of heavy trucks during the construction period of many</p>	<p>10.2017.201.1 &amp; 10.2017.201.1</p>

<p>years will especially destroy the roads. (The fill will take over 3 years of daily deliveries – 10.2017.201.1).</p> <p>Trucks for the construction, including fill stage, of this development is unacceptable and detailed information given in the DA is insufficient.</p> <p>The information given in the DA is insufficient to enable an informed consideration of the traffic impacts associated with the construction activities and resultant subdivision works and development of the site.</p>	
<b>Amenity within the Proposed Development</b>	
The DAs have not been appropriately integrated into the area.	10.2017.201.1 & 10.2017.661.1
<p>Development lacks sufficient green space. This is an unhealthy living environment for growing families. how about having a mandate that all medium strips are planted with fruit bearing trees or trees that give shade. - how about green bitumen instead of black</p> <p>Where are the community gardens? I would be keen to see some future planning allocation for a local retail outlet/s, PO , and other facilities which could be shared by residents of both Lots. Making them more commercially viable. Reducing concerns of the wetlands..eg enforcing stringent Detention Ponds to every Building ( plus rain water tanks?) As above supporting raised floors above ground to assist in water penetration of soil Some restricted % of the area of hard surfaces, roads, paving per Lot etc to allow optimum rain penetration to each building site. There should be provisions for child play/ minding/school centres across the two lots again an advantage to have links There should be Cycle ways, walking tracks There should be provision for construction of Community Hall , public access spaces There should be Bus terminal..</p>	10.2017.201.1 & 10.2017.661.1

Car pool area.	
The two Das should have sufficient linkage!!	
Concern of the number of narrow blocks in one locality... prefer spreading these small lots inter mingling them (in small groups )to allow more fluid integration of various Architecture Styles and greater social mix. Potential for Govt and or Affordable Housing	10.2017.201.1 & 10.2017.661.1
No neighbourhood employment or leisure opportunities the for West Byron inhabitants, All the things that make a village more liveable, Like a corner store, child centre, school, community space eg. Hall, N hubs for community gardens or open spaces, sports or playgrounds for children or Tree Buffers for noise pollution. It's just a hot mess of tin roofs, no trees or gardens or visually pleasing space. It would form a ghetto type feeling, without basic facilities and no one would be truly happy unless they are desensitised to the natural environment.	10.2017.201.1 & 10.2017.661.1
As this development proposed on a flood prone site, slab construction is opposed and buildings should be pier constructed.	10.2017.201.1 & 10.2017.661.1
Social amenity is too minimal. Minimal open space and no shopping areas will lead to detrimental effect of amenity. There are no community halls or non-commercial spaces. Design lacks inclusion of commercial infrastructure	10.2017.201.1 & 10.2017.661.1
It should reflect a density that allows environmental controls and building type specification (I am aware this is Council directive after the rezoning, but should be planned from day one to create a unique development that has a natural fit in a extremely wet environment) and passive solar design made of environmentally sustainable building materials that are low impact high yielding so as to protect the natural habitat.	10.2017.201.1 & 10.2017.661.1
The design principles, including height of structures, are negative. Unless houses are restricted to one level, they will exceed the building height requirement of two floods above NATURAL ground level, as the fill will be	10.2017.201.1 & 10.2017.661.1

3m high.	
<b>Immediate Neighbourhood</b>	
The destruction of the wet lands will consequentially effect the Belongil creek and draining, resulting in a high flood risk zone which we have already have been zoned as. The flooding directly effects our properties and would ruin the place we call home. (Shirley Lane houses)	
Traffic noise - as it is, the noise of the cars coming to/from Byron is off-putting when staying at Belongil. The proposed development will make this noise significantly worse and i believe will make residing in Belongil unappealing.	10.2017.201.1 & 10.2017.661.1
There are approximately 10 properties between Skinners Shoot and Ewingsdale that are prime agricultural farmlands from beef & dairy cattle, olive and citrus groves. Any change or alteration of the water table would decimate these activities, rendering prime agricultural land useless.	10.2017.201.1 & 10.2017.661.1
<p>53 Melaleuca Drive The Storm water management plan of the DA is insufficient and misleading. Examples relating directly to my property are as follows:</p> <ul style="list-style-type: none"> <li>• Some figures (Page 8 figure 2 and 3) are nonsensical.</li> <li>• Point 2.3., "Description of Subject", states the following: "... will require an internal drainage network that will be aligned to discharge into proposed treatment devices which enter the Union Drain passing through the centre of the site, or overland flow out to the south to an existing overland flow path". This is false and misleading. The Union Drain does not pass through the centre of the site. There is no existing flow path to the south of the site.</li> <li>• Point 5.1 Storm water Considerations – Overland flow paths (Page 18) the document states: "Stages 1A, 1F, 1E most of 1I and part of 1D will be directed to the existing drainage flow paths in environmental area in the south". There is no existing flow path in</li> </ul>	

1A, 1D, 1E, 1F. The water will be directed towards private land, our land. **The law of private nuisance strongly suggests that our land is not a legal point of discharge.**

- The storm water assessment drawings also show storm water directed onto our land.
- The illustration “West/Byron/Belongil Fields – Site observation Locations” shows as Location #32 a “vegetated drainage swell”. This is also false and misleading. The “drainage swell” is neither gazetted nor functioning and stops at my property; it is unconnected to any drainage system. Once again: **This is not a legal point of discharge and unacceptable.**

To consolidate my point, I refer to the following advice of the EDO (Environmental Defenders Office):

*The Byron Shire Council Development Control Plan (Part B section B3.2.3) makes provision for Stormwater Management. Clause 2 of B3.2.3 contains requirements for stormwater management for properties adjacent to, or containing, waterways. The terms “waterways” includes wetlands (see definition of waterways in the Byron LEP, which applies to the term as used in the DCP). The requirements regarding the proposed development are as follows:*

- a) Site drainage shall be in accordance with the Northern Rivers Local Government Development Design and Construction Manuals, Byron Shire Council Comprehensive Guidelines for Stormwater Management and relevant Australian Standards.*
- b) For building works, the piped property drainage system is to capture and convey to a lawful point of discharge all stormwater runoff from the following areas of the*

*development site:*

*i) impervious areas including roofs, paved areas and driveways*

*ii) areas subject to changes to ground level (existing) including excavation or filled areas*

*iii) areas where the natural or pre-development overland flow regime is disrupted to the potential detriment of an adjoining property.*

- c) The development must not introduce, impede or divert stormwater runoff in such a manner as to increase stormwater flow across a boundary onto adjoining property. Concentrated, collected or diverted stormwater flow onto an adjoining property must be at a lawful point of discharge.*

*Section B3.2.3, clause 4 provides that a lawful point of discharge exists at a particular location, if:*

*i) the location of the discharge is under the lawful control of the Council or other statutory authority from whom permission to discharge has been received;*

*and*

*ii) in discharging in that location, the discharge will not cause an actionable nuisance.*

*Further, the Byron Shire Council Comprehensive Guidelines for Stormwater Management referred to in (a) above provide that:*

<p><i>Legal Points of Discharge include (but are not limited to) :</i></p> <ul style="list-style-type: none"> <li><i>a. existing Council infrastructure such as kerb &amp; gutter, open channel or stormwater pipeline</i></li> <li><i>b. unformed road reserve</i></li> <li><i>c. public stormwater infrastructure via private property in an existing stormwater easement</i></li> <li><i>d. defined natural waterway controlled by the NSW Department of Natural Resources.<sup>[1]</sup></i></li> </ul> <p><i>In regards to discharge over private land, the council will require the developer to enter into a deed of agreement with that landholder and enter into any necessary drainage easements with that landholder.<sup>[2]</sup></i></p> <p>E2018/21193</p>	
<p><b>Character &amp; Community of Byron</b></p>	
<p>Byron Bay is culturally and demographically unique. I believe that there is a strong argument to use Byron Bay as an example of innovative development and best practice. Byron Bay is more than just another beautiful beach. It is the character of the people and the history and culture of this unique area that make it such a wonderful meeting place. Byron Shire currently hosts a vital and thriving community. Byron is about respect, love and togetherness. Byron Bay is famous far beyond its borders, for its natural beauty and optimistic, creative spirit. The sign at the entrance to town has a wisdom in its simplicity 'Cheer up, Slow down, Chill out'. Being a place of dynamic expressive character we attract people from all over the world to come and relax and celebrate the</p>	<p>10.2017.201.1 &amp; 10.2017.661.1</p>

<sup>[1]</sup> Northern Rivers Local Government, Handbook of Stormwater Drainage Design, cl 16(5).

<sup>[2]</sup> Northern Rivers Local Government, Handbook of Stormwater Drainage Design, cl D5.20(4).

essence of nature. This development will impact the reputation of the whole of Australia.

it is important to reflect that whilst we are a top tourism destination and that tourism is the major economic driver of the town and the shire, we are not (as the bumper stickers says) a commodity – we are a community!

The charm of Byron, for many, is its size, without high rise buildings - & no very large concrete walls, (currently there are trees). The waters here (ocean, creeks etc.) are highly valued and appreciated and this development will destroy the very character and principle of that. Wetlands are precious and an integral part of the character of the region and needs to be protected.

We are the region that prides itself in nature's biodiversity and protection and restoration and this forms our character. The environmental connection the locals have with this beautiful area contributes to the character also. People come here for this character, for the nature and natural feel. It is this character that makes Byron so loved and visited – therefore fuelling our livelihoods. It is a spiritual home. We have a unique way of living and our life is enriched through the spiritual grounds of the area and also the strong sense of indigenous history, both past and present

So far Byron shire has not been turned into another gold coast type overdevelopment, Byron has retained its character as an alternative to the main stream.

Ecotourism Tourism Australia describes this region, Australia's Green Cauldron, as one of Australia's 16 [National Landscapes](#) - the southern hemisphere's



largest extinct shield volcano. To quote from <http://www.greencauldrontours.com.au/> "From the beaches to the villages to the hinterland beyond, Australia's Green Cauldron is filled with special places and hidden gems." Artists, naturalists and industry creatives have been attracted to the remarkable natural environment of Byron Shire as a place to observe, study and celebrate the environmental diversity of the Shire. More recently over the past 60 odd years, the burgeoning surfing community and maritime enthusiasts have been attracted by Byron Bay's surfing beaches and marine life. Dolphin and whale watching has become a critical part of Byron Bay culture and economy over this period. A great many videos, books, poetry, songs and festivals have been created inspired by the topography and culture of the Byron Bay and it's surrounding region.

We as a community are also the custodians of one of the most beautiful places on earth! We are charged with the protection of our Aboriginal heritage and significant places, the majesty of the Cape Byron Marine Park and all the marine species that inhabit it and the biodiversity hot spots throughout the shire. We are blessed with clean water and incredible soils for food growing that has spurred innovative and planet conscious food growing and eco-businesses. We are a hub for artists and world renowned thinkers, writers, academics, health practitioners and entrepreneurs. We as a community are doing more and more every day to reduce our consumption footprint on a warming planet and we want to be able to set that tone for our visitors.

The community of Byron Shire has distinctive shared values and priorities, which include environmental protection, ecological sustainability and community support, resilience and creativity. It seems clear that this development, *as currently proposed* is not at all consistent with the sustainability of local ecology – either natural or social. The proposed development would change the flavour of Byron Bay, having a strong

negative impact on its natural ecology, its distinctive ‘feel’, its functionality, its community frameworks, its natural beauty, and its economy.

Unchecked development is likely to put more stress and pressure on Byron Bay and leave impatient drivers with the all too familiar and depressing ‘Queue up, Speed up, Stress out’ experienced on the Gold Coast. Keep Byron Bay as the sign says entering into the town “chill out, slow down, relax”. We have a wonderful community here in Byron and surrounds and this development will be negative for that community.

Any new residential development in Byron Bay should reflect what the community has worked so hard for so long on: protecting biodiversity, encouraging alternative energy & water sources and housing design styles.

So far from expecting “*The hippie haven of [Byron Bay](#)*” (*Destination NSW quote*) visitors will be welcomed with a gridlock road surrounded by a massive suburb that bears no resemblance to what the town is promoted as or its “ethos”. This not only damages the “international brand” that Byron Bay has developed over the decades but the credibility of Destination NSW and the tourism products it promotes in NSW

With this development Australia will lose a landmark. There are few places left on this planet as beautiful as Byron bay – its worth saving! Byron Bay is an iconic town and is famous worldwide.

The attraction of Byron has been not only the natural beauty of the coastline and hinterland but also its low key physical character and

<p>environmental focus. The 2006 to 2031 <i>Far North Coast Regional Strategy</i> was designed to ensure that “Coastal towns such as Byron Bay, known as a national and international tourism destination, will have retained their village character while still providing a gateway to many regional assets and attractions.”</p> <p>In 2017 the <i>North Coast Regional Plan 2036</i> was released and clearly identifies "Byron Shire as one of Australia’s most visited local government areas, with stunning beaches, beautiful hinterland and vibrant centres like Byron Bay” and that “Byron Shire is known for its natural beauty and character. Unique environmental features such as the Arakwal National Park and the Cape Byron Marine Park will continue to draw domestic and international tourists, contribute to attractive lifestyles and grow the local economy.”</p> <p>Our community is genuinely concerned that the development of the West Byron lands will ruin the key points of attraction for Byron Bay as an iconic destination.</p> <p>There is a long history of protecting the core values of Byron Shire that have been recognised as the key factors that influence the desirability of Byron Bay as a tourism and lifestyle destination, this should not be undermined by approval of inappropriate West Byron developments at the entrance to Byron Bay.</p> <p>As both the State and Federal governments have invested in the promotion of Byron to the world, it is reckless that the state government has allowed this development to get the point where the community lives with the fear of this mega development and how it will destroy their home.</p>	
Byron Bay is a popular tourist destination and adding traffic, polluted	10.2017.201.1 & 10.2017.661.1

<p>waterways, and a common suburb will damage its beauty and character affecting tourism. The character and the fabric of the town would be threatened by this project. Byron Bay's success is based on the towns naturally attractive and environmentally sensitive positioning in the market place. This is underlined by the stated 1.5 million plus visitors attracted to the Byron Bay annually. It is one of the last unique townships on the NSW coast. In the recent NSW Rural Residential Strategy it was noted that tourists are attracted to the Byron Shire for its "natural beauty". I object to any development that would destroy this natural beauty or compromise our very unique and precious environment. The natural beauty and environmental benefits the site brings contribute to our mental health.</p> <p>The approach after turning off the Highway onto Ewingsdale Rd is the main entrance to town. "At last I'm here, beautiful Byron" The lighthouse on the horizon the green fields on the right and left and gradually the approach to the town, the tall pine trees and the entrance to the town. The approach gives a sense that one is entering a coastal country town, with a human scale. Without doubt the brutally designed and unsympathetic imposition of a huge development on this land will negatively impact on the 'romance' of Byron Bay and ultimately destroy it's unique tourist identity.</p> <p>Byron Shire is proud of its natural beauty and forward- thinking demographic, and this D.A. appears to be at odds with these local values. Byron Bay has a unique history and philosophy of life that people here wish to preserve.</p>	
<p>Unacceptable sprawl of suburbia, not keeping to the spirit and character of this town. The development is out of scale with the character of Byron Bay and detrimental to the lifestyle of the Shire. The DA does not accord</p>	<p>10.2017.201.1 &amp; 10.2017.661.1</p>

with alternative, well-designed, low impact on the environment homes that reflect the vibe of our town. Development is counteractive to the wellness of the community as a whole. There is no innovation or point of difference about this subdivision; the block size is small, so the visual impact will be a sea of roofs and ugly. The amount of green space among the houses is minimal; it is clearly laid out for maximum density on the site. The scope and design are totally out of character with the rest of Byron Bay and its surrounds. It would be held up within and outside this district as a town planning aberration and a cynical commercial exploitation of the careful work and care of past generations.	
The proposal will have detrimental impacts on both visitor experiences and resident's who have made past decisions to invest in the character of Byron Bay.	10.2017.201.1 & 10.2017.661.1
Will the increase in people (no doubt a lot of investors?) encourage more commercial franchises, less of the current healthy lifestyle kind of shopping and create a more Gold Coast style town?	10.2017.201.1 & 10.2017.661.1
This site is the current Green Belt for the town	10.2017.201.1 & 10.2017.661.1
<b>Economy of Byron</b>	
The size of our economy is pressing on the earth's biophysical limits, and continuing to grow the economy only makes it worse. - "Unsustainable growth cannot continue indefinitely" – Martin Parkinson (2011), former Treasury Secretary and now Secretary of Prime Minister & Cabinet.	10.2017.201.1 & 10.2017.661.1
The latest <i>Destination Byron</i> statistics show that the Shire is currently experiencing 2.1 million annual visitors per year, with the overwhelming proportion of that number visiting Byron Bay.	10.2017.201.1 & 10.2017.661.1
The following highlighted statements come directly from Destination NSW and demonstrates that tourism in Byron Bay is not just important for the local economy but for the whole of NSW. It also confirms the domestic	

and international tourism market is attracted to Byron Bay with its unique qualities *“Tourism is a significant part of the NSW economy. In 2014-15, tourism contributed \$37.1 billion (Tourism Consumption) to the NSW economy and employed 269,600 people*

*“Tourism in regional NSW outperformed regional Australia and experienced growth in nights of 15.1 per cent, and expenditure grew 30.2 per cent”*

*“The international appeal of regional NSW destinations including Byron Bay on the North Coast have encouraged significant growth in international visitor numbers”*

Destination NSW website also states *“It’s pleasing to see the whole State benefit from regional NSW’s thriving visitor economy”*

Destination NSW describes and promotes Byron Bay, our important regional tourism destination as follows.

*“The hippie haven of Byron Bay has long been a popular summer holiday destination, with visitors enticed by its golden beaches, surf breaks and shopping. In more recent times its reputation as a foodie hub has also flourished. Whites Beach – One of the country’s best kept secrets at Broken Head near Byron Bay offers a piece of secluded paradise with rocky cliffs, palm trees and pristine waters.”*

The proposed development in its scale and form contrasts the image that is promoted by the NSW Government and is the total opposite to what attracts tourism to the area. Tourism is a long term sustainable industry for the local area and while this proposed development may create a

short-term boost for the local economy it will soon pass, but the damage caused will ultimately destroy a long term sustainable industry. Tourism is a long term sustainable industry for the local area and while this proposed development may create a short-term boost for the local economy it will soon pass, but the damage caused will ultimately destroy a long term sustainable industry.

Byron Bay is a booming tourist destination where the beaches and natural beauty attract international and Australia wide attention. To introduce the scale of development proposed by this DA would be a lost opportunity for Byron Bay and Byron Shire. If the Byron Shire is to continue inspire growth and economic development, it will need to reject lack cluster proposals such as this and promote creative and unique ideas for the future.

The traffic and deterrent from the character of Byron will kill the viability of the area. Tourists will stop coming. The long term affect on Byron as a tourism destination worldwide would be placed under pressure due to congestion, loss of environment and the sewerage overload with an already under financed system. Development will deter tourism which is the main industry for our economy. The development will ruin the reputation of Byron. Potential Damage to “Brand” Byron - as illustrated by the successful ‘Byron Naturally’ campaign launched by the Byron Bay Chamber of Commerce. This development is the antithesis of what the brand is all about. *most of our local businesses rely on tourist dollars to survive and thrive - increased traffic congestion, polluted waterways & a generic mega suburb at our entrance will damage our reputation as a unique holiday destination – hindering local business and economy.*

There will be damage to local businesses with the loss of the tourism

dollar as Byron Bay becomes another generic coastal town. A mega suburb at our entrance will damage our reputation as a unique holiday destination.

The Environment of Byron Bay holds inherent value but also economic value. The natural beauty of Byron Bay is another key attribute for tourism. I would like to see a detailed assessment of the impact on tourism on Byron Bay and how this will be mitigated.

Byron Bay is the economic Jewell in the Crown of Nth NSW. It is an unrivalled economic powerhouse drawing people from near and abroad. We should understand what is unique and working here and nurture that. It creates businesses that provide employment and ongoing investment for people throughout the region. It can be (and already is ) a leader in developing sustainable and innovative businesses and products for the future. This development in no way enhances Byron's economic future except for a few landholders and property developers. It actually puts at risk what is already working.

There is a very real risk that the development of the West Byron lands, and the proposed mega development applications by Local Landowners and Villa world, will severely impact upon the desirability of Byron Bay as a tourism destination. Tourism provides a significant value for the shire and region by attracting people and then dispersing them to the surrounding area. There is an estimated value of tourism to the Byron Shire of \$328m according to the *National Institute of Economic and Industry Research* (NIEIR) 2016. This represents the largest economic contributor to the shire and provides significant employment. The fragility of destination based tourism must be recognised and supported, not destroyed by inappropriate development such as West Byron.



<p>Many tourists themselves have written in to object to the developments –</p> <ul style="list-style-type: none"> <li>• “Over the past 30 years I have spent tens of thousands of dollars in the local Byron Bay economy. If this DA proceeds and the town’s appeal is destroyed then I will not return- instead I will spend my holidays elsewhere, to the cost of the Byron local economy. I am sure there are many thousands of other visitors who would take similar action”.</li> <li>• “As a tourist I can say such megadevelopments are quite the opposite of what tourists want to enjoy at such a travel destination. Since Byron Bay is quite a tourist destination this development would do more harm than good.”</li> </ul> <p>Byron Bay’s unique natural and cultural heritage belongs not just to the local residents, but to ALL of us citizens of NSW and Australia.</p>	
<p>Quite a few shops have already closed due to lack of parking availability and introduction of paid parking which is deterring people wanting to have a meal and do some shopping. This is only going to be exacerbated if this DA is approved.</p> <p>The efficiency of service delivery for local trades people and business is becoming untenable at current traffic rates.</p> <p>If these developments were to go ahead the businesses in the Arts and Industrial Estate will suffer from more people not being prepared to take on the traffic, as locals are already beginning to drive to Ballina rather than sit in the traffic on Ewingsdale Road.</p> <p>The proposed developments will in no way help the community to grow in a sustainable way. Focus on a local economy and less development.</p>	<p>10.2017.201.1 &amp; 10.2017.661.1</p>

There is no management plan to cope with increased traffic in town, causing delays in town and the detrimental effects likely to flow on to businesses in the town.	10.2017.201.1 & 10.2017.661.1
Additionally, local builders most likely won't get picked first with these mega development companies. They will be brought in from the cities.	10.2017.201.1 & 10.2017.661.1
Tourists like me will choose to spend our money elsewhere as Byron will no longer be enjoyable.	10.2017.201.1 & 10.2017.661.1
The cost to support increased unemployment, healthcare, and lost vacation revenue will be a long term cost.	10.2017.201.1 & 10.2017.661.1
<b>Affordable Housing</b>	
<p><b>Need for more housing</b> - We do not need such a number of new houses, all we need is prices to go down, or air bnb/holiday letting to be regulated and controlled. It is not fair that Sydney keeps promoting Byron without dealing with illegal holiday letting and not letting us charge a bed tax. 25% of the existing houses on census night were not occupied (i.e. they were used as holiday properties). If we have already met the required growth, it makes no sense what so ever to approve it the way it is. There has been a failure to look at other 'in-fill' options within Byron town. It will be the largest new urban area for Byron Bay for 40 years and we do not need new residential homes in Byron Bay – we need <i>affordable</i> and secure long term rentals and <i>affordable</i> homes to buy and we all know that the land values in the 2481 postcode will preclude this. With current Byron Bay land values even the smallest house build on the site will cost close to 1 Million dollars.</p> <p>If holiday lettings were controlled there would be enough homes for everyone.</p> <p>There is no identified demand for a development of the scale proposed -</p>	10.2017.201.1 & 10.2017.661.1

<p>up to 1,000 lots. There is no proven need for over 1000 new houses in the West Byron mega development for the Byron Bay area. The State Government Planning Department set a 25 year target of about 3500 new houses for the Shire from 2011-2036. Much of this target goal has already been built or approved. There are also many built and to be built secondary dwellings that are not even factored in making the housing objectives set for the Shire. These objectives are set by the State so as to prevent a situation of overbuilding resulting in too much supply and not enough demand. If Council and the State really assesses the current and forecasted new homes to be built, especially after the completion of the Byron Shire Residential Strategy, it will be clear that the 1000 new houses proposed for West Byron will likely not be needed.</p>	
<p><b>Developments won't be affordable</b> – Where is the affordable housing in this development proposal? Development will not address the problem of affordable housing.</p> <p>Proposal that dwellings will be 'affordable' is unlikely considering the huge cost involved in the preparation of the land which the developer will no doubt try to get back through land sales.</p> <p>Terry Agnew the Owner, who has engaged Villaworld has said himself that houses on this site cannot be affordable due to the difficulty and complexity of the site adding cost to the project.</p> <p>The cost of insurance would be a good indicator of the likelihood of flooding. If obtainable it could be over \$100/week. This would probably push housing there out of the "affordable" bracket.</p>	10.2017.201.1 & 10.2017.661.1
<p>Any development in this area would need to have a strict exclusion of holiday letting as this would work against any proposal to create affordable housing, further increase traffic movements, neighborhood</p>	10.2017.201.1 & 10.2017.661.1

<p>noise and all the other problems that have been discussed at length in our community (and remain unsolved).</p> <p>The term 'affordable housing' needs to be locked into real dollar numbers. Or, a certain % of the homes need to be reserved for local/low income purchase/tenancy – like in Europe.</p> <p>The Council should first negotiate with the relevant government bodies to together subsidise by an agreed sum the purchase of a number of residential lots for the purpose of social housing in a Housing Commission model.</p> <p>(b) That Council and relevant Government bodies negotiate inclusion in the developer's plan the number of lots set aside from public sale to be purchased by the Government for the purpose of low cost Government subsidised housing.</p>	
<p><b>Incorporation of Affordable Housing Principles listed under State Environmental Planning Policy No 70 – Affordable Housing (Revised Schemes) – Schedule 2.</b> These principles are consistent with the aspirations of the NSW State Government and should be incorporated into the DA approval process, the final levels of affordable housing to be negotiated with the DA proponents to ensure the development is still commercially viable. The present percentages of medium density and duplex lots are very small relative to the entire development. This is NOT acceptable and must be amended to better reflect the need for affordable housing in both the Shire and the State. Incorporation of these principles into the DA would make Byron Shire the first non-urban scheme covered under the SEPP no. 70 and would be a strong endorsement of the State Government's commitment to Affordable Housing. AND</p> <p>Acceptance of the amended DA (see above) should coincide with</p>	<p>10.2017.201.1 &amp; 10.2017.661.1</p>

adoption of a strong policy of curtailment and legal enforcement against illegal holiday letting in the Shire. This should be targeted at least to the level proposed by the BSC to the State Government in their recent submission, but ideally providing a stronger requirement that all accommodation included in holiday letting be in council approved buildings with appropriate safeguards for use by members of the public.	
<b>Services/Infrastructure and Social Impact</b>	
Funding for the infrastructure required is non-specific and spread over twenty years.	10.2017.201.1 & 10.2017.661.1
<p>Current infrastructure is limited in coping with the millions of tourists visiting each year. There will be a loss of Ambience. The centre of Byron Bay is already too small for the current numbers trying to use it and these numbers of new residents will irretrievably affect accessibility and usefulness of the town. Increasing the population of Byron Bay by up to 3000+ residents over time without first improving infrastructure, schools, parking, roads, the Butler St bypass and amenities is folly. Each rental property has 5-6 people living in it, so 1000 more homes could accommodate for 6000 additional people. The degree of population increase (estimated at 25%) is too high for current infrastructure, social services and social wellbeing.</p> <p>The following services have been mentioned as insufficient to handle the increase in population from these developments:</p> <ul style="list-style-type: none"> <li>-schools</li> <li>-parking in town</li> <li>-parking in National Park Locations</li> <li>-parking at beaches</li> <li>-restaurants</li> </ul>	10.2017.201.1 & 10.2017.661.1

<ul style="list-style-type: none"> <li>-water</li> <li>-sewerage (Which is in crisis)</li> <li>-electricity</li> <li>-telecommunications</li> <li>-internet connectivity &amp; broadband speeds</li> <li>-beaches, especially Belongil beach</li> <li><b>-the hospital</b></li> <li>-the roads</li> <li><b>-waste system and rubbish tips</b></li> <li>-social services</li> <li>-aged care facilities</li> <li>-community facilities</li> <li>-banks</li> <li>-postal services</li> <li>-recreation</li> <li><b>-employment</b></li> <li>-space in the surf</li> <li>-public toilets and beach showers</li> <li>-dog beaches</li> <li>-parks and public spaces</li> <li>-cash in ATMS (this has run out before)</li> <li>-police/security</li> <li>-emergency services</li> <li>-compliance</li> </ul> <p>The Byron Shire has an above average percentage of <b>unemployed</b>, under-employed and residents which live on below average levels of income which makes them particularly sensitive to crises such as flooding. Not having employment potential for these thousands of new residents would be a disaster as it would make it even more difficult for new and long</p>	
--	--

term residents to find a job, and put even more people in the ranks of the unemployed and receiving the dole.

Byron's **schools** are already full and refusing locals— where will children go? Without a commitment to additional school resources (teachers, space, perhaps new schools) it is difficult to view this proposed DA as anything but detrimental to the educational opportunity of current and future children of the area.

Byron Central **Hospital** is already a busy emergency department with limited staffing and resources. A 15-25% increase in population would be catastrophic and stretch our already maxed out ability service the community. This development will result in poorer health for the community. Community Nurses' duties are already under strain due to wasted time they have to spend waiting in traffic queues. NSW health will not provide funding for more community nurses which means we will not be in a position to service the community. The efficiency of service delivery for local trades people and business is becoming untenable at current traffic rates. As the community nurse covering the Byron town and the west of the shire I am forced to manage my patients as determined by traffic conditions with the current traffic situation. During peak times I take the very poorly maintained back roads in order to facilitate an efficient service. These roads are narrow and unsealed and are themselves busy during severe traffic congestion times, raising once again the issue of decreased safety with the rise in traffic movements. Our local central hospital already experiences difficulty maintaining smooth operation as demand has exceeded expectations since it opened 2 years ago. An extra 1000 residences developed in such a short time can be expected to place this facility under strain and increase the risk of poor performance.

There is already a 1-6 week wait to book in to see a **GP**, this sends us to the Emergency Department.

How will the **garbage** and recycling collection be affected?

Lack of sufficient information regarding services such as **water** (water use and storage) and **energy** –there is a clear necessity to move toward renewables and this is not addressed by the DA. Byron itself has regularly had water restrictions. If you dramatically increase the population then this will exacerbate the problem. In fact, currently van drivers queue up and wash with soap at the beach showers. These should be coin operated as the visitors have little care that we regularly have water restrictions.

**Parking** is already a well researched problem in Byron Bay and can only expect to increase in difficulty with the new development. This is not only an issue for residents of the town but will also impact on businesses / local economy. It has become almost impossible for locals to enjoy community leisure areas due to the difficulty of finding any car space within the town precincts and extending to the more out of town beaches. The level of frustration already witnessed in travel through town raises concerns around safety with the pending increase in traffic that will be generated from the proposed West Byron Development.

Families in all their rainbow iterations in our shire rely more and more on free **public spaces** to recreate; which they share with over 2 million tourists. This is due to the high cost of rent/mortgage and the low cost of income – residents can't afford the extra-curricula services already.

**Increased Beach Users** People who will reside in this urban development



will want to access the beach. Unless people go into the main beaches of Byron, (highly unlikely due to traffic congestion) they will utilise the Belongil beach.

**Increased non-compliance** -as always, with an increase in human numbers there will be a related increase of non-compliances. Despite the adequate signage, compliance officers, media and education, dogs' off-leashes are already a large and increasing problem at all Shire's beaches. There should be a restriction on dog and cat ownership on this development.

Any developments that decrease the resilience of the Shire and its infrastructure will almost certainly create an increase on emergency assistance and social services, including financial aid, required in the future.

For years we have been told that more dwellings equals more rate payers better council services, this has not happened, in fact the opposite for some one living in the shire hinterland our services are diminished .

DA there is not enough consideration/planning for the social and community infrastructure required for a residential development of this size. A development of this size requires the provision of social and community infrastructure needs commensurate with the development potential allowed by the zoning: a village of 3000 people. This requires schools, childcare, youth activities centre, post office, police station, medical centre, seniors housing, halls, community centre, recreation facilities, adequate and useable open space. Towns in our shire with far smaller populations than what is proposed at West Byron have far

more community/social infrastructure than is proposed here. At the 2011 Australian Bureau of Statistics census of population and housing the town of Mullumbimby in Byron Shire had an estimated resident population of 3,172 persons. It is described as a town, not a village and not a suburb and it is a smaller population than potentially West Byron is. Even when the village of Bangalow was 822 people in 1982 it had a police station, fire station, hospital, community health, primary school, Masonic hall, Catholic Church, Uniting Church, sports fields, A&I Hall, showground (where the markets are held and the Bangalow show is held), three banks, post office, parks and newsagency.

It will lead to an increase of existing high levels of public disorder. There is already aggression on the roads and in the water and backpackers sleeping in cars and local streets, leaving too much rubbish behind.

There are no plans afoot to indicate that required additional infrastructures will be provided. There is an obvious risk of destroying the amenity and functionality of the town.

Byron Shire Council has a legal and moral responsibility not to approve new developments in Byron Bay because allowing the development to go ahead would add more people to the already dangerous beach and surf environment. This is a legal duty of care issue because It is publically and nationally well known that the surf in Byron Bay is already over-crowded and dangerous. If Byron Shire council or the NSW State Government approve the apposed DAs, knowing full well that increased population will increase the risk to life in the surf, then they will be liable under the laws of negligence when injuries or deaths occur in the surf in Byron Bay.

A longer time period for development, to allow infrastructure to keep

<p>pace with population growth, as outlined in the Council's 20 year development plan, is far more realistic approach.</p>	
<p>Byron Bay is already too crowded. According to ABS Byron has an annual growth of 1% - this development is unwarranted and oversized. How will Council deal with influx of an increase of 24% of the population?</p> <p>The impact of folding so many new residents into this area will dramatically change the social fabric of the beach side town (more party goers, more people on the beaches and in the pubs, more alcohol fuelled violence in the streets at night and more drugs coming in (Byron already has a problem with Ice)- a second Gold Coast vibe on its way for sure - also more kids going to schools which facilities are already stretched, more hospital care which currently has no surgical theatre, more house hold rubbish to dump where, more demands social services - most likely in the drug and alcohol area, then eventually more Aged Care facilities - Byron Bay town will be even more crowded).</p> <p>Its size and density is abhorrent to the current liveability within Byron Bay and will destroy the natural balance the town has been trying to retain for decades.</p> <p>I fear crime and social problems will increase significantly and the precious daily joys of living here in the rainbow region will diminish. We have a lot of homeless people / ice problems etc. to deal with - we really don't need this massive intrusion into an already somewhat socially fragile and at times quite challenging situation.</p> <p>Roads have not been updated in 37 years yet three huge developments have been approved in the last 30 years. This will be by far the largest</p>	<p>10.2017.201.1 &amp; 10.2017.661.1</p>

development that the Shire has had.	
<p>With more people living in the swamp, the impact of water sport in our fragile Belongil lagoon has not been considered.</p> <p>The development will have negative effects on me and my children recreational health with destruction of the Belongil creek and ability for water recreation activities. The Byron Bay Scouts use the Belongil Creek and area.</p>	10.2017.201.1 & 10.2017.661.1
<b>Aesthetics</b>	
<p>Development proposal does not fit with local aesthetics.</p> <p>There is an enchanting natural thread of visual beauty and magnificent natural impact running through the presence of Byron Bay and this is an essential part of the town's make up and very presence – this represents a common thread through the shire that would be disrupted by this development.</p>	10.2017.201.1 & 10.2017.661.1
<p><b>Sound Wall</b> - Instead of providing the "Great Wall of Byron" along Ewingsdale Road there should be a buffer zone, bird feeding native trees, same as provided along the Industrial Estate a 13 mt wide mound on the developers land not on public road reserve. Much more economical to build and maintain over time i.e. no graffiti to remove constantly.</p> <p>This is a country town with a rural landscape lets keep it that way while blocking out the housing estate hence blocking out the view of traffic for the home owners.</p> <p>This wall will be the first sight for people entering Byron and is not in accordance with the character and aesthetics of the town and Shire. This will deter tourists.</p>	10.2017.201.1 & 10.2017.661.1

Any development should reflect the unique aesthetics of Byron Bay that make this town so popular. The housing arrangements are very conventional but not in keeping with the existing Byron Shire suburbs.	10.2017.201.1 & 10.2017.661.1
Many of the more vibrant aspects of the local economy are strongly associated with, and reliant upon the town's natural beauty and these developments will destroy this.	10.2017.201.1 & 10.2017.661.1
<b>Heritage</b>	
This development will be a threat to the heritage and amenity. Byron has long been perceived as being in step with preserving sensitive natural heritage.	10.2017.201.1 & 10.2017.661.1
The Byron Shire and its Bay have a rich Australian history and its history and significance in time if it is preserved to continue to develop as an environmentally secure world reserve and destination.	10.2017.201.1 & 10.2017.661.1
Byron Council's long history of protecting the environment and undertaking detailed and principled strategic planning for the future growth of the shire has created an iconic residential and tourism destination hallmarked by ecologically sustainable development.	10.2017.201.1 & 10.2017.661.1
Byron Bay is a historical site that should be preserved with the highest integrity.	
<p><b>Cultural</b> – has the development consulted with the Arakwal association? It is an important part of Country to the Bundjalung of Byron Bay (Arakwal) people and is subject to an Indigenous Land Use Agreement (ILUA), signed in 2008, which more than doubled the size of Cumbebin Swamp Nature Reserve from its original 40 hectares. Cumbebin Swamp Nature Reserve also conserves wetlands of state significance, sensitive coastal dunes, coastal swamp forests and riparian areas.</p> <p>The Arakwal Corporation are not in support of this application.</p>	10.2017.201.1 & 10.2017.661.1

<p>We also value the traditional owners of the land, their custodianship of the environment, and the way in which so much of the area has been preserved by those who have lived in the area before us for al of us to enjoy today and tomorrow.</p> <p>I have great respect for the Arakwal people's custodianship of the place many of us now call home. <u>None of them support this development.</u> At every West Byron community meeting I have attended, our local Arakwal spokesperson, Delta Kay, has spoken passionately about these values. <b>It is time they were given the highest consideration.</b></p>	
<p>The baseline study that has been undertaken that shows the health of the Belongil Creek so as to assess what the impact would be of this proposed development is contained within the Plan of Management Cumbebin Swamp Nature Reserve February 2012. This Plan states that this reserve was established in 1999 to protect a significant component of the Belongil-Cumbebin wetland. It is an important part of Country to the Bundjalung of Byron Bay (Arakwal) people and is subject to an Indigenous Land Use Agreement (ILUA), signed in 2008, which more than doubled the size of Cumbebin Swamp Nature Reserve from its original 40 hectares. Cumbebin Swamp Nature Reserve also conserves wetlands of state significance, sensitive coastal dunes, coastal swamp forests and riparian areas. It contains three endangered ecological communities, which provide habitat for a wide range of native animals including threatened species. Sections of Belongil Creek and its tributaries are within the reserve.</p>	10.2017.201.1 & 10.2017.661.1
<b>Fill and Construction</b>	
<p><b>Sourcing of the necessary fill</b> - is concerning. There is a lack of information regarding the fill, where it will come from and how it will get to the site. The engineering report indicates that a total of 168,800m3 of</p>	10.2017.201.1 & 10.2017.661.1

fill material will need to be imported to the site for the Stage 1 development (no indication is given for total fill amount for overall Concept Plan). There is no indication of the volumes of fill required for the whole site and the consequences of other fill works occurring concurrently.

There are significant areas missing from the fill map so the volume may be intended to be higher.

It is intended to import some 500,000 m3 of fill estimated to weigh around one million tonnes. Extra volumes will be required when the industrial area is developed. **The State Significant Site approval was obtained based on half the amount of fill.**

Da proposes: Fill material will be imported to the site from local quarries. The imported fill volume is calculated to be 168,800 cubic meters to raise the pad height to RL 3.6m (this is just for stage 1). The DA also states they have no idea of the permeability of the imported fill to be used on site. This seems to indicate that they actually do not know what fill they will be using.

The only two operating quarries in Byron Shire are: Leela Quarry and Palmwoods Quarry. Neither of these two quarries are likely to be able to source the required amount of fill required for Harvest Estate and as they are both Chert quarries producing road base they would usually not be the best sort of fill used for simple land fill.

The only remaining identified quarry resources that are protected in Byron Shire under S117 are: Wiltons Pit, Skinners Shoot and the

<p>Abandoned Railway Quarry</p> <p>None of these remaining three potential quarry sites have completed Environmental Impact Assessments or Review of Environmental Factors. No existing use rights exist on these three sites as no Development Applications were lodged under SEPP 37. If any of these three sites are intended for use as fill material for Harvest Estate then they will need to complete Development Applications and as designated developments they will also need to complete an Environmental Impact Assessment. The Abandoned railway quarry is a hard stone basalt quarry so is not usually suitable for fill. The remaining two sites: Wiltons Pit and Skinners Shoot are the only two real possibilities for locally sourced fill in Byron Shire. As potential sand resources they are the best type of fill as it is free draining. The Department of industry estimated the resources of Wiltons Pit at 60,000 tonnes and Skinners Shoot at 900,000 tonnes.</p> <p>If the fill is sourced from Ballina or Tweed Shires then it is not locally sourced fill and the Statement of Environmental Effects should be modified accordingly to state that fill will be sourced regionally.</p> <p>Before Byron Council approves this DA the proponent should be clear about which quarries they will be sourcing their fill from. This will have a big impact on the community as hundreds of dump trucks will be using either Left Bank Road, Main Arm Road, Myocum Road, Tandys Lane or Skinners Shoot Road and then Shirley Street. The local community should be consulted about any such increase in heavy vehicle movements on small rural and urban roads.</p> <p>Alternatively if the Harvest proponents intend to source sand fill from Skinners Shoot and bring it through the back of their property they will be</p>	
---	--



<p>passing directly through the protected E2 zone which needs to be prohibited right from the beginning.</p>	
<p><b>Traffic impact - Very strict conditions need to be imposed on the transport of fill to the site.</b> Transport should only be via the Pacific Highway and then Ewingsdale Road. It should be prohibited to be transported along Skinners Shoot Road and Johnson Street. It should also be prohibited from being transported along Myocum Road, Left Bank Road, Main Arm Road or Tandys Lane without a full traffic assessment and environmental impact assessment being carried out for any of these routes that are proposed to be used. Any damage to these rural roads will have to be paid for by the Byron Council and as a consequence will be paid for by the community.</p> <p>The amount of fill alone would in any other location require the construction company to provide an alternative access road to and from the major highway to minimise the traffic impact and degradation of the current road infrastructure. Has anyone really thought about what impact a loaded 20 Tonne bulk semi-trailer EVERY 5 MINUTES for 10 hours / day, 6 days / week for 18 months is going to have on the road surface, traffic conditions and the risk to public safety? Byron's road surfaces are already some of the worst in the country and to put this extra pressure on them is outrageous. Statistically alone, there will be an increase in accidents causing damage to property and injuries to residents and tourists just from the increase in traffic. Has anyone thought about what would happen if the site was temporarily closed for just 2 hours simply due to a safety or environmental concern? That would mean that 22 full semi trailers would build up along Ewingsdale road, likely pulled over on the shoulder causing even more safety issues and damage to the road!</p> <p>Lack of information regarding the number of trucks, haul routes and other</p>	<p>10.2017.201.1 &amp; 10.2017.661.1</p>

potential impacts of bringing that quantity of fill to the site. Estimates show 16,900 trips (33,800 truck movements along Ewingsdale Road) would be needed just to bring the required fill of 168,800m<sup>3</sup> of fill – although estimates from various submissions differ.

Estimate example: For a fleet of 10 trucks, If each truck were able to make 3 deliveries per day (depending on where the earth to be used is coming from) it would take 1,280 days (or 3.5 years!) to move the earth into place.

Estimate example: To provide the fill necessary - 18 months (72 weeks) by 20 trucks and dogs a day, by 6 days a week is 93,600 truck-fulls. But that figure does not say how many truck trips per day. If you assume that the site where they're picking up the fill is within half an hour's distance of the site, it works out it somewhere between 300,000 and 500,000 trips. But since the trips, to and from, the total number of trips will be somewhere between 600,000 and 1 million trips. And that is possible, because if they had two drop-off sites on West Byron land and the contractors allow three and a half minutes per drop-off, it can be done. The fudge factor between the two quotes is by taking into allowance bad weather interruptions and holidays, which is round about 20% in Byron Shire.

The interruptions to traffic flow in Ewingsdale Road, are obvious. Ratepayers will be asking themselves: Given that it very heavy vehicles, like a fully loaded truck and dog, not light cars that make Byron Shire's roads the pothole capital of Australia, why should ratepayers have to pay for road damage the project will create? Is this also a question for the consent authority, the JRPP? will Byron's famous roads be able to bear the load and the congestion?

<p><b>Damage to the roads from fill period</b> - I believe pavement damage is proportional to the fourth power of the axle weight. Now 7 (tonnes) to the power 4 times 7 (axles) times 25000 (movements) equals 420,175,000. Add to this a conservative estimate of 60,000,000 for the unladen return trip and the total is about 480 million. For an average 2 tonne car the damage is 1 (tonne) to the power 4 times 2 (axles) which equals 2. This means that the damage to Ewingsdale Road by these 25,000 round trips is equivalent to 240 million times the damage from one trip by the average 2 tonne car. Ratepayers of Byron Shire should not have to pay for this damage. It is not part of the normal commerce of the community but a one off profit driven enterprise.</p>	
<p><b>Pollution</b> - from the massive amount of fill required to raise the land above flood height that will exacerbate run off. Placing hard surfaces on the wetland will decrease the capacity of the land to absorb water which has to find a way to drain, eventually into the Belongil. Apart from the erosion from fill, the stormwater drainage from all of the hard surfaces, including roads and pavements, oil runoff from the roads driveways etc. will contain chemical pollution, weeds and solid waste, garden fertilisers etc.</p> <p>The quality of the fill is of particular concern as the potential of it to go into the Belongil – particularly at the building phase – is a genuine concern. This is a site that drains to Belongil Creek and Estuary which is a Special Purpose Zone of the Cape Byron Marine Park and an important fish breeding and bird roosting area that cannot be allowed to be contaminated.</p> <p>Council would be left in a position of litigation if in the future fill was found to be contaminated.</p>	10.2017.201.1 & 10.2017.661.1
<p><b>Illegal extraction</b> - As Wiltons Pit was illegally quarried in 2016 and early</p>	10.2017.201.1 & 10.2017.661.1

<p>2017 with fill stockpiled next to Wards landscaping on Myocum road the Council should impose a condition that this illegally sourced fill may not be used on Harvest Estate. Council was provided with significant evidence that the sand fill extracted from Wiltons Pit was extracted illegally without approvals. Even the NSW EPA contacted the Council to inquire about this activity. Yet Council has refused to take any action regarding this illegal quarrying activity or the illegal sand stockpiling taking place at Myocum. The community has no confidence that the Byron Council will stop illegal quarrying activities taking place to generate the fill for harvest estate so the source of the fill that will be used needs to be clearly articulated in the Development Application</p>	
<p>As per Byron Shire Council recommendations: <i>The filling of developable areas is not necessarily preferred in all instances. Not filling and the developing of buildings on poles/stumps/posts is a better solution because it is adaptable in the face of future possible climate change risks. Not filling also maintains the available flood storage areas which will become more and more important under climate change. Areas which are not currently flood prone don't need to be filled, houses can be built on stumps and elevated above possible flood planning levels.</i></p> <p><i>Filling of the site will result in significant changes to site hydrology and impact on a variety of habitat including habitat for threatened species such as wallum froglets. Filling of the site will result in loss of specialised habitat for wallum froglet which are notoriously difficult to replicate. Considering that the development of the site will result in a significant increase in stormwater runoff, the suggested improvement in water quality flowing to Belongil Creek cannot be assured as a result of the proposed environmental rehabilitation of the central drain.</i></p>	<p>10.2017.201.1 &amp; 10.2017.661.1</p>

<p><b>Other Impacts</b> - The amount of fill is of serious concern, because of the impacts that raising the level in one area will have on drainage to adjacent areas – has the off-site impacts been determined?</p> <p>With the expected rise in sea levels and increase of extreme weather events we are experiencing I believe this a most concerning issue. I would suggest that scientifically it has not been demonstrated that such an amount of landfill would not affect the total areas of the wetlands that surround the town of Byron Bay to the effect of causing major and damaging flooding in the future.</p> <p>Lack of information and understanding of impacts of fill and resultant drainage on adjoining neighbours' properties, the service on Ewingsdale Road and on the road pavement.</p> <p>The up-to-3m fill will have a major impact on ground water levels and therefore the drainage system. In developing the sports fields along Ewingsdale Road, known as Cavanbah Centre, the fill amount was limited to 30cm for hydraulic and environmental reasons. The same should apply for this development and/or development limited to naturally raised land which requires no or little imported fill.</p>	10.2017.201.1 & 10.2017.661.1
<p><b>Amount of Fill</b> - The West Byron area is surrounded by tidal waters as the Union drain is tidal to Ewingsdale road. Spring tides now are over 2.0m. Add 0.9m sea level rise, 1.0m storm surge, a 5m swell (typical for strong gales), 300mm rainfall and 3.6m which is the proposed level of fill doesn't seem enough.</p>	10.2017.201.1 & 10.2017.661.1
<p><b>Construction</b> - Where will the waste from the construction go?</p>	10.2017.201.1 & 10.2017.661.1
<p><b>Lack of Consistency with Other Policy</b></p>	

<p><b>Byron Bay DCP 2010 -</b></p> <ul style="list-style-type: none"> <li>Chapter 1 Part B</li> </ul>	<p>10.2017.201.1 &amp; 10.2017.661.1</p>
<p><b>Byron Shire DCP 2014-</b></p> <ul style="list-style-type: none"> <li>Chapter 1 Part K clearly states that 'Development must not increase the level of flooding on other land in the vicinity. The huge extent to which fill is proposed with most certainly increase the level of flooding on our land. It is also stated in K2.2 that 'Council will not support filling beneath the building footprint of the proposed development unless it can be demonstrated it will not impact on the floodplain'. The proponents have not been able to demonstrate that the proposed filling will not impact on the floodplain. We are currently investigating how council and/or the NSW Department of Planning can be held responsible if the proposed development should go ahead and our property is to be impacted by flooding events in the future. (DA Part 8 (Document Plans 2) Page 43 -)</li> </ul> <p>Chapter E8.- West Byron</p> <ul style="list-style-type: none"> <li>It is not acceptable that Villa World can submit this DA without the DCP West Byron first being prepared</li> <li>Preliminary and Temporary DCP for West Byron Urban release Area as part of Planning proposal 2010</li> <li>DCP West Byron Draft 2013</li> <li>stated in the Preamble at Page 9:- <i>The proposal strives to maximise the positive aspects, and minimise the negative impacts, of urban development. This is reflected in the desired future</i></li> </ul>	<p>10.2017.201.1 &amp; 10.2017.661.1</p>

*character statement and in the various development control elements in this DCP, and in the various mitigation and compensatory habitat measures which will yield net ecological gains in West Byron.*

- Chapter E8, particularly, E8.10.5.1 requires the preparation of a Koala Plan of Management (KPoM) and for 50m buffers around core Koala habitat
- The West Byron DCP asserts that the development would be “*a vibrant mixed use village centre to provide a community meeting place and to provide retail and commercial opportunities.*” Stage 1 of this development does not meet that aspiration – the housing arrangements are very conventional yet different from the existing Byron Shire suburbs. This development has nearly all 450 sqm lots; more dense than most of Byron. The village components appear to be within Stage 2 and no detail is provided.
- The DA fails to adequately address the design principles as outlined within the approved Byron Development Control Plan 2014 Chapter 8 West Byron Urban Release Area including all matters included in E8.10.
- The West Byron DCP asserts that the development would be “*a vibrant mixed use village centre to provide a community meeting place and to provide retail and commercial opportunities.*” Stage 1 of this development does not meet that aspiration – the housing arrangements are very conventional yet different from the existing Byron Shire suburbs. This development has nearly all 450 sqm lots; more dense than most of Byron. The village components appear to be within Stage 2 and no detail is provided.
- The DA fails to adequately address the design principles as

outlined within the approved Byron Development Control Plan 2014 Chapter 8 West Byron Urban Release Area including all matters included in E8.10.

- E8.10.3 requirements relating to **street layout** by not allowing space for incorporation of swales into road verges, and in the proposed medium density lots by not allowing space for nose in parking, and in places any rear access or street parking at all.
- E8.10.4 **Storm Water Management** - there is no DA submitted for the Industrial Zone as required - rather 2-3 lots (depending on which map) are proposed with only an indicative outline of what could go on the sites – one of the lots intrudes into a coastal wetland!!!
- E8.10.5.1 requires the preparation of a **Koala Plan of Management** (KPoM) and for 50m buffers around core Koala habitat. The 20m buffers have not been outlined in a number of areas and relevant management plans not prepared. This DA ignores requirements for 50m buffers around core koala habitat – 201.1.
- E8.10.10.4 There has clearly been no single DA submitted for the Industrial Zone as required. . Instead the industrial lots are only vaguely indicated with an outline of what could go on the sites. This clearly does not satisfy planning requirements and should be refused. Particularly as one of the lots intrudes into a Coastal Wetland. This is in contravention of the State Environmental Planning Policy, (SEPP 14). The Industrial Zone needs a single DA for the entire area rather than the current proposal of 2-3 lots. This is the requirement of DCP E8.10.10.4. There should be a clear indication of what is to go on this site. One of the lots encroaches on a Coastal Wetland and therefore it should be removed from this sensitive area.



<ul style="list-style-type: none"> <li>• It is not acceptable that Villa World can submit this DA without the DCP West Byron first being prepared</li> <li>• Preliminary and Temporary DCP for West Byron Urban release Area as part of Planning proposal 2010 should be considered</li> <li>• DCP West Byron Draft 2013 should be considered</li> </ul>	
<p><b>Byron LEP 1988 -</b></p> <ul style="list-style-type: none"> <li>• Aim: to promote sustainable development in Byron</li> <li>• 98B, 3(f): The DA fails to identify the quality and source of the fill-in contravention of Local Environmental Plan (LEP) 1988, 98B Earthworks 3(f).</li> <li>• The fill works will irreparably change these modified wetlands which now act as a great sponge for the rain waters of the rest of Byron. <u>This breaches the 1988 LEP which applies to this DA.</u> The panel cannot be satisfied, in the words of the LEP that this development would not "restrict the flow characteristics of floodwaters" or the development would not "increase the level of flooding of other lands in the vicinity".</li> <li>• Part 3, Division 5, clause 45 "Provision of services" "(1) The Council shall not consent to the carrying out of development on any land to which this plan applies unless it is satisfied that prior adequate arrangements have been made for the provision of sewerage, drainage and water services to the land."</li> <li>• (1b ix) - The type, bulk, scale and size of development as currently proposed is totally inappropriate for the location.</li> <li>• 88(3) Mitigation measures such as swales and rainwater tanks are not evidence in the planning</li> <li>• Part 4</li> <li>• This DA (201.1) is proposing subdivision into lots smaller than</li> </ul>	<p>10.2017.201.1 &amp; 10.2017.661.1</p>

<p>allowed for by LEP 1988 Division 2 (81) in the R2 zone, with 4 duplex lots less than 600m<sup>2</sup>. This is in contravention of the Byron Bay Shire Council's LEP requirements.</p> <ul style="list-style-type: none"> <li>• This development contravenes the requirements of LEP 1988 Division 2 (81) in the R2 zone. This DA is proposing medium density residences and possible high-density development in unspecified "Super lots". It is proposing this development in a Low Density R2 area, which is non-compliant with the LEP. The DA is proposing 4 duplex lots less than 600m<sup>2</sup> and this must not be allowed to proceed. The lot sizes and proposed development within the "Super lots" in the DA must also be specified before this current DA can be approved.</li> <li>• Intrusion into the Environmental zones for the bicycle track, footpaths, fill batters and an unexplained clearing would appear to be prohibited and contrary to the allowable uses specified in the LEP (78 and 79).</li> <li>• It is considered that the impacts of stormwater intrusions into E2 and E3 zones have not been appropriately identified and justified in accordance with the LEP (98A(3)(a)).</li> <li>• Some of the lot sizes in the R2 zone are smaller than allowed by LEP 1988 Division 2(81). There is not enough parking spaces in the proposed medium density lots. The plans showing lots should be redrawn.</li> </ul>	
<p><b>Byron LEP 2014 -</b></p> <ul style="list-style-type: none"> <li>• R2 Zone: The plans are for medium density (in a low density zone). The density proposed is against the LEP.</li> <li>• Building Height: proposal of three storey and 13.6 metres high. The height limit in the Byron LEP is 9m.</li> <li>• All Aims 1.2</li> <li>• Aims: 1.2 (2)(a)(i)" Precautionary Principle..." i.e. Infrastructure is</li> </ul>	<p>10.2017.201.1 &amp; 10.2017.661.1</p>

<p>to be restored and not destroyed</p> <ul style="list-style-type: none"> <li>• Aims: 1.2 (2)(a)(ii) the principle of intergenerational equity—this principle means that the present generation must ensure that the health, integrity, ecological diversity, and productivity of the environment is at least maintained or preferably enhanced for the benefit of future generations. I.e. If the tourism industry of Byron Bay is reduced due to these DA's, unemployment would increase &amp; lead to social &amp; economic disadvantages.</li> <li>• Aims: 1.2(2)(a)(v) the principle of eliminating or reducing to harmless levels any discharge into the air, water or land of substances or other effects arising from human activities that are likely to cause harm to the environment,</li> <li>• Aims: 1.2 (2)(i) to protect, manage and restore the natural environment and biodiversity of Byron</li> <li>• There are many intrusions into the native habitat that represent breaches of the LEP (78 and &amp; (E8.10.5.1) DCP's (DCP 8.10.5.1) requirements to protect the values of the Ezones has not been observed.</li> </ul>	
As outlined in the Council's 20 year development plan, a longer time period for development, to allow infrastructure to keep pace with population growth is far more realistic approach.	10.2017.201.1 & 10.2017.661.1
Council's current vegetation mapping	10.2017.201.1 & 10.2017.661.1
Byron Bay Town Centre Masterplan - recognises that public amenity, safety and affordable housing can be catered for within the existing residential and town-centre areas.	10.2017.201.1 & 10.2017.661.1
<i>Aquatic Assessment of West Byron Urban Land Release Program (2010)</i>	10.2017.201.1 & 10.2017.661.1
<i>Final Report - March 2005 Restoration Strategy Belongil-Cumbebin Wetland Complex</i>	10.2017.201.1 & 10.2017.661.1
Affordable Housing Strategy 2002	10.2017.201.1 & 10.2017.661.1

Belongil Creek Flood Study, 2009	10.2017.201.1 & 10.2017.661.1
Belongil Estuary Study and Management Plan should be considered	10.2017.201.1 & 10.2017.661.1
Bike Strategy and Action Plan	10.2017.201.1 & 10.2017.661.1
Biodiversity Conservation Strategy, 2004	10.2017.201.1 & 10.2017.661.1
Biodiversity in Byron Shire	10.2017.201.1 & 10.2017.661.1
Byron Bay and Suffolk Park Settlement Strategy, 2002	10.2017.201.1 & 10.2017.661.1
Byron Coast Comprehensive Koala Plan of Management (2015),	10.2017.201.1 & 10.2017.661.1
Byron Coastline Values Study 2000	10.2017.201.1 & 10.2017.661.1
Byron Flora and Fauna Study 1999	10.2017.201.1 & 10.2017.661.1
Byron Shire Urban Affordable Housing Strategy	10.2017.201.1 & 10.2017.661.1
Camphor Laurel Management in Byron Shire	10.2017.201.1 & 10.2017.661.1
Climate Change Adaptation Implementation Schedule	10.2017.201.1 & 10.2017.661.1
Coastal Zone Management Plan for Byron Shire Coastline (draft 2013)	10.2017.201.1 & 10.2017.661.1
Coastline Hazard Definition Study	10.2017.201.1 & 10.2017.661.1
Coastline Management Study	10.2017.201.1 & 10.2017.661.1
Community Based Heritage Study	10.2017.201.1 & 10.2017.661.1
Community Profile	10.2017.201.1 & 10.2017.661.1
Community Satisfaction Research	10.2017.201.1 & 10.2017.661.1
<b>Community Strategic Plan:</b> The recently published draft CSP includes key objectives and supporting strategies which cannot be reconciled with the proposed development. Specific objectives aim to protect and enhance our natural environment, and to manage growth and change responsibly. These are sensible objectives which may get minimal recognition in an application review process. A critical examination of CSP objectives and supporting strategies is therefore recommended as part of the approval process for this DA.	10.2017.201.1 & 10.2017.661.1
Does not accord with any of Byron Council's sustainability planning documents.	10.2017.201.1 & 10.2017.661.1
Draft Byron Rural Land Strategy 2017 (relating to impacts on surrounding rural lands)	10.2017.201.1 & 10.2017.661.1

Emergency Action Sub Plan	10.2017.201.1 & 10.2017.661.1
Emergency Risk Management Study	10.2017.201.1 & 10.2017.661.1
Far North Coast Bush Fire Management Plan	10.2017.201.1 & 10.2017.661.1
Greenhouse Action Strategy	10.2017.201.1 & 10.2017.661.1
Heads of Agreement between Council and the Arakwal Aboriginal People 1998	10.2017.201.1 & 10.2017.661.1
Integrated Waste Management Strategy 2007-2009	10.2017.201.1 & 10.2017.661.1
Integrated Water Cycle Management Plan	10.2017.201.1 & 10.2017.661.1
Local Environmental Study 2008	10.2017.201.1 & 10.2017.661.1
Planning Proposal E2016/27205 Amendment of BLEP 1988 – West Byron Bay, 2016.	10.2017.201.1 & 10.2017.661.1
<b>Residential Strategy:</b> This document has now reached the preliminary draft stage and identifies a number of areas throughout the shire for potential residential development. Such areas do not include the proposed development area and use of this particular site is strongly opposed by Byron Council and regional politicians. The clear intention of the residential is to satisfy state residential growth objectives consistent with community expectations.	10.2017.201.1 & 10.2017.661.1
The Councils Rural Land Strategy shows the site “Constrained Land” for flood risk,	10.2017.201.1 & 10.2017.661.1
Tourism Management Plan 2008-2018	10.2017.201.1 & 10.2017.661.1
Urban Stormwater Management Plan	10.2017.201.1 & 10.2017.661.1
Waste Disposal Strategy	10.2017.201.1 & 10.2017.661.1
Waste Education Strategy	10.2017.201.1 & 10.2017.661.1
West Byron outcomes report 2009	10.2017.201.1 & 10.2017.661.1
West Byron Consultation report 2009	10.2017.201.1 & 10.2017.661.1
Cultural policy and the Cultural Plan	10.2017.201.1 & 10.2017.661.1
NOTE* In accordance with the NSW Environmental Planning and Assessment Act 1979 (that has since been superseded by the 2017 amendments but the DA as submitted was to have adhered to the current	10.2017.201.1 & 10.2017.661.1

NSW Planning Act), consideration was to have been given to the provisions of draft instruments “that are pertinent to a development application giving weight to its perception of the likely imminence of the relevant provisions of the exhibited draft instrument coming into force.” (Belmore Residents’ Action Group Inc v Canterbury City Council [2006] NSWLEC 530[21].	
SEPP1 - The DA proposes subdivision of environmental zones below the 40ha minimum on the residue of their property though fail to identify these and have not submitted a SEPP1 objection.	10.2017.201.1 & 10.2017.661.1
SEPP2 Draft – an assessment on the impact of the development on local wetlands must be carried out.	10.2017.201.1 & 10.2017.661.1
SEPP 71 – <ul style="list-style-type: none"> <li>DoPE state “Assessments in relation to the impact on Belongil Creek’s water quality identified the need for sedimentation and erosion controls, the management of acid sulphate soils and implementation of water sensitive urban design measures.” This is not what is proposed.</li> <li>Without retention basins and measures capable of capturing pollutants during periods of high flow, coupled with draining of ASS and polluted groundwater accordance with SEPP 71 is not met.</li> <li>clause 8 requires an assessment of development on the water quality of coastal water bodies,</li> </ul>	10.2017.201.1 & 10.2017.661.1
SEPP Vegetation (and the Explanation of Intended Effect, 2017).	10.2017.201.1 & 10.2017.661.1
SEPP Coastal Wetlands - There has not been any attempt to consider the impacts on currently mapped Coastal Wetlands (and the requirement for an EIS) or the Coastal Environment Area.	10.2017.201.1 & 10.2017.661.1
SEPP Koala Habitat Protection 2016 - Draft	10.2017.201.1 & 10.2017.661.1

SEPP Coastal Management Draft	10.2017.201.1 & 10.2017.661.1
<p>The Draft SEPP requires that development in areas of proximity must not be granted approval unless the council is satisfied that:</p> <p>“... the proposed development will not significantly impact on:</p> <p>(a) the biophysical, hydrological or ecological integrity of the adjacent coastal wetland or littoral rainforest, or</p> <p>(b) the quantity and quality of surface and ground water flows to the adjacent coastal wetland or littoral rainforest if the development is on Land within the catchment of the coastal wetland or littoral rainforest.”</p> <p>2016 Draft Coastal Management SEPP which had been publicly exhibited should have been considered in accordance with S79C (c).</p>	
SEPP Infrastructure 2007 Clause 101	10.2017.201.1 & 10.2017.661.1
The NSW Government's High Environmental Value criteria	10.2017.201.1 & 10.2017.661.1
Quality Protection Policy	10.2017.201.1 & 10.2017.661.1
the NSW Groundwater Quality Protection Policy	10.2017.201.1 & 10.2017.661.1
Coastal Design Guidelines for NSW, 2003	10.2017.201.1 & 10.2017.661.1
<p>Development does not meet goals of sustainability as highlighted in the Regional Strategy Plan. A breach of democracy.</p> <p>This development ignores the community consulted Town and Population Planning decisions of our elected Shire Council. This development ignores the State Governments own North Coast Strategy, in terms of projected required housing numbers, and the Strategies direction that 40% of development should be inland, and the 60% of Shire development on our coast should be spread along our coast.</p>	10.2017.201.1 & 10.2017.661.1
Draft referral guidelines for the Wallum Sedge Frog	10.2017.201.1 & 10.2017.661.1
Environment Protection and Biodiversity Conservation Act 1999: Draft referral guidelines for the vulnerable wallum sedge frog, <i>Litoria olongurensis</i> , Australian Government, Department of Sustainability,	10.2017.201.1 & 10.2017.661.1

Environment, Water, Population and Communities.	
Environmental criteria for road traffic noise, EPA, 1999	10.2017.201.1 & 10.2017.661.1
Far North Coast Regional Conservation Plan, NSW Department of Environment, Climate Change and Water, NSW, 2010	10.2017.201.1 & 10.2017.661.1
Far North Coast Regional Strategy 2006-2031, NSW Department of Planning. (if DA submitted prior to approval of North Coast Regional Plan 2016)	10.2017.201.1 & 10.2017.661.1
North Coast Regional Plan 2036, NSW Planning and Environment (or North Coast Regional Plan 2016)	
Koala Populations in QLD, NSW and the ACT and National Environmental Law, Australian Government, Department of Sustainability, Environment, Water, Population and Communities	10.2017.201.1 & 10.2017.661.1
National Koala Conservation and Management Strategy 2009-2014	10.2017.201.1 & 10.2017.661.1
National Recovery Plan for the Wallum Sedge frog and other wallum-dependent frog species, Department of Environment and Conservation, 2006	10.2017.201.1 & 10.2017.661.1
North Coast Farmland Protection Project 2005	10.2017.201.1 & 10.2017.661.1
North Coast Regional Environmental Plan	10.2017.201.1 & 10.2017.661.1
North Coast Urban Design Guidelines	10.2017.201.1 & 10.2017.661.1
North Coast Urban Design Guidelines, NSW Department of Planning, 2008	10.2017.201.1 & 10.2017.661.1
Northern Rivers Catchment Action Plan 2013-2023: Setting the direction for natural resource management in the northern rivers region, NSW Government, Catchment Management Authority Northern Rivers, 2013.	10.2017.201.1 & 10.2017.661.1
Northern Rivers Farmland Protection Project: Final Recommendations, Department of Infrastructure, Planning and Natural Resources and NSW DPI, 2005.	10.2017.201.1 & 10.2017.661.1
Northern Rivers Regional Biodiversity Management Plan, NSW Government Environment, Climate Change and Water, 2010.	10.2017.201.1 & 10.2017.661.1
Northern Rivers development and design manual	10.2017.201.1 & 10.2017.661.1



NSW Acid Sulfate Soils Assessment Guidelines must be followed	10.2017.201.1 & 10.2017.661.1
NSW Road Noise Policy, NSW Environment, Climate Change and Water Department, 2011	10.2017.201.1 & 10.2017.661.1
NSW Threatened Species Priorities Action Statement, Department of Environment and Climate Change, 2007	10.2017.201.1 & 10.2017.661.1
Planning Guidelines for Koala Conservation and Recovery	10.2017.201.1 & 10.2017.661.1
Recovery Plan for the Koala, (Approved Recovery Plan) Department of Environment and Climate Change NSW, 2008.	10.2017.201.1 & 10.2017.661.1
Report of the Independent Review into the Decline of Koala Populations in Key Areas of NSW – NSW Chief Scientist and Engineer, NSW Government, 2016.	10.2017.201.1 & 10.2017.661.1
Settlement Planning Guidelines: Mid and North Coast Regional Strategies, NSW Department of Planning, 2007	10.2017.201.1 & 10.2017.661.1
The AUS-SPEC, NSW Guide, Guidelines for Development and Subdivision of Land, 2006	10.2017.201.1 & 10.2017.661.1
Native Vegetation Act 2003	10.2017.201.1 & 10.2017.661.1
Threatened Species Conservation Act 1995	10.2017.201.1 & 10.2017.661.1
National Parks and Wildlife Act 21974	10.2017.201.1 & 10.2017.661.1
Fisheries Management Act 1994 on riparian buffers. According to the Fisheries Management Act 1994, riparian habitats include wetlands on river floodplains that interact with the river in times of flood. The guidelines of this Act should be followed when considering buffers. More substantial effective riparian buffers are required, including to maintain aquatic ecosystems.	10.2017.201.1 & 10.2017.661.1
<p>Ep&amp;a Act 1979</p> <ul style="list-style-type: none"> <li> <b>1.3 Objects of Act</b>  The objects of this Act are as follows:  -to <b><u>promote the social and economic welfare of the community and a better environment by the proper management,</u></b> </li> </ul>	10.2017.201.1 & 10.2017.661.1

**development and conservation** of the State's natural and other resources,

- to **facilitate ecologically sustainable development** by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment,
- to **promote the orderly and economic use and development of land,**
- to promote the delivery and maintenance of affordable housing,
- to **protect the environment, including the conservation of threatened and other species of native animals and plants, ecological communities and their habitats,**
- to promote the sustainable management of built and cultural heritage (including Aboriginal cultural heritage),
- to **promote good design and amenity of the built environment,**
- to **promote the proper construction and maintenance of buildings, including the protection of the health and safety of their occupants,**
- to promote the sharing of the responsibility for environmental planning and assessment between the different levels of government in the State,
- to provide increased opportunity for community participation in environmental planning and assessment.

Given these objectives, and given that the Climate Change Mapping for 2100 is recognised by the NSW Government, and this mapping shows much of the subject land under the sea, then how is it responsible planning to permit such a large scale development, and the capital works associated with it, and the human and physical capital it will contain, to be permitted on an area of the Shire so likely to be impacted by Sea Level Rises.

- NSW Part 3A, approval consent condition (AKA State significant infrastructure assessment systems) with strong consideration given to the operational needs of the electrical sub-station during major storm events or emergencies should black outs or other equipment defects occur. In other words, flooding / inundation of Skinners Shoot road could impact on the whole town regarding power source during emergencies due to its inaccessibility. In 2009 the Skinners Shoot Community were successful in obtaining recognition, for the need to upgrade the road to a flood free all weather access to service a major electricity substation, via the NSW Part 3A major infrastructure approval for Country Energy under application number 08-0044. The West Byron Flood impact study fails to mention the peak flow volumes generated by rain runoff from roofs, roads, driveways, footpaths and other impervious or hard surfaces. The hydrology of the Belongil Creek Floodplain heads excess water to the lowest point being the Cumbebin Swamp and here is where our NSW 3A approval kicks in. If land fill works proposed by this development application adversely affect Skinners Shoot Rd, currently an all weather access road, by rising and lengthening the flood level in the Cumbebin swamp potentially increasing the duration of the flood retention time, then our Community would have strong lawful case against the development approval. In conclusion, our objection submits. a/ That a condition of consent protects the Current NSW 3A approval consent condition as an 'All weather access' on Skinners Shoot road by increasing the height of the road above inundation levels. b/ Or a condition be imposed to undertaking a new flood study specific to considerations and mitigation of flooding of Skinners

<p>Shoot Rd (E2018/15803, Skinners Shoot Resident Group)</p> <ul style="list-style-type: none"> <li>The DA is not compliant with Section 79C of the EPA Act in that it has not fully considered "<i>any proposed instrument that is or has been the subject of public consultation</i>".</li> <li></li> </ul>	
<p>EPBC Act 1999</p> <ul style="list-style-type: none"> <li>referral guidelines for the vulnerable Koala, Australian Government, Department of the Environment</li> <li>The Environment Protection and Biodiversity Conservation Act 1999 is triggered and the proposal needs to be referred to this Act in that it proposes significant impacts on vulnerable species and is likely to increase risks to these species</li> <li>protection of wallum sedge frog and koala</li> </ul>	10.2017.201.1 & 10.2017.661.1
<p>Biodiversity Conservation Act 2016</p> <ul style="list-style-type: none"> <li>There has not been an attempt to consider impacts on threatened species and ecological communities in accordance with the Biodiversity Conservation Act 2016 instead of the repealed Section 5A of the Environmental Planning and Assessment Act 1979.</li> <li>There is non-compliance with the Biodiversity Conservation Act 2016A therefore a Species Impact Statement or a Biodiversity Development Assessment Report needs to be prepared. During the rezoning process for these lands, undertakings were given to protect both Wallum Froglet populations. This commitment is not now being honoured.</li> </ul>	10.2017.201.1 & 10.2017.661.1
<p>NSW TSC Act 1995 –</p> <ul style="list-style-type: none"> <li>Thirteen Threatened fauna species under the NSW TSC Act 1995</li> </ul>	10.2017.201.1 & 10.2017.661.1

have been recorded on West Byron, with 4 of these listed under the Commonwealth EPBC Act 1999.	
<b>Lack of required Community Consultation.</b> The Planning Laws stipulate Community Consultation. There has been no legitimate or meaningful community input into this development. I was a Community Representative on the Community Consultation panel. The developers, with their State Govt backers, purely told the community representatives what they were going to develop. The State Govt/Developers refused to take minutes of community opposition, only providing Meeting Notes. The Meeting Notes are purely prejudicial propaganda designed to pursue development. Community representatives complaints that the Meeting Notes were unrepresentative of the Meetings were met with a promise that Community Reps would be given time to give a presentation of their constituents concerns, but were then refused "as the Meeting had run out of time".	10.2017.201.1 & 10.2017.661.1
<b>Best Practice</b>	
Living and working in rural areas handbook (relating to buffers with surrounding rural land users)	10.2017.201.1 & 10.2017.661.1
Technical Fact Sheet – Biodiversity Assessments	10.2017.201.1 & 10.2017.661.1
Byron Coast Comprehensive Koala Plan of Management 2016 (draft)	10.2017.201.1 & 10.2017.661.1
Best Practice Guidelines for Greener Subdivisions, Blacktown City Council, 2002	10.2017.201.1 & 10.2017.661.1
Designing Safer Subdivisions: Guidance on Subdivision Design in Flood Prone Areas, Collaboration, 2006 © Hawkesbury-Nepean Floodplain Management Strategy Steering Committee	10.2017.201.1 & 10.2017.661.1
Ecological Assessment West Byron Project, Australian Wetlands Consulting Pty Ltd, 2010	10.2017.201.1 & 10.2017.661.1
Land Use Conflict Risk Assessment: In support of a State Significant Site study for the West Byron Urban Land Release Area, Land Partners built	10.2017.201.1 & 10.2017.661.1

environment consultants, 2010.	
Living and Working in Rural Areas: A Handbook for managing land use conflict issues on the NSW North coast, NSW DPI, 2007.	10.2017.201.1 & 10.2017.661.1
NSW Koala Population Case Studies, Martin Predavec, 2016	10.2017.201.1 & 10.2017.661.1
Olongburra Frog Priorities Action Statement	10.2017.201.1 & 10.2017.661.1
Planning Guidelines for Koala Conservation and Recovery: A guide to best planning practice 2007 (Matthew O'Reilly)	10.2017.201.1 & 10.2017.661.1
Preliminary Ecological Assessment, Land Partners 2010	10.2017.201.1 & 10.2017.661.1
Proposed Priorities Action Statement amendment, Saving Our Species conservation project (Existing PAS was adopted by the OEH 2014.	10.2017.201.1 & 10.2017.661.1
Securing the Koala in the Wild in NSW for 100 Years, Saving Our Species (Saving our species iconic koala project), NSW OEH	10.2017.201.1 & 10.2017.661.1
Draft West Byron Urban release Area DCP 2013 as released by the Department of Infrastructure and Planning as part of the Planning Proposal approval.	10.2017.201.1 & 10.2017.661.1
West Byron urban Land Release Project Report, The Water and Carbon Group, 2010	10.2017.201.1 & 10.2017.661.1
West Byron/Belongil Fields, Letter of Advice, Peter Parker Environmental Consultants, 2010.	10.2017.201.1 & 10.2017.661.1
<b>Issues within the DA</b>	
<b>Combined Issues 661 &amp; 201</b>	
There is a need to rectify the gross incompatibilities between the 2 DAs for road works, drainage works, services, fill plans, Koala management, Wallum Sedge Frog management, and numerous other attributes. The items on this DA do marry up with the DA 10.2017.66.1 eg road works, drainage works, services, plans for fill. Eg the problem of street layout – there is no space for swales (drainage) for nose in parking & some sites have no rear access or street parking at all which are required by DCP	10.2017.201.1 & 10.2017.661.1

E8.10.3 E.G. Plans indicate that the roads are misaligned by as much as 25-25 meters! Both DAs do not align with each other, in maps or in plans. I address the second DA in another submission. But the whole of site plans are still missing or not consistent across the entire site. This is not correct for whole of site planning. I note that the two proposals draw on the same technical reports and preliminary studies which are deeply flawed from the start.

The DAs need to be withdrawn and made compatible, with the required holistic Management Plans for the whole site (including the industrial area) prepared: including for traffic, Koalas, biodiversity, Acid Sulfate Soils, stormwater, and the Belongil estuary. The two proposals should be considered together to appreciate the scale of population increase they will generate, as well as impacts on traffic, drainage, koalas and wetlands.

There are inconsistencies and incompatibles between the two applications and this presents an impossible task in terms of assessment and consideration of the proposals. Due to the nature of the overall site of West Byron lands and the fact that the rezoning was done for the whole area, any application for the development of the lands should be applied for under one application to ensure that the proper consideration of all impacts is able to be adequately assessed.

Because the site is made up of VillaWorld's subdivision proposal as well as that of the other landowners, there are aspects of the site that cannot be dealt with in isolation.

It is recommend that Council lead a discussion of cooperation between the two Applications to make both developments more efficient and effective for residents, developers and the environment. There needs to

<p>be a plan to link the two Lots with internal roads so residents don't need to enter Ewingsdale Road to take advantage of the features/services/facilities of both neighbouring Developments. It would be good to see some future planning allocation for a local retail outlet/s, PO, and other facilities which could be shared by residents of both Lots. Making them more commercially viable.</p> <p>Improperly submitted DAs are not supposed to be accepted.</p>	
<p>Council's High Ecological Value Vegetation (HEV) mapping has been ignored; the DA's instead citing outdated and irrelevant information. The HEV zones were distributed and were on exhibition prior to the lodging of these DA's and thus provided adequate guidance for incorporation into the proponents planning.</p>	10.2017.201.1 & 10.2017.661.1
<p>There are numerous inconsistencies to the DA's all of which will have a major impact on drainage, flooding potential, water management, native animal habitat (and conservation) and road and traffic planning. It is clear that the DA's have been inexpertly, ineptly or disingenuously prepared without consideration to these focus areas and this should indicate an automatic refusal until consistency is achieved in consultation with planners and local land holders. E.G. Plans indicate that the roads are misaligned by as much as 25-25 meters!</p>	10.2017.201.1 & 10.2017.661.1
<p>It is outrageous that the communities quality of life can be allowed to be so diminished by a development so flawed. Especially when we residents have been required to comply with every minute detail of planning regulations.</p>	10.2017.201.1 & 10.2017.661.1
<p><b>Incomplete</b> - The DA does not include a Statement of Environmental Effects, which is required. It is an incomplete DA and thus Council is unable to assess the impacts of the proposal as there is insufficient</p>	10.2017.661.1



<p>information provided.</p> <p><b>Incorrect</b> - The DA must consider the impacts on currently mapped Coastal Wetlands (and the requirement for an EIS) and the Coastal Environment Area. The outlines of legally protected areas and environmental zones have been drawn from out-dated survey data and are not site truthed.</p> <p>This company has not sought permission from adjoining landowners &amp; member of the Union Drain Board</p> <p><b>Non compliant</b> - medium density development and undersized lots in low density residential zones.</p>	
<p><b>Governance</b> - Byron Shire Council should have some serious input into the decision making process.</p> <p>NSW government is not listening to the people of Byron Bay. When it was decided the land would be sold for development, it was literally the voices of a handful against a consensus of 45 000. Yes you have read correctly, check the figures of how many signatures were received by council at that time. How is this possible? Twice the local population because our visitors themselves are strongly opposed to it. Why? Because the whole thing doesn't make sense! Why would the region destroy what makes it so special. I can tell you those 45 000 people have felt betrayed by the people in power and I hear some who have had their spirit crushed, so of course no one will hear from those anymore. NSW Planning Department amended Byron's LEP and allowed the developer to submit a DA without a DCP. Additionally, NSW Planning Minister Anthony Roberts has also indicated he would intervene if the development did not proceed to his liking. This may constitute corrupt practice. It certainly does not follow</p>	<p>10.2017.201.1 &amp; 10.2017.661.1</p>

the *Community Charter for Good Planning in NSW*, adopted by Byron Shire Council in 2014.

This process is a sham It was taken out of Local Council hands and both supposedly state significant developments were placed on the desk of the newly appointed Planning Minister and later Premier Christine Kennealy. Such a sensitive environment should have remained in the hands of the local authorities. It must be remembered that the ALP Government was the most corrupt in living memory and the newly appointed Minister (supported by the now goaled Eddie Obeid) had no idea nor interest before rubber stamping a development that contained so many potential environmental and social catastrophes.

Should the development be approved, community belief in the ability of planning decision makers, like the JRPP and the Land and Environment Court, will be reduced adding to the already cynical opinion of many residents on democratic governing processes.

**Our Shire should be allowed to determine our sustainable future.** As you likely know, at the most recent local government election the overwhelmingly majority of the population of the Byron Shire voted for councillors with an approach to development that is sensitive to the broad needs of people and the environment, rather than the narrow needs of commercial property developers. People move to Byron Shire specifically because the local Council appear to regularly act in line with environmental and social values.

Community and Elected Council members are 100% opposed. Different

NSW state governments and various planning Ministers have contributed to the fact that this totally inappropriate development has been brought onto our community against everybody's wishes and needs. It has been unanimously rejected by all councillors and Byron Council staff - as per extraordinary meeting of Byron Shire Council 6 July 2017 - see [http://byron.infocouncil.biz/Open/2017/07/OC\\_06072017\\_MIN\\_731\\_EXT\\_RA\\_WEB.htm](http://byron.infocouncil.biz/Open/2017/07/OC_06072017_MIN_731_EXT_RA_WEB.htm)

A letter from the EPA to Council dated 17 Sept 2014 stating: *"Whilst the EPA understands that future development was accounted for in the design of existing STP I stress the importance for Council to comprehensively assess the potential impacts of new developments on existing sewerage infrastructure, including effluent re-use and discharge arrangements."*, signed Head Environmental Management Unit North Coast.

In July 2017 a Council Staff Report stated that *"the West Byron development is not in the public interest."*

There is concern about the process of review and approval in this matter and its effect on citizens' trust in government. Citizens' trust in their governments is an essential component of an effective democracy. In Australia, this requires a collaborative partnership between citizens, their local council, their state government and the federal government. The Byron Shire Council, by a unanimous majority, does not want the Villa World development, and a plebiscite of the citizens of Byron Bay and its surrounds would confirm that a clear majority do not want it. If the NSW Government overrules our elected council, citizens' trust in our system of government will be severely diminished. We the actual residents are tired of the state government taking our quality of life as meaningless so they can make more money in Sydney without giving back to us.

Is there Peat below the surface? And if so will that cause a fire hazard?	10.2017.201.1 & 10.2017.661.1
<p>This land has been the subject of strong public opposition over many years owing to environmental and traffic factors. We are prepared to participate in acts of civil disobedience to demonstrate objection to the development of west Byron. There has been over 20 years of research including two commissioned surveys by our Council, which have supplied ample evidence as to why this swampland catchment site was unsuitable for inappropriate development.</p> <p>This is a golden opportunity for the developer to make a state of the art development that works with the natural environment making it a wonderful energy efficient community. This development doesn't belong here! Give us something creative. Byron wants and needs solar, water tanks, community garden, community living, stilt homes each with bio-retention systems. Small sustainable off grid housing for first home buyers not run by large mono cultural developers. Green belts with walk in suburbs. Give us something with innovative solutions to our housing and traffic problems! Give us a new technological approach to improve our social welfare. Give us sustainable infrastructure solutions! Give us a plan that preserves our unique ecosystem, rather than destroying it! There is the opportunity for a site that is a local asset rather than a developer asset, one that considers affordable, functional and sustainable design that re-considers our relationship with the built environment. There is the opportunity to provide positive development solutions. However the authority and design should be removed from the developer giving decisions back to the community and social minded designers. Reduce the homes 100 max, complete sustainable living, set an example of what real Byron lifestyle can be ... recycle materials, no cement slab .</p>	10.2017.201.1 & 10.2017.661.1
There are now very solid legal scenarios where residents can sue Council or State Government if insufficient has been paid to these issues and	

authorisation given to occupy sites.	
If this development gets the go ahead it will warrant a full Parliamentary enquiry by one of the Upper House Committees.	10.2017.201.1 & 10.2017.661.1
<p>The circumstances and the ad hoc nature of the rezoning by former Minister For Planning Pru Goward warrant a good look by ICAC, if only for reckless incompetence.</p> <p>Issues that appear strange :</p> <ul style="list-style-type: none"> <li>“2. We understand that the land the subject of the DAs is part of the land known as the West Byron Bay site in the <i>Byron Local Environmental Plan 1988</i> (‘1988 LEP’). As such clause 45 (which is in Part 3 of that instrument) does not apply to the DAs.</li> <li>3. This is because clause 65 of the 1988 LEP states that NO provisions (beyond Part 4) of the 1988 LEP apply to the West Byron Bay site other than clause 7. Clause 7 simply names Byron SC as the consent authority.</li> <li>4. Clause 6.6 of the <i>Byron Local Environmental Plan 2014</i> (‘2014 LEP’) also does not apply to the DAs. This is because the 2014 LEP does not apply to land identified as ‘deferred matter’ (see clause 1.3(1A), 2014 LEP). The West Byron Bay site is identified as deferred matter.”</li> </ul>	
No informed planning process for a 25% population increase development. There was no consideration of whether the Potential Urban Release Area should be an actual Urban Release Area, no consideration of any other development options of Rural/Agricultural/Tourism or other Local Environmental Plan, or any other development models. No consideration of established community development Plans and Policies.	
Byron Shire Council needs to look at the Shire as a whole and what areas can accommodate and benefit from increased population density, the importance of protecting fragile environments and place limits on	

increasing population commensurate with infrastructure capacity and services.	
<b>Stand Alone Submissions</b>	
<b>Residents of Melaleuca Drive</b>	
<p>Concerns include:</p> <ul style="list-style-type: none"> <li>• Impacts of increased stormwater, such as consequential flooding and waterlogging, from development on their properties.</li> <li>• Due to filling of site, excess stormwater is likely to end up on their lower properties.</li> <li>• Absence of a consideration of stormwater from the entire development means cumulative impacts of run-off not assessed.</li> <li>• Impact of fill on groundwater levels and flooding of their properties.</li> <li>• Impact of importation of fill.</li> <li>• Contamination of stormwater by sediments during construction and urban pollutants from the developed site.</li> <li>• Downplaying of potential impacts of the development of biodiversity, habitat and the threatened species.</li> <li>• Impacts on Ewingsdale Road traffic from construction of the development and the completed development.</li> <li>• Impact of the development on their businesses and personal life including the change to the nature of the surroundings, noise and dust during construction.</li> <li>• Open-ended timeframe for the construction of the development.</li> <li>• Potential for housing created by the subdivision to be used for</li> </ul> <p>Concerns include:</p> <ul style="list-style-type: none"> <li>• Impacts of increased stormwater, such as consequential flooding</li> </ul>	

<p>and waterlogging, from development on their properties.</p> <ul style="list-style-type: none"> <li>• Due to filling of site, excess stormwater is likely to end up on their lower properties.</li> <li>• Absence of a consideration of stormwater from the entire development means cumulative impacts of run-off not assessed.</li> <li>• Impact of fill on groundwater levels and flooding of their properties.</li> <li>• Impact of importation of fill.</li> <li>• Contamination of stormwater by sediments during construction and urban pollutants from the developed site.</li> <li>• Downplaying of potential impacts of the development of biodiversity, habitat and the threatened species.</li> <li>• Impacts on Ewingsdale Road traffic from construction of the development and the completed development.</li> <li>• Impact of the development on their businesses and personal life including the change to the nature of the surroundings, noise and dust during construction.</li> <li>• Open-ended timeframe for the construction of the development.</li> <li>• Potential for housing created by the subdivision to be used for holiday-letting.</li> </ul>	
<p><b>Local Community Groups</b></p>	
<p>Concerns include:</p> <ul style="list-style-type: none"> <li>• Proposed development is surplus to requirements for housing in Byron Shire.</li> <li>• The future subdivision of larger lots should be considered in the context of traffic and sewage impacts.</li> <li>• Development applications should not be considered in isolation.</li> <li>• Inadequate assessment of potential effects on water table, water</li> </ul>	

<p>quality, coastal wetlands and flooding.</p> <ul style="list-style-type: none"> <li>• Potential activation of acid sulfate soils.</li> <li>• Inadequate assessment of traffic impacts on Ewingsdale Road and streets in town.</li> <li>• Impacts on of the development on threatened fauna.</li> <li>• The visual impacts of the development (e.g., acoustic barriers along Ewingsdale Road).</li> <li>• Public exhibition of the development applications including timing, duration and scale of the documents to consider.</li> <li>• Inconsistencies and lack of coordination between the two proposed subdivisions.</li> <li>• Lack of community support for the subdivisions.</li> <li>• Impacts on the environment.</li> <li>• Lot size and layout contrary to Development Control Plan requirements.</li> <li>• Failure to incorporate recommended 20m buffers to E zones.</li> <li>• Impact of proposed filling of the site on traffic.</li> </ul>	
<p><b>Local residents with specific knowledge (e.g., in relation to environmental matters, urban design and previous neighbouring development)</b></p>	
<p>Concerns include:</p> <ul style="list-style-type: none"> <li>• Inadequacy of assessing two subdivisions separately.</li> <li>• Increased car/traffic movements on Ewingsdale Road including the potential to effect access to the hospital.</li> <li>• Amenity, particularly in relation to the proposed acoustic barrier.</li> <li>• Impact of the development on water movement, flooding and water quality.</li> <li>• Impact of filling of the site on hydrology and the environment.</li> </ul>	



<ul style="list-style-type: none"> <li>• Impact of the development on the Byron Bay sewage treatment plant.</li> <li>• Environmental effects including on Koalas, endangered frogs species, wetlands and swamp areas.</li> <li>• The social impact in the absence of the necessary social infrastructure (e.g., schools, childcare, halls and parks).</li> <li>• The impact on tourism as a result of increased traffic and pollution of Belongil Creek.</li> <li>• Impacts of the development (e.g., dogs/cats, rubbish, people) on the Belongil Estuary including on migratory and resident shorebirds.</li> <li>• Critical flaws in the urban design that reduce liveability, walkability and sustainability such as lot orientation, “Courtyard lots”, lot types and laneways and street layouts – recommendations to resolve these issues have been provided.</li> <li>• Potential negative health effects from vehicle pollution from increase in traffic.</li> <li>• The loss of native habitat is a loss of country for all first nation people.</li> <li>• Potential impact on groundwater table by adding wastewater from an additional 1000 homes.</li> <li>• Impact on longevity of subdivision roads from elevated groundwater table.</li> <li>• Potential impacts due to climate change on groundwater levels and flooding.</li> <li>• Potential activation of acid sulfate soils.</li> <li>• Inadequacy of proposed stormwater system to protect water quality.</li> <li>• Ignoring sustainability principles and best practice in design of the subdivision.</li> </ul>	
---	--

<b>The applicant for the adjoining subdivision (DA 10.2017.201.1)</b>	
<p>Concerns include:</p> <ul style="list-style-type: none"> <li>• Inconsistencies with their proposed subdivision including road alignment and work in environmental zones.</li> <li>• Proposed work on our subject site without consent.</li> <li>• Incorrect references and information in the traffic assessment pertaining to the Villa World development.</li> <li>• Incorrect references and information pertaining to the WBURA as a whole.</li> </ul>	

Submissions have come from: United Kingdom, Canada, America, Sweden, Spain, Italy, Portugal, Netherlands, Germany, Austria, France, New Zealand and the Philippines. And all around Australia.

SUBMISSIONS OF SUPPORT		
Issue	DA	Staff Response
<p>West Byron Landowners project has 58 Ha total land area with 31Ha (over 53%) zoned E2 (Environmental Conservation) and E3 (Environmental Management) for rehabilitation / restoration / tree planting etc. The remaining 47% is Residential R2, R3 and IN2 Industrial (employment lands). This has been misrepresented in alarmist advertising campaigns which show the total area as a "Mega Development" but neglect to mention the 50% conservation areas.</p> <p>The existing Industrial Estate has no more land available and Byron Shire needs more to support community needs including employment of workers.</p> <p>Traffic issues have been blown out of all proportion and have ignored the fact that people do cycle in Byron plus the town centre bypass which is yet to be built, existing and new roundabouts and four planned/under construction</p> <p>Much of the traffic generated will be between the new development and old and proposed new industrial estate, habitat, elements and people heading north, west and south to Bangalow, Ballina, Lismore, Mullumbimby and QLD without needing to go through Byron town centre.</p> <p>The traffic modelling is done on the peak load at the completion of the development which will be some 15 years away and the road system will evolve in that time to accommodate the extra load.</p> <p>The development proposal includes many features not built in to most if</p>	10.2017.661.1	

<p>not all of the existing Byron Shire urban areas:</p> <ul style="list-style-type: none"> <li>* WB Wired for NBN fibre to the home recognising the need to provide technology for the present and future.</li> <li>* Water Sensitive Urban Design (WSUD) Rainwater runoff will not just run into the wetlands as the doomsday theorists say plus "Purple pipe" grey water recycling etc. to all residential and IN2 Industrial land.</li> <li>* West Byron DCP E8. Housing will be for permanent residents only - no holiday / short term rentals.</li> <li>* Massive new cycle ways - many kilometres providing bike friendly access, level, close to town and existing and new Industrial Estates plus IGA supermarket and the hospital. Cycling becomes an attractive option and fitness lifestyle plus keeps cars off the roads.</li> </ul> <p>Along with West Byron development will come increased transport options, more regular shuttle buses to also help reduce car usage on Byron's roads.</p> <p>There have not been any new greenfield development sites in Byron for 30 years (since Baywood Chase and Byron Hills) and consequently there is now a dire shortage of affordable accommodation for permanent residents and workers.</p> <p>The lack of housing/land supply has seen Byron Bay property prices go up 150% over five years due to demand. West Byron will help alleviate the problem by providing a large rate base.</p> <p>Byron Shire Council recently voted to put the rates up 33% over 4 years</p>		
--	--	--

<p>and still the roads are in a shocking state. Part of the problem is BSC's lack of economies of scale and consequently the advantage of larger rate base is essential to improve the services and infrastructure essential to the community.</p> <p>Building of more IN2 Industrial space for employment is needed ASAP.</p> <p>Melaleuca Drive should be closed off to Ewingsdale Rd and re routed around to Bayshore Drive in stage 1.</p>		
--	--	--