

## RESPONSE TO COFFS HARBOUR PACIFIC HIGHWAY UPGRADE ENVIRONMENTAL IMPACT STATEMENT

	Needs to be addressed and made a <b>CONDITION of CONSENT</b>
	Needs more work ...can do better
	Good

EIS REFERENCE	TOPIC	REF #	ISSUE	CBAG RESPONSE	REVIEWED
EXECUTIVE SUMMARY PAGE Vii	EXEC SUMMARY				
<b>VOL 1B chapter 9 noise &amp; vibration</b>	development applications	9.2.4 page 9.15	<p>RMS's decision to arbitrarily exclude some subdivisions from at-property treatment is unheard of and unreasonable.</p> <p>For example, we understand that the noise study that was done for the Elements Estate was based on only the existing highway – yet RMS are relying on this to solve all of the problems for individual households –it doesn't take into account motorway speeds or the Englands Rd Interchange.</p>	<p>In July 2004 representatives of Council, DIPNR and RTA met to discuss Councils and RTA's objectives in regards Coffs Harbour Highway Planning Strategy to develop an agreed position paper including that for residential development. The West Coffs DCP had been 4 years in the making, when that meeting took place</p> <p>Post meeting, the RTA prepared a map and provided it to CHCC. The map identified a 400metre corridor,</p>	

<p><b>VOL 1B</b> <b>chapter 9</b> <b>noise &amp;</b> <b>vibration</b></p>	<p>development applications</p>	<p>9.2.4 page 9.15</p>	<p>RMS's decision to arbitrarily exclude some subdivisions from at-property treatment is unheard of and unreasonable.</p> <p>For example, we understand that the noise study that was done for the Elements Estate was based on only the existing highway – yet RMS are relying on this to solve all of the problems for individual households –it doesn't take into account motorway speeds or the Englands Rd Interchange.</p>	<p>which was used by CHCC to identify any DA that needed to be referred to the RTA for comment and concurrence. The 149 Title Certificate for these properties would be burdened by a statement requiring them to install at-property noise mitigation as a DA Conditions of Approval.</p> <p>The RMS are now saying 3 of those subdivisions, <b>Elements Estate</b>, <b>Highlands Estate</b> and <b>Pacific Bay Eastern Lands</b> have adequate at-property treatment according to the DA Consent Conditions.</p> <p>Consequently, property within those subdivisions <b>have been excluded</b> from the number of at-property treatments resulting from the Coffs Bypass project.</p> <p>Where- as the other 3, <b>The Lakes Estate</b>, <b>Sunset Ridge Estate</b> and <b>Korora Residential Subdivisions</b> have been considered for at-property treatment, on the proviso they have been built to a stage that</p>	
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<b>VOL 1B chapter 9 noise &amp; vibration</b>	development applications	9.2.4 page 9.15	<p>RMS's decision to arbitrarily exclude some subdivisions from at-property treatment is unheard of and unreasonable.</p> <p>For example, we understand that the noise study that was done for the Elements Estate was based on only the existing highway – yet RMS are relying on this to solve all of the problems for individual households –it doesn't take into account motorway speeds or the Englands Rd Interchange.</p>	<p>allows the installation of at-property treatment before project completion.</p> <p>Why? We know the DA Conditions of Approval are different but the question is how were home owners and developers were working to the advice of both Council and the RMS (as per the 2004 agreement): also the speed, the type of pavement, the traffic made available until the EIS was released. We're still waiting for final designs for the interchanges which will also affect what some people are required to do.</p> <p>Does that mean RMS got 50% of their recommendations for the Conditions of Approval wrong?</p> <p>What we believe they did get wrong was to leave out the Roselands Estate altogether!</p> <p>Roselands Estate will be severely impacted by the Bypass, increased traffic on Coramba Road and the</p>	
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<p><b>VOL 1B</b> <b>chapter 9</b> <b>noise &amp;</b> <b>vibration</b></p>	<p>development applications</p>	<p>9.2.4 page 9.15</p>	<p>RMS's decision to arbitrarily exclude some subdivisions from at-property treatment is unheard of and unreasonable.</p> <p>For example, we understand that the noise study that was done for the Elements Estate was based on only the existing highway – yet RMS are relying on this to solve all of the problems for individual households –it doesn't take into account motorway speeds or the Englands Rd Interchange.</p>	<p>Coramba Road Interchange.</p> <p>Roselands Estate doesn't even get a mention in the EIS? and when asked the RMS wrote</p> <p>"Roselands Estate wasn't mentioned in section 9.2.4 of the noise report as it was an already completed subdivision. Therefore, for the purposes of the noise report, it was treated as any other established area in Coffs Harbour".</p> <p>What does that mean? Why are they being treated differently than any of the other residential subdivisions that adjoin the Bypass?</p> <p>There are 7 Subdivisions that will be severely impacted by the Bypass, increased traffic and noise, they all should have pre-construction noise assessments done and if post-construction noise exceeds agreed levels then they surely have a right to at-property treatments.</p> <p>Finally, <b>Construction Noise</b> levels are</p>	
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<p><b>VOL 1B</b> <b>chapter 9</b> <b>noise &amp;</b> <b>vibration</b></p>	<p>development applications</p>	<p>9.2.4 page 9.15</p>	<p>RMS's decision to arbitrarily exclude some subdivisions from at-property treatment is unheard of and unreasonable.</p> <p>For example, we understand that the noise study that was done for the Elements Estate was based on only the existing highway – yet RMS are relying on this to solve all of the problems for individual households –it doesn't take into account motorway speeds or the Englands Rd Interchange.</p>	<p>very high, and that noise may go on for years. This appears grossly unfair because at no time homeowners and developers were warned about or required to treat their houses for excessive <b>Construction Noise</b> as part of the DA Conditions of Approval process.</p> <p>There is provision for at-property treatment for Construction Noise, those identified for such should prioritized and work commenced as soon as possible.</p> <p>There are significant and serious operational noise impacts. Additionally, the construction noise impacts from the project and the significant amount of work that will need to be undertaken out of normal construction hours will be awful for the community. Resulting in huge numbers of community complaints to EPA and DoP. It is essential to assist all parties involved that the <b>project is conditioned</b> to ensure that all the required at residence treatments must be installed prior to</p>	
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<b>VOL 1B chapter 9 noise &amp; vibration</b>	development applications	9.2.4 page 9.15		<p>the commencement of major construction. There are significant numbers of houses to be treated – this needs to get underway now to help the community live with this through the possible 5 – 7 years of construction (when wet weather and delays are taken into account)</p> <p><b>There are so many questions regarding noise CBAG feels there needs to be an independent noise audit, the review of assessments made that assumes some subdivisions will have adequate at property treatment and some don't', and why Roselands Estate seems left out of the equation altogether.</b></p> <p><b>Early at residence treatments should also get underway ASAP after prioritizing those effected by Construction Noise.</b></p>	
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<b>VOL 5 App H-I</b>	Biodiversity	2.1.5 State or Regionally Significant Biodiversity Links Table 2.1 page 12	<i>Pine Brush Creek not considered (as not considered a significant biodiversity link owing to presence of Hwy). PB creek bridge provides good fauna crossing due to its height &amp; adjacent vegetation. Landcare group has been restoring upstream of bridge for 17 years Office of water guidelines for riparian buffers are not being referred to &amp; smaller buffer reference used??</i>	Address inconsistencies with Office of Water guidelines	
<b>VOL 5 App H-I</b>	Biodiversity	Figure 3.1: Landscape features page 13	<i>Lindsay's cutting fauna underpass not shown. It's a Koala corrido.?</i>	refer maps attached	
<b>VOL 5 App H-I</b>	Biodiversity	2.2.2 Connectivity value page 16	<i>Concerned not all corridors referenced eg regional corridor thru Korora NR/Pinebrush creek</i>	refer maps attached	
<b>VOL 5 App H-I</b>	Biodiversity	3.2 Threatened ecological	<i>Although EIS deems Lowland subtropical not to be congruent with 'condition class or key</i>	Most areas of rainforest within Coffs & Korora Basin are limited to very small & isolated pockets of large	

VOL 5 App H-I	Biodiversity	communities page 56	<i>diagnostic species requirements of the listed community. Therefore, they were not considered to be the community as listed under the EPBC Act'</i>	<p>mature pre-European specimens. These are highly significant for our local area in terms of sources of seed for natural &amp; human distribution, especially for all associated restoration projects occurring within Coffs area. Also, invaluable source of supplementary food for bird &amp; bat species in times of limited resources eg drought ie Now</p> <p>It is also obvious that these remnants as small areas will have a high edge to area ratio &amp; therefore will be subject to weed invasion. Most bushland remnants suffer this fate in</p> <p>these human disturbed landscapes. This should not distract from the fact that they are important sources of local genetic material and with restoration they would fit the EPBC criteria. I also highly doubt that</p> <p>there are 20 woody weed species on these sites. I would like to see the species list record that justifies this statement</p>	
VOL 5 App H-I	Biodiversity	4.2.3	<i>Accurate surveys? 'A significant</i>	Accurate surveys?	





				on Tree Fern Creek. No Wompoo Fruit Dove listed either-common in Basin area.	
<b>VOL 5 App H-I</b>	Biodiversity	4.3 Aquatic habitat and threatened species page 134	<i>Newports Creek, downstream of the study area, and Pine Brush Creek representing the highest condition waterways due to the relatively limited influence of impacts, degree of intact riparian vegetation and availability of structurally diverse habitat.</i>	Benefits of restoration works on Pinebrush creek over 17 years by Landcare group increasing riparian health. With restoration work all our coastal creek & river systems can also become healthy and diverse	
<b>VOL 5 App H-I</b>	Biodiversity	4.3 Aquatic habitat and threatened species page 127	<i>Testing done Oct &amp; May</i>	Likely reason for dry Oct reading is we have a dry spring here in Coffs region-probably unknown by Sydney based consultants (well when the weather followed a pattern) Consideration given to high number of streams originate as groundwater springs on the lower & mid slopes of the ridgeline bordering Bruxner	

<b>VOL 5 Matters of National Environmental Significance</b>	Biodiversity  Biodiversity	5 5.1 MNES within Study Area page140 5 5.1 Page 140	<i>The Commonwealth Solitary Islands Marine Park (SIMP) is located more than 50km offshore and is not expected to be affected by the Project.</i>	Ensure all sediment & erosion controls are in place to prevent degradation of waterways that flow into SIMP. Furthermore, use this Hwy bypass as an opportunity to improve waterway health by increasing areas of riparian vegetation on areas adjacent to the highway footprint.	
<b>VOL 5 Matters Of National Environmental Significance</b>	Biodiversity	Table 8.11 Summary of Significant Impact Criteria assessments page 173	<i>Lowland Rainforest of Subtropical Australia (Critically Endangered) Does not occur within the study area. None of the four separate patches of rainforest vegetation occurring within the study area is considered to conform to the EPBC Act listing criteria for this community.</i>	Would dispute this as partially based on presence of 20 WOODY WEED SPECIES- impossible scenario in this area and loosely defined/ described. <b>This needs to be substantiated</b>	
<b>VOL 5 Matters of National Environmental</b>	Biodiversity	8.4.3 Fragmentation of identified		Use the project as an opportunity to repair and improve habitat connectivity and riparian health of	

<b>Significance</b>	Biodiversity	biodiversity links and habitat corridors page 183		the Boambee Coffs and Korora basins and that of the SIMP. With the revegetation of riparian buffers/ corridors in areas either side of the highway e.g. Newports creek, Coffs Creek, Tree Fern Creek, Jordan's Creek, Pinebrush creek. Participate in assisting CHCC with the ongoing projects to repair and expand habitat corridors & riparian corridors in the Coffs Basin	
<b>VOL 5 Matters of National Environmental Significance</b>	Biodiversity	8.4.3 Fragmentation of identified biodiversity links and habitat corridors p.183		No mention of effect at southern approach- loss of koala habitat loss of corridor. no mention Lindsay's cutting or underpass that's needs upgrading	
<b>VOL 5 Matters of National Environmental Significance</b>	Biodiversity	8.4.5 Injury and mortality of fauna page184		Need to consider future risks too fauna by planting of fauna food species immediately adjacent to Hwy edge e.g. Fruit bat/nectar feeding birds killed on Sapphire to Woolgoolga	

<b>VOL 5 Matters of National Environmental Significance</b>	Biodiversity	8.4.6 Invasion and spread of weeds pages 184-5	<i>However, strict hygiene measures will be implemented to prevent and mitigate the spread of weeds and reduce the potential of negative impacts to threatened species habitats. A Flora and Fauna Management Plan will include measures to ensure appropriate biosecurity management is undertaken during construction. This is standard procedure for Roads and Maritime projects.</i>	RMS urgently needs to review this policy. The previous upgrade from Sapphire to Woolgoolga (& north to Corindi) has resulted in the spread of some high priority weed species through movement of soil & mulch (weed list can be provided) as well as some non-local native species. there has been planting of non-local native species or exotic species that have recognized potential to spread onto local bushland (list can be provided). landscaping of these areas has created weedy maintenance nightmares specifically at Gaudrons Rd interchange. Terrible planning, landscaper and landscape designer should not be hired for this project. Created a high maintenance area	
<b>VOL 5. 8.4 other impacts</b>	Biodiversity	8.4.9 page 185	<i>Noise light and vibration, important for Coramba Rd residents to: re interchange, noise, vibration and light spill</i>	CBAG would like to see the Coramba Rd interchange redesigned to move the necessary infrastructure away from houses impacted badly in Roselands Estate. A single donut design like that built recently at Port McQuarrie would do. Such as design	

<b>VOL 5. 8.4 other impacts</b>	Biodiversity	8.4.9		would meet the Strategy vision & objective 4 “value the communities and towns along the road (page44) It’s disappointing there’s nothing about minimizing the impact on neighbours, in 4.3 Interchanges Approach.	
<b>VOL 5.9 mitigation</b>	Biodiversity	9.1 Mitigation of impacts to biodiversity Table 9.1 Mitigation measures page 193	<i>Native vegetation will be re-established via implementation of an Urban Design Management Plan prepared in accordance with Guide 3: Re-establishment of native vegetation of the Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects (RTA 2011). Re-established vegetation will comprise indigenous vegetation communities that occur within the study area.</i>	<p>These guidelines need urgent review, considering the issues/failures that have occurred in the Sapphire to Woolgoolga Hwy upgrade. Especially</p> <ul style="list-style-type: none"> <li>• Use of exotic invasive plants in landscaping</li> <li>• Use invasive non-local native species in landscaping</li> <li>• Planting of native species adjacent to Hwy that attract bats &amp; birds increasing faunal mortality especially at time food resources low (e.g. drought i.e. NOW)</li> <li>• Spread of invasive species over a</li> <li>• 30km stretch of highway!</li> <li>• These need to be reviewed by persons from AABR (Australian Association of Bush Regenerators) e.g. local assessors</li> </ul>	

<b>VOL 5.9 Mitigation</b>	Biodiversity	9.1 Mitigation of impacts to biodiversity	<i>Native vegetation and fauna habitat removal would be minimised through detailed</i>	Ancillary sites could be altered slightly in their footprint to avoid removal of native vegetation	
<b>VOL 5.9 Mitigation</b>	Biodiversity	Table 9.1 Mitigation measures page 193 9.1 Mitigation of impacts to biodiversity Table 9.1 Mitigation measures page 193	<i>design where reasonable and feasible. Particular focus would be given to avoiding and minimising the removal of:</i> <ul style="list-style-type: none"> <li>• <i>Hollow bearing trees</i></li> <li>• <i>Native vegetation in riparian zones</i></li> <li>• <i>Native vegetation from known fauna connectivity corridors and near proposed fauna crossing structures.</i></li> </ul>	including hollow bearing trees & threatened species and avoid situating on/over any riparian areas.  Large areas of Koala habitat removed on the southern portion adjacent to Lindsay's cutting	
<b>VOL 5.9 Mitigation</b>	Biodiversity	9.1 Mitigation of impacts to biodiversity Table 9.1 Mitigation measures page 194	<i>Protection and enhancement of vegetated riparian zones would be undertaken to improve opportunities for fauna movement (including Spotted-tailed Quoll and Pale-vented Bush Hen).</i>	How will this be maintained post construction period? Allowing for maintenance of sites in long term is required.	
<b>VOL 5.9 Mitigation</b>	Biodiversity	9.1 Mitigation of impacts to biodiversity Table 9.1	<i>The Flora and Fauna Management Plan (FFMP) would be prepared in accordance with Biodiversity Guidelines: Protecting and</i>	<ul style="list-style-type: none"> <li>• Concerns again about continued vegetation management post construction phase</li> <li>• Introduction of invasive species</li> </ul>	

<b>VOL 5.9 Mitigation</b>	Biodiversity	Mitigation measures 9.1 page 194	<p><i>managing biodiversity on RTA projects (RTA 2011) and implemented a part of the CEMP.</i></p> <p><i>The FFMP would build upon the strategies outlined in the TSMP and identify detailed site-specific and species-specific mitigation measures and management protocols to be implemented before, during and after all construction activities to further avoid or reduce impacts on threatened biodiversity.</i></p>	<p>through inappropriate planting</p> <ul style="list-style-type: none"> <li>Putting threatened species at risk by unsuitable plantings directly adjacent to Hwy</li> </ul>	
<b>VOL 5.9 mitigation</b>	Biodiversity	Mitigation Measures Removal of threatened flora page 195	<p><i>Mitigate against the loss of Rusty Plum individuals from the local population by translocation of individuals to be impacted and where feasible seed collection and propagation. A Salvage and Re-establishment</i></p> <p><i>Plan for Southern Swamp Orchid individual(s) and Rusty Plum would be prepared prior to construction, outlining detailed</i></p>	<p>Translocation of mature Rusty Plum in other Hwy upgrades in area has been undertaken at huge expense with minimal positive outcomes</p> <ul style="list-style-type: none"> <li>Poor health &amp; vigour of some transplanted mature specimens</li> <li>Damage to bushland areas where translocated plants are established machinery required to move them damaging &amp; removing existing native</li> </ul>	



<b>VOL 5.9 Mitigation</b>	Biodiversity	Mitigation measures Removal of threatened flora page 195	<p><i>procedures for the preparation of the re-establishment and receiving sites, plant movement, pre- and post- care of target individuals as well as detailing the objectives, monitoring procedures and contingency measures.</i></p> <p><i>Implement the Coffs Harbour Bypass Threatened Species Management Plan (Arup 2019c) which will include detailed and additional adaptive mitigation, management and monitoring actions</i></p> <p>.</p>	<ul style="list-style-type: none"> <li>• vegetation &amp; encouraging dispersal of invasive species such as Broadleaf Paspalum</li> <li>• Improved results were by the planting of Rusty Plum raised from seed or dispersal of seed</li> <li>• REGULAR Maintenance of these areas is required</li> <li>• Resources better spent rehabilitating existing native vegetation (riparian &amp; habitat corridors) or design so Rusty Plum is not disturbed</li> <li>• Rusty Plum translocation at one site also ended up also</li> <li>• <b>translocating Madeira Vine also ...tubers came in with soil attached to root ball</b> ☹.</li> </ul> <p>Introduction of weed propagules (and non-local natives e.g. acacia sp) in moving soil &amp; mulch risk needs addressing.</p> <ul style="list-style-type: none"> <li>• mitigation Seems like a lot of wasted \$ for no real benefit to RP &amp; in some cases damage caused to bushland where they're being situated either thru veg removal</li> </ul>	
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				or intro of invasive species  <b>This policy needs reviewing re the above points</b>	
<b>VOL 5.9 mitigation</b>	Biodiversity	9.1 Mitigation of impacts to biodiversity Table 9.1 Mitigation measures P196	<i>Realignment of watercourses (Newports Creek and tributaries, Coffs Creek, Treefern Creek, tributary of Pine Bush Creek)</i>	No reference to DPI Office of Water Guidelines for Riparian buffers??? Eg required buffers for stream grades, 1-5?	
<b>VOL 5 9 mitigation</b>	Biodiversity	9.1 Mitigation of impacts to biodiversity Table 9.1 Mitigation measure page 196	<i>Aquatic habitat would be protected in accordance with Guide 10: Aquatic habitats and riparian zones of the Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects (RTA 2011) and Section 3.3.2 Standard precautions and mitigation measures of the Policy and Guidelines for Fish Habitat</i>  <i>Conservation and Management Update 2013 (DPI 2013) and with</i>	Again, no reference to DPI Riparian buffer guidelines as per Office Water This should also apply to terrestrial also e.g. Singapore Daisy spread through entire Sapphire to Corindi area by Hwy machinery & earthmoving procedures!	

			<p><i>reference to DPI Office of Water guidelines for controlled activities on waterfront land.</i></p> <p><i>Any machinery used during instream works should be verified as clean and free of potential weeds and pathogens to avoid biosecurity risk.</i></p>		
<b>VOL 5.9 mitigation</b>	Biodiversity	9.1 Mitigation of impacts to biodiversity Table 9.1 Mitigation measures Page 197	<p><i>The project would be designed and constructed to maintain hydrologic and geomorphic characteristics of the floodplain where reasonable and feasible.</i></p> <p>Bulk earthworks altering floodplain topography</p>	<p>Concerned effects areas of native vegetation off site may be affected by changes to floodplain hydrology. Die back has occurred in previous upgrade areas where either inundation or restricted water flow.</p> <p>Has consideration been given to how many of these streams in the Shepherds' land through to Korora originate from springs in the mid &amp; lower slopes of the ridgeline?</p>	
<b>VOL 5.9 mitigation</b>	Biodiversity	9.1 Mitigation of impacts to biodiversity Table 9.1	<p><i>Detention basins to be included in designs, with the aim of reducing the volume and velocity of water entering waterways.</i></p>	<p>Previous Hwy upgrades have left these areas in a weedy state. How will these RT basin areas be</p>	

		Mitigation measures Page 197 Increased stormwater run off		maintained in long term? Funding? Management Plan for future?	
<b>VOL 5.9 mitigation</b>	Biodiversity	9.1 Mitigation of impacts to biodiversity Table 9.1 Mitigation measures Page 199  Fragmentation of identified biodiversity links and habitat corridors	<i>Connectivity measures will be implemented in accordance with Table 9.2 of this assessment and on design principles outlined in Section 9.2 and finalised during detailed design to minimise impacts to fauna movement. Eight of the sixteen fauna connectivity features are located on mapped Koala movement corridors</i>  <i>Bridges would be installed in areas of known Giant Barred Frog habitat (ie Newports Creek and Pine Brush Creek).</i>	Not satisfied this addresses some areas of high Koala movement e.g. south alignment Lindsay's cutting, Highlander estate reserved vegetation. Comments re this below in Habitat Connectivity Measures 9.2  Korora Basin Landcare group has undertaken restoration of Pine Brush for over 17 years this area id effected please retain mature rainforest remnant trees and consult	
<b>VOL 5.9 Mitigation</b>	Biodiversity	Injury and mortality of Fauna page 200	<i>Ongoing roadkill monitoring for adaptive management of fencing and crossing structures.</i>	This needs URGENT review. Planting of non-suitable species has resulted in the death of approximately 50	

<b>VOL 5.9 mitigation</b>	Biodiversity	Injury and mortality of Fauna page 200	<i>Ongoing roadkill monitoring for adaptive management of fencing and crossing structures.</i>	<p>threatened species (fruit bats) in the past month on the Sapphire to Woolgoolga -Corindi upgrade.</p> <p><b>URGENT REVIEW REQUIRED, involve local WIRES</b></p> <p><b>Fencing issues on the Ballina upgrade resulted in Koala death due to poor structure design (unable to access exit)</b></p>	
<b>VOL 5.9 Mitigation</b>	Biodiversity	Invasion and spread of weeds, pathogens and disease, and pest animals. page 200	<i>Biosecurity risk and weed species would be managed in accordance with Guide 6: Weed management of the Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects (RTA 2011) and Guide 7: Pathogen Management (RTA 2011). Specific protocols would be prepared and implemented to manage, Chytrid fungus, Phytophthora and Myrtle Rust.</i>	<p>URGENT review required of this policy due to:</p> <ul style="list-style-type: none"> <li>• Cease planting invasive non-local native species e.g. Queensland Elaeocarpus (Sapphire Woolgoolga) Queensland Paperbark (Bonville -Bello section) - these are creating</li> <li>• weed issues in area!</li> <li>• Cease planting of exotics that have invasive potential e.g. Giant Strelitzia already weedy in this area</li> <li>• Spread of weed propagules via</li> </ul>	

<b>VOL 5.9 mitigation</b>	Biodiversity	page 200		<p>machinery &amp; earthworks &amp; movement of soil matter e.g. Singapore daisy etc</p> <ul style="list-style-type: none"> <li>• Manage area to prevent weed invasion e.g. look at weed volumes</li> </ul> <p>along Hwy to Bellingham turnoff (numerous camphor germinated since upgrade= NO management of vegetation occurring spreading weeds into local area)</p>	
<b>VOL 5.9 mitigation</b>	Biodiversity	9.2 Habitat connectivity measures page 202	<i>Table 9.2 Fauna connectivity structures</i>	<p>Cannot locate map that displays the reference points given in this table difficult to assess without Suggestions for additional fauna crossing and revegetation areas to develop corridors &amp; riparian buffers</p> <p>(refer attached maps)</p>	
<b>VOL 5.9 mitigation</b>	Biodiversity	9.2.1 Connectivity measures design	<i>reinforces tunnel option</i>	<p>Tunnel option superior method of fauna connectivity. Great concept Fully support. But also suggest a</p>	



Offset Strategy	Biodiversity	10 Offsetting required page 211	<i>Fauna connectivity structure design principles.</i>	<p>From discussions with RMS officers at the community displays it has been assumed that the project can be cleared from boundary to boundary. Why is this necessary?</p> <p>This is one the reasons the community has been calling for a construct only form of contract to deliver the project. The detailed design could be developed in consultation with the community and then at that point, adding some buffer to the footprint, the clearing amount could be minimised to the amount absolutely needed. The project must be conditioned to achieve something to this effect.</p> <p>Suggest that offsetting should be to benefit the biodiversity of the Coffs Korora and North Boambee Basins to provide for increased habitat connectivity, threatened species survival and the genic store that is held within these local native remnant vegetation</p> <p><b>DO NOT</b> support offsetting off site</p>	
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<b>Offset Strategy</b>	Biodiversity	10 Offsetting required page 211	<i>Fauna connectivity structure design principles.</i>	out of the immediate local area. Unless protecting Lowland Subtropical Rainforest in the southern Clarence catchment eg Coramba Nature reserve adjacent land acquisition & expansion of this highly significant EEC	
<b>Offset Strategy</b>	Biodiversity	2.1 Offset identification page 9	<i>Fauna connectivity structure design principles.</i>  <i>(refer attached maps)</i>	<ul style="list-style-type: none"> <li>• Work with CHCC &amp; utilize CHCC reserve habitat corridors NRM strategy for west Coffs Tributaries to further develop habitat corridors NRM strategy for west Coffs Tributaries to further develop habitat corridors within Coffs &amp; North Boambee Valleys.</li> <li>• Acquire adjacent riparian areas privately owned and create riparian buffers to link habitat currently isolated/fragmented (refer attached maps)</li> <li>• Restoration of lower reaches Pinebrush Creek (upper areas restored over past 17 years)</li> <li>• <b>area to east of current Highway</b></li> </ul>	

Offset Strategy	Biodiversity	2.1 offset Identification page 9	<p><i>Fauna connectivity structure design principles.</i></p> <p><i>(refer attached maps)</i></p>	<p><b>is all council managed lands to the entrance of Pinebrush creek onto the beach entering SIMP. It would be a most suitable offset</b></p> <ul style="list-style-type: none"> <li>• Acquire land adjacent to Coramba NR OR Korora NR to undertake planting of cleared areas &amp; expansion of this EEC vegetation types/Koala habitat</li> <li>• There are numerous sites in the Coffs North Boambee and Korora Basins where restoration works can be undertaken to improve LOCAL biodiversity outcomes or local riparian systems of Newport's, Coffs, Tree Fern</li> <li>• Jordon's &amp; Pine Brush Creeks ACT LOCAL (refer attached maps)</li> </ul>	
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<b>VOL 6A Executive Summary</b>	Urban Design	page 8	<p><i>1 provide a free-flowing road alignment that is responsive and integrated with the landscape</i></p> <p><i>2 provide a well vegetated natural road reserve</i></p> <p><i>3 provide an enjoyable interesting highway with varied views and vistas of the landscape</i></p> <p><i>4 value the communities and towns along the road</i></p> <p><i>5 provide consistency with variety of road elements</i></p> <p><i>6 provide a simplified and unobtrusive road design</i></p>	Support all Urban Design Concepts	
<b>VOL 6A Executive Summary</b>	Urban Design	1.5 Guidance and policy page 16	<p><i>Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects, September 2011</i></p> <p><i>Landscape design guideline - Design guideline to improve the quality, safety and cost effectiveness of green infrastructure in road corridors, December 2018</i></p>	<p>Considering failures on the Sapphire to Woolgoolga upgrade &amp; other areas suggest these documents need revision to consider previously discussed design &amp; implementation failures.</p> <ul style="list-style-type: none"> <li>Planting of unsuitable species and accidental introduction of invasive species and almost no consideration of future maintenance requirements that</li> </ul>	

<b>VOL 6A Executive Summary</b>	Urban Design	page 16	<i>Landscape design guideline - Design guideline to improve the quality, safety and cost effectiveness of green infrastructure in road corridors, December 2018</i>	<ul style="list-style-type: none"> <li>• design would require. This has left portions of the Hwy upgrades in a weed dominated &amp; degraded state</li> <li>• Death of numerous fruit bats in early sept 2019 as feeding on Callistemon (Bottlebrush) cultivar planted directly adjacent to highway edge. No planting of fauna attracting plants alongside main road edges or in centre of dual lanes.</li> <li>• Gaudrons Road interchange sapphire- The manner of this landscaping is uncreative, unmaintainable &amp; hideous! - introduced Elaeocarpus from Queensland &amp; Strelitiza both with known weed potential-now dominated by exotic grasses and weedy juvenile pinus sp-recently powersprayed which resulted in many Strelitiza now yellowing, not the best look.</li> </ul> <p><b>PLEASE STOP PLANTING THIS PLANT TAKE IT OFF YOUR LISTS</b></p>	
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<b>VOL 6A Executive Summary</b>	Urban Design	page 16	<i>Landscape design guideline - Design guideline to improve the quality, safety and cost effectiveness of green infrastructure in road corridors, December 2018</i>	<p><b>The same with Pink Euodia (Melicope elleryana) its southern limit is Iluka and it a weed in Coffs wetlands introduced by the nursery industry</b></p> <ul style="list-style-type: none"> <li>• Between Mailman's Track &amp; Bellingen turn off-area planted approx. 20 years ago- unsuitable species used have now caused issues &amp; the whole area is becoming degraded &amp; weed dominated-Introduced</li> <li>• Queensland Melaleuca- Camphor laurel beginning to dominate and no maintenance apart from occasional power-spraying (which only creates more weed issues in long term) integrated pest management required</li> <li>• There are great examples of creative highway landscaping projects I have seen in Australia &amp; overseas surely, we can do better in NSW the biodiversity state</li> </ul>	
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<b>VOL 6A Executive Summary</b>	Urban Design	page 16		<ul style="list-style-type: none"> <li>• Maintenance requirements will always be greater in areas of high light levels e.g. edge area, revegetation areas, garden-landscape areas. This is exacerbated on the north coast with high rainfall &amp; good soil fertility resulting in periods of rapid plant growth (incl weeds) within the 'wet season' especially. Plant growth patterns here are vastly different to areas further south.</li> <li>• These requirements can be mitigated somewhat with good planning and. RMS needs to urgently review policies regarding vegetation management and local councils should not have to foot the bill for bad initial planning of Landscaped areas.</li> <li>• Input from accredited AABR representatives (Australian Association of Bushland Regeneration) and local knowledge (e.g. CHCC Bush Regen Team) would be greatly beneficial</li> </ul>	
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<b>VOL 6A Executive Summary</b>	Urban Design	1.5 Guidance and policy page 17	Of relevance to the UDLCVIA is Goal 1 which relates to “the most stunning environment in NSW” outlines applicable key directions and actions: Direction 2: Enhance biodiversity, coastal and aquatic habitats, and water catchments - Actions - Focus development to areas of least biodiversity sensitivity in the region and implement the ‘avoid, minimise, offset’ hierarchy to biodiversity, including areas of high environmental value.	Why are areas of Lowland Subtropical rainforest being cleared?? A highly threatened ecosystem -listed EEC Removal of Koala habitat in major corridor area (Lindsay’s cutting)	
<b>Concept Analysis Chapter 3</b>	Urban Design	3.3 Vegetation page27	Opportunities Develop species mixes to reflect and enhance the local natural species	Support all the Opportunities listed on page 27  However, the selection of species needs to be undertaken in conjunction with local knowledge  e.g. CHCC Bush Regeneration to avoid introduction of unsuitable species as on Sapphire to Woolgoolga upgrade  There is also an opportunity to	

				create a low maintenance landscape that serves aesthetic, screening and biological functions whilst not requiring high resources for maintenance.	
<b>Concept Analysis Chapter 3</b>	Urban Design	3.7 Fauna connectivity page 32	Opportunities	<p>Additional opportunity to contribute to the riparian restoration programs that are being undertaken in CHCC Reserves adjacent to all major creek lines in the project apart from Jordan's Creek to increase local biodiversity outcomes and assist in the restoration of all habitat linkages in the Coffs &amp; Nth Basins.</p> <p>Fauna crossings need to be maintained to provide for good biodiversity outcomes</p>	
<b>VOL 6A cultural &amp; protected landscapes</b>	Urban Design	3.12 pages 38-39	<i>consider impacts on cultural &amp; protected landscapes of construction aspect</i>	<p>Support all opportunities listed—critical as long as they're carried through to completion should be a <b>CONDITION of APPROVAL</b> to make sure, they don't get dropped along the way.</p> <p>Solitary Islands Marine Park can</p>	



VOL 6A cultural & protected landscapes	Urban Design	3.12 pages 38-39	<i>consider impacts on cultural &amp; protected landscapes of construction aspect</i>	easily be affected by turbidity and other potentially deadly run-off it's  beholden on everyone involved in the project maintain best practice  and keep alert to avoid a catastrophe.	
VOL 6A cultural & protected landscapes	Urban Design	3.9 Transport page 34	<i>Opportunities</i>	Potential extend Solitary Islands Way type Shared Path along the edge of the soon to be Old Pacific Highway better safety for cyclists walkers and motor vehicles	
VOL 6A cultural & protected landscapes	Urban Design	3.12 Cultural and Urban Landscapes page 42	<i>Biological significance The vegetation in the park provides habitat for a range of threatened and significant species  and populations, including the only population of the endangered low-growing form of the small shrub <b>Zieria smithii</b></i>	Incorrect species name- correct name is <b>Zieria prostrata</b>	
VOL 6A	Urban Design	4.2	<i>landscape design approach-</i>	Interactive drive through and graphic	

0.4 urban design strategy		page 46	<i>sub-heading integration with built form and roads 3 &amp; 4th dot point. landscape design approach- sub-heading integration with built form and roads 3 &amp; 4th dot point.</i>	beside this section shows a solid concrete wall which totally contradicts both the Strategy (point 3 page 44) and the landscape design approach (third last dot point last paragraph page 46) of  <b><i>“maintaining site lines and safety through responsive landscape design”</i></b> , and the (second last dot point, last paragraph page 46) <b><i>“enhance long distance and district wide views”</i></b> . this needs a lot of work if we are to maintain site lines	
VOL 6A 0.4 urban design strategy VOL 6A 0.4 urban design strategy	Urban Design  Urban Design	4.2 Landscape design Approach page 46 Page 46	<i>Consider how maintenance and irrigation can be kept to a minimum with the use of native species in ‘natural’ informal planting arrangements as the predominant plant matrix</i>	As discussed under 1.5 above Considering failures on the Sapphire to Woolgoolga upgrade & other areas suggest these documents need revision to consider previously discussed design & implementation failures.  Planting of unsuitable species and accidental introduction of invasive species and almost no consideration of future maintenance requirements that design would require. This has	

				<p>left portions of the Hwy upgrades in a weed dominated &amp; degraded state. Maintenance requirements will always be greater in areas of high light levels e.g. edge area, revegetation areas, garden-landscape areas. This is exacerbated on the north coast with high rainfall &amp; good soil fertility resulting in periods of rapid plant growth (incl weeds) within the 'wet season' especially. Plant growth patterns here are vastly different to areas further south.</p> <p>Consider how maintenance and irrigation can be kept to a minimum with the use of native species in 'natural' informal planting arrangements as the predominant plant matrix</p> <p>These requirements can be mitigated somewhat with good planning and. RMS needs to urgently review policies regarding vegetation management and local councils should not have to foot the bill for bad initial planning of Landscaped areas.</p>	
<b>VOL 6A</b> <b>0.4</b> <b>urban design</b> <b>strategy</b>	Urban Design	4.2 Landscape design Approach Design criteria page 47	Existing watercourses  <b>3</b> Opportunities to enhance watercourses through	As per above 3.7 Fauna connectivity Additional opportunity to contribute to the riparian restoration programs that are being undertaken	

			<p>riparian planting and shading of water courses</p> <p><i>4 Revegetated and protected watercourses provide fauna pathways under the highway</i></p>	<p>in CHCC Reserves adjacent to all major creek lines in the project apart from Jordan's Creek to increase local biodiversity outcomes and assist in the restoration of all habitat linkages in the Coffs and North Boambee Basins.</p> <p><b>Fauna crossings need to be maintained to provide for good biodiversity outcomes. Many are in a degraded state e.g. Lindsay's cutting weed growth inhibiting entry. This issue of maintenance needs urgent attention by the RMS.</b></p>	
<p><b>VOL 6A</b></p> <p><b>0.4</b></p> <p><b>urban design strategy</b></p>	Urban Design	4.2 Landscape design Approach Design criteria page 47	<p>Main alignment treatment</p> <p><b>2</b> Retain significant large trees and existing patches of native vegetation where possible</p> <p><b>3</b> Vegetated median planted with frangible species to match existing environment</p>	<p>Concerned where Old growth remnant rainforest will be cleared at Korora interchange. This small area has trees of significant age and deserves protection as the last remnant trees of this type within Korora. Please work to protect these, as remnant riparian rainforest vegetation on Pinebrush and Newport's Creeks 'Frangible' ??? Just if they're not</p>	

				invasive in local area and NOT with fruit or flowers that attract native animals. Planning here will mitigate future costly maintenance issues	
<b>VOL 6A 0.4 urban design strategy</b>	Urban Design	raised highway page 47	<p><b>3</b> Large rock fill and cut batters will comprise mostly grasses and small shrubs. In some areas where it is not feasible to revegetate rock batters these could be used as feature element of the project with local native tree plantings at base of large rock fill batters to soften visual impact</p> <p><b>5</b> Integration of vegetated mounding to address potential noise issues associated with project</p>	<p>Idea of “small shrubs &amp; grasses” sound like a maintenance nightmare</p> <p>Depending on aspect and height of mound this idea too has many issues re successful plant establishment &amp; weed growth. High maintenance over long term</p>	
<b>VOL 6A 0.4 urban design strategy</b>	Urban Design	4.2 page 52	Shotcrete avoidance strategy. 1st dot point minimizes the extent of shotcrete	<p>“minimize the extent of shotcrete” or even <b>“avoid the use of shotcrete at all costs”</b> Shotcrete is totally out of character with the surrounding landscape</p>	

<b>VOL 6A 0.4 Urban design Strategy</b>	Urban Design	4.3 page 52	interchange approach	<p>CBAG considers this to be a <b>CONDITION of APPROVAL</b> should be no traffic signals at any interchange. Coramba Rd interchange must be redesigned to move the necessary infrastructure away from hoses impacted badly in Roselands Estate. A single donut design like that built recently at Port McQuarrie. Such as design would meet the</p> <p>Strategy vision &amp; objective 4 “value the communities and towns along the road (page44) It’s disappointing there’s nothing about minimizing the impact on neighbours, in 4.3 Interchanges Approach.</p>	
<b>VOL 6A 0.4 urban design strategy</b>	Urban Design	4.4 page 53	noise attenuation approach	<p>CBAG recommends this be conditioned by the DoP to ensure</p> <p>the RMS gets this design principle right. Artist impressions don’t portray any attempt to follow key vision &amp; principles of the Urban Design Strategy especially no 3 (on page 44)</p>	

				<i><b>“Provide an enjoyable interesting highway with varied views and vistas of the landscape. a highway that enhances and draws attention to the changing landscape characters across the journey and frames dramatic and scenic views of escarpment &amp; coastline as the highway twists &amp; turns”</b></i>	
<b>VOL 8 Aboriginal Cultural Assessment</b>	Overview		<i>From the fist public meeting held regarding the Preferred Concept design the Community has been as one in support of the Coffs Harbour &amp; District Local Aboriginal Land Council in regards RMS respecting thousands of years of local Aboriginal Culture.</i>	<b>Recommendation 1</b> The approved project corridor should be inspected by experienced RAP representatives prior to construction commencement to record any previously unidentified PADs and determine the need for test excavation and site salvage if necessary. The test excavation methodology should be agreed by all RAPs and may include grader scrapes, mechanical excavator pits and use of a mechanical sieve to achieve more comprehensive samples than those allowed under the ‘Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW’.	
<b>VOL 8 Aboriginal Cultural Assessment</b>	Community Concerns		<i>The Land Council CEO Nathan Brennan presented at that October 2018 Meeting, and CBAG steering committee has been in constant touch with the Nathan, and presented to a meeting of a number of North Coast Elders Groups and Land Councils in December 2018 about the Bypass.</i>		

			<p><i>CBAG represents the wider community on this matter, as such we're pleased to be able to include the Coffs Harbour &amp; District Local Aboriginal Land Council EIS Submission as a demonstration of community consensus on the matter.</i></p> <p><i>All Registered Aboriginal Parties (RAPs), community members and Aboriginal cultural knowledge holders agree with the corridor alignment, tunnels and ancillary areas required for construction of the Pacific Highway Coffs Harbour Bypass, as proposed in the EIS.</i></p> <p><i>While the RAPs are committed to work with the RMS, construction contractors and all departments associated with Aboriginal cultural heritage management to facilitate completion of the Bypass, we have several outstanding concerns. Our primary concerns are outlined here and could be resolved by implementation of the</i></p>	<p><b>Recommendation 2</b> As far as possible, all Aboriginal artefacts within the proposed Bypass impact footprint should be salvaged prior to construction commencement, in consultation with and with the direct involvement of the RAPs. The salvage methodology should be agreed by all RAPs and may include grader scrapes, mechanical excavator pits and use of a mechanical sieve as deemed warranted to achieve a high level of artefact rescue ahead of site destruction. The rescue of remaining artefacts at the five salvage sites selected by Kelleher Nightingale Pty Ltd should follow the completion of Phase 1 and Phase 2 investigations as proposed in Appendix E of the Aboriginal cultural heritage assessment report (2019).</p> <p><b>Recommendation 3</b> Monitoring of vegetation clearing, and topsoil stripping should be undertaken by experienced local Aboriginal community representatives to ensure that ancestral burials are not destroyed during the project</p>	
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			<p><i>recommendations made in this submission. We ask that that these recommendations be considered for inclusion in the Minister's Conditions of Approval for the Pacific Highway Coffs Harbour Bypass.</i></p> <p><i>(please refer to attachment for full submission)</i></p>	<p>works. Areas requiring this monitoring should be identified by the RAPs and knowledge holders, and the monitoring personnel agreed by the RAPs and knowledge holders. If any possible evidence of human remains is detected during the monitoring or at any other time, Management Procedure 10.2 of the Kelleher Nightingale Pty Ltd Aboriginal cultural heritage assessment report (2019:56) should be strictly adhered to.</p>	
<b>VOL 8 Aboriginal Cultural Assessment</b>	RAP Representation For the duration of the Project		<p><i>(please refer to attachment for full submission)</i></p>	<p><b>Recommendation 4</b> As per best practice, RAP representatives should be engaged to assist with all additional Aboriginal cultural heritage surveys/investigations, including inspections of areas to be affected by project design alterations and areas outside the approved corridor that may also be impacted. Knowledge holders should be consulted to determine cultural heritage values of these areas.</p>	

<b>VOL 8 Aboriginal Cultural Assessment</b>	RAP Representation For the duration of the Project		<p><i>(please refer to attachment for full submission)</i></p>	<p>All reports should be reviewed by the RAPs, and final reports should contain and address RAP correspondence and concerns.</p> <p>Recommendation 5 The RMS and/or the Construction Contractor should employ suitable RAP representatives for the duration of construction impact activities to ensure that as much of the cultural landscape as possible is preserved, and to offer work opportunities to compensate Aboriginal site destruction in the development-related context. The RAPs and knowledge holders wish to be kept fully informed of the timetable and progress of all works associated with the planning and construction of the Bypass.</p> <p>In addition to the above concerns and recommendations, the RAPs and knowledge holders require input to the:</p> <ul style="list-style-type: none"> <li>• Environmental Work Method Statement.</li> </ul>	
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<b>VOL 8 Aboriginal Cultural Assessment</b>	RAP Representation For the duration of the Project		<i>(please refer to attachment for full submission)</i>	<ul style="list-style-type: none"> <li>• Cultural Heritage Management Plan.</li> <li>• Management and Mitigation Plan for unexpected discoveries.</li> <li>• WHS and Cultural Safety/Policy Plan.</li> </ul>	
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<b>VOL 9 Hydrology</b>	Flooding General		<i>Flooding. Impacts of flood storage capacity loss as a result of the bypass.</i>	<p>From reading the EIS and discussions with Council there has been a clear and deliberate lack of consultation and a whole of government approach to address flooding issues.</p> <p>The RMS solution has been to simply add in large and expensive bridges across the Boambee floodplain. Far better solutions exist. The flooding and hydrology chapters of the EIS and studies to date fail to acknowledge all Coffs Harbour Councils flood studies and the recommendations from these studies.</p> <p>The Boambee Newports Creek Flood</p>	

<b>VOL 9 Hydrology</b>	Flooding General		<p><i>Flooding. Impacts of flood storage capacity loss as a result of the bypass.</i></p>	<p>Plain Risk Management Study and the North Boambee Valley (west) Flood Study identify a range of mitigation measures necessary to address flooding in the area from a planning point of view. These include a range of solutions both upstream and downstream. They also recognise and document the concept of the Pacific Highway Coffs Harbour Bypass as taking up important flood plain storage leading to additional flood afflux. The need for the construction of upstream detention basins to protect downstream Coffs Harbour and offset the negative flood impacts of the bypass is identified (Ref Sect 6.3), and furthermore that negotiations should be undertaken with the NSW Government and RMS for a funding contribution to fund basins as an offset to flood impacts (Ref Appendix A).</p> <p>This would be a very small fraction of the total cost of the RMS bridging proposed and these solutions in combination with some RMS</p>	
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<b>VOL 9 Hydrology</b>	Flooding General		<i>Flooding. Impacts of flood storage capacity loss as a result of the bypass.</i>	<p>bridging to pass flows would bring about enormous community benefits. The Department of Planning must condition the project to adopt a whole of government approach to addressing and resolving the flooding issue and come up with funding (additional if required) to see the implementation of all these proposed solutions.</p> <p>Perhaps the Department of Planning could also assist with finding additional funding sources for Council and the Department of Environment and RMS to make this happen. Savings from the bypass design could also go towards this (as they have already been budgeted for). Wouldn't this be an awesome planning outcome if it could be achieved! The project has a delivery horizon 5 – 6 years after planning approval so there is time to achieve this. Additionally, any additional / surplus fill from the project could be provided to council to assist with the construction of basins / other flood mitigation works. Undertaking the</p>	
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<b>VOL 9 Hydrology</b>	Flooding General		Flooding. With the construction of the bypass, Coffs Harbour will have a 1:100-year flood free route around the regional city from the south to the north.	<p>works as part of the Pacific Highway upgrade would also bring about significant construction efficiencies and other savings.</p> <p>The EIS however incorrectly fails to identify flooding over the existing highway just north of the Englands Road Interchange. This prevents achieving 1:100-year flood free access route around Coffs and to the Hospital.</p> <p>By referencing the flood reports above this can be very easily achieved by some additional culverts under the highway and changes to lower the raised median in this location. The project must be conditioned by the Department of Planning to achieve a 1:100 yr. flood free route around Coffs Harbour and to the Hospital.</p>	
<b>Note 1 Dangerous Goods</b>	Dangerous Goods		<i>The documented approach in the EIS of currently not permitting dangerous goods on the bypass and through the tunnels putting lives at risk</i>	Road Rules Reg 300-2 sub clauses 2 and 2A and the Table clearly foresee the need and permit the transport of dangerous goods through tunnels by documented exception.	

<p><b>Note 1</b> <b>Dangerous Goods</b></p>	<p>Dangerous Goods</p>		<p><i>The documented approach in the EIS of currently not permitting dangerous goods on the bypass and through the tunnels is putting lives at risk</i></p>	<p>The EIS refers to a risk assessment having been done. Where is this? This should have been provided as an appendix technical working paper to the EIS. RMS should be made to provide a copy of the risk assessment to the community, so community and stakeholders can make an informed decision on the project.</p> <p>The need and process for a risk assessment and Dangerous Goods in tunnels is covered by Austroads Research Report AP-R590-19 Dangerous Goods in Tunnels – Application and Methodology.</p> <p>This process requires assessment of both the existing (and proposed bypass routes), consideration of the traffic volumes on it as well as the current accident rate (which according to the traffic working paper is horrendous at 53 incidents per MVKT) and then consideration of the numbers of sensitive receivers (ie., people, schools, hospitals) etc within an impact zone or radius of fatal consequences.</p>	
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<p><b>Note 1</b> <b>Dangerous Goods</b></p>	<p>Dangerous Goods</p>		<p><i>The documented approach in the EIS of currently not permitting dangerous goods on the bypass and through the tunnels is putting lives at risk.</i></p>	<p>Typically, this radius could be between 250m and 750m depending on the incident. In comparison to the traffic volumes / expected accident rate (12 incidents per MVKT) and of course the numbers of sensitive receivers within the same radius of fatal consequences (and this radius would be reduced on the bypass because of protection / shielding provided by cuttings / embankments / terrain etc). It is a no brainer. This is just payback by RMS senior executives to split the community into not wanting tunnels again (to get the trucks out of town) and protection of their previous crazy ideas of justifying the cuttings design over the tunnels.</p> <p>There will be a case (by orders of magnitude that it is better to allow the dangerous goods off the existing highway) that other than for specific deliveries, dangerous goods should be banned from the existing highway.</p>	
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<p><b>Note 1</b></p> <p><b>Dangerous Goods</b></p>	<p>Dangerous Goods</p>		<p><i>The documented approach in the EIS of currently not permitting dangerous goods on the bypass and through the tunnels is putting lives at risk.</i></p>	<p>Every other EIS/development project Y2C, T2E, Tugun, has addressed this</p> <p>at this (EIS) stage and made the decision to allow certain classes of dangerous goods to pass through the tunnels. The EIS is inadequate in this regard and should be rejected until this is resolved.</p> <p>The project should be conditioned to ensure that ALL required safety and fire and life safety systems and by that we mean SO FAR AS IS REASONABLY PRACTICABLE as defined in the above mentioned Austroads Report and included in Appendix B are provided AS A MINIMUM.</p> <p>Technology also exists and is provided on other motorways to provide an electronic fully automated dangerous goods placard reader so the operator of the tunnel, motorway always knows what dangerous goods are passing through. The project should be conditioned to ensure such a system</p>	
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<b>Note 1 Dangerous Goods</b>	Dangerous Goods		<i>The documented approach in the EIS of currently not permitting dangerous goods on the bypass and through the tunnels is putting lives at risk.</i>	is provided as well.  The safety systems must always consider the safety of all road users, fire and rescue responders and the safety of the adjoining community (residences and farms).	
<b>Note 2 Air Quality</b>	Air Quality impacts		<i>Community health and wellbeing</i>	The project should be conditioned to ensure operational air quality impacts from the tunnels are monitored and reported. Air quality monitors are routinely provided in tunnels throughout Australia including the St Helena tunnel on the Pacific Highway at Byron Bay.	
<b>Note 3 sense of place</b>	Urban Design sense of place		<i>Urban design treatment, improvements and creation of sense of place on the bypassed highway.</i>	The bypass will create an opportunity to restore / return the existing highway to a more local road. The project needs to look at a plan / strategy for what is done with the bypassed old highway. This could see re-phasing of traffic lights	

<b>Note 3 sense of place</b>	Urban Design sense of place		<i>Urban design treatment, improvements and creation of sense of place on the bypassed highway.</i>	<p>to change priority to crossroads to get the City flowing better, improved road safety / safety of intersections, pedestrian cycle facilities, urban architecture.</p> <p>The project must be conditioned by the Department of Planning to undertake a study of the remaining old highway and identify, fund and deliver a program of works that addresses all of these issues in consultation with Coffs Harbour City Council, the community and the Department of Planning. This is what future proofing and planning is all about.</p> <p>A greater sense of place should be created by the project for the old highway and the town centre.</p>	
<b>Note 4 tunnels</b>	Tunnels		<i>Tunnel Lengths &amp; Certainty of Landscaped Outcome.</i>	<div></div> <p>The community is very concerned and feels it cannot trust RMS. The project must be conditioned to ensure that RMS cannot take away the tunnels and cannot try and shorten them (no matter what</p>	

<p><b>Note 4 tunnels</b></p>	<p>Tunnels</p>		<p><i>Tunnel Lengths &amp; Certainty of Landscaped Outcome</i></p>	<p>excuse they or a contractor try and throw up later).</p> <p>The lengths committed to in the EIS are in fact on the short side and should be lengthened to ensure the tunnels blend effectively into the landscape. This point can be seen by the very steep areas that will still be remaining above the currently shown portals.</p> <p>We are very keen to ensure a green very well successfully landscaped outcome is achieved for Coffs Harbour. There appears to be scope to add approximately 20 to 25m to the end of each tunnel and then more gently fill and slope over the tops of the tunnel to better achieve the desired landscaped outcome with the highest chance of success as early as possible.</p> <p>This would also reduce safety risks during maintenance and operation. Reshaping / refilling of some of the ridgelines should also be considered and implemented to ensure the correct outcome.</p>	
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<p><b>Note 4 tunnels</b></p>	<p>Tunnels</p>		<p><i>Tunnel Lengths &amp; Certainty of Landscaped Outcome</i></p>	<p>Such a slight lengthening of the tunnels would also have a significant operational noise benefit to the community. The project should be conditioned strongly to ensure that the tunnels are lengthened to better blend into the landscape and that this is driven by very sound urban design principals.</p> <p>In this regard it is suggest that there would be a role for say the NSW Government Architect working closely with the RMS Engineers to</p> <p>ensure that this is properly delivered for the community.</p> <p>Further to the above, the solutions finally adopted by RMS are of concern to the community. This is especially regarding achieving a</p> <p>green and successfully landscaped outcome for the project. This not only includes around the tunnels, but also, on the cut and fill batters for rest the project and the so-called landscaped mounds.</p>	
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<b>Note 4 tunnels</b>	Tunnels		<i>Tunnel Lengths &amp; Certainty of Landscaped Outcome</i>	<p>There will be significant rock on this project and the last thing we want to see is RMS or the contractor come along and start steeping up batters to go cheap and leave exposed rock with extensive shotcrete and rock bolts etc. Looking at the rock in the adjacent quarries and adjacent projects this is a very real and potential outcome. The project needs to document how this will be successfully achieved. If cut batters need to be over excavated and filled, then this needs to be done. It is suggested that there should be trials undertaken to demonstrate this.</p> <p>This is just one of the concerns we have with the adoption of various forms of contract delivery such as D&amp;C and Alliances where RMS leaves</p> <p>this all up to the contractor to sort out at a later date (usually right at</p> <p>the end when it's all to late) rather than work through the details properly in a detail design and then construct in stages. Where RMS has</p>	
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<p><b>Note 4 tunnels</b></p>	<p>Tunnels</p>		<p><i>Tunnel Lengths &amp; Certainty of Landscaped Outcome</i></p>	<p>done this the landscape/project urban design outcomes have not been leading and outstanding – they are clearly not the core business of its contractors (and RMS) and the contractor just wants to save money. This needs to be sorted out up front and needs to be done progressively and in consultation with the community and Council.</p> <p>The project should be conditioned to ensure native seed is collected prior to the start of construction and that plants which are grown from this seed are ready to be planted as the</p> <p>batters are made progressively ready.</p> <p>Maintenance should be commencing straight away and must be continued</p> <p>for 5 – 7 years after the project is complete.</p> <p>Peter Duncan had a vision for this Highway project that benefitted both Urban and Landscape outcomes on a</p>	
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<b>Note 4 tunnels</b>	Tunnels		<i>Tunnel Lengths &amp; Certainty of Landscaped Outcome</i>	<p>project where the Great Dividing Range meets the Pacific Ocean and said it could be the best road the RMS has built. The Project can achieve spectacular coastal views – potentially out to the Solitary Islands Marine Park e.g., northbound out of Gately Tunnel and at other locations.</p> <p>The project should be conditioned to ensure this is fully explored and achieved where possible. The ability to incorporate a viewing area should also be incorporated and could assist fit into other long-term planning goals for Coffs Harbour tourism. Viewing areas (overlooking) around</p> <p>Roberts Hill of Coffs Harbour should also be incorporated into the project, and should also include the integration of tourism,</p> <p>Aboriginal, environmental and project engineering challenge themes for community information display boards.</p>	
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<b>Note 5</b>	General		<i>Predicted condition of the old Pacific Highway at handover</i>	CBAG recommends this be conditioned by the DoP to ensure the old Pacific Highway is fully rehabilitated once the bypass is built. It was last resurfaced in 2018.	
<b>Note 6 Construct only Contract</b>	General		<i>Community trust in the RMS is not high</i>	<p>Construction lawyers advise that the main disadvantage of Design &amp; Construction type contracts is the principal (in this case RMS) has less control over the final design.”</p> <p>And considering how things have progressed this far it’s imperative that a design accepted by the community is fully detailed by RMS, then constructed exactly to that. In other words because we’re still seeing Concept Designs with so many un-answered questions the DoP must condition the project to be exhibited once more as a Final Detailed Design which then must be acquired via a Construct only Contract. It’s the only way the Community can be sure of having built what we’ve fought for.</p>	

<b>Note 6 Construct only Contract</b>	General		<i>Community trust in the RMS is not high</i>	Today some contracts are tendered using a “design and construct” format, allowing the builder to make changes to the design often just based on reducing costs. This concerns us greatly as the Toowoomba Bypass and a WestConnect through Auburn are just two examples where a Design & Construct Contract delivered a very different project for residents to that put forward with the EIS .	
<b>Note 7 Vegetation plans</b>	General		<i>The appalling state of species selection and landscaping outcomes of the S2W has caused much concern amongst Coffs Bush Regeneration Community, and the deaths of wildlife which the RMS has had to deal with.</i>	When the RMS was asked about who checks vegetation plan’s I was told several organisation’s including Council but it’s a big job. I’m sure the Coffs Harbour Bush regeneration community would relish the opportunity to be involved in assessing vegetation plans if only to avoid the disasters of the S2W Upgrade	
<b>VOL 1B chapter 9 noise &amp; vibration</b>	development applications	9.2.4 page 9.15	<i>RMS’s decision to arbitrarily exclude some subdivisions from at-property treatment is unheard of and unreasonable</i>	CBAG is seeking assurances from the Department of Planning Industry and Environment that irrespective of any	

				other provisions imposed by the EIS, all properties that exceed the criteria at least get the offer of at-property treatment	
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