

**PREFERRED PROJECT REPORT  
AND  
REVISED STATEMENT OF COMMITMENTS**

**CONCEPT PLAN MP05 \_0091**

**BAYSIDE BRUNSWICK  
RESIDENTIAL SUBDIVISION  
BRUNSWICK HEADS**

**BYRON LOCAL GOVERNMENT AREA**

**Prepared for  
CODLEA PTY LTD**

**DECEMBER 2012**



**JIM GLAZEBROOK & ASSOCIATES PTY LTD  
PO Box 827, Murwillumbah NSW 2484  
Telephone: (02) 66723074  
Email: [jimglazebrook@better.net.au](mailto:jimglazebrook@better.net.au)**

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PREFERRED PROJECT REPORT  
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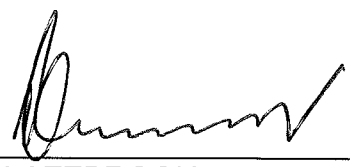
CONCEPT PLAN MP05\_0091  
BAYSIDE BRUNSWICK  
BRUNSWICK HEADS, NSW  
BYRON LOCAL GOVERNMENT AREA

PREPARED FOR  
CODLEA PTY LTD

Prepared by:

  
KELLIE SHAPLAND  
BUrbReg(Hons), MPIA, CPP

Authorised by:

  
JIM GLAZEBROOK  
ATCP, MPIA, CPP

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## **APPENDICES**

A	AMENDED PLANS CivilTech Consulting Engineers, October 2012
B	AMENDED ECOLOGICAL ASSESSMENT James Warren & Associates Pty Ltd, December 2012
C	REPORT ADDRESSING ENGINEERING ISSUES CivilTech Consulting Engineers, December 2012
D	GROUNDWATER ASSESSMENT – RESPONSE TO SUBMISSIONS Waste Solutions Australia Pty Ltd, December 2012
E	LETTER ADDRESSING TRAFFIC ISSUES TTM Consulting Pty Ltd, 24 April 2012
F	BUSHFIRE HAZARD ASSESSMENT Bushfire Safe (Aust) Pty Ltd, November 2012
G	LETTER Bolster & Co Solicitors, 26 November 2012
H	REVISED DRAFT STATEMENT OF COMMITMENTS

## **FIGURE**

1	Residue Residential Zoned Land	before	29
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## SECTION 1.0

### INTRODUCTION

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- 1.1 Concept Plan MP05\_0091 and the associated Environmental Assessment (EA) (July 2011) for a proposed residential subdivision at Bayside Way, Brunswick Heads, were prepared by LandPartners Limited, on behalf of the landowner (Codlea Pty Ltd). The concept plan was lodged with the (then) Department of Planning for approval under Part 3A of the Environmental Planning and Assessment Act 1979.
- 1.2 The Bayside Brunswick Concept Plan and EA were publicly exhibited from 20 September 2011 to 31 October 2011. Additionally, they were referred to a number of government agencies. In response to that exhibition and referral process, submissions were received from the following:
- Byron Shire Council;
  - Office of Environment & Heritage;
  - Roads & Traffic Authority (now Roads & Maritime Services);
  - Department of Primary Industries (Fisheries & Agriculture)
  - Department of Primary Industries (Catchment & Lands);
  - Office of Water;
  - Marine Parks Authority;
  - NSW Rural Fire Service; and
  - 38 public submissions.
- 1.3 The proponent was provided with a copy of all submissions by the Department of Planning & Infrastructure (the Department). The Department also provided a letter dated 30 January 2012 setting out, amongst other things, matters which the Department perceived as being key issues following its assessment of submissions. Jim Glazebrook & Associates Pty Ltd (JGA) has been instructed by the proponent (Codlea Pty Ltd) to respond to the submissions. Due to proposed changes to the project a Preferred Project Report (PPR) is being submitted.
- 1.4 This PPR contains the following:
- Description of proposed changes to the exhibited proposal;
  - A response to all issues raised by Byron Shire Council (BSC), each government agency and the Department;
  - Responses to the issues raised in the public submissions;

- 
- A revised Statement of Commitments; and
  - Revised plans

1.5 This PPR should be read in conjunction with the EA (LandPartners, July 2011).

1.6 To assist with the assessment of and response to issues contained in the submissions, further reports and advices have been sought from relevant consultants. Additionally, revisions have been made where necessary to the concept plan drawings. Those documents are attached to this report and include:

- Appendix A - Amended plans prepared by CivilTech Consulting Engineers (October 2012).
- Appendix B - Amended Ecological Assessment (James Warren & Associates Pty Ltd, December 2012).
- Appendix C - Report from CivilTech Consulting Engineers addressing engineering issues (December 2012).
- Appendix D - Groundwater Assessment Response to Submissions (Waste Solutions Australia Pty Ltd, December 2012)
- Appendix E - Letter from TTM Consulting Pty Ltd dated 24 April 2012 addressing traffic issues.
- Appendix F - Bushfire Hazard Assessment (Bushfire Safe (Aust) Pty Ltd, November 2012).
- Appendix G - Letter from Bolster & Co Solicitors dated 26 November 2012.
- Appendix H - Revised Draft Statement of Commitments.

## **PROPOSED MODIFICATIONS**

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### **2.1 Summary**

Following a review of the submissions and further examination of site features, changes to the proposal have been made. Those changes are in respect of:

- Seeking the Minister's determination that no further environmental assessment is required for the proposal (other than management plans);
- The number of lots proposed;
- Tree retention and removal; and
- Road widths.

### **2.2 Application Approval**

The proposal was lodged with the Department as a concept plan application as, at the time, sewer was not available for the proposed lots. Byron Shire Council had committed to building a new sewage treatment plant however, as it was not operational, the proponent could not seek project approval for the subdivision. As a concept plan does not approve the construction of a development, the intention was that the concept plan would progress to approval while Council built the STP that would service the site.

The STP has now been constructed and is operational. Consequently, the issue of sewer availability is no longer a constraint to the proposal.

The environmental, planning and engineering investigations undertaken for the concept plan application to meet the Director General's requirements and the additional investigations undertaken to respond to submissions, have been quite extensive. The depth of information provided exceeds what normally would be expected for a concept plan approval and allows the project to be assessed in considerable detail.

The level of detail provided in the EA is supplemented by the additional information in the PPR. The information provided in the EA includes:

- A full description of the proposal in a statutory and planning policy framework;

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- Detailed site analysis;
  - Analysis of key issues including:
    - subdivision design, layout and character;
    - flora & fauna;
    - water cycle management;
    - hazard management and mitigation;
    - traffic and access;
    - visual impact;
    - heritage and archaeology;
    - social impact; and
    - infrastructure provision;
  - Subdivision plan layout and staging;
  - Preliminary earthworks plan;
  - Infrastructure concept layout;
  - Preliminary subdivision roadworks, levels and cross sections;
  - Preliminary erosion and sediment control plan;
  - Preliminary stormwater treatment and frog habitat detail.

The additional information provided in the PPR includes:

- Updated ecological, bushfire and groundwater assessments prompted by the review of submissions.

Engineering and environmental management strategies demonstrate that they can be implemented to achieve desired outcomes. Full detailed design and recommended management plans would be provided with the construction certificate application. Timing of the lodgement of detailed design for various issues is outlined in the revised Statement of Commitments (Appendix H).

Accordingly, it is requested that the Minister consider determining that no further environmental assessment be required for the proposal, other than the lodgement and approval of management plans and detailed designs with the relevant construction certificate (s).

### 2.3 **Number of Lots**

It is proposed to remove proposed Lots 146, 147, 148 and 150 and incorporate the land into a larger proposed Lot 146 (previously 149). The purpose of this change is to accommodate an increased asset protection zone (APZ) width and to retain some significant trees. The amended plans are contained in Appendix A.

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Changes to the APZ width compared to those presented in the original concept plan application are as a result of a new Bushfire Hazard Assessment (Appendix F). This assessment was prepared to assist in responding to the submissions and considers recent amendments to *AS3959 – 2009 Construction of buildings in fire prone areas*.

#### 2.4 **Tree Retention & Removal**

Advanced eucalypts are located within proposed residential lots on the eastern and western portion of the site. The concept plan indicated that these isolated trees would be retained within the lots. It is now proposed to remove these trees due to safety issues associated with falling limbs and proximity to houses on small lots. Amended tree retention/removal plans are contained in Appendix A. This issue is further discussed in the amended Ecological Assessment (Appendix B). This assessment specifically addresses the number of trees to be retained and removed over the entire site, and their conservation status.

#### 2.4 **Road Widths**

Road pavement and verge widths have been reviewed to reflect current design standards and to better accommodate bus routes (refer Appendices A and E).



## SECTION 3.0

# RESPONSE TO GOVERNMENT AGENCY SUBMISSIONS

### BAYSIDE BRUNSWICK – SUMMARY OF GOVERNMENT AGENCY SUBMISSIONS

GOVERNMENT AGENCY	COMMENT
<p><b><u>PLANNING &amp; INFRASTRUCTURE (30.01.12)</u></b></p> <p><b><u>Flora &amp; Fauna</u></b></p> <ul style="list-style-type: none"> <li>• Wallum Froglet - Further surveying should be conducted &amp; justification provided that suitably addresses the Office of Environment &amp; Heritage (OEH) concerns regarding the extent of the species habitat. Also concerned with the feasibility of the proposed compensatory habitat.</li> <li>• Development layout should be amended so that north/south channel remains in its natural state and that a 50 metre buffer should be located along other side of the drainage channel. Stormwater treatment measures should be located outside the drainage channel.</li> <li>• Koala - Further assessment and redesign required.</li> <li>• Public Reserves – details of the design of the public reserve should be included.</li> </ul>	<p>All flora and fauna issues are discussed in the amended Ecological Assessment (EcA) (Appendix B). All figure numbers and sections referenced below relate to the amended EcA. Relevant comments made in the amended EcA to the issues raised are summarised below:</p> <p>There was an error in the original plan detailing the extent of Wallum froglet habitat. An amended plan is included in the Revised EcA (<b>FIGURE 21</b> – Vol. 1.). The compensatory Wallum froglet habitat is in accordance with the methodology and design used successfully as part of the Tugun Bypass development.</p> <p>This channel is a first order stream as classified under the Strahler System. In accordance with the <i>Water Management Act (2000)</i> a 10m Vegetated Riparian Zone (VRZ) will be provided on either side of the channel. Stream realignment of 1<sup>st</sup> Order Streams is permissible with consent. Alteration of this minor drainage line will be minimal and natural hydrologic and ecological functions will be maintained or restabilised. Refer to <b>SECTION 3.3</b> – Vol. 1. Stormwater will be pre-treated (gross pollutant traps) prior to entering the central drainage channel. Refer to <b>SECTION 6.4</b> – Vol. 1.</p> <p>The majority of Koala habitat in the north-west of the site is considered Secondary habitat. The loss of old growth koala food trees will be offset through revegetation. Refer to EcA Vol. 1, <b>SECTION 4.2.5.5</b>. Connectivity throughout and in proximity to the site (<b>FIGURE 33</b>) will not be affected. Refer to EcA Vol. 1, <b>SECTION 5.3</b>. Further assessment and redesign is considered unnecessary.</p> <p>A Vegetation Management Plan (VMP) (see <b>SECTION 4.2.2.4</b> – Vol. 1) will be completed for the areas of retained vegetation and will include extensive details on the design of the public reserve and the associated rehabilitation and revegetation. Design details are not considered necessary for this stage of the proposal. Further details will be lodged for approval of Byron Shire Council prior to the construction certificate (CC) being issued.</p>

<p><b><u>Stormwater &amp; Erosion &amp; Sediment Control</u></b></p> <ul style="list-style-type: none"> <li>• WSUD – Stormwater treatment train is unclear. Identify the location of all water cycle mitigation measures as described in 7.1.1.9 of the EA. Water quality modelling should be included.</li> <li>• Downstream drainage – clarify manner in which drainage downstream of the bioretention basin out of the site draining into Everitts Creek will be maintained given the land is in different ownership and no assessment has been made of its current ecological development.</li> </ul> <p><b><u>Traffic &amp; Roads</u></b></p> <p>a) The proposed road layout should allow for future bus access across the site and include provision for bus shelters in accordance with the Draft Statement of Commitments T6 and Figure 15 of Appendix M.</p> <p>b) The proposal doesn't adequately consider the existing crown public road reserve located along the eastern side of the subdivision layout. The proposed use and rehabilitation of land within the reserve is subject to permission from Crown Lands. The use of the reserve requires clarification as discussed by the submission of Crown Lands.</p> <p>c) Taking into consideration the additional traffic to be generated by the development, the proponent needs to demonstrate how adverse parking and traffic impacts to the existing Lillypilly pre-school can be avoided.</p> <p>d) The proponent should consult with Council's traffic engineer regarding the intersection analysis at the Gulgarn Road (Old Pacific Highway) and the suitability of proposed intersection upgrades. Council's comments regarding the appropriateness of proposed intersection upgrades should be included in any response to submissions.</p> <p>e) The Council's <i>Bike Strategy and Action Plan 2008</i> contained in Appendix M shows an unbuilt section, number 35 of the pedestrian/cycleway link that would connect Brunswick Heads commercial centre to the Bayside development. Currently there is no linkages as shown in the plan. Although the proponent has proposed shared cycle and pedestrian ways within the site, the department considers it important to provide active travel alternatives to vehicular linkages as supported by the <i>Premiers Council of Active Living</i> and the <i>Far North Coast Regional Strategy 2006 "Neighbourhood Planning Principles"</i>. It is requested that the proponent consult with Council regarding the feasibility of providing the linkage and the manner for its provision. The results of such consultation should be included within the submissions report.</p>	<p>This issue is discussed in the response from CivilTech Engineering (Appendix C). The SWMP or stormwater concept plans prepared as part of the submission outline the treatment measures and modelling results. The engineering drawings show detail of the proposed treatment. It was found that the proposed measures are capable of achieving the required design goals. Further detail would be provided at CC stage.</p> <p>Byron Shire Council provides regular ongoing maintenance to the drain linking the proposed development to Everitts Creek.</p> <p>Traffic and road issues are addressed in the letter from TTM Consulting dated 24 April 2012 (refer Appendix E). The road layout allows for future bus access and bus shelters.</p> <p>The issue of the crown road reserve is addressed in the response to the Department of Primary Industries (Crown Lands) submission. Essentially the future of the road reserve will be resolved prior to the release of the CC for Stage 1 as there are a number of available options in this regard. It is not critical to the proposal to resolve this issue at this stage. Rehabilitation will be detailed as part of the Vegetation Management Plan (VMP) (refer Appendix A).</p> <p>The issue is addressed in Appendix E</p> <p>A representative of TTM Consulting met with Byron Shire Council officer Mr Simon Bennett. Mr Bennett agreed with TTM's conclusion that there were no future capacity issues at the intersection and no upgrades are required as a result of the proposal (refer to Appendix E).</p> <p>This issue is addressed in Appendix E. In addition to the comments in Appendix E, it is noted that the Bike Strategy and Action Plan 2008 identifies that the link from Bayside Brunswick to Brunswick Bowling Club, which includes area 35, is to be substantially funded (85%) through Section 94 contributions. The applicant will therefore be contributing in this regard.</p>
<p><b><u>DEPT OF PRIMARY INDUSTRIES (FISHERIES &amp; AGRICULTURE) (9.12.11)</u></b></p> <ul style="list-style-type: none"> <li>• Recommend adoption of a 100 metre buffer from the outer edge of coastal wetland habitats such as the sedgelands and Saltmarsh. The 100 metre buffer and aquatic habitats they protect should be rehabilitated consistent with an agreed rehabilitation plan. It is noted that this is generally achieved.</li> </ul>	<p>A minimum buffer of 145m will be provided to Coastal Saltmarsh habitats as indicated in Figure 20 Vol 1 of the revised EcA. A Vegetation Management Plan (VMP) will be completed for areas of retained vegetation (ie. Environmental Protection Zones &amp; SEPP 14 Wetlands).</p>

<ul style="list-style-type: none"> <li>• Buffer maybe needed for bushfire asset protection and/or mosquito control within existing vegetation. Maintaining APZ and/or underscrubbing for mosquitoes can be inconsistent with management objectives of the buffer.</li> <li>• DPI would not support 'drain cleaning' of Everitts Creek as the instream values of vegetation, snags and general morphology contribute to the improvement of water quality entering the adjacent Cape Byron Marine Park as well as providing fish habitat for both Simpsons Creek and Cape Byron Marine Park.</li> <li>• Requires greater use of water sensitive urban design principles to reduce reliance on the natural environment as a treatment strategy as proposed in the EA.</li> <li>• No specific agricultural issues raised.</li> </ul>	<p>The majority of the recommended APZ's have utilised road reserves and portions of the proposed public reserves with the exception of the APZ each side of the central drainage reserve which has provided for buffering of coastal wetland habitats.</p> <p>Everitts Creek will not be altered. The proposal is to shape the existing drain flowing north south to the intersection of the creek. The drain is being maintained by BSC and has been cleaned out earlier this year by others as part of the regular maintenance program.</p> <p>The preliminary modelling was carried out in accordance with Byron Shire Council's (BSC) Stormwater Management Guidelines. WSUD measures are proposed in the preliminary design and the modelling indicates that a net reduction of pollutants will be achieved. The central feature of the WSUD approach in the stormwater basin as detailed, which is designed to process and treat runoff in order to achieve the required standards (refer to Appendix C).</p> <p>Noted.</p>
<p><b><u>OFFICE OF WATER (24.11.11)</u></b></p> <ul style="list-style-type: none"> <li>• Applicant must forward details of monitoring bores to Office of Water Licensing Branch. If additional monitoring bores for ASS testing have not been decommissioned they must be licenced.</li> <li>• Applicant to be aware of licencing requirements under the Water Act &amp; Management Act. Dam construction may require consent.</li> <li>• Bond or Bank Guarantee will be required if a ground water or surface water licence is required.</li> <li>• Recommended the applicant prepares Groundwater &amp; Surface Water Management Plans that incorporate a detailed description of a sustainable and efficient water supply.</li> <li>• Office of Water is satisfied that the stormwater management arrangements adequately address the type and location of onsite detention, major overland flows and discharge calculations and the quantity direction and rate of surface and nutrients discharges from the site. However, concerns and recommendations include but are not limited to: <ol style="list-style-type: none"> <li>1. the potential to contaminate groundwater through the direct infiltration of stormwater runoff or the construction of stormwater detention basins and swales that intercept the water table which may provide further movement of pollutants down gradient that could discharge to surface waters:</li> </ol> </li> </ul>	<p>Details of 3 existing monitoring bores have been forwarded to the Office of Water. None of the ASS testing notes were kept for groundwater monitoring so no licence is required.</p> <p>Noted. The stormwater treatment basin will require a controlled activity approval which will be obtained as part of the CC process. The proposed road embankment crossing the drain and incorporating the outlet of the basin is not considered to be 'dam construction'.</p> <p>Noted.</p> <p>The Water Cycle Concept Plan addresses the requirements for pollution reduction and a reduction of stormwater volumes. Following discussions with the Office of Water, it was agreed that the Groundwater Management Plan will be prepared and submitted as part of the project design phase. Consequently, the Groundwater &amp; Surface Water Management plans will be submitted for approval with the CC (refer to Appendices C &amp; D).</p> <p>BASIX requires all buildings to achieve a 40% reduction in water use. That would need to be addressed at DA/CC stage for individual buildings.</p> <p>Waste Solutions Australia (WSA) has undertaken additional drilling, pump testing and numerical modelling in order to assess whether the requirement for lining of the detention basin is necessary to stop potential adverse impacts of the treated infiltration water on the adjacent SEPP 14 and 7(a) zone land. This work has been discussed in detail in their report (Appendix D).</p>

<ol style="list-style-type: none"> <li>2. detention basins and swales that are constructed below the water table should be lined (clay or geo-fabric) to minimise the hydraulic connection within the surrounding groundwater system or if unlined constructed so that the base of the excavation is 1m above the water table for most of the time;</li> <li>3. the potential of ASS to be exposed when constructing detention basins, swales and drains creating acid leachate;</li> <li>4. on coastal land of very low relief flooding is an issue especially considering the longer term possibility of sea level rise and increase in the range of inundation depths; and</li> <li>5. all works that intercept groundwater must be licensed under Part5 WA.</li> </ol> <ul style="list-style-type: none"> <li>• Applicant to provide evidence that sediment and erosion works concur with the 'blue book'. ESCP to be incorporated into a GWMP and/or SWMP.</li> <li>• Applicant must demonstrate in a SWMP and GWMP what mitigation measures will be adopted to avoid and/or treat the following potential impacts: <ol style="list-style-type: none"> <li>1. TSS (total suspended solids) may increase in surface water due to erosion and runoff of cleared areas during construction stages of the proposed development;</li> <li>2. low conductivity in Simpsons Creek and high conductivity in groundwater from stormwater runoff discharge and reduced recharge respectively due to sealed surfaces on the site;</li> <li>3. decreases in groundwater level and flow rates from reduced recharge which may potentially impact on GDEs;</li> <li>4. eutrophication of water sources and higher PH from increase application of fertilisers and soil conditioning agents to gardens/lawns; and</li> </ol> </li> </ul>	<p>The main conclusion from this study is that the shallow perched aquifer into which any detention basin infiltration water will flow does not discharge to the SEPP 14 wetlands or the 7(a) lands. In addition, even with a 1 in 100 year storm event and a dry aquifer, the distance the water will infiltrate before returning back to the drain is limited. Consequently lining is not necessary.</p> <p>For the construction of swales and the basin, the depth of excavation will generally be less than 2m, where the potential of acid sulphate soil exposure is low according to the acid sulfate soil assessment by BorderTech (2010). Isolated trenches may be deeper than 2m (subject to detailed design). Should this occur the acid sulfate soils would be managed by the construction contractor. An acid sulfate management plan would be prepared as part of the CC submission if assessed as necessary during the detailed design phase.</p> <p>A flood report was prepared by BMT WBM in November 2010. Its modelling of the DECCW 1:100 year flood + climate change gave a level of 3.5 at the intersection of Everitts Creek and the N/S drain. The lowest level on the lots adjoining the basin is 3.7m AHD.</p> <p>It should be acceptable for this licence to be conditioned as part of the design stage.</p> <p>A "Water Cycle Stormwater Management Plan" was prepared by LandPartners. Section 6 outlines the ESCP in accordance with the "Blue Book" CivilTech Consulting Engineers (CTCE) have included a conceptual ESCP with the EA. Detailed ESCP can only be done as part of the detailed design. This will be carried out for each phase at the Construction Certificate stage.</p> <p>The "Water Cycle Stormwater Management Plan" details the proposed mitigation measures and shows preliminary results of the reductions in Gross Pollutants, Suspended Solids, Phosphorous and Nitrogen that will be achievable.</p> <p>These pollutants are reduced to the levels required by BSC DCP 2010 Section N7 (points 1 &amp; 4).</p> <p>As Simpsons Creek is a tidal creek, conductivity will vary daily and seasonally. All existing groundwater conductivities are low. After development, conductivity of groundwater within the upper perched aquifer may increase through the addition of fertilisers to garden and grass. The conceptual hydrogeological model indicates that the groundwater from this upper aquifer will not reach the SEPP 14 wetlands. The lower aquifer is unlikely to be affected as it is isolated from the upper aquifer by a confining "coffee rock" layer at depth (refer to the conceptual model discussions in Appendix D).</p> <p>The top perched aquifer under the proposed development does not contribute a significant volume of water to the SEPP 14 wetlands. Most excess water from this aquifer will discharge to the central N-S drain before directly discharging to Simpson Creek during a wet season. Hence, any potential loss to the groundwater from hard surfaces within the development will have no impact on the adjacent GDE's.</p> <p>Routine baseline testing of the upper and lower aquifers show that both these aquifers already contain significant quantities of nutrients (see Appendix D).</p>
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<p>5. increased concentrations of TPH (total petroleum hydrocarbons), BTEX (benzene toluene ethyl-benzene xylene), pesticides and metal from road runoff and domestic activities.</p> <ul style="list-style-type: none"> <li>Recommended baseline monitoring for water quality for a minimum of 2 years. Also recommend more extensive monitoring program which includes all aquifers, watercourses and wetlands within and adjacent to the project site.</li> <li>The GWMP and SWMP should incorporate the results of the baseline data monitoring already undertaken, proposed future monitoring and reporting programs, including a contingency plan. Should also include measures to protect natural environment (SEPP 14, 7(a) zone land etc.). The plans should be forwarded to the Office of Water for review.</li> <li>Recommend 100m buffer to estuarine aquatic vegetation.</li> <li>Give consideration to NSW State Rivers &amp; Estuaries Policy 1993 when preparing SWMP and GWMP.</li> <li>Applicant to take into account NOW's "Guidelines for Controlled Activities" including the minimum core riparian zone (CRZ) widths which should be adhered to. In addition to the CRZ widths, an additional vegetated buffer is to be provided on both sides of the water course.</li> <li>The APZ is not to form part of the CRZ.</li> <li>Recommended conditions provided.</li> </ul>	<p>Byron Shire Council's DCP2002 Part N7.1 states that hydrocarbons, motor fuel, oils and grease pollution is not significant in low density residential developments. MUSIC does not model the reduction of TPH, BTEX, pesticides etc. However, bioretention basins are considered one of the best methods for the removal of hydrocarbons, metals and pathogens and considered adequate in this situation.</p> <p>The proposed monitoring program is outlined in Appendix H. This monitoring program was developed following consultation with the Office of Water.</p> <p>MUSIC modelling predicts performance of proposed treatment measures using mean annual flow of pollutants in kg/ha per year. The settings of the model parameters include pollutant loads derived from generalised baseline data. It is not possible to insert site specific baseline data into MUSIC as part of modelling a single subdivision site.</p> <p>It is considered that the proposed measures as detailed will improve the protection of and enhance the natural environment at the site (refer to Appendix C).</p> <p>This buffer is provided.</p> <p>Consideration to the policy has been given for the preparation of the SWMP especially in relation to water quality and erosion control at conceptual design level. Full details will be included in the CC submission.</p> <p>The proposed basin and drainage system do not introduce any new flow paths but build on the existing drainage regime by updating existing features and generally improve the system in order to enable processing and treatment of runoff from the proposed development as well as achieving controlled discharge. The conceptual SWMP was conceived keeping in mind the interplay between the objectives expressed in the six principles of the policy and the environmental and engineering demands of the proposal. No works are proposed in the coastal habitat zone or on the banks of Simpson Creek.</p> <p>On 1 July 2012, new rules commenced regarding controlled activities within riparian corridors. The CRZ and vegetated buffer have been combined into a single vegetated riparian zone (VRZ) (NOW 2012). There will be no infrastructure within the VRZ for Simpson's Creek. The proposed design of the central drainage reserve (including stormwater outlet structures and essential services) is in accordance with the <i>Water Management Act 2000</i>, subject to drainage work approval. See <b>SECTION 7.3</b>–EA Vol. 1 (Appendix B).</p> <p>No Asset Protection Zones will be located within any Core Riparian Zone. However, the central drainage reserve will be revegetated with scattered trees (12m centres) and wet heath species and as such will be managed as an APZ.</p> <p>Noted</p>
<p><b><u>BYRON SHIRE COUNCIL (7.11.11)</u></b></p> <ul style="list-style-type: none"> <li>A number of elements of the proposed development are unreasonably and significantly detrimental to the sites ecological values and are not justified by the merits of the circumstance.</li> </ul>	<p>We disagree with this comment. We believe that the management measures proposed and circumstances of this proposal warrant approval of the proposal.</p>

<ul style="list-style-type: none"> <li>• Location of Lots B3-B10 contains significant old growth koala food trees (<i>Eucalyptus Signata</i>). Residential development of these lots would generate vegetation loss from construction, residential land management, bushfire safety etc. The cumulative impact of these measures in this part of the site is not supported.</li> <li>• APZ may require removal of substantial vegetation and reduction in ecological values.</li> <li>• Significant construction standards may be required by future owners (bushfire considerations). It is not appropriate that construction standards be excessive in an urban subdivision as proposed.</li> <li>• Council supports this area (Lots B3-B10) becoming common land.</li> <li>• Lots B150-B155 – same general concerns as Lots B3-B10. Council supports this area becoming common land.</li> <li>• Lots B149-and B156 – these lots have high conservation status and should become common land.</li> <li>• P1 – Public Reserve – it would be acceptable for Council to take ownership of the reserve subject to a conservation agreement.</li> <li>• P2 – Drainage Reserve – application does not demonstrate that the subdivision has a lawful point of discharge for stormwater disposal. Discharge to land in different ownership. Outlets of works on Crown Road require consent from Crown Lands Department.</li> <li>• Loss of Wallum Froglet habitat – the existing N-S drainage pattern/vegetation running down the middle of the site should be retained “as is” and significant buffers provided. Not evident that Wallum Froglet habitat is secured. High nutrient loads are incompatible with the retention/creation of froglet habitat.</li> <li>• Not evident how Lots 118-122 can be created consistent with the establishment of an adequate wetland area that serves both stormwater treatment and viable Wallum Froglet habitat.</li> <li>• Flooding – impact of adopting the climate change parameters of DECCW (2009) instead of BSC (2009) on future house construction has not been addressed.</li> </ul>	<p>Some conservation significant trees (including old growth koala food trees) will be retained in the larger lots. The loss of old growth koala food trees will be offset through revegetation. Refer to EcA Vol. 1, <b>SECTION 4.2.5.5</b>. (Appendix B).</p> <p>Only individual trees would require removal to achieve a minimum 2 metre canopy separation.</p> <p>The dwellings along the bushland interface will achieve a BAL 29 construction standard in relation to AS3959 ‘Construction of Buildings’ in Bushfire Prone Areas’ which is an acceptable standard required by the NSW Rural Fire Service. All other dwellings within the subdivision footprint will achieve a BAL-19 to a BAL 12.5 construction standard (refer to Appendix F).</p> <p>Not agreed. Refer <b>FIGURE 8</b> – EcA Vol. 1 (Appendix B) for revised lot layout.</p> <p>Lot B150 has been removed from the revised layout to enable the retention of some conservation significant trees and allow for the provision of a 21m APZ to lot B151.</p> <p>Conservation of significant trees (including those that constitute the EEC Swamp sclerophyll forest on coastal floodplain) in these lots will be protected through the use of a Section 88B instrument. The s.88B instrument will confine the location of the building envelope to unconstrained areas of lots B149 and B156 and prohibit any clearing of protected trees within these lots.</p> <p>The Public Reserve P1 will be dedicated to the Byron Shire Council as a conservation area on completion of revegetation works. Dedication will occur as part of the final stage. The applicant will enter into a VPA in this regard. A draft VPA will be submitted prior to the PPR being determined. Refer to EcA Vol. 1, <b>SECTION 1.1</b> (Appendix B).</p> <p>The letter from Bolster &amp; Co Solicitors dated 28 November 2012 demonstrates that the development has a lawful point of discharge (refer to Appendix G).</p> <p>Consent from Crown Lands Department will be obtained where necessary.</p> <p>This issue is addressed in Appendix B. The compensatory habitat proposal is based on the successful Tugun bypass design (Refer to EcA Vol. 2, <b>APPENDIX 9 &amp; 10</b>) where <i>Crinia tinnula</i> were recorded calling from several different water treatment basins on numerous occasions during regular monitoring events (Pacific Alliance, 2010). Additionally, the created core-breeding habitat (melon holes) will be located outside of the low-flow drainage channel, which will convey the high nutrient load first flush stormwater (refer <b>FIGURE 1</b> – EcA Vol. 2). The compensatory habitat proposal is therefore considered practicable.</p> <p>See above</p> <p>A flood report was prepared by BMT WBM in November 2010. Its modelling of the DECCW 1:100 year flood + climate change gave a level of 3.5 at the intersection of Everitts Creek and the N/S drain. The lowest level on the lots adjoining the basin is 3.7m. Compliance with minimum floor levels nominated by Council will be achievable for all dwellings on proposed lots.</p>
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<ul style="list-style-type: none"> <li>Impact of the stormwater detention basin on flood levels (or visa versa) has not been addressed.</li> <li>Roads – layout/hierarchy does not appear to provide for bus routes. Further discussion required with Council's Traffic Engineer concerning intersection with Old Pacific Highway which may need upgrading.</li> </ul>	<p>For events with basin overflow the flood levels in the overall catchment area (as per flood study) will govern the water level in the basin until the downstream and upstream water levels are equal. At this stage the basin will become part of the overall flood event and act as backwater storage.</p> <p>The basin will have a retardation effect on flows from rainfall events with runoff volumes less than that needed to fill the basin. This will have a moderating effect on downstream flood levels (refer to Appendix C).</p> <p>Bus routes have been nominated. Refer to comments above and Appendix E.</p> <p>Bus stops and footpaths will be provided to Council's standards and detailed as part of the CC submission.</p>
<p><b>OFFICE OF ENVIRONMENT &amp; HERITAGE (28.10.11)</b></p> <ul style="list-style-type: none"> <li>OEH able to support proposal subject to amendments to the draft Statement of Commitments. These amendments relate to biodiversity values, Aboriginal cultural heritage and estuary &amp; foreshore management and are summarised below .</li> </ul> <p><b>1. Biodiversity Conservation Issues</b></p> <ol style="list-style-type: none"> <li>The layout should be redesigned to ensure that key areas of Koala habitat and movement corridors in the north-west of the site, including primary Koala habitat, be maintained and re-established to ensure that direct, indirect and cumulative impacts on Koala are avoided.</li> <li>The layout should be redesigned to increase avoidance of significant tree removal by expanding proposed revegetated/rehabilitated conservation areas at both the east and west of the development area. The proposed retained/rehabilitated/revegetated buffer to the large Swamp Sclerophyll Endangered Ecological Community (EEC) in the eastern portion should be expanded further to the west to incorporate the drainage line to the west and all trees indicated in the EA as being high to very high conservation value trees.</li> <li>The impact of the loss of any significant conservation value trees not avoided through layout redesign (see 2 above) should be calculated and a suitable offset determined.</li> <li>The establishment of a range of nest boxes should be a condition of approval for any hollow bearing trees that cannot justifiably be avoided. These should be matched to an inventory of quantity and habitat qualities of any removed hollows at a minimum 2:1 ratio, located in strategically important connectivity corridors to be established. This commitment should be incorporated within the proposed Vegetation Management Plan (VMP). The commitment should also be made in the VMP that any suitable hollows approved for removal are to be scattered throughout revegetation / conservation areas to function as potential habitat for ground dwelling fauna (particularly the <i>Planigale maculata</i>).</li> </ol>	<p>All biodiversity issues are discussed in the amended EcA (Appendix B). The comments in the EcA are produced below.</p> <p>The majority of Koala habitat in the north-west of the site is considered Secondary habitat. The loss of old growth koala food trees will be offset through revegetation. Refer to EA Vol. 1, <b>SECTION 4.2.5.5</b>. Connectivity throughout and in proximity to the site (<b>FIGURE 33</b>) will not be affected. Refer to EcA Vol. 1, <b>SECTION 5.3</b></p> <p>The conservation area in the west of the site has been expanded to include Lots B157, 158 &amp; 159 (Refer to Lot B146 on <b>FIGURE 8</b>). Some small losses of the Swamp sclerophyll forest EEC are unavoidable in the east of the site. With the implementation of the VMP (see EcA Vol.1, <b>SECTION 4.2.2.4</b>) there will be a long-term net gain of 1.33ha of Swamp sclerophyll forest.</p> <p>Refer to EcA Vol. 1, <b>SECTION 4.2.3</b>. <b>FIGURE 13</b> identifies the number and species of trees to be removed under the current layout. In total, 253 Conservation Significant trees will be removed, in addition to 332 trees mapped as 'No Conservation Significance'. Trees that are to be removed will be offset as part of rehabilitation works on the site at a minimum offset ratio of 2:1.</p> <p>Refer to EcA Vol. 1, <b>SECTION 4.2.3.5</b>. Hollows contained within trees to be removed will be retained and placed within revegetation/ conservation areas to function as potential habitat for ground-dwelling fauna. Nest boxes will be strategically placed in retained trees to replace removed hollows at a 2:1 ratio.</p>

<p>5. The development layout should be redesigned to protect and buffer all environmentally significant areas including threatened species, endangered ecological communities and their habitats with a minimum 50 metre vegetated buffer.</p> <p>6. Greater attention should be given in the overall layout to biodiversity connectivity within the site:</p> <ul style="list-style-type: none"> <li>i. north-west to south-west (ie. Stage 4a corridor in Figure 33) – Further information should be provided before approval regarding the safeguards proposed within the 'environmental lifestyle' lots to ensure the environmental values are maintained in perpetuity, or alternatively, these lots should be rehabilitated and incorporated into an environmental protection zoning and dedicated to Byron Shire Council (subject to their approval) as a protected natural area. These two lots should be further connected and revegetated, incorporating any mapped primary koala habitat (Byron Shire Council mapping) and managed for conservation purposes.</li> <li>ii. south-west to south-east – The layout should incorporate a 50 metre vegetated buffer to the property to the south, to be provided from west to east (largely through natural but also assisted regeneration as appropriate), and managed to achieve improved landscape connectivity function for threatened mammals and other fauna known from the site.</li> </ul> <p>7. The layout should be redesigned to avoid impact on Wallum Froglets and their habitat, and include a naturally regenerated vegetated buffer of 50 metres either side of the central drainage channel, maintained in perpetuity in conservation tenure. Alternatively:</p> <ul style="list-style-type: none"> <li>i. clarity should be sought in relation to the consistency of the current proposal and the proposed Wallum Froglet Compensatory Habitat Plan with the need to avoid impacting upon threatened species habitat and the alteration of natural waterways key threatening process; and</li> <li>ii. adequate alternative offsets should be provided to the satisfaction of OEH, following an assessment of impacts of the proposal using its biometric offset calculation tools (BBAM) or,</li> <li>iii. an independent assessment be made by a suitably qualified acid frog specialist as to the viability of the Wallum Froglet Compensatory Habitat proposal, with specific reference made to the results of data collected for the Tugun by-pass.</li> </ul> <p>8. The documentation provided should be made consistent and updated to reflect current taxonomic and distributional understanding in regard to the use of the terminology for 'scribbly gum' (ie. <i>E. signata</i>, rather than '<i>racemosa</i>').</p>	<p>A minimum buffer width of 145m will be provided to Coastal saltmarsh communities on the site. Swamp oak floodplain forest will have a minimum buffer width of 243m. The minimum buffer width to Swamp sclerophyll forest on coastal floodplain will be 15 m, but buffers will generally exceed 30m as indicated in <b>FIGURE 20</b> – Vol. 1. Simpsons Creek will be buffered at a minimum of 162m. A minimum 8m buffer will be provided on either side of the central drainage channel, however, buffers to this channel are generally in excess of 10m in accordance with the NSW Water Management Act (2000) (<b>FIGURE 20</b> - Vol. 1).</p> <p>Refer to <b>SECTION 5.3</b> and <b>FIGURE 8</b> – Vol. 1. Four (4) lots adjacent to the 'environmental lifestyle' lot (now B146) have been removed from the Stage 4a corridor. Environmental values in 'environmental lifestyle' lots (B146 &amp; B156) will be maintained in perpetuity with a Section 88B instrument. The s.88B instrument will confine the location of the building envelope to unconstrained areas of these lots and prohibit any clearing of protected trees (refer to EA Vol. 1, <b>SECTION 4.2.3.4</b>). This requirement is included in the revised draft Statement of Commitments (refer to Appendix H).</p> <p>Connectivity is provided from the west to east by the western corridor shown in <b>FIGURE 33</b> – Vol. 1. This vegetated corridor is immediately adjacent to the southern property boundary. No further requirements for the provision of corridors within the subject site are considered necessary. Refer to EcA Vol. 1, <b>SECTION 5.3.5.5</b>.</p> <p>Discussion in WFCHP of this issue (refer to Appendix B).</p> <p>Refer to <b>SECTION 4.2.5.8</b> – Vol. 2. The loss of Wallum froglet habitat will be offset through the creation of compensatory habitat areas (<b>FIGURE 30</b> – Vol. 1). These areas will be designed to provide additional core breeding and forage habitat areas on the subject site and will be created in accordance with a Wallum Froglet Compensatory Habitat Plan (see <b>APPENDIX 9</b> – Vol. 2).</p> <p>See Above.</p> <p>Agreed</p>
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<p>9. It should be a condition of approval that the keeping of domestic animals is prohibited by any future residents upon this site, utilizing a <i>Section 88B instrument under the Conveyancing Act 1919</i>.</p> <p>10. A detailed plan for public amenities/facilities proposed near Simpsons Creek should be prepared and assessed in relation to potential impacts upon the foreshore and the Tyagarah Nature Reserve prior to determination of this proposal. Any facilities to be provided should be located away from the edge of the creek, ensuring pedestrian only access.</p> <p>11. Rehabilitation proposals for the informal track within the road reserve (Concept Plan p122) should extend to all tracks not required to provide pedestrian access to Simpsons Creek within the land zoned for environmental protection and within the proposed adjacent parkland. This is to be reflected in the vegetation management plan.</p> <p>12. Before approval is considered, more information should be provided about the intended land management regime applicable to the area described as Park 1 and the extent to which it will be rehabilitated/revegetated for conservation purposes.</p> <p><b>2. Aboriginal Cultural Heritage Issues</b></p> <p>1. The proponent must continue to consult with and involve all the registered local Aboriginal representatives for the project, in the ongoing management of the Aboriginal cultural heritage values. Evidence of this consultation must be collated and provided to the consent authority upon request.</p> <p>2. The proponent is to provide fair and reasonable opportunities for the registered Aboriginal stakeholders to monitor any initial ground disturbance works associated with minor works or otherwise in the area identified as the '<i>Environmental Protection Zone</i>' associated with the project area. In the event that additional Aboriginal objects are uncovered during the monitoring program, the objects are to be recorded and managed in accordance with the requirements of sections 85A and 89A of the <i>National Parks and Wildlife Act 1974</i>.</p> <p>3. In the event that surface disturbance identifies a new Aboriginal object, all works must halt in the immediate area to prevent any further impacts to the object(s). A suitably qualified archaeologist and the registered Aboriginal representatives must be contacted to determine the significance of the object(s). The site is to be registered in the Aboriginal Heritage Information Management System (AHIMS) (managed by OEH) and the management outcome for the site included in the information provided to the AHIMS. The proponent will consult with the Aboriginal community representatives the archaeologist and OEH to develop and implement management strategies for all objects/sites.</p> <p>4. If human remains are located in the event that surface disturbance occurs, all works must halt in the immediate area to prevent any further impacts to the remains. The NSW Police are contacted immediately. No action is to be undertaken until police provide written notification to the proponent. If the skeletal remains are identified as Aboriginal, the proponent must contact OEH's Enviroline on 131555 and representatives of the local Aboriginal community. No works are to continue until OEH provide written notification to the proponent.</p>	<p>Cats will be prohibited from the development. Dogs will be permitted but controlled (i.e. contained within fenced yards at night and on leash when outside of yard etc.). Refer to <b>SECTION 8</b> – Vol. 1.</p> <p>There is no infrastructure proposed adjacent to Simpson's Creek. A pedestrian only access track will be provided in the south- east portion of the site.</p> <p>Noted. Any works on this road reserve are subject to consent of the Crown. A Vegetation Management Plan cannot restrict legal public access and a road reserve cannot be considered an environmental offset are whilst it remains a public road. Rehabilitation works of other informal tracks will be incorporated in the VMP.</p> <p>A Vegetation Management Plan (VMP) (see <b>SECTION 4.2.2.4</b> – Vol. 1) will be completed for the areas of retained vegetation and will include extensive details on the rehabilitation/ revegetation that will be undertaken. A VMP would be provided to BSC for approval in accordance with approval conditions.</p> <p>Agree to all Aboriginal Cultural Heritage requirements.</p>
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<p>5. All reasonable efforts must be made to avoid impacts to Aboriginal cultural heritage at all stages of the development works. If impacts are unavoidable, mitigation measures are to be negotiated with the local Aboriginal community and OEH. All sites impacted must have an OEH Aboriginal Site Impact Recording (ASIR) form completed and be submitted to OEH's AHIMS Registrar within 3 months of completion of these works</p> <p>6. An Aboriginal Cultural Education Program must be developed for the induction of all personnel and contractors involved in the construction activities on site. Records are to be kept of which staff/contractors were inducted and when for the duration of the project. The program should be developed and implemented in collaboration with the local Aboriginal community.</p> <p><b>3. Flooding, Coastal Hazard and Estuary Management Issues</b></p> <p>DoPi must ensure, in conjunction with NPWS/OEH, Marine Parks Authority and Byron Shire Council, that there is appropriate planning for and provision of ongoing mechanisms that will minimise public access impacts to the Simpsons Creek area. Long term maintenance of any approved public access infrastructure that achieves this also needs to be ensured and provided for.</p>	<p>Only low impact public access will be provided to the Simpson's Creek area. This will include pedestrian only access to Simpsons Creek along with advisory/ regulatory signage and a small car parking facility adjacent to the proposed perimeter road (i.e. situated at a suitable distance from Simpson's Creek to minimise disturbance). Refer to EcA <b>SECTION 6.4</b> – Vol. 1.</p>
<p><b><u>MARINE PARKS AUTHORITY (20.10.11)</u></b></p> <ul style="list-style-type: none"> <li>Stormwater management should represent the best available contemporary management practices and be designed to improve quality of discharge.</li> <li>MPA normally requires a minimum buffer of 50 metres between new developments and the marine park.</li> <li>Car parking and access to Simpsons Creek – must be considered in the context of the high degree of protection in force and presence of Tyagarah Nature Reserve opposite. Any proposals would need to be low impact. Provision of advisory and regulatory signage would be required.</li> <li>Proximity of nature reserve – unsuitable for dogs and domestic animals.</li> </ul>	<p>Preliminary SW design will be carried out using MUSIC and DRAINS software to ensure compliance with current SW quality and quantity requirements. Detailed modelling will be done as part of the construction certificate stage.</p> <p>All buffers to be provided to Simpson's Creek (marine park) are greater than 162m. Refer to <b>FIGURE 20</b> - Vol. 1 (Appendix B)</p> <p>See above comments.</p> <p>Cats will be prohibited from the development. Dogs will be permitted but controlled (i.e. contained within fenced yards at night and on leash when outside of yard etc.). Refer to EcA <b>SECTION 8</b> – Vol. 1.</p>
<p><b><u>NSW RURAL FIRE SERVICE (5.10.11)</u></b></p> <p>Service provides following comments and recommendations:</p> <ul style="list-style-type: none"> <li>Lot B160 &amp; B167 – no revegetation shall occur within or east of the APZ (Dwg. No. LM080082-DR21B).</li> <li>Public Reserve P1 shall be managed as an APZ, excluding the EEC.</li> <li>Drainage Reserve P2 shall be managed as an APZ.</li> <li>All other residential lots shall be managed as an APZ until further developed.</li> </ul>	<p>Note: The lot numbers referred to in the NSW Rural Fire Service submission were based on superceded plans. Lot 160 is now Lot 146 and Lot 167 is now Lot 156.</p> <p>Revegetation will only occur within the APZ of lot B146 (was B160) and will include only fire resistant vegetation planted at 12m centres. Refer to <b>FIGURE 11</b> – Vol. 1 (Appendix B).</p> <p>The Public Reserve P1 will be revegetated to offset vegetation loss as a result of the proposed development. There will be a 27m APZ provided adjacent to this area, utilising the road reserve and building setbacks within the relevant lots. A 4 metre strip within the reserve (P1) would be required as an APZ. This would be an Outer Protection Area (OPA) and would only require modification to the ground level vegetation.</p> <p>The Drainage Reserve P2 will be revegetated with fire sensitive vegetation (i.e. scattered trees and shrubs only) to enable this area to be managed as an APZ.</p> <p>Residential lots to be maintained and managed as an APZ until developed.</p>

<p><b><u>DEPT OF PRIMARY INDUSTRIES (CATCHMENT &amp; LANDS) (10.10.11)</u></b></p> <ul style="list-style-type: none"> <li>DPI Crown Lands supports the dedication of Eastern Bushland park to the public but does not register an interest in managing this area.</li> <li>The development raises significant issues in terms of its relationship to the crown road reserve. Concern that these haven't been addressed in the subdivision design, future public access requirements, the VMP or future management options being considered for the Eastern Bushland park precinct.</li> <li>The following points are relevant: <ol style="list-style-type: none"> <li>Crown road provides legal access through the site by right. Provides legal access to a number of land holdings in the south but doesn't give access to Simpsons Creek. The unmade gravel track may have value as a recreation access corridor;</li> <li>Any works on the road are subject to consent of the Crown;</li> <li>Any section of road incorporated as part of the constructed road network should be transferred to the control of the BSC under S.151 of the Road Act 1993;</li> <li>The road contains part of an EEC which is to be regenerated;</li> <li>A VMP cannot restrict legal public access and a road reserve cannot be considered an environmental offset area whilst it remains a public road;</li> <li>The rationale for the designed street layout fails to effectively address the existing road reserve. Insufficient attempt has been made to integrate the road reserve and/or continuity of north/south access in the proposed development;</li> <li>In view of constraints closure and/or realignment of the road reserve may be more practical option. The provision of continuity of legal access for recreational or other purposes by instruments other than a public road be considered; and</li> <li>Future of the road reserve needs to be considered in 'conjunction' with any negotiated dealings in the adjoining land to achieve integrated public land management outcomes.</li> </ol> </li> <li>The CP should be modified to address the above points in consultation with DPI-Crown Lands.</li> </ul>	<p>The Public Reserve P1 will be dedicated to the Byron Shire Council as a conservation area on completion of revegetation works as part of the final stage of subdivision. BSC has agreed to accept dedication subject to agreed conservation strategies. A Voluntary Planning Agreement would be entered into with respect to the dedication.</p> <p>Issues in relation to the Crown road reserve can be addressed and resolved prior to the release of the CC. It is not necessary to resolve these at this stage. Various options are available in relation to this road reserve, including closure, realignment etc. The extent of incorporating the road reserve in the subdivision layout is constrained by ecological factors and zoning restrictions. No further incorporation is possible.</p> <p>Low impact recreation access to Simpsons Creek will be provided. See above comments. Legal access to land holdings to the south will be maintained.</p> <p>The future of the unmade gravel track will be incorporated in the VMP.</p> <p>Noted</p> <p>Noted</p> <p>Alternatives for the road reserve in this location include closure or realignment. This will be resolved prior to release of a CC.</p> <p>Noted. This will be resolved prior to the VMP being finalised and approved.</p> <p>The proposed development is designed in order to provide an adequate buffer for the Swamp Sclerophyll EEC and to minimise the need to remove significant trees for the construction of roads.</p> <p>Noted. These options are being explored and will be resolved prior to approval of the VMP.</p> <p>See comments above.</p> <p>It is appropriate to resolve this as part of subsequent design stages.</p>
<p><b><u>ROADS &amp; TRAFFIC AUTHORITY (29.9.11)</u></b></p> <ul style="list-style-type: none"> <li>No objections.</li> </ul>	

## SECTION 4.0

### PUBLIC SUBMISSIONS

A total of 38 public submissions were provided to the proponent for review. Those submissions are listed on the following table.

**SUBMISSIONS TABLE**

#	NAME	ADDRESS	DATE
1	Te Tseng	33 Argyle Place Parkinson Qld 4115	12.10.2011
2	Manny & Andrew Jackson	2 Bayside Way Brunswick Heads NSW 2483	31.10.2011
3	George M Cvetkovic	498 Rajah Road Ocean Shores NSW 2483	21.10.2011
4	Lorraine Vass – President Friends of the Koala Inc	PO Box 5034 East Lismore NSW 2480	31.10.2011
5	Dr Jo Green Rivendell Botanical Services	PO Box 3105 Uki NSW 2484	31.10.2011
6	Val Scanlon – Secretary Conservation of North Ocean Shores Inc.	PO Box 828 Billinudgel NSW 2483	24.10.2011
7	Andy Holt	No address provided	No date provided
8	Emma Holt	No address provided	No date provided
*9	Frances Dyett on behalf of Lilly Pilly Community Preschool Inc.	No address provided	No date provided
10	Lucinda Cox	No address provided	No date provided
11	Karen Fisher	3 Elma Place Brunswick Heads NSW 2483	No date provided
*12	Helen Stanford - Secretary Brunswick Heads Progress Assoc.	PO Box 168 Brunswick Heads NSW 2483	No date provided
13	Richard Whitting	18 Royal Avenue South Golden Beach NSW 2483	31.10.2011
14	Dianne Mackey	No address provided	No date provided
15	David Hughes	No address provided	No date provided
16	Peter McCulloch	2/57 Fingal Street Brunswick Heads NSW 2483	24.10.2011
17	Patricia Warren	3 Mona Lane Brunswick Heads NSW 2483	No date provided
18	Dr McKee	2/14 Old Pacific Highway Brunswick Heads NSW 2483	No date provided
19	Eleanor Sharman	2/57 Fingal Street Brunswick Heads NSW 2483	20.10.2011
20	Michele Grant – Convenor Foreshore Protection Group, Brunswick Heads	PO Box 71 Brunswick Heads NSW 2483	No date provided
21	Annie Radermacher	No address provided	No date provided
22	Eugene & Rosalina Szandala	No address provided	No date provided
23	Andrew Hall	No address provided	No date provided
24	Cassandra Curran	No address provided	No date provided
*25	Roger Buck	No address provided	No date provided
*26	Tod Martin	No address provided	No date provided
27	David Rawlins	No address provided	No date provided
28	Andy Baker – Director Wildsite Ecological Services P/L	PO Box 1172 Mullumbimby NSW 2482	31.10.2011
29	David Milledge	PO Box 100 Suffolk Park NSW 2481	31.10.2011
30	Name withheld	No address provided	31.10.2011

31	Name withheld	No address provided	No date provided
32	Name withheld	No address provided	No date provided
33	Name withheld	No address provided	No date provided
34	Name withheld	No address provided	No date provided
35	Name withheld	No address provided	No date provided
*36	Name withheld	No address provided	No date provided
37	Name withheld	No address provided	No date provided
38	Name withheld	No address provided	No date provided

\* support application

The key issues raised in the public submissions have been identified and are addressed below:

**Issue: Impact of proposed drainage easement on adjoining land**

(Issue identified in 1 submission : 1)

This is addressed in the letter from Bolster & Co Solicitors dated 26 November 2012 (refer to Appendix G). A legal point of discharge exists.

**Issue: Traffic/Safety**

(Issue identified in 13 submissions : 2, 3, 7, 8, 9, 12, 22, 30, 31, 32, 33, 37, 38)

Traffic and safety issues were addressed in the original Traffic Impact Assessment Report (TTM Consulting, November 2010) and subsequent letter (Appendix E).

**Issue: Loss of core Koala habitat**

(Issue identified in 3 submissions : 4, 14, 29)

This issue is addressed in the Amended Ecological Assessment (Appendix B).

Koala food trees will be planted at a 2:1 ratio to offset any losses as a result of clearing for the proposed development. Refer to the amended EcA Vol. 1, Section 4.2.5.5 (Appendix B).

**Issue: Preparation of a Koala Management Plan & Vegetation Management Plan**

(Issue identified in 1 submission : 4)

A SEPP 44 Koala Habitat Assessment is included in EcA Vol. 1, **SECTION 3.2** (Appendix B). There is no requirement for the preparation of a Plan of Management. A VMP will be completed for areas of retained vegetation (ie. Environmental Protection Zones and SEPP 14 Wetlands). Refer to EcA (Appendix B) Vol. 1 **SECTION 4.2.5.8**.

**Issue: Loss of Wallum Froglet Habitat**

(Issue identified in 15 submissions : 4, 5, 7, 8, 11, 14, 16, 17, 18, 19, 20, 27, 28, 29, 33)



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The loss of Wallum froglet habitat will be offset through the creation of compensatory habitat areas. Refer to EcA Vol. 1 (Appendix B) **SECTION 4.2.5.8**

**Issue: Impact on Flora & Fauna**

(Issue identified in 20 submissions : 5, 6, 7, 8, 10, 13, 16, 17, 18, 19, 20, 23, 24, 27, 28, 29, 31, 32, 33, 38)

Refer to the mitigation and offsets described in the amended EcA Vol. 1 (Appendix B) **SECTION 4.2 & SECTION 8**. A VMP will also be prepared for the subject site, which will address further mitigation and management strategies.

**Issue: Impacts on EEC's (Endangered Ecological Communities)**

(Issue identified in 4 submissions : 5, 27, 28, 29)

As detailed in the amended EcA Vol.1 (Appendix B) **SECTION 4.2.4**, no areas of Swamp oak floodplain forest or Coastal Saltmarsh EEC will be affected. Furthermore no development will occur within 243m and 143m of the Swamp Oak forest and the Coastal Saltmarsh respectively. Some small losses of the Swamp sclerophyll forest EEC are unavoidable. With the implementation of the VMP (see **SECTION 4.2.2.4**) there will be a long-term net gain of 1.87 ha of Swamp sclerophyll forest.

**Issue: Impacts on Simpsons Creek (acid sulfate soils, siltation, etc.)**

(Issue identified in 7 submissions : 6, 7, 8, 10, 21, 33, 35)

Impacts on Simpson Creek were addressed in the original concept plan application and have been further discussed in response to submissions made by government agencies.

Further detailed measures proposed to ensure relevant standards are complied with and detailed designs will be included with the CC.

**Issue: Increase in breeding areas for mosquitoes**

(Issue identified in 1 submission : 6)

Retention pond(s) and dams will be designed to minimise potential for the creation of mosquito breeding areas. Detailed designs will be included with the CC.

**Issue: Density of Development**

(Issue identified in 13 submissions : 6, 7, 8, 13, 16, 17, 19, 20, 22, 31, 32, 33, 38)

The density of the development is appropriate considering the zoning of the land, the provisions of the Bayside Brunswick DCP and the mitigation measures proposed.

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**Issue: Ban on cats & dogs**

(Issue identified in 9 submissions : 6, 10, 13, 16, 19, 20, 31, 32, 38)

Cats will be prohibited from the development. Dogs will be permitted but controlled (ie. contained within fenced yards at night and on leash when outside of yard etc.) Refer to amended EcA Vol. 1 Section 8 (refer Appendix B).

**Issue: Impact on Cape Byron Marine Sanctuary**

(Issue identified in 5 submissions : 7, 8, 11, 20, 33)

Ecological issues are addressed in detail in the amended EcA (Appendix B). A VMP will be prepared for the proposed public reserve (P1) and will require approval by Byron Shire Council.

**Issue: Impact of Construction Works**

(Issue identified in 6 submissions : 7, 8, 12, 20, 22, 33)

The CC will include management measures to ensure that impacts are within accepted standards.

**Issue: Impact on Pre-School**

(Issue identified in 5 submissions : 7, 8, 9, 30, 33)

Submissions indicate that the “*SEE does not adequately address the potential impact on the Lilly Pilly Preschool. The applicant should be requested to address the preschool in context of the development*”.

The submissions generally do not identify the issues that they consider should be addressed with respect to the school. As previously identified, the proposal is in accordance with the zoning and DCP land use designation for Bayside Brunswick. Traffic issues are addressed in the original Traffic Assessment and letter from TTM Consulting (Appendix E).

**Issue: Noise & Privacy**

(Issue identified in 4 submissions : 7, 8, 11, 24)

The proposal is for residential development on residential zoned land. No significant adverse noise/privacy issues are expected. Construction noise would be managed in accordance with an approved management plan and would be in accordance with accepted standards.

**Issue: Upgrade existing playground**

(Issue identified in 3 submissions : 7, 8, 9)

The applicant will provide casual open space in accordance with Byron Shire Council’s Section 94 Contribution Plan. Potential upgrading of the open space is included in the Statement of Commitments.

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**Issue: Stormwater quality & impacts on habitat areas**

(Issue identified in 4 submissions : 10, 13, 17, 20)

Management measures are proposed to ensure acceptable impacts.

All houses will have rainwater storage tanks to comply with BASIX requirements. Lots B146 & B151-B156 will utilise lot specific infiltration swales. There will also be larger infiltration swales located within Lot B156 and P1 Public Reserve. It is proposed that all headwall outlets have an Ecosol Net Tech Solid Pollutant Filter to remove and retain gross pollutants from stormwater flows. Temporary dry sediment basins and straw bale filters will be utilised for erosion and sediment control.

**Issue: Impacts on adjoining properties from earthworks & associated drainage**

(Issue identified in 10 submissions : 11, 17, 20, 21, 22, 23, 30, 34, 37, 38)

Detailed engineering design for earthworks and drainage will be undertaken for the construction certificate. The subdivision design will meet Byron Shire Council standards.

**Issue: Impacts on wildlife corridors & habitat areas**

(Issue identified in 8 submissions : 11, 16, 17, 19, 20, 24, 28, 29)

Habitat loss will be compensated for at a ratio of 2:1. Connectivity throughout and in proximity to the subject site will not be affected. Refer to amended EcA Vol. 1 (Appendix B) **SECTION 5.3** and Figure 33.

**Issue: Provision of open space / community facilities**

(Issue identified in 2 submissions : 12, 35)

This will be addressed in further detail with the CC and will meet BSC requirements.

**Issue: Provision of affordable housing**

(Issue identified in 6 submissions : 13, 16, 17, 19, 20, 23)

Smaller lots help contribute to more affordable housing by enabling overall density to be increased.

No specific “affordable housing” provisions are included in the concept plan and it is outside the scope of this proposal.

Affordable housing is also limited by the cost of environmental safeguards.

**Issue: Compensatory habitat proposal**

(Issue identified in 4 submissions : 14, 27, 28, 29)

The compensatory habitat proposal is based on the successful Tugun bypass design (refer to amended EcA where *Crinia tinnula* were recorded calling



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from several different water treatment basins on numerous occasions during regular monitoring events (Pacific Alliance, 2010). The compensatory habitat proposal is therefore considered feasible and likely to be successful (refer to Appendix B).

**Issue:** **Existing sewage pump station**  
(Issue identified in 1 submission : 15)

This submission relates to an existing pump station on Lot B178. All servicing issues will be addressed as part of the detailed engineering design with the CC.

**Issue:** **Upgrade existing pathways / cycleways**  
(Issue identified in 2 submissions : 15, 30)

This will also be addressed as part of the subsequent CC.

**Issue:** **Impacts of likelihood of increased flooding due to global warming**  
(Issue identified in 2 submissions : 16, 19)

Global warming has been considered in the flooding assessment undertaken for the proposal.

**Issue:** **Adequacy of asset protection zones for bushfire protection**  
(Issue identified in 4 submissions : 16, 17, 19, 20)

A new Bushfire Hazard Assessment has been prepared which identifies the required APZ's in accordance with current standards (refer to Appendix F).

**Issue:** **Lack of community consultation**  
(Issue identified in 3 submissions : 16, 19, 23)

Consultation was undertaken in accordance with the DGR's requirements (refer Section 9 of Concept Plan, LandPartners, August 2011).

**Issue:** **Liability if any adverse flooding occurs**  
(Issue identified in 2 submissions : 17, 20)

All lots and future dwellings will comply with minimum levels specified by BSC.

**Issue:** **Impact of sand aquifer on development**  
(Issue identified in 3 submissions : 16, 19, 20)

This issue is discussed in the WSA report (refer to Appendix H).

**Issue:** **Management of flooding/storm events during construction**  
(Issue identified in 1 submission : 20)

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A detailed management plan would be prepared as part of the CC application. This management plan would need to be approved by Byron Shire Council prior to release of the CC.

**Issue: Acid sulfate soils**

(Issue identified in 4 submissions : 6, 7, 8, 17)

Investigations indicate that acid sulfate soils are unlikely to be encountered. However, an acid sulfate management plan would be prepared as part of the CC application if assessed as necessary during the detailed design phase.

**Issue: Impact on nature reserves**

(Issue identified in 4 submissions : 20, 31, 32, 38)

Management measures are proposed to ensure that impacts on the native reserves are within acceptable limits, given the zoning of the land and development control plan in place for the site.

**Issue: Population increase**

(Issue identified in 2 submissions : 30, 35)

The population increase for the site is appropriate to the identified constraints and is less than that anticipated by the zoning of the land and the Bayside Brunswick DCP.

**Issue: Capability of road system to cater for buses**

(Issue identified in 1 submission : 30)

The road system is designed for buses (refer Appendix E).

**Issue: Impact on council services**

(Issue identified in 2 submissions : 30, 35)

As discussed, the population to be ultimately accommodated on the land is less than that anticipated in Council's LEP, DCP and various planning strategies. The most recent major public expenditure (ie. the sewerage treatment plant) in fact anticipated a higher population. It is considered that impact on Council services is within planned limits.

**Issue: Future multi-dwelling housing site**

(Issue identified in 1 submission : 37)

The design and density of future multi-dwelling housing would be subject to a future development application.

Design would need to accord with Council's DCP.

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## **SECTION 5.0**

### **REVISED STATEMENT OF COMMITMENTS**

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Following examination of the submissions and subsequent further investigations the draft Statement of Commitments presented in the concept plan application has been revised. The revised Statement of Commitments is attached as Appendix G.

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## **SECTION 6.0**

### **JUSTIFICATION**

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In accordance with the Director General's requirements the Environmental Assessment contained justification for the proposal. This justification is reproduced below:

"This EA contains detailed assessments of various environmental issues, legislation and planning guidelines that demonstrate the appropriateness of the proposed development.

The proposed Concept Plan for subdivision of the land is justified on the basis that:

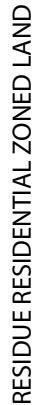
- Providing a supply of suitable, serviceable residential land is in the public interest;
- The land is already zoned for the purpose;
- The land is identified as a residential release area in the Far North Coast Regional Strategy and the Brunswick Heads Settlement Strategy;
- Urban services including reticulated water, sewer, stormwater drainage, electricity and telecommunication, are available and can be extended into the development in an orderly fashion;
- The environmental attributes of the site have been thoroughly analysed as part of this process;
- The conservation status of various parts of the land has been identified and the potential for adverse environmental impacts has been avoided or mitigated; and
- The proposal is consistent with the objectives of applicable planning instruments and legislation."

Some of the submissions suggest changes to the layout which would substantially reduce yield. There is a genuine concern that these changes would affect the project's overall viability, particularly given the reductions already made by the proponent and discussed in the concept plan report.

Following examination of the submissions, it is considered that the proposal is justified for the reasons outlined in the EA. In relation to issue of housing supply, it is also noted that:

- Substantial areas (approximately 5.3 hectares) of residentially zoned land will remain undeveloped and conserved for ecological purposes either by way of dedication or 88B instrument restrictions. This is shown on Figure 1;
- The Brunswick Heads Settlement Strategy 2004 indicates that the undeveloped parts of Bayside Brunswick Estate have the capacity for approximately 270 lots. The proposal for 164 lots represents a 106 lot reduction in potential. The Strategy identifies that there is no other land available in Brunswick Heads for subdivision, other than by resubdivision of a few isolated large lots; and

**FIGURE: 1**



**IMS: FIG1**

**JOB:** BRUNSWICK BAYSIDE

The JGA logo features the letters "JGA" in a large, bold, blue sans-serif font. A stylized black swoosh or arc curves around the bottom left of the letters.

**JIM GLAZEBROOK**  
**& ASSOCIATES**  
PTY. LTD.  
ACN 001 234 567  
TOWN PLANNERS & DEVELOPMENT CONSULTANTS

SCALE: n/a

**PIY LID**  
**ACN 003 836 799**  
**ANTS**



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- Assuming that lot take up rate is approximately 20 lots per year, the reduction in land supply from 270 lots to 164 lots means that residential land supply in Brunswick Heads will be exhausted approximately 5½ years earlier than would be expected if the site was developed to its zoned potential. Any further reduction in yield as suggested in submissions will mean that land supply is exhausted earlier.

Having regard to the above comments and that potential environmental impacts can be managed within acceptable limits, it is concluded that the proposal represents a balance between the need for housing on existing suitably zoned land and environmental sustainability. The proposal is therefore an optimal planning outcome.

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## **SECTION 7.0**

### **SUMMARY / CONCLUSION**

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- ☐ The statutory exhibition process for Concept Plan MP05\_0091 and the associated Environmental Assessment for the Bayside Brunswick residential subdivision has now concluded;
- ☐ The exhibition resulted in submissions being made by government agencies and the public. Those submissions have been addressed and, where appropriate, the plans have been amended and additional mitigation measures proposed;
- ☐ The Draft Statement of Commitments has been revised to include new commitments or to clarify existing commitments;
- ☐ Proposed amendments do not significantly alter the scale of the project but otherwise adequately address relevant concerns; and
- ☐ Subject to the recommended management measures and implementation of the revised Draft Statement of Commitments, the proposal is concluded to be sustainable and justifiable in the context of relevant planning principles and strategies.