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The Director General Department of Planning GPO Box 39 Sydney NSW 2001

Mr Scott Jeffries

## Concept Plan Application (07\_0128) Precinct 1 Hunter Economic Zone

In accordance with the request from the Director General, responses to the submissions received to the exhibition under section 75H(6)(a) of the EP&A Act 1979 have been prepared.

In response to the public exhibition a total of 17 submissions were received.

The submission from DECC raises a number of issues relating to flora and fauna impacts that have significant overlaps and common issues with submissions 3, 5, 6, 7, 10, 12, 16 and 17. The issues raised are most focused upon the impacts of vegetation clearing proposed in the development lands and the resultant impacts upon avian species.

The response has been structured to firstly address the issues raised by DECC and provide appropriate referencing to the specialist reports prepared by RPS HSO and Biosis Research.

The remaining submissions are addressed in the matrix response.

A number of clarifications requested by the department are addressed after the matrix.

Should you require any further clarification please no not hesitate to contact Scott Barwick on (02) 8257 6651 or Jason Shepherd on (02) 82576626.

Yours sincerely

Michael Barrow
General Manager
Hunter Economic Zone

## **DECC (Submission 11)**

The issues raised in the submission from DECC are addressed in the attached reports prepared by RPS HSO and Biosis Research. In addition to these technical responses the following comments address the broad issues raised in Attachment 1 of the DECC submission. The issues are addressed in the chronology of the DECC submission.

## Response to DECC Submission Attachment 1.

## 1. Nature of proposal and intensification of clearing and existing framework

The submission raises concern that the lots proposed are generally between 2 and 2.8ha in size. As detailed in the EA, the subdivision has been pursued in modules that allow ready consolidation if users for larger lots are identified.

Reference to the original objectives for HEZ by DECC are an erroneous interpretation of the planning framework in the current LEP, DCP or Draft EMS. These documents do not specify or provide any commentary on lot sizes or rates of clearing. The perception of the DECC that large lots would accommodate small buildings simply does not respond to any reading or interpretation of these previously relevant documents.

The submission refers to a "visual interpretation" in the report of the NSW Legislative Council General Purpose Standing Committee No. 5 Hunter Economic Zone to support their view. This plan is irrelevant to the current application, however a review of the plan identifies that the only areas of definitively retained vegetation would be in the 10m front setbacks and the 5.0m side and rear boundary setbacks.

The proposed Precinct 1 design is a far superior outcome that incorporates the drainage lines to the east of the existing Spine Road and, through the provision of the 20m plus 10m reinstatement zone setbacks to either side of the road network, strong vegetated linkages are provided through the 4(h) lands. These corridors provide linkages to the central creekline corridor, the 7(b) lands and the National Park to the south and south west.

The Precinct 1 design the subject of this application achieves east west vegetation linkages across the site that would not be realised in the plan referred to by DECC from the enquiry report.

The level of clearing proposed and detailed as a potential outcome in the Precinct 1 design complies with and exceeds the minimum standards required by the EPBC approval to provide appropriate habitat for the threatened species on the site.

The vegetation retention targets for the 4(h) lands requires the retention of 10% of mature trees and 10% of the winter flowering species. These minimum targets are exceeded in the Precinct 1 design and augment the extensive retention of vegetation and habitat within the 7(b) lands.

Criticism is made that the focus of the layout is to seek to retain Forest Red Gums running into the main creekline. This has been a deliberate approach to the site.

The Forest Red Gum is a key species of the Hunter Lowland Redgum Forest (HLRF). As detailed in the RPS HSO report this community is the least common community of the three main communities located in HEZ Pty Ltd lands.

## 2. Lack of Strategic Approach

On the 17 July 2007 authorisation was made by the Minister for the lodgement of a Concept Plan and Major Project Application for the use and development of land in Precinct 1 for wall and floor panel manufacturing and associated Precinct 1 infrastructure, including road and lot layouts and the Pelaw Main by-pass.

The application has been lodged and prepared consistent with that authorisation.

The lodgement and consideration of a SSS is not a pre-requisite of the lodgement of a Concept Plan.

## 3. Failure to consider existing planning framework

The consistency of the proposal with the objectives of the 4(h) zone are addressed in section 6.3 of the EA submitted in support of the Concept Plan.

The objectives of the DCP are:

- (i) To promote and foster:
  - (a) Major industrial development or employment generating development that is accessible to urban centres and arterial roads and that retains the potential for rail access;
  - (b) Employment opportunities; and
  - (c) New development that incorporates the principles of ecologically sustainable development;
- (ii) To ensure that ecosystems are protected and conserved, including important habitats, plant communities and watercourses within and adjoining HEZ;
- (iii) To ensure a high level of environmental protection;
- (iv) To ensure that satisfactory measures are incorporated into new development to ameliorate any impacts from noise, air and water pollution, dust, lighting, traffic, etc onto surrounding communities:
- (v) Encourage innovative development which integrates well with the built form, landscaped areas and bushland setting to enhance the character of the HEZ estate;
- (vi) Provision of adequate infrastructure and facilities to service the development of the site; and
- (vii) To promote the conservation of any items of environmental heritage, including aboriginal heritage and heritage precincts.

The consistency of the Concept Plan with objective (i) has been clearly demonstrated within the EA in Sections 6.3 of the EA.

The remaining objectives are complied with as follows:

- Ecosystems have been protected and incorporated into the subdivision layout;
- The layout incorporates protection of watercourses within the design and integrates the water cycle management strategy;
- The Concept is supported by a comprehensive water cycle management strategy that adopts Water Sensitive Urban Design principles as well as comprehensive strategies to manage Noise, Light, Vibration, and Electrical interference as well as the management of air quality impacts;
- The provision of a comprehensive network of consolidated setbacks provides linear corridors throughout the Precinct that provide vegetated linkages to the Chinamans Hollow creek corridor to the east, National park lands to the south and south west, and the undeveloped lands to the north and west.
- The network of setbacks provide a bushland landscape setting that also achieves the tree retention targets for the development lands required by the EPBC approval in conjunction with foraging and habitat values for the species in the locality;
- The proposed setbacks and guidelines in the Statement of Commitments achieves a far superior bushland setting than the numerical controls contained within the existing DCP;
- The proposal has been demonstrated to have no adverse impacts upon Aboriginal or European heritage.

It is noted that the DCP is silent in relation to any extent of clearing, other than how it should be undertaken and that landscape setbacks of 10m should be provided to the front boundaries and 5m setbacks to the side and rear boundaries. The Concept Plan layout is prescriptive in accommodating wildlife corridors and linkages in the design rather than being provided "where possible" as required by the DCP at section 6.3.3.

The Draft EMS referred to does not provide or state any objective in relation to clearing or the creation of an estate in the manner envisaged by DECC.

The Draft Habitat Management Strategy at section 3.3 states:

Clearing within development allotments should be limited to operational development footprints including appropriate landscaping and bushfire protection. Application of the ECMP will enable areas of valuable habitat within the remaining non-developed portions of allotments to be conserved and where possible linked with other conservation zones.

The approach to the management and design of Precinct 1 has sought to ensure that the areas of valuable habitat are prescriptively retained in linear corridors that connect to larger conserved areas surrounding the development land.

The primary objection from DECC relates to a perception that more clearing is proposed than previous concepts and DECC's understanding of the planning framework previously developed for the estate.

To respond to this issue regard must be had for the approval granted under the EPBC Act, Cessnock DCP 2006 Part E HEZ, and the draft Environmental Management Strategy.

At a meeting convened by the DoP to discuss the DECC concerns, DECC officers clarified their view that the Development of HEZ would involve the construction of small buildings on large sites creating a "campus" style estate.

This perception is not reflected in any of the planning documents referred to above. Further this is a totally unrealistic expectation given the site has been zoned to accommodate employment generating industrial development and would never be permitted to establish in this manner when the relevant bushfire mitigation measures are included.

This lack of understanding of the development of the estate is reinforced when the EPBC approval is considered. This approval is structured to require the retention of 10% of mature trees and 10% of winter flowering trees in the 4(h) zoned lands. This approval recognised the level of protection and habitat protection in the 7(b) lands as offsets against the development within the land zoned for industrial development.

The configuration of the design of Precinct 1 is such that these minimum retention targets are exceeded just within the proposed setback regime.

The reference by DECC to the Assumed Concurrence is irrelevant in this instance. The Assumed Concurrence relates to developments made under Part 4 of the EPA Act, not the current Part 3A application. Further the Assumed Concurrence does not form a part of the DGR's issued for the application.

Despite this situation, as demonstrated in the EA the design responds to the guidance provided by the Assumed concurrence and the EPBC approval in protecting habitat within the development lands in a manner that addresses the variety of site considerations, not just flora and fauna, which apply to the site. These outcomes augment those lands protected and maintained within the 7(b) zoned lands.

## 5. (sic) Adequacy of Threatened Species Assessment

This issue is addressed in detail in the attached RPS HSO report.

## 6. Regent Honeyeater / Swift Parrot Assessment

This issue is addressed in detail in the attached RPS HSO and Biosis Research reports.

The assessments consider that the retained vegetation will remain suitable foraging potential for the Swift Parrot and Regent Honeyeater. The Swift Parrot is less susceptible to edge effects and edge effects. The Regent Honeyeater is susceptible to edge effects and opening up of forest by clearing. The Regent Honeyeater assessment has identified that due to current edge effects the value of precinct 1 is already diminished. As this species is migratory, fragmentation of vegetation for foraging purposes is less of a concern. The vegetation retained in and adjacent to Precinct 1 will continue to provide foraging potential for both species.

## 7. Proposed Mitigation or Compensatory Measures

This issue is addressed in detail in the attached report by RPS HSO. It is noted that the DECC submission states that of 129ha in Precinct 1 only 9ha are set aside for conservation purposes. This contention totally ignores the zoning framework established over the HEZ Pty Ltd lands (lots 3, 4, 5, 6 and 7 in DP 1037092) which protect approximately 25% of the holding as conservation lands and zoned 7(b) Environmental Protection.

The configuration of Precinct 1 adds a further 4.76ha to buffer the central creek line corridor and accommodates further drainage alignments within the Precinct.

As previously identified, the Assumed Concurrence continually referred to by DECC relates to Part 4 and 5 applications only.

Notwithstanding, the terms of the Assumed Concurrence have been addressed in the preparation of the Precinct layout. The proposed layout proposes an alternate configuration of the Deferred Area providing additional protection and habitat value consistent with the desired outcomes for Deferred Area 1.

#### 8. Werakata National Park

The references to Werakata reflect the scope of the site investigations undertaken prior to and after the gazettal of the HEZ lands as required by the then DEC. These further environmental investigations were undertaken post gazettal of the HEZ lands and formed the basis of the Environmental Constraints Masterplan (ECMP). The ECMP includes habitat assessment of all of the study area regardless of zoning and land tenure. These investigations involved detailed site survey and habitat assessment of the entire 3000 plus ha study area. These investigations, undertaken at the full cost to HEZ, have provided the detailed knowledge of the environmental and habitat values of the land in and surrounding the 4(h) zoned lands.

The EA submission addresses the location of Werakata National Park as a statement of fact and as a protected area that accommodates many of the habitat values that exist within the employment zoned lands. The off-sets described in the application increase the levels of off-set established during the rezoning process to create the industrial employment lands.

These offsets are afforded high levels of protection and active management through the 7(b) Environmental Protection zone.

## 9. Pelaw Main By-pass

This issue is addressed in detail in the attached report by RPS HSO at section 2.5.

The location and alignment of the Pelaw Main by-pass has been the subject of numerous alignments and investigations. A proposed alignment closer to Pelaw Main has previously been rejected on the basis of noise impacts upon the residential area and the potential for significant geotechnical instability in the vicinity. An alignment to the south of the current alignment proposed has been rejected as being too circuitous and cost prohibitive.

The general alignment proposed is the balance between the various competing issues of managing impacts upon residential amenity, traffic noise impact and environmental impacts.

#### 10. Deferred Area No.1

Again, it is reiterated that the Assumed Concurrence is relevant to Part 4 and 5 applications under the EP&A Act 1979, and the Assumed Concurrence does not form part of the DGR's.

The DECC submission refers to previous undertakings to retain Deferred Area 1 in the configuration detailed within the Assumed Concurrence. This reference is to HEZ's letter to the Minister dated 21 September 2006. The context of this proposal to retain Deferred Area 1 was an application made to the then DEC in September 2005 applying to remove deferred areas 5, 6 and 7 in exchange for the retention of Deferred Area 1. This application was not accepted by DEC, and therefore the proposal to retain Deferred Area 1 is no longer relevant.

The situation is therefore that the current application is proposing a reconfiguration of Deferred Area 1 rather than an outright deletion.

A detailed assessment of the performance of the reconfiguration of deferred area 1 against the intent of the deferral is provided in the attached report from RPS HSO.

The following table 1 provides a summary of the impact of the reconfigured deferred area 1

Issue/Species	Reconfigured Deferred Area 1 impacts
C.linearifolius	118 of 120 retained
Green Thighed Frog habitat - High Quality	No high quality habitat in the original deferred area
Green Thighed Frog habitat – medium and low quality	61.4% (668m) of medium/low quality frog habitat retained
Hunter Lowland Redgum Forest (HLRF)	3.74 ha retained (Bell 2008) plus conservation of 1.09ha of HLRF outside of the original deferred area 1.
Lower Hunter Spotted ironbark Forest (LHSGIF)	0.43ha retained (Bell 2008)
Hollow Bearing Trees	58 retained 66 removed 124 total
Mature trees	85 retained 88 removed 173 total
Mature Forest Red Gums	17 retained 34removed Total 51
Mature Spotted Gums	3 of 3

Table 1: Performance of reconfigured deferred Area 1

The report also notes that the revised Bell (2008) mapping now identifies that the main vegetation community in the original deferred area is no longer the LHSGIF endangered ecological community. The main community to be removed as a result of the reconfiguration is the Coastal Foothills Spotted Gum Ironbark Forest which is not an EEC. This is demonstrated in attached Figures 1 and 2 of the two sets of mapping of the vegetation undertaken by Bell.

Overall the proposed development of Precinct 1 as lodged achieves the following broad characteristics.

Issue/Species	Precinct 1 as lodged
Retained Mature Trees	177 of 1017 (17.4%)
Retained Maculata and tetricornis	50 of 159 (31.44%)
Retained Hollow bearing trees	110 of 610 (18.03%)

Table 2 Overall Precinct 1 Tree retention

The reconfiguration of the deferred area has been demonstrated to achieve the intended environmental outcomes of the establishment of the deferred area in a manner that responds to a detailed assessment and consideration of the characteristics of the area. The revised Bell (2008) mapping identifies that the majority of the vegetation to be developed within the perimeter of the original deferred area is no longer classified as EEC but is part of the Coastal Foothills Spotted Gum Ironbark Forest.

From	Submission	Comment
1 John Farrell - Manager Land use Development - RTA	<ul> <li>The RTA raised no objection to the proposal subject to the requirements of a Deed Containing Agreement (DCA) being included as conditions of consent or appropriate measures being included to insure the requirements of the DCA are undertaken</li> </ul>	The draft DCA describes the road upgrading works required over time as a result of development of HEZ Precinct 1. It sets out a series of trigger points for these works based on thresholds of additional development. Pursuant to the DCA, the owner must complete the relevant works before occupation certificates are issued in HEZ Precinct 1 for 20, 45, 67 and 90 hectares of development. This DCA also contains a mechanism to review actual traffic generation numbers against forecasts. The proponent is continuing towards the finalisation of the DCA with the RTA.
		HEZ is currently entering a separate Works Authorisation Deed with the RTA to upgrade the intersection of Leggetts Drive and HEZ Spine Road. The draft DCA requires this intersection to be upgraded prior to any further development at HEZ.
2 Nika Fomin - Development Control Coordinator - NSW RFS		Preliminary advice from the RFS supporting the bushfire protection measures proposed was obtained during the preparation of the application; despite this the following are agreed.
	<ul> <li>Seeks increases to the APZ's to the perimeter of the Precinct, and</li> </ul>	The provision of a 20m APZ to the southern boundary and an increase of the eastern and western APZ's to 25 can be readily accommodated in the design.
	<ul> <li>Provision of internal APZ's to protect the proposed lots from fire threat from the 20m plus 10m reinstatement buffers;</li> </ul>	The concept plans submitted at Appendix B of the EA demonstrate that each site will have the required internal APZ which is provided by a combination of site circulation, car parking and water management facilities.
	<ul> <li>Landscaping in the APZ's to be consistent with Appendix 5 of Planning for Bushfire protection 2006</li> </ul>	Agreed
		Imposition of these requirements would be accepted.
3 Ann Lindsey -	Impacts on the Swift Parrot and Regent	The impacts on the Swift Parrot and Regent Honeyeater have

Conservation Officer - Hunter Bird Observers Club Inc	Honeyeaters from vegetation clearing, and failure to address the recent Regent Honeyeater breeding event at HEZ;	been addressed in detail in the assessment prepared by RPS HSO and Biosis Research. The proposal retains Swift Parrot feed resources consistent with the Conservation Plans of Management prepared to satisfy the requirements of the EPBC approval. The vegetation to be retained in the 7(b) lands and in the road setbacks will remain as suitable foraging and nesting resources for this species as they are less vulnerable to intrusion from species such as Noisy Miners. The regent Honeyeater is a species that is prone to impact from species such as noisy Miners when clearing has occurred. As detailed in the Biosis Research assessment much of precinct 1 is already edge affected diminishing its value as a breeding habitat. The vegetation proposed to be retained in the 7(b) lands and the setbacks will remain as a potential foraging resource for this species.
	<ul> <li>Precinct 1 proposal conflicts with HEZ DCP and HMS;</li> </ul>	Refer to the response to this issue under DECC submission 11 issue 3
	<ul> <li>No SSS study to accompany the concept plan application;</li> </ul>	Refer to the response to this issue under DECC submission 11 issue 2.
	Clearing for the PMB dissects important EEC;	The impact on the clearing of Kurri Sand Swamp (KSS) is discussed at section 2.5 of the accompanying RPS HSO Response to submissions report.
	<ul> <li>Assumed concurrence from DECC and the offsets are no longer valid;</li> </ul>	Refer to the response to this issue under DECC submission 11 issue 10
	Reference to the National Park forming part of HEZ is wrong.	Refer to the response to this issue under DECC submission 11 issue 8
4 No identifier - Private Individual	The submission objected to any use in HEZ until the Pelaw Main by-pass is constructed.	The detailed Traffic Assessment demonstrates that the requirement for a Pelaw Main by-pass does not trigger until at least 90ha of Precinct 1 is developed and operational.
		The proposed traffic deed with the RTA reflects this position. The requirement for a by-pass before any industries are established in the HEZ is not supported by the detailed traffic analysis of the existing road network and the upgrades required to be undertaken by the RTA as detailed within draft DCA.

5 Brett Lewis Manager Development Services - Hunter Water Corporation	Requirement for the provision of Section 50 Certificates for uses within the Precinct.	Agreed - The Hunter Water requirement to obtain Section 50 Certificates for uses in the Precinct is consistent with the Draft Statement of Commitments – 1 Subdivision matters item 8.
6 Debra Saunders - Private Individual	<ul> <li>Inclusion of reference to the National Park is wrong, also fails to address direct and indirect impacts on the Park;</li> </ul>	Refer to the response to this issue under DECC submission 11 issue 8
	Reliance on the original flora and fauna studies associated with the rezoning;	As detailed in the accompanying RPS HSO report at section 2.7, the ECMP data is a base set of data that has been constantly augmented by at least weekly, if not more regular visitation to the site by RPS HSO ecologists. The data set and level of survey effort is considered to have been extensive.
	The impact on Swift Parrot habitat and the need for anti-collision measures to be included in any consent;	The anti collision measures suggested in the submission and commented on in the accompanying RPS HSO submission could be imposed as consent conditions upon the WIPS Project Application.
	<ul> <li>Indirect impacts on Regent Honeyeaters have not been considered;</li> </ul>	Refer to the response to this issue in the response to submission 3 and the response to item 6 in the submission from DECC.
	No SSS provided contrary to DG requirements;	Refer to the response to this issue under the DECC submission response item 2.
	<ul> <li>Contrary to original intention of the bushland estate and EPBC approval;</li> </ul>	Refer to the response to this issue under the DECC submission response item 1.
	Vegetation clearing issues – questions the numbers of mature trees to be retained;	The approach to the site of consolidating the front setbacks has been deliberately pursued to increase the certainty over the levels of vegetation possible. The targets that have been met and exceeded reflect the terms of the Conservation Management Plans prepared in response to the EPBC approval
		Consistent with Bell (2008) the HEZ Pty Ltd lands contain

	Unacceptable impacts on two EECs – Lower Hunter Redgum Forest and Lower Hunter Spotted Gum Ironbark Forest;	68.32ha of Hunter Lowland Redgum Forest. Of this area of the community 49.22ha is to be retained or 72%. Of the Lower Hunter Spotted Ironbark forest there are 58ha proposed to be retained or 18%. This is however the most common community on the site and a total of 332ha is protected within the HEZ LEP area and a further 1134ha has recently been conserved in the Werakata State Conservation Area.
	<ul> <li>Impacts on 22 threatened fauna species, including 8 nationally listed species and a number of threatened plants;</li> </ul>	The impact on the flora and fauna species has been extensively assessed in the reports prepared by RPS HSO that formed part of the EA and the accompanying reports to this response prepared by Biosis Research and RPS HSO.
	NSW Vegetation Management Plan ignored regarding the offset ratios;	The vegetation retention provided in the Precinct 1 layout retains and builds upon the structure of retention established in the zoning framework for the HEZ lands. This has provided for the retention and protection of approximately 25% of the lands owned by HEZ Pty Ltd. These lands are not only protected from development but are actively managed and rehabilitated to maximise their value as conservation, foraging and habitat lands.
	Cumulative impacts ignored.	The development of precinct 1 and the zoning framework for the Industrial zoned lands owned by HEZ Pty Ltd will result in the retention and protection of 131.78 ha of vegetation across the land parcel. This quantum of protected vegetation does not include the areas of vegetation that is proposed to be retained within the 20m retention and 10m reinstatement setbacks proposed. This is a significant level of retention and protection of vegetation that is augmented by the consolidation of the significant bushland setbacks to the roads within the precinct.
7 Chris Tzaros Chair - National Swift Parrot Recovery Team	<ul> <li>Inclusion of reference to the National Park is wrong, also fails to address direct and indirect impacts on the Park;</li> </ul>	Refer to the response to this issue under DECC submission 11 issue 8
	<ul> <li>Reliance on the original flora and fauna studies associated with the rezoning;</li> </ul>	Refer to the response to this issue under the response to submission 6.

	The impact on Swift Parrot habitat loss and collision hazards;	Refer to the response to this issue under the response to submission 6.
	No SSS provided;	Refer to the response to this issue under DECC submission response item 2.
	<ul> <li>Contrary to NSW Vegetation Management Plan regarding offset ratios;</li> </ul>	Refer to the response to this issue under the response to submission 6.
	The site is part of the internationally recognised Hunter Valley Important Bird Area;	The assessments from RPS HSO and Biosis Research have identified that Precinct 1 is limited in value as breeding habitat for Regent Honeyeaters as a result of existing edge effects. The assessments conclude that the retained vegetation in the 7(b) lands will be suitable foraging habitat for both species.
	Cumulative impacts ignored.	Refer to the response to this issue under the response to submission 6.
8 Chris Tzaros Conservation	High impact on the Swift Parrot;	Refer to the response to this issue under the response to Submission 6
Manager - Birds Australia	<ul> <li>Loss of habitat from the site affecting 14 threatened bird species, including two nationally listed threatened species – Swift Parrot and Regent Honeyeater;</li> </ul>	Refer to the response to this issue under the response to Submission 6
	Non-compliance with the NSW Vegetation     Management Plan regarding offset ratios;	Refer to the response to this issue under the response to submission 6.
	Piecemeal approach to conservation.	The consolidation of the vegetated setbacks into 20m retained plus 10m reinstatement buffers to the roads in Precinct 1 provide a consolidation of the site vegetation that forms a foraging and habitat resource for all species that can be expected to utilise the site, with the exception of the Regent Honeyeater. This species could still utilise the retained vegetation for foraging purposes but is considered less likely to

		utilize the area for breeding due to edge effects. The forest within Precinct 1 is however already severely compromised by edge effects due t existing approved clearing and construction.  The network of retained vegetation forms linkages to surrounding lands and integrates with the sites drainage patterns to create a co-ordinated approach to the management of the site.
9 Gary Moore District Manager - Mine Subsidence Board	<ul> <li>MSB approval is required prior to any construction commencing;</li> <li>A full geotech investigation may be required to determine the suitability of the site in relation to existing mining and its impacts.</li> </ul>	The WIPS application is supported by a detailed geotechnical report on the impacts of mining in the vicinity.  The submission of detailed geotechnical investigations prior to any construction commencing is an acceptable requirement.
10 Callaghan Cotter - A/Program Manager, Hunter - Hunter Central Rivers CMA	<ul> <li>Fails to comply with the Native Vegetation Regulation 2005 regarding vegetation offsets;</li> <li>Proposal does not improve or maintain environmental outcomes – loss of important forage trees and hollows;</li> <li>The inclusion of the National Park and land to the east of the PMB is wrong and cannot be used as an offset for HEZ;</li> <li>Loss of EECs is unacceptable;</li> </ul>	Refer to the response to this issue under the response to submission 6.  Refer to the response to this issue under the response to submission 6.  Refer to the response to this issue under DECC submission 11 issue 8  As detailed in the attached RPS HSO report, 72% of the rarest HLRF is to be protected in the proposal. The balance between the competing considerations has been addressed in RPSO HSO's response report and the assessments provided with the EA
	There is no evidence that the conditions of the assumed concurrence relation to deferred area 1 have been met;	Refer to the response to this issue under DECC submission 11 issue 10
	Setbacks and reinstated vegetation in precinct 1 is not considered an adequate corridor because of it being cut by driveways and the noise and	The ecological assessments provided in support of the application have not raised concerns over the impact of the operations on site on fauna. A precautionary approach has been taken with the proposal supported by Noise, Vibration,

	disturbance caused by 24 hour business operations;	Electrical Interference and Lighting management Strategies designed to minimize noise impact to sensitive receivers, including the national park, and for lighting to be designed to minimise light spill and glare.
	<ul> <li>No assessment of cumulative impacts from loss of vegetation from the site or region;</li> </ul>	Refer to the response to this issue under the response to submission 6.
	Fails to address the guiding principles of the Catchment Action Plan by minimising habitat destruction and improving habitat condition;	The retention of habitat and vegetation reflects to and augments the framework established in the rezoning of the land. The protection of 131.78 ha within the HEZ Pty Ltd owned lands is proposed to be further augmented by the series of 20m plus 10m reinstatement zones. The lands retained and protected are actively managed for conservation purposes to maximise the habitat values of these lands.
	SW corner of precinct 1 apparent conflict being identified for conservation and infrastructure;	Proposed Lot 480 is zoned 7(b) Conservation and the plan updated accordingly.
	The alignment of Station Street does not utilise an existing cleared track nearby;	The Station Street alignment proposes the most direct extension to Weston. A circuitous route for this road does not provide an efficient outcome for the project or any demonstrable environmental benefit. The assessment provided with the EA at Appendix D has fully detailed the impact of the proposed road on the flora and fauna in this vicinity.
	The EA is deficient and may confuse readers.	The accompanying RPS HSO Response to submission report provides a table of vegetation impacts at sections 2.2.2 and 2.6.2.
11 Gary Davey Director North East - DECC	Attachment 1 to the DECC submission provides the detail of the issues raised. The headings of issues outlined are:	These issues have been separately addressed.
	Nature of proposal and intensification of clearing and existing framework	
	Lack of Strategic Approach	
	Failure to consider existing planning framework	
	5. (sic) Adequacy of Threatened Species Assessment	

	<ol> <li>Regent Honeyeater / Swift Parrot Assessment</li> <li>Proposed Mitigation or Compensatory Measures</li> <li>Werakata National Park</li> <li>Pelaw Main By-pass</li> <li>Deferred Area No.1</li> </ol>	
12 Dr Raymond Nias - Director of Conservation - WWF	Habitat loss and degradation and impact on the Swift Parrot and Regent Honeyeaters and numerous other threatened species under the TSC Act;	Refer to the response to this issue under DECC submission 11 issues 5 and 6.
	<ul> <li>Removal of feeding resources for these birds, increased competition and collision hazards;</li> </ul>	Refer to response to submission 6.
	<ul> <li>Pelaw Main by-pass fragmenting a large intact woodland;</li> </ul>	Refer to response to submission 3.
	<ul> <li>Lower Hunter Spotted Gum/Ironbark Forest – the HEZ proposal contradicts the habitat management Priority Action for this EEC.</li> </ul>	As detailed in the RPS HSO response report, protection of the HLRF has been deliberately targeted as it the rarest community in the Cessnock LGA. the LHSGIF is comparatively well represented and protected in National parks and State Conservation Areas
13 Mark Mignanelli - Manager Major	DWE submission requested further identification of impacted watercourses on the precinct 1 plans and any watercourses	The Station Street extension does not impact upon any watercourses.
Projects, Mine Assessments and Planning - DWE	impacted by the Station Street extension.	The water courses within Precinct 1 have been identified on the updated plan (figure 3) submitted with this response.
. Kaliming Divi		The layout proposes the removal of waterways within lots 140, 150, 340 370 and 390.
		Waterways are proposed to be realigned in lots 130 and 430
		An existing waterway is proposed to be retained in the setbacks to the north of proposed lots 350, 360 and 390.
		There is also scope to review the provision of the front setbacks to proposed lots 200 and 230 in a manner that could further increase the corridor to accommodate the watercourse traversing the rear of these lots and lots 210 and 220.

14 Jacqui Tupper - HEZ Executive Planner - Cessnock City Council	Removal of the pre-emptive subdivision clause in CLEP and the potential loss of opportunities for large business to establish because of fragmented land patterns;	As detailed in the EA the ability to provide a subdivision pattern is considered to be a critical outcome to provide a co-ordinated solution to the environmental and practical management of the estate. The subdivision layout ensures that issues such as water management, bushfire management and vegetation retention are addressed in a whole of precinct manner. This ensures that opportunities for best practice design can be implemented and allows for the co-ordinated provision of utility infrastructure. The proposed lot pattern has been developed to maximise the ease of amalgamation of lots to respond to demand for larger lots what fit within the Precinct layout developed.
	<ul> <li>Major industrial and major employment is not defined in the CLEP and has caused problems for Council and developers. Attracting major development is unlikely under the current precinct 1 proposal because of the small lot sizes;</li> <li>The average lot size of 2.7 ha may not be sufficient to cater for major industries when considering the building footprint and setbacks required;</li> </ul>	The market analysis undertaken has identified that the majority of expected demand is in the 2-5ha lot size. The proposed lot pattern has been developed to maximise the ease of amalgamation of lots to respond to demand for larger lots what fit within the Precinct layout proposed.  The lot sizes proposed are minimums, and can be readily amalgamated to respond to any demand for larger lot sizes. The needs of potential occupants will drive the final lot size created.
	Extinguishment of watercourses at the site and the adverse environmental impact, particularly on the Green Thighed Frog habitat;	The Precinct design has sought to incorporate the watercourses east of the existing HEZ Spine Road. This includes the realignment of watercourses within the setbacks proposed were relevant. This includes the proposal to recreate additional green-thighed frog habitat as adjuncts to the water management facilities required to be provided. The recreated habitat is to replicate the identified habitat characteristics of an ephemeral water body, approximately 15m long and 5-10m wide. The maximum water depth when inundated would be less than 1.0m, include submerged vegetation rather than emergent vegetation and have 10-40% shading of the ephemeral water body.  The accompanying report by RPS HSO at section provides further detail on the impacts upon existing Green Thighed Frog

- Concerns about the road design, layout and maintenance. Council proposed an alternate subdivision plan which restricts direct access off the Spine Road wherever possible; and
- Raises problems with the proposed WSUD strategy and maintenance issues and responsibilities that should be the responsibility of HEZA in perpetuity;

 WQMS focuses on 2ha lots while the Noise and Air Strategy focuses on 8ha lots; habitat.

The proposal is consistent with previous commitments that Council will manage "hard" infrastructure in the public road reserve such as pipes, road pavement, paved cycleways, and that HEZ, via a HEZ Association would manage all soft infrastructure in the road reserve such as landscaping.

Water treatment elements are designed to treat road runoff in a designated reserve to reduce the number and size of treatment elements. The bioretention systems are distributed (spaced) yet the net area is the same as if the systems were lumped together in a large system. EDAW has advised that in their experience, large bioretention systems can fail catastrophically requiring major corrective maintenance which is time consuming and costly. Failure of a single bioretention cell is a minor maintenance issue and is preferable. The strategy is considered a more sophisticated method of environmental protection given the proximity of loaded trucks and the potential for spills.

Established swales and bioretention will be 'no-mow' areas and low maintenance. Vegetated swale maintenance using endemic species is \$1.50/m²/yr once established (after 5 years).

Swales will effectively trap gross pollutants and will require periodic maintenance. The swales have been selected as key to the strategy as they ensure slow delivery of water to creeks and opportunities for infiltration. They offer better protection of waterways than piped networks as suggested by Council. Recent research shows direct connection of impervious areas to waterways has a devastating impact on stream health. It would be counterproductive to implement high level intervention on the lot scale and accept the impacts of piped drainage networks.

Bioretention systems and swales are not significantly affected by bulk rubbish as gross pollutants have minimal impact on the infiltration capacity or conveyance. Beyond generic litter, parties responsible for continued littering are typically identifiable by the type of litter collecting in swales, and can be targeted accordingly.

Council's submission raises inconsistencies between the EA documentation in relation to lot sizes. The submission refers to 8 ha lots in the Air quality strategy. The reference in the air quality strategy relates to a theoretical division of the HEZ lands

 The deed containing agreement for the traffic upgrading works should be executed before any approval is granted by the Department;

 Further investigations are necessary and a Section 94 plan is required to include the upgrading of local roads, external cycleway linkages, street furniture such as bus shelters and local fire fighting services for the estate;

 Any new crossing of the railway includes provision of adequate pedestrian facilities;

Need for a more substantive social and economic impact assessment.

into 8ha units for modelling purposes. This strategy is then the basis for locating land uses according to noise and potential air quality impacts in a manner that will best achieve the management targets. It is not an assessment of air quality impacts based upon a subdivision containing 8ha lot sizes.

As detailed in the RTA response the finalisation of a Traffic Deed is being pursued.

The Precinct design and linkage to Station Street Weston includes several kilometres of cycle paths that link into the current road network. The bushfire assessment for Precinct 1 and the assessment of the RFS has not identified any need to upgrade fire fighting facilities and is therefore not proposed. The provision of bus shelters could be examined as development progresses.

The application includes controlled pedestrian crossing of the rail line in conjunction with the level crossing. In relation to any demolition of the bridge the heritage report indicates the structure is of limited significance. Regardless, the complete demolition of the footbridge is not required by the current scope of proposed works.

The land was zoned to support industrial and employment generating uses in response to the identified demand in the Lower Hunter for economic employment opportunities. The development of Precinct 1 as proposed does not diminish or alter this desired outcome. The development of the estate has been demonstrated to provide significant economic benefits to the area both in terms of shorter term construction employment and on-going employment with the business that will establish within the Precinct. These employment opportunities along with the reciprocal employment opportunities created within support services will provide positive social outcomes. This position is reinforced by the identification of the HEZ in the Lower Hunter Regional Strategy as a potentially significant contributor to the ongoing employment targets for the region.

	<ul> <li>Inconsistent with the Lower Hunter Strategy and Council's adopted City Wide Settlement Strategy;</li> </ul>	Development as proposed is to facilitate the development of land within Precinct 1 for industrial employment purposes. This is consistent with the 4(h) zoning applying to the land and the sites identification in the Lower Hunter Regional Strategy as employment land.
	Fails to acknowledge what happens to the adopted environmental strategies for the site. The assumed concurrence relies on these strategies and includes the retention of numerous deferred conservation areas – the status of the assumed concurrence and the Commonwealth EPBC approval needs to be reviewed;	The majority of the strategies referred to are drafts, including the Environmental Management Strategy. The suite of controls proposed in conjunction with the Draft Statement of Commitments has sought to provide an overall environmental management framework for the development of the Precinct addressing water cycle management, air quality, noise impacts, vibration, electrical interference, lighting management, bushfire, vegetation retention and management and heritage. The Assumed Concurrence was prepared to address Part 4 and 5 applications, but as clearly detailed within the submitted environmental assessment the objectives of the concurrence have been utilised in the formulation of the Precinct design. The deferred areas were created by the DECC, not the Commonwealth EPBC approval. The reconfiguration of the Deferred Area 1 is a circumstance contemplated in the preparation of the EPBC approval and the CMP's approved for the land.
	<ul> <li>Recommends that an SSS application is required now;</li> </ul>	Refer to the response to this issue under DECC submission 11 issue 2.
	The statement of commitments is far too general;	The Statement of Commitments provides an overview for the development of Precinct 1 providing guidance on a diverse range of issues. Should the Department wish to discuss refinements to the Draft statement of Commitments the proponent remains willing to discuss this potential.
	B double access	All roads within Precinct 1 have been designed to accommodated B-double access.
Cameron Ricketts	Submission identified that a coal resource existed	No issues raised that have not been addressed.

- Chief Geoscientist, Land Use Minerals & Land Use Assessment - NSW - Department of Primary Industries	<ul> <li>on site;</li> <li>The submission identified that no key fish habitats are affected by the proposal;</li> <li>The submission sought the implementation WSUD principles in the development</li> </ul>	The proposal is supported by a comprehensive WCMS to manage storm water and to implement Water Sensitive Urban Design (WSUD) principles.
16 Fiona Beynon - Director SE Qld and NSW Section Environmental Assessment Branch - Department of the	<ul> <li>The EA proposes major changes to deferred area 1 and generally relies on fieldwork undertaken 4 to 5 years ago associated with the ECMP and fails to consider recent vegetation mapping;</li> </ul>	As detailed in the accompanying RPS HSO report at section 2.7, the ECMP data is a base set of data that has been constantly augmented by at least weekly, if not more regular visitation to the site by RPS HSO ecologists. The data set and level of survey effort is considered to have been extensive.
Environment, Water, Heritage and the Arts	Lack of information in the EA concerning the Regent Honeyeater;	Refer to the response to this issue in the response to submission 3 and the response to item 6 in the submission from DECC.
	The PMB is a controlled action under the EPBC;	The by-pass is a controlled action and was referred under the EPBC accordingly.
	<ul> <li>Concerned with the impact on the Earp Gum's from clearing and no mitigation / compensatory measures are proposed.</li> </ul>	The impact on the clearing of Kurri Sand Swamp (KSS) is discussed at section 2.5 of the accompanying RPS HSO Response to submissions report.
17 David Lilley Secretary - Friends of	EA should remove all references to the National Park forming part of HEZ;	Refer to the response to this issue under DECC submission 11 issue 8
Tumblebee Inc	Compensatory habitat needs to be properly addressed for the whole HEZ land;	The retention of habitat and vegetation reflects to and augments the framework established in the rezoning of the land. The protection of 131.78 ha within the HEZ Pty Ltd owned lands is proposed to be further augmented by the series of 20m plus 10m reinstatement zones. The lands retained and protected are actively managed for conservation purposes to maximise the habitat values of these lands.
	Need to consider appropriate offsets and the biobanking provisions in the TSC Act;	The vegetation retention provided in the Precinct 1 layout retains and builds upon the structure of retention established in the zoning framework for the HEZ lands. This has provided for the retention and protection of approximately 25% of the lands owned by HEZ Pty Ltd. These lands are not only protected from

development but are actively managed and rehabilitated to maximise their value as conservation, foraging and habitat lands. The development of precinct 1 and the zoning framework for the Industrial zoned lands owned by HEZ Pty Ltd will result in the retention and protection of 131.78 ha of vegetation across the land parcel. This quantum of protected vegetation does not include the areas of vegetation that is proposed to be retained within the 20m retention and 10m reinstatement setbacks proposed. This is a significant level of retention and protection of vegetation that is augmented by the consolidation of the significant bushland setbacks to the roads within the precinct. Greater emphasis on conservation measures on the The submission seeks to require the purchase of all of the 4(h) zoned land owned by Mindaribba LALC and the Crown and adjoining Mindaribba and Crown Lands - HEZ P/L should be made purchase and dedicate the dedicate the land as Conservation lands. This is an surrounding lands as vegetation offsets; unreasonable proposition and fails to reflect the framework of conservation established in the rezoning to create the 4(h) lands. The zoning pattern has established conservation of 25% of the HEZ Pty Ltd owned lands which would be further augmented by the vegetated setbacks proposed within Precinct 1. These measures have satisfactorily provided for vegetation retention within precinct 1 and in the context of the total land holding of HEZ Pty Ltd. The LHRS identifies the site as employment lands that will Conflicts with the Lower Hunter Regional Strategy; contribute to the employment demands for the region. The EA at Section 6.1 provided an assessment of the proposal against the strategy. The ICA school was an application lodged under Part 4 of the Deferred areas 1 and 2 were relied on by HEZ to EPA Act. The flora and fauna assessment reported the status offset / justify the clearing on ICA site in the DA: of the lands under the Assumed Concurrence, as is required, it was not a justification for the clearing The Precinct design has been developed in conjunction with Roads positioned in riparian zones is bad practice ecologists, and environmental engineers to incorporate the best and the lack of effectiveness of the 20m + 10m practice principles of Water Sensitive Urban Design. The vegetation buffer zones proposed, particularly for proposed buffer zones are three times that required under the Green Thighed-Frog habitat; current DCP and provide foraging and habitat potential for the

majority of species found on the site. The exception being Regent Honeyeaters that are considered unlikely to utilize the buffers for breeding purposes due to edge impacts allowing invasion by aggressive species such as Noisy Miners. As detailed in the Biosis Research assessment the majority of Precinct 1 is already adversely impacted by edge effects due to existing approved clearing. The design of the Precinct has sought to maximise the Negative impact that roads have on flora and fauna: vegetated linkages through the Refer to the response to this issue to DECC submission 11 Precinct 1 concept plan permits more clearing than issues 1 and 3. the current CLEP provisions; ECMP shows that precinct 1 contains the most The Precinct 1 design within the 4(h) zoned land retains 110 of 610 (18.03%) hollow bearing trees and 177 of 1017 (17.4%) dense populations of mature/hollow trees of all areas in the 4(h) zone;

> Application should be refused because of the likely significant impact on Green-Thighed Frog habitat;

610 (18.03%) hollow bearing trees and 177 of 1017 (17.4%) mature trees. This is addition to the approximately 500 mature Corymbia maculate and e.tereticornis protected within the 7(b) zoned lands

As detailed within the RPS HSO report within deferred area 1

As detailed within the RPS HSO report within deferred area 1 668m of low and medium quality frog habitat will be retained within the reconfigured deferred area 1. In addition the proposal seeks to recreate additional green-thighed frog habitat as adjuncts to the water management facilities required to be provided on development lots. The recreated habitat is to replicate the identified habitat characteristics of an ephemeral water body, approximately 15m long and 5-10m wide. The maximum water depth when inundated would be less than 1.0m, include submerged vegetation rather than emergent vegetation and have 10-40% shading of the ephemeral water body.

The accompanying report by RPS HSO at section provides further detail on the impacts upon existing Green Thighed Frog habitat.

 Importance of the Regent Honeyeater and the recent breeding event. Refers to DECC correspondence to DoP - the assumed concurrence Refer to the response to this issue to DECC submission 11 issue 6.

does not protect these ecological values;	
<ul> <li>The WIPS flora and fauna report is out of date with regard to the recent Honeyeater breeding event that occurred at HEZ;</li> </ul>	Refer to the response to this issue to DECC submission 11 issue 6.
<ul> <li>Proper professional appraisal of the Regent Honeyeater is necessary and should be exhibited for public comment;</li> </ul>	Refer to the response to this issue to DECC submission 11 issue 6.
<ul> <li>The EA has not met the Key Thresholds Assessment with regard to the Regent Honeyeater. The foraging area at precinct 1 may save the Regent Honeyeater from extinction;</li> </ul>	Refer to the response to this issue to DECC submission 11 issue 6.
<ul> <li>The ecological impacts of the PMB are quite high, destruction of 18ha of endangered woodland and a newly discovered and unnamed orchid species, and fragmentation of the largest remaining patch of KSSW;</li> </ul>	Refer to the response to this issue to DECC submission 11 issue 9.
<ul> <li>Alternate locations for the PMB should be investigated, particularly the (Option 4) route that skirts the woodland to the south;</li> </ul>	Refer to the response to this issue to DECC submission 11 issue 9.
<ul> <li>HEZ should provide adequate vegetation offsets for the PMB.</li> </ul>	Refer to the response to this issue to DECC submission 11 issue 9.

## **Department of Planning clarifications**

The Department has sought clarifications to the information provided with the EA. This information is provided with this response.

#### Updated Subdivision layout.

Attached at Figure 4 of this submission is a revised subdivision layout designating Lot 480 as a conservation lot.

## 2. Updated Lot tables

The requested update to the lot tables in the EA are provided in tables 3 to 6.

## 3. Clarification of HLRF within Deferred Area 1

Figure 2 within the EA shows in a light blue hatching the HLFR (Bell 2004) proposed to be retained that is within the original deferred area and the additional HFRF proposed to be protected that is outside deferred area 1. The black shading shows HLRF (Bell2994) proposed to be removed within and outside deferred area 1. The black with green hatching shows Lower Hunter Spotted Gum Ironbark Forest (LHSGIF) (Bell2004) proposed to be removed from within deferred area 1. The area defines as (LHSGIF) by Bell in 2004 is no longer classified as an EEC by the Bell (2008) mapping. This area is now classified as Coastal Foothills Spotted Gum-Ironbark Forest, which is not an EEC.

#### 4. Lot references on page 20

The correct lot reference should be lot 327 in DP 822130, not lot 237 as originally stated.

Lathia	A (2)
Lot No.	Area (m²)
Lot - 100	19989
Lot - 130	29965
Lot - 140	42316
Lot - 150	20113
Lot - 160	20110
Lot - 180	24078
Lot - 190	33409
Lot - 200	27055
Lot - 230	21286
Lot - 240	55086
Lot - 250	27880
Lot - 260	21200
Lot - 270	20873
Lot - 280	21745
Lot - 30	34076
Lot - 300	28520
Lot - 310	23733
Lot - 320	21777
Lot - 330	22704
Lot - 340	18641
Lot - 350	22874
Lot - 360	19690
Lot - 370	19690
Lot - 380	20017
Lot - 390	19300
Lot - 40	36236
Lot - 410	33696
Lot - 420	23442
Lot - 430	24841
Lot - 440	17412
Lot - 50	34968
Lot - 60	26534
Lot - 70	25209
Lot - 80	22258
Lot - 90	22143
Lot-290	78066
Lot - 110	10127
Lot - 210	6954
Total	998013
	<u> </u>

Table 3 Updated development lots

Infrastructure Lots	Area (m²)
Lot - 170	12923
Lot - 400	14313
Lot - 220	13256
Total	40492

Table 4 Infrastructure Lots in Precinct 1

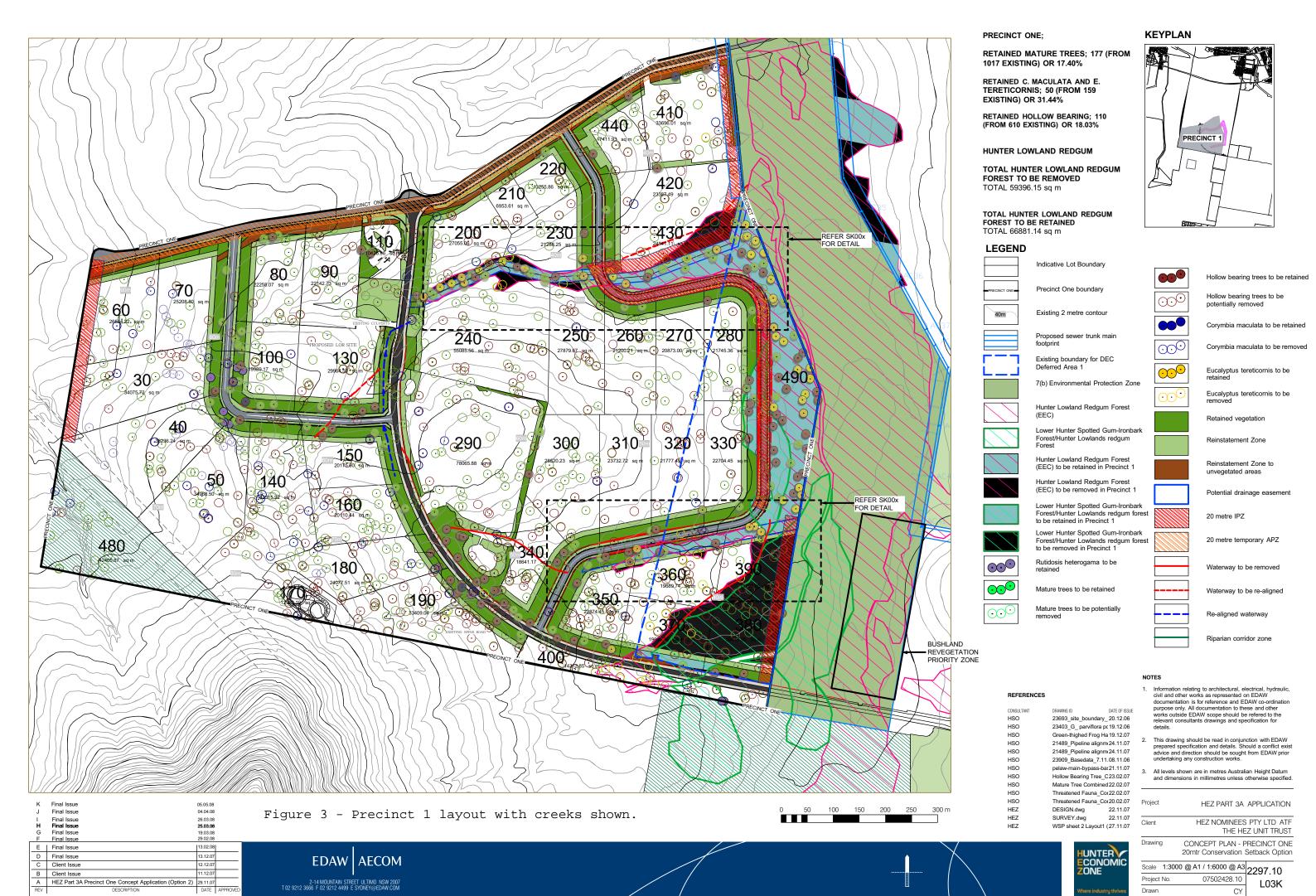
Roads	Area (m²)	
	16634.04	4
	118356.69	9
	20523.729	9
Lot 120		
(detention)	712	5
Total	162639.459	

Table 5 area of road within precinct 1

Conservation Lots	Area (m²)
Lot - 490	47672
Lot - 480	42406
Total	90078

Table 6 Conservation lots within precinct 1

The total area within Precinct 1 based upon tables 3 to 6 inclusive is  $1291222.459 \text{m}^2$ .



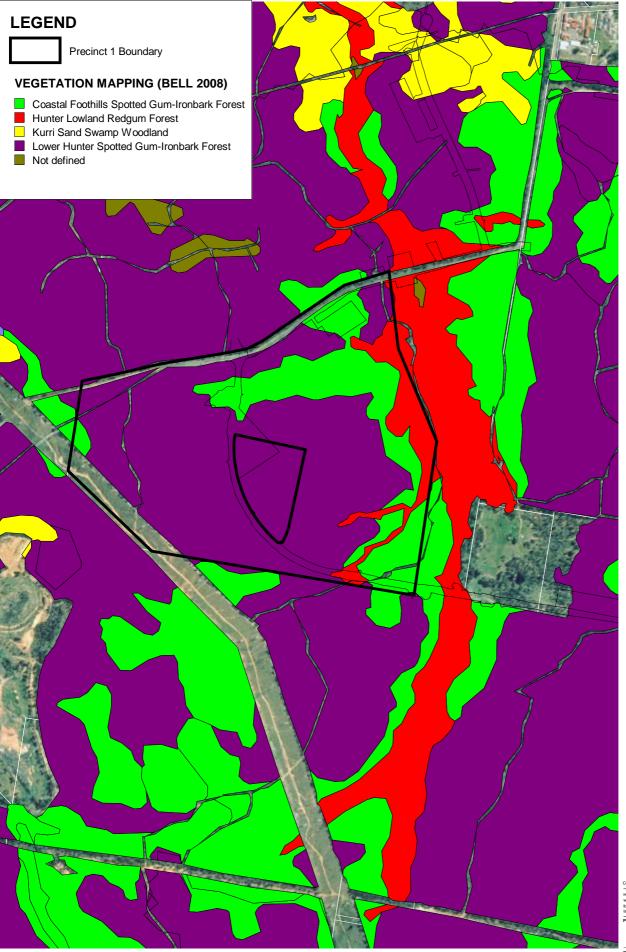


Figure 2 Bell(2008) Mapping

PLAN PRODUCED BY:
HARPER SOMERS O'SULLIVAN
241 DENISON STREET
BROADMEADOW NSW 2292
HARPER PO BOX 428 T. 02 4961 5900
HAMILTON NSW 2303 F: 02 4961 5794
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PART 3A

THE HEZ UNIT TRUST

BELL 2008
VEGETATION MAPPING

VEGET/(1101V10)/(1111VI		
CONTOU	R INTERVAL: N/A	DATUM: MGA Zone 56 (GDA
SCALE:	1: 15000 at A4 Size	JOB NUMBER:
DATE:	3/11/2008	23909
DRAWN:	A. McConville	

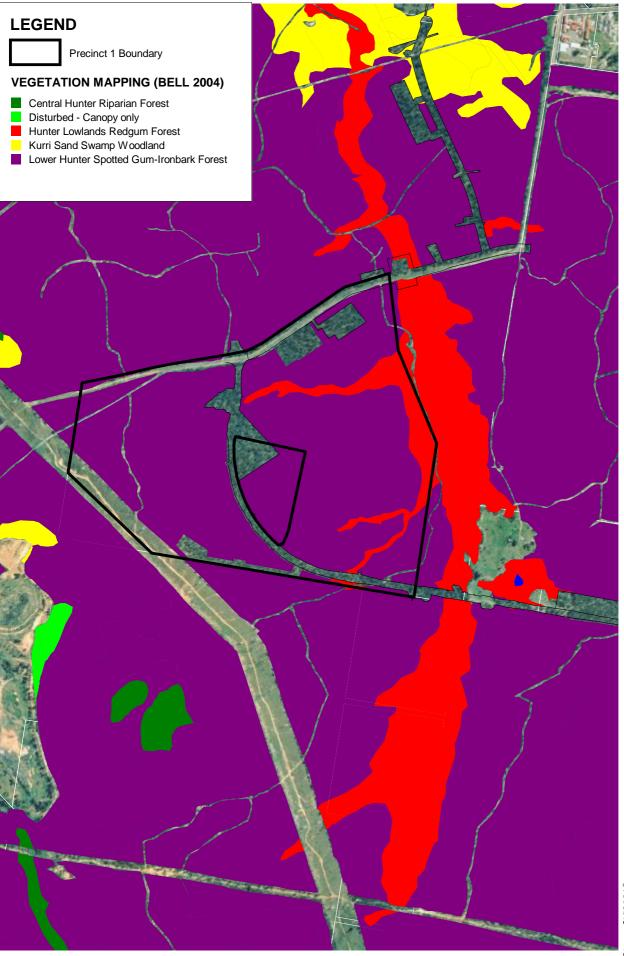


Figure 1 Bell (2004) Mapping

PLAN PRODUCED BY:
HARPER SOMERS O'SULLIVAN
241 DENISON STREET
BROADMEADOW NSW 2292
HARPER PO BOX 428 T: 02 4961 6500
SAMERS HAMILTON NSW 2303 F: 02 4961 6704
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W: www.hso.com.au



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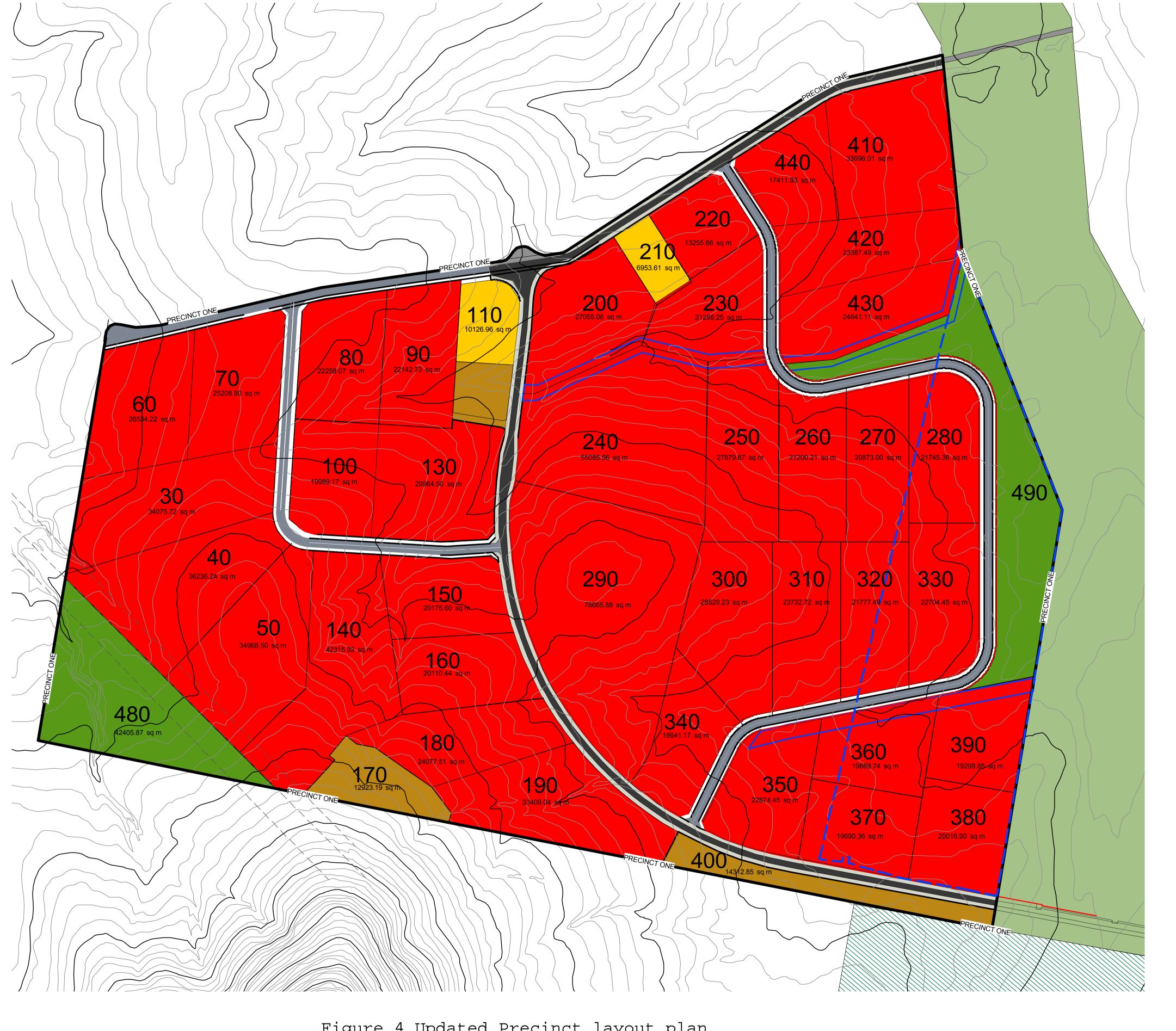
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PART 3A

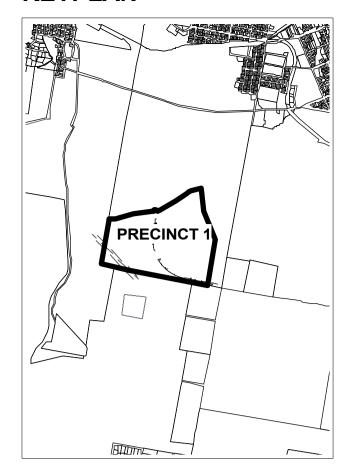
CLIENT: HEZ NOMINEES PTY LTD ATF THE HEZ UNIT TRUST

BELL 2004
VEGETATION MAPPING

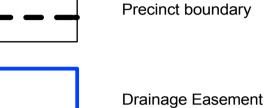
VEGETATION WAFFING				
ONTOUR	R INTERVAL: N/A	DATUM: MGA Zone 56 (GDA		
CALE:	1: 15000 at A4 Size	JOB NUMBER:		
ATE:	3/11/2008	23909		
RAWN:	A. McConville			



# **KEYPLAN**



# **LEGEND**



Noncommitted lots



Infrastructure

Roads

Additional conservation zones

7(b) Environmental Protection Zone

Remaining vacant lots	Nominal Area
Lot - 100	19989.16
Lot - 130	29964.504
Lot - 140	42315.919
Lot - 150	20113.03
Lot - 160	20110.442
Lot - 180	24077.51
Lot - 190	33409.0
Lot - 200	
Lot - 220	27055.06 13255.86
Lot - 230	21286.24
Lot - 240	55085.5
Lot - 250	27879.67
Lot - 260	21200.21
Lot - 270	20873.00
Lot - 280	21745.35
Lot - 30	34075.71
Lot - 300	28520.23
Lot - 310	23732.71
Lot - 320	21777.49
Lot - 330	22704.44
Lot - 340	18641.16
Lot - 350	22874.44
Lot - 360	19689.73
Lot - 370	19690.36
Lot - 380	20016.90
Lot - 390	19299.85
Lot - 40	36236.24
Lot - 410	33696.00
Lot - 420	23441.95
Lot - 430	24841.11
Lot - 440	17411.93
Lot - 50	34968.49
Lot - 60	26534.21
Lot - 70	25208.80
Lot - 80	22258.06
Lot - 90	22142.72
Lot-290	78065.8
Committed Lots	
Lot - 110	10126.95
Lot - 210	6953.60
Infrastructure	10000 10
Lot - 170	12923.19
Lot - 400	14312.85
Lot - 120	7124.85
Roads	
Road 1E	16634.0
Road 1D	20523.72
Road 1C	230446.5
Additional conservation zone	
Lot - 490	47672.4

emaining vacant lots Nominal Area

# **REFERENCES**

CONSULTANT DRAWING ID HSO HSO HSO HSO HSO HSO HSO HSO HEZ DESIGN.dwg HEZ 22.11.07 SURVEY.dwg WSP sheet 2 Layout1 (\* 27.11.07

23693\_site\_boundary\_1 20.12.06 23403\_G\_ parviflora po: 19.12.06 Green-thighed Frog Hat 19.12.07 21489\_Pipeline alignme 24.11.07 21489\_Pipeline alignme 24.11.07 23909\_Basedata\_7.11.( 08.11.06 pelaw-main-bypass-bas 21.11.07 Hollow Bearing Tree\_Cc 23.02.07 Mature Tree Combined\_ 22.02.07 Threatened Fauna\_Con 22.02.07 Threatened Fauna\_Con 20.02.07 Project 22.11.07

HUNTER ECONOMIC ZONE

# **NOTES**

Lot - 480

Lot - 450&460

Precinct 1 exclusions

- 1. Information relating to architectural, electrical, hydraulic, civil and other works as represented on EDAW documentation is for reference and EDAW co-ordination purpose only. All documentation to these and other works outside EDAW scope should be refered to the relevant consultants drawings and specification for
- 2. This drawing should be read in conjunction with EDAW prepared specification and details. Should a conflict exist advice and direction should be sought from EDAW prior undertaking any construction works.
- All levels shown are in metres Australian Height Datum and dimensions in millimetres unless otherwise specified.

HEZ PART 3A APPLICATION HEZ NOMINEES PTY LTD ATF

THE HEZ UNIT TRUST Precinct One Development areas Drawing

1:3000@A3 Scale 07502428.10 Project No. Drawn CY

2297.10 L02G

42405.866

266082.489



G	Client Issue	03/09/08
F	Client Issue	04/04/08
Е	Client Issue	26/03/08
D	Client Issue	18/01/08
С	Client Issue	12/12/07
В	Client Issue	12/12/07
Α	Client/Consultant Workshop	31/01/07

DESCRIPTION

DATE APPROVED

EDAW | AECOM 2-14 MOUNTAIN STREET ULTIMO NSW 2007 T 02 9212 3666 F 02 9212 4499 E SYDNEY@EDAW.COM





# Response to Part 3A Submissions Report

**Precinct 1 and Components Hunter Economic Zone** 

Prepared for: HEZ Nominees Pty Ltd

Reference 23909 – October 2008

PART 3A SUBMISSIONS RESPONSE REPORT -	- PRECINCT 1, HUNTER ECONOMIC ZONE



# PREPARED BY:

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Web: www.rpshso.com.au

PROJECT: PART 3A SUBMISSIONS RESPONSE REPORT – PRECINCT 1, HUNTER ECONOMIC ZONE		
CLIENT:	HEZ Nominees Pty Ltd	
OUR REFERENCE:	23909	
DATE:	OCTOBER 2008	
APPROVED BY:	TOBY LAMBERT	
SIGNATURE:	J. Janbet.	
CHECKED BY:	CRAIG ANDERSON	
SIGNATURE:	C.T. ander	

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## 1 INTRODUCTION

RPS Harper Somers O'Sullivan Pty Ltd (RPS HSO) has been commissioned by HEZ Nominees Pty Ltd to prepare a Submission Response Report following the public notification and review process of Precinct 1 (and associated components) of the Hunter Economic Zone (HEZ).

This Submission Response Report addresses the key issues raised during the community consultation process and provides further clarification of these issues in relation to Part 3A of the *Environmental Planning and Assessment Act 1979* (EPA Act) and the *Threatened Species Conservation Act 1995* (TSC Act).

## 2 RESPONSE TO KEY ISSUES

A number of key issues associated with the Ecological Assessment Report (EAR) and general Environmental Assessment (EA) for Precinct 1 content were raised by the community and from government agencies during the public exhibition of the proposal. A discussion including further clarification and explanation of these key issues is presented below.

## 2.1 EPBC Act Approval Scope

## 2.1.1 Background

In terms of the Commonwealth approval of the project by DEWHA, the design of Precinct 1 needed to consider the annexed conditions to the May 2007 approval, and the accompanying conservation management plans. These two plans were the Development Lands Conservation Management Plan (DLCMP) and the Conservation Lands Conservation Management Plan (CLCMP).

## 2.1.2 Submissions

There are a number of references to not complying with the EPBC approval. Such submissions are not accurate. The Precinct 1 masterplan was designed in accordance with the approvals from DEHWA, including incorporation of mature and winter flowering tree percentages and infrastructure design consideration.

The DEWHA approval did not assess the likely impact of the proposal upon nesting / breeding Regent Honeyeaters though, as at the time it was assumed that the primary use of the site was as winter-foraging habitat. However, the CMP's also require retention of the same percentage of both winter flowering and summer flowering trees, meaning that summer flowering mature trees will still be retained.

In relation to parts of Deferred Area 1 being undeferred, the DEWHA annexed conditions require that Deferred Areas only be undeferred or varied with the agreement of DEWHA.

## 2.1.3 Conclusions

The removal of parts of Deferred Area 1 has been justified in the Ecological Assessment Report and this submissions response, which considers additional conservation measures outside of the Deferred Area to compensate for these impacts. There is no reason as to why the Precinct 1 plan should not be approved

from a Commonwealth perspective as it complies with the requirements of the conditions and CMP's.

## 2.2 Status of all HEZ Pty Ltd Lands

## 2.2.1 Background

At a broad scale, the zoning process for HEZ led to significant conservation outcomes for the LEP area, Cessnock Local Government Area and the region. This process involved studies and negotiations being undertaken over a number of years to identify ecological constraints and respond to these constraints via the dedication of significant conservation lands within the HEZ LEP area. These conservation lands were dedicated by the major stakeholders with the LEP area, including HEZ Pty Ltd, the State Government and Mindaribba Local Aboriginal Land Council.

It was a specific requirement of the NSW National Parks and Wildlife Service that assessments undertaken for the HEZ rezoning included the existing State Forest areas. The reason for this was to ensure that an adequate landform / vegetation association representation was conserved in the wider area as part of the HEZ LEP formulation, regardless of land tenure or zoning at that point. Although the impetus for the rezoning of the State Forest may not have been directly attributed to the HEZ rezoning process, the inclusion of that land within the LEP and assessments undertaken by HEZ provided the vehicle for formal conservation of that area. That data has been utilised by both DECC and for Bell (2008) updated vegetation mapping, which is considered to have resulted in significant public benefit.

The rezoning of the area provided conservation zoning protection to over 63% (approx) of the HEZ LEP area (as defined and specified by the NSW NPWS and Department of Planning), incorporating a representation of all landform units and vegetation associations within an area of 2,076ha. This was a primary focus of Department of Environment and Conservation throughout the rezoning process. This was considered to result in adequate conservation of habitat for all EEC's and threatened species, apart from a select few threatened species with substantial populations being located within 4(h) lands.

The conservation outcomes resulting from the original HEZ rezoning:

- Conserve in perpetuity key strategic parcels of land that complete regional biodiversity conservation corridors and buffer areas;
- Provide large intact areas of conserved habitat that will function as regional biodiversity gene pools;
- Protect an important array of vegetation communities, flora and fauna species, and natural landscape assets, including threatened species and EEC's; and
- Achieve additional conservation benefits within the development zones via appropriate design and management practices.

#### 2.2.2 Submissions

The inclusion of Werakata National Park additions resulting from the LEP process has been previously raised over a number of years as an issue in relation to real offset outcomes resulting from the LEP and rezoning process.

In order to clarify outcomes in relation to the conservation and development impacts of HEZ zoning and Precinct 1, vegetation community and habitat impacts are provided below for the HEZ Nominees-owned lands only. These calculations exclude any other land owned by the Crown, National Parks, Mindaribba LALC, Cessnock City Council etc.

These calculations show the impacts using both HEZ vegetation mapping prepared by Bell (2004) (plain text), upon which the Ecological Assessment Report relied on, and the more recent Cessnock – Kurri vegetation mapping also prepared by Bell (2008) (*italic* text).

Vegetation	Area Conserved	Area Developed		
Community	7 6 66 66	Till Gal Dollard	Total Areas	
Hunter Lowland				
Redgum Forest	54.84ha <i>49.22ha</i>	12.45ha 19.1ha	67.29ha <i>68.32ha</i>	
Kurri Sand Swamp	7.39ha <i>8.98ha</i>	68.85ha <i>57.36ha</i>	76.24ha <i>66.34ha</i>	
Lower Hunter Spotted Gum				
Ironbark Forest	58.65ha 26.71ha	262.95ha 219.52ha	321.6ha 246.23ha	
Lower Hunter Grey Box Grassy Forest	0ha	1.58ha	1.58ha	
Coastal Foothills Spotted gum - Ironbark Forest		58.1ha		
(main variant)	28.61ha		86.71ha	
Sandstone Hills Transition Forest (C.	0ha	6.02ha		
eximia variant)			6.02ha	
Coastal Foothills Transition Forest	0ha	2.81ha		
(stringybark variant)			2.81ha	
Paperbark	0.5ha	0ha		
Depression Forest			0.5ha	
Cleared	10.9ha <i>17.76ha</i>	79.77ha <i>59.53ha</i>	90.67ha 77.29ha	
TOTAL	131.78ha <i>131.78ha</i>	424.02ha 424.02ha	555.8ha <i>555.8ha</i>	

In summary, this table shows the following according to the mapping for the approximately 555 ha HEZ Nominees-owned part of HEZ:

- From a total of 67ha of HLRF, approximately 55ha is located within conservation zonings. This amounts to retention of 82% of the most endangered community on the site. Using Bell (2008), there is still retention of approximately 72%. It should be noted that this does not include retention with Deferred Areas or future retention areas / setbacks, which would further add to the conservation percentage total.
- From a total of 76ha of KSSW, approximately 7ha is located within conservation zonings. This amounts to retention of 9% of this community on the site. Using Bell (2008), there is retention of approximately 14%. It should be noted that this does not include retention with Deferred Areas or future

- retention areas / setbacks, which would further add to the conservation percentage total.
- From a total of 321ha of LHSGIF, approximately 58ha is located within conservation zonings. This amounts to retention of 18% of this community on the site. Using Bell (2008), there is retention of approximately 10%. It should be noted that this does not include retention with Deferred Areas or future retention areas / setbacks, which would further add to the conservation percentage total.

The outcome for the most endangered EEC on the site is obviously a good outcome. While the outcomes for KSSW and LHSGIF are not as desirable as for HLRF, these should be considered in the overall outcomes for the HEZ LEP area.

For KSSW, approximately 167ha is conserved within the LEP area. In total, 449ha of this community is also conserved within the total area of Werakata National Park.

For LHSGIF approximately 332ha will be retained within the LEP area. In addition, the relatively new Werakata State Conservation Area conserves an additional 1134ha of this community.

## 2.2.3 Conclusions

In total, the conservation outcomes within HEZ Nominees owned land provide a major addition to conservation of one of the most threatened EEC's within the Cessnock – Kurri area, and the most endangered community within the HEZ LEP area. This should not be underestimated in terms of outcomes / offsets provided by HEZ Nominees. Additional conservation lands, such as additions to Werakata National Park and the gazettal of Werakata State Conservation Area, have also significantly improved regional outcomes for the KSSW and LHSGIF subject to a higher level of impact as a result of the development of HEZ Nominees lands.

#### 2.3 Swift Parrot

## 2.3.1 Background

Evidence suggests that the Lower Hunter area has always been utilised by the Swift Parrot and the species has been recorded within HEZ every 2-3 years depending on flowering events that provide suitable foraging resources for this species (Saunders, 2002). Suitable foraging habitat for the species was found to occur within both the Lower Hunter Spotted Gum Ironbark Forest and Hunter Lowland Redgum Forest vegetation communities within HEZ (HSO, 2004). Previous sightings in the broader locality have been of substantial numbers (100-200 individuals in 2000 and up to 120 individuals during 2005).

This species habitat was given high priority for protection during the Precinct 1 Concept Planning workshops. Outcomes of the final Precinct 1 design include the protection of a total of 49 out of 159 winter flowering mature *Corymbia maculata* (Spotted Gum) and *Eucalyptus tereticornis* (Forest Red Gum). This is approximately 30% retention of this species (and the Regent Honeyeaters) primary foraging habitat. This is in addition to the retention of approximately 500 mature *Corymbia maculata* and *Eucalyptus tereticornis* within 7(b) conservation zones. This retention of winter flowering mature trees is in addition to the retention of large areas of this species foraging habitat within conservation areas resulting from the HEZ LEP process.

### 2.3.2 Submissions

The information contained in the EA on the Swift Parrot concluded that the development of Precinct 1 specifically was not likely to significantly impact upon the Swift Parrot. Submissions made by interested parties focussed on the following topics:

- Spotted Gum and Red Gum-dominated forests of the Lower Hunter Region provide a vital resource for the species;
- Importance of HEZ in the state, supporting up to 10% of the population and is used repeatedly over a number of years;
- Consideration of indirect collision impacts on the species inadequate;
- Extent of habitat loss for this species within HEZ a significant impact as advised in Saunders (2002) and has been undervalued;
- Differing interpretation of mature Corymbia maculata and Eucalyptus tereticornis retention (10%):
- Loss of almost all of the primary feed trees (Corymbia maculata) within the area.

Whilst the conservation of this species habitat was given priority for protection during the Concept Planning Workshops, some direct impacts associated with foraging habitat removal will occur as a result of the proposal. Indirect impacts associated with flight collision hazards such as glass windows, wire mesh fencing and cars may also occur as a result of the proposal.

The purpose of the statement "overall retention target of 10% of existing known mature Spotted Gum and Forest Red Gums post-development within Development Lands" from the Commonwealth Development Lands Conservation Management Plan (DLCMP) was for retention of 10% of the total key mature winter-flowering species (Spotted Gum and Forest Red Gums combined). The proposed mature Spotted Gum and Forest Red Gum retention within Precinct 1 is considered to be in accordance with the DLCMP.

It is agreed that vegetation removal will disproportionally remove Spotted Gums which is a key foraging resource for Swift Parrot in the locality. This resulted from prioritising the HLRF during the master planning process, which also conserved many winter-flowering Forest Red Gums. However Spotted Gums are much better represented in LHSGIF and other Spotted Gum communities throughout the Lower Hunter.

#### 2.3.3 Conclusions

To minimise potential impacts on the Swift Parrot associated with collisions with manmade structures the following anti-collision measures are recommended to be included in the final Statement of Commitments in accordance with submissions. These should include consideration of submitted ameliorative measures by the Swift Parrot Recovery Team.

# 2.4 Regent Honeyeater

# 2.4.1 Background

Previously to the 2007 / 2008 Spring / Summer season, the Regent Honeyeater was thought to be an irregular visitor to HEZ during appropriate periods, such as the flowering of Spotted Gums (HSO 2004).

The Pelaw Main Bypass (PMBP) Species Impact Statement (SIS) (HSO 2006) stated that although this species was not recorded within the PMBP study area (including surveys conducted when the species may be present in the region), it was recorded in a number of locations throughout HEZ, with several records within close proximity to the study area (and including one record from 2005). HSO (2006) stated that the species occurrence appears to be associated with the winter-flowering of Eucalypts in the locality and the availability of flowering trees elsewhere (particularly west of the divide) and that previous sightings in the broader locality have been of substantial numbers (up to 75 individuals in 2000).

RPS HSO ecologists are regularly (generally at least weekly) on-site at HEZ. This high level of ecologist visitation at HEZ has only resulted in two records within the HEZ Estate since the ECMP was released in 2004. Neither of these records was located within Precinct 1. The first consisted of two birds on 30<sup>th</sup> August 2007 foraging at the northern end of Stage 2 Road, near the roads associated northern stockpile site. The second was a single bird located to the south-east of Precinct 1 within the 7(b) corridor on 22<sup>nd</sup> January 2008.

During this 2007 / 2008 Spring / Summer period, HEZ engaged Biosis Research to undertake targeted Regent Honeyeater surveys, following the notification of Regent Honeyeaters being recorded on-site. The following information is primarily obtained from the EA report for Precinct 1 (as provided to HEZ by RPS HSO).

Biosis Research has separately provided an additional and more detailed response in relation to submissions on the Regent Honeyeater for Precinct 1.

Detailed investigations were undertaken by Biosis Research in December 2007 to ascertain the locations and type of activity of individual birds in relation to future development (including that of Precinct 1). These investigations were undertaken in association and cooperation with DECC staff. Biosis Research advised RPS HSO that Precinct 1 was adequately surveyed with DECC, meaning use of Precinct 1 by this species at that time could be accurately recorded. It should be noted that this does not exclude the possibility of Regent Honeyeaters foraging (or indeed breeding) in the future within Precinct 1.

The results indicated that a total of 20 locations contained evidence of foraging / calling birds, successful nest-building and breeding, or non-successful / abandoned nests. These points were all located outside of Precinct 1 and component areas. The recording of breeding birds is significant as previously it was considered that the habitats contained within the HEZ Estate were primarily likely to be used by the Regent Honeyeater for foraging purposes in winter, following seasonal migration from breeding strongholds such as the Capertee Valley and Bundarra-Barraba region.

Precinct 1 and components comprise a relatively small proportion of the overall habitat present within the HEZ LEP area for the Regent Honeyeater. All records were

located outside of the Precinct 1 area. This is despite habitat type and quality in general being similar within those areas in which the Regent Honeyeater was recorded and those areas where it was not recorded.

Precinct 1 design has prioritised consideration of integration and retention of foraging and breeding habitat via retention of HLRF and retention of 30% of winter-flowering mature trees. These habitats are of major importance for the Regent Honeyeater.

## 2.4.2 Submissions

The information contained in the proponent's EA on the Regent Honeyeater concluded that the development of Precinct 1 specifically was not likely to significantly impact upon the Regent Honeyeater. Reporting by Biosis Research (2008) on the results of the Regent Honeyeater targeted survey indicates however that a significant impact is likely, even as a result of development of Precinct 1 only.

Submissions made by interested parties focussed on the following topics:

- Regent Honeyeater breeding not being considered during previous assessments at HEZ;
- A number of additional nests / individuals were considered likely to exist despite not being located;
- Majority of birds were observed breeding within areas zoned for industrial development, although a number of individuals were also observed in sections of Werakata National Park and areas zoned for conservation (7(b));
- No details of survey effort provided;
- Breeding event considered highly significant due to usual breeding areas not being successful;
- Anecdotal evidence of previous breeding at HEZ and site fidelity;
- Winter-flowering tree importance overstated;
- Spotted Gum-dominated forests of the lower Hunter region provide a vital resource for the species.

Previous assessments have not considered the impact of the HEZ development of breeding occurrences for the Regent Honeyeater, aside from the limited information provided in the EA. This is not unexpected, given that such breeding events were not considered likely by any of the consultants or relevant agencies involved in assessment of the HEZ site up to that point in time, given previous records on the breeding history of this species. It is now apparent that the breeding events of last Spring / Summer are highly significant, if not indeed crucial to assisting the species survive in the long term. It is evident that breeding of this species in known strongholds has had limited success in recent seasons and as such any successful breeding events and locations (particularly new successful breeding locations) are therefore of high significance.

It is also agreed that additional nests and individuals were highly likely to occur across the HEZ LEP area, including both areas zoned for development and areas zoned for conservation (including 7b) lands and Werakata National Park).

It is interesting to note that DECC indicated that a number of individuals were observed in sections of Werakata National Park and areas zoned for conservation. RPS HSO is not privy to the location of these records, apart from one to the south of Precinct 1 and one to the west of the Mindaribba 4(h) zoned lands, and as such cannot make comment on such other than in a generic landscape sense.

Survey effort has been indicated by Biosis Research to be sufficient within Precinct 1 and the remainder of HEZ Nominees lands to determine where this species was located throughout the site. Targeted surveys were undertaken over three days. While this conflicts somewhat with the DECC letters indicating that there were likely to be more records, it can be assumed that the majority of breeding occurs within that area identified by Biosis Research as containing the vast majority of nests. This breeding area is located within primarily 4(h) HEZ Industrial zoned Mindaribba Local Aboriginal Land Council (LALC) lands.

DECC is of the opinion that the importance of winter-flowering trees is overstated. The importance of winter-flowering trees was as a result of the main foraging behaviour for the Regent Honeyeater being likely to be associated with winter-flowering trees, given that the majority of records of this species within the vicinity of HEZ have been in the winter (despite recent Spring / Summer records). Occurrence of both winter-flowering and spring / summer flowering mature trees was considered as part of the Masterplan layout and compliance was achieved with the requirements of the Commonwealth DLCMP in this regard.

It is agreed that Spotted Gum-dominated forests of the lower Hunter region provide a vital resource for the species during seasonal life-cycle dependence periods. The focus during masterplanning however was to protect the maximum area possible of HLRF, which is also known to contain Regent Honeyeater habitat in the form of the winter-flowering Forest Red Gums. HLRF is more vulnerable to extinction as an EEC due to its significantly smaller area of existing occurrence (127 ha in Cessnock - Kurri), when compared to LHSGIF (7871ha in Cessnock - Kurri). It was therefore considered that protecting HLRF provided a compounding benefit when prioritising areas considered more or less appropriate for development, given there was an existing Assumed Concurrence from DECC meaning much of the land could be developed in any case.

#### 2.4.3 Conclusions

There is no doubt that the records of breeding Regent Honeyeaters within primarily Mindaribba 4(h) zoned land is of high ecological significance, particularly when considering that the Regent Honeyeater is classified as endangered. In addition, despite Biosis Research (2008) indicating that adequate survey was undertaken with DECC representatives over Precinct 1, there is technically no reason why nesting / breeding might not occur within the habitats contained within Precinct 1 in following seasons / years. Past records indicate that this species will utilise suitable habitats within the wider HEZ study area, at least for foraging.

It is debatable whether the impacts resulting from the development of Precinct 1 would significantly impact upon the Regent Honeyeater. While fragmentation of the large contiguous areas of habitat would occur to some degree, the buffer distances between Precinct 1 and the majority of nesting / breeding records are substantial (more than 500m). It is unlikely that with such buffer distances that edge effects, such as invasion by Noisy Miner, would impact upon those breeding locations. At least, the reduction of habitat within Precinct 1 must be considered a loss of foraging habitat for this species.

The question of whether habitat within Precinct 1 is suitable for nesting / breeding of this species is however important. The habitat within Precinct 1 is similar in age and quality to that within the Mindaribba breeding areas. So there is no reason why in other years this species may not decide to breed within such habitats, if available.

The same logic applies to the occurrence of other large suitable areas of contiguous LHSGIF and HLRF in new conservation areas, including Werakata State Conservation Area (as differentiated from Werakata National Park and its additions). Werakata SCA has resulted in an extra 1134ha of LHSGIF being conserved and 5ha of HLRF. Given recent records in Quorrabalong, near Werakata SCA, this species could easily be breeding in these conserved habitats.

# 2.5 Pelaw Main Bypass

## 2.5.1 Background

Preliminary investigations over the area across which the Pelaw Main By-pass is proposed to traverse (Harper Somers O'Sullivan 2002a), revealed a number of ecological constraints throughout the site. These included threatened flora and fauna species, one State-listed Endangered Ecological Community (listed at that time) and several regionally significant vegetation / habitat features. Based on these potential constraints and other site characteristics a 'Broad Preferred Road Corridor' was generated. Subsequently, a 'Preferred Road Alignment' has been forwarded, taking into consideration amendments to the alignment due to noise and amenity constraints pertaining to the village of Pelaw Main (that essentially saw the alignment shifted eastwards away from Pelaw Main. As a result, several further specific ecological surveys have been undertaken both along the alignment of the road itself and in adjacent areas.

### 2.5.2 Submissions

The submissions mainly related to:

- Major impact on largest remaining stand of KSSW;
- Impacts upon Earp's Gum (Eucalyptus parramattensis subsp. decadens);
- Compensatory habitat referred to is not agreed upon, guaranteed offsets required;
- No attempt to assess Option 4 or alternative routes;
- No consideration of impacts upon adjoining land earmarked for conservation.

It is agreed that there will be an impact upon the largest remaining stand of KSSW and that many Earp's Gum (and other threatened flora and fauna) are likely to be impacted upon to some degree. In fact, an SIS was prepared due to the level of likely impact. However it was considered (as mentioned in the SIS) that an overall offset package outcome was likely to be agreed upon which would result in the permanent protection of the remaining vast majority of this largest patch for conservation. This is in accordance with on-site meetings and advice from Deborah Stevenson of NPWS and various other parties at the time. Such conservation outcomes would have provided adequate conservation outcomes for all threatened species and EEC's affected by the proposal. Obviously protection and ongoing management of the interface with conserved lands would be required and expected.

## 2.5.3 Conclusions

The PMBP design and offset outcomes were enacted as a result of previous offset discussions with relevant parties such as the proponent, DECC and RTA. Any change in the status of such agreements is unknown. The acceptability of the PMBP proposal must be contingent upon an acceptable conservation outcome being achieved in this eastern KSSW patch. In addition, no matter where the PMBP is

located it will not be able to avoid impacts upon KSSW and *Eucalyptus* parramattensis subsp. decadens, although the vast majority of this species and EEC will be retained and conserved.

### 2.6 Deferred Areas

# 2.6.1 Background

During the HEZ Local Environmental Plan (LEP) rezoning process, the results of the Ecological Constraints Master Plan (ECMP) data were used to achieve conservation outcomes for all of the threatened species and EEC's within the HEZ Study Area to the satisfaction of the then Department of Environment and Conservation (DEC), now the Department of Environment and Climate Change (DECC), which issued an assumed concurrence for the development of the HEZ, in March 2005. The DEC Assumed Concurrence document advises that Council (and determining authorities under Part 5 of the EPA Act) can assume concurrence for permissible development (as per the LEP) in accordance with clause 64 of the *Environmental Planning and Assessment Regulation 2000*, provided that the conditions within Attachment 1 of the concurrence document are met.

The DEC Assumed Concurrence identified a small number of areas that contained threatened species and their habitat that were not considered to be adequately conserved within the Werakata National Park or 7(b) conservation areas. These areas of high ecological value were classified as areas that are deferred from development for conservation purposes until such time as:

- the results of further survey work indicate that there has been a change in the conservation status of the threatened species listed above eg further large populations are discovered locally on secure tenure; and/or
- alternative lands supporting equivalent or better threatened species values have been identified in the vicinity of the HEZ and secured for conservation to the satisfaction of the Manager, Threatened Species Unit, Metropolitan. This could be achieved through amendments to the Cessnock LEP and/or through the use of positive and/or restrictive covenants and may require the purchase of additional land or land swaps with adjoining land owners or council.

The delineation of deferred areas was undertaken in such a way to protect the particular threatened species or habitat values that it contained.

Two Deferred Areas occur within or immediately adjacent to Precinct 1, being Deferred Areas 1 and 5 as discussed below.

#### **Deferred Area 1**

Deferred Area 1 as defined by the DEC Assumed Concurrence is approximately 17.84ha in area and was deferred from development for the following reasons:

- Further protection of Callistemon linearifolius, Eucalyptus glaucina, Greenthighed Frog and threatened species reliant on mature trees such as Yellowbellied Glider and Swift Parrot;
- Further protection of Hunter Lowland Redgum Forest Endangered Ecological Community;
- Protection of high quality habitat in the form of mature, hollow-bearing trees;
- · Buffers development impacts on conservation areas; and
- Enlargement of key wildlife corridor along Chinamans Hollow Creek.

#### **Deferred Area 5**

Deferred Area 5 as defined by the DEC Assumed Concurrence is approximately 5.42ha in area and was deferred from development for the following reasons:

- Protects a very large stand of Callistemon linearifolius (over 500 individuals); in addition to Grevillea parviflora ssp. parviflora and Green-thighed Frog habitat;
- Protection of Lower Hunter Spotted Gum Ironbark Forest Endangered Ecological Community;
- Protects mature hollow-bearing trees that provide potential foraging and roosting habitat for threatened species such as Yellow-bellied Glider and Koala; and
- Provides protection for the creekline flowing east into Chinaman's Hollow Creek.

Deferred Area 5 will not be impacted directly by the development of Precinct 1. Stage 2 Road has been constructed along its southern boundary, and this included erection of protective fencing for this Deferred Area as required by conditions of consent.

Deferred Area 1 is proposed to be subject to modification via development of some parts of its western area, and extension of other contiguous areas of native habitat.

### 2.6.2 Submissions

There were a number of submissions that related to impacts on Deferred Area 1. Specifically, these included:

- Proponent previously indicating willingness to accept retention of Deferred Area 1 in Part 3A application;
- Development occurring within a significant proportion of Deferred Area 1;
- Concerns over impact upon HLRF in relation to recent mapping;
- Inadequate justification for development within Deferred Area 1, including to justify to DEWHA;
- How Deferred Area 1 can be relied on as a conservation area, while at the same time much of the Deferred Area is proposed to be cleared.

The proponent previously indicated a willingness to include Deferred Area 1; however this was on the basis that better outcomes could not be achieved. The outcomes achieved via the masterplanning process were preferred to full retention of Deferred Area 1.

In terms of the amount of development occurring within Deferred Area 1, refer to the following table. This table includes retention of Deferred Areas patches of habitat in the 20m buffers. The small existing cleared areas are not included, but account for the small difference between the Deferred Area size and total vegetation.

Vegetation Community	Area Conserved		Area Developed		Total in Deferred Area	
	Bell (2004)	Bell (2008)	Bell (2004)	Bell (2008)	Bell (2004)	Bell (2008)
Hunter Lowland Redgum Forest EEC	3.75ha (76.8%)	3.74ha (64.4%)	1.13ha (23.2%)	2.07ha (35.6%)	4.88ha	5.81ha
Lower Hunter Spotted Gum Ironbark Forest EEC	2.28ha (18%)	0.43ha (11.8%)	10.39ha (82%)	3.2ha (88.2%)	12.67ha	3.63ha
Coastal Foothills Spotted Gum Ironbark Forest		1.86ha (22.9%)		6.25ha (77.1%)		8.11ha
Total Areas	6.03ha	6.03ha	11.52ha	11.52ha	17.55ha	17.55ha

It is proposed to retain approximately 6 hectares of Deferred Area 1 adjoining the 7b) conservation corridor, from a total Deferred Area of approximately 17.8 hectares. This includes retention of some parts of Deferred Area 1 within the setbacks along the roadsides. While this may seem like a significant proportion, the design also included incorporation of additional areas of EEC along riparian zones to the west of the Deferred Area boundary. These additional areas total 1.09ha of HLRF and 0.24ha of LHSGIF.

In summary, the net impacts of the proposed Precinct 1 Masterplan amount to retention of approximately an equal amount of HLRF, as although 1.13ha is lost via the development of some HLRF within Deferred Area 1, an additional 1.09ha has been retained outside of the Deferred Area.

Based on the original Bell (2004) mapping 10.39 ha of LHSGIF is to be developed from Deferred Area 1, 2.28ha is to be retained. The Precinct 1 Masterplan results in an additional 6.33ha being retained (including 20m buffers). This results in a small net loss of 1.78ha as a result of the development of Precinct 1. However in relation to Bell (2008) updated mapping it is evident that Bell (who prepared the original vegetation mapping) has revised the classification of areas of vegetation within Precinct 1. This means that whereas previously it was thought that the majority of vegetation outside of HLRF was the LHSGIF EEC it is now considered to be primarily Coastal Foothills Spotted Gum Ironbark Forest (CFSGIF). In fact, of the 12.67ha originally thought to be LHSGIF EEC, only 3.63ha is now classified as this community. The remainder is the unlisted CFSGIF community. Using the new mapping the percentage impact upon LHSGIF has increased slightly, although the actual area affected by the proposal within the Deferred Area has decreased by 60%.

RPS HSO has further investigated the implications of the specific impacts of Precinct 1 design in relation to new information that may have become available post-Assumed Concurrence release date of 1<sup>st</sup> March 2005. The purpose of these further investigations is to determine whether there is justification for part or all of the Deferred Area to become un-deferred from development. These investigations have focussed on the representation of the ecological features for which Deferred Area 1 became deferred, in light of such new information. Impacts upon these features are outlined in the previous section of this response document.

In summary, the impacts upon the characteristics for which the area was deferred, are as follows:

#### Callistemon linearifolius

From a total of 120 *Callistemon linearifolius* plants within the Deferred Area, 118 are proposed to be retained (updated from Part 3A original submission). This equates to a 98% retention rate of this species. Given that this species is one of the reasons that this area was deferred, the prioritisation of conservation of this species appears to have been successful.

### Eucalyptus glaucina

Direct impacts upon *Eucalyptus glaucina* cannot be accurately predicted, as exact numbers within Precinct 1 (or other areas) of HEZ are not known. However this species is associated with HLRF EEC. With 20m buffers included, approximately 3.75ha of HLRF will be retained within the undeveloped portion of Deferred Area 1, which equals retention of 77%, or 65% according to the updated Bell 2008 mapping. It could reasonably be expected that this retention in the Deferred Area, plus the incorporation of the additional 1.09ha within Precinct 1, in combination with the conservation of approximately 55ha within HEZ-owned 7(b) conservation lands, will ensure adequate protection of this species post-development.

# Green-thighed Frog

The impacts of the development of Deferred Area 1 upon Green-thighed Frog habitat includes the following. It should be noted that creeklines have been incorporated into the development layout where possible and the following information is provided on the retention of such habitat. Actual foraging habitat however is primarily limited to the substantial retained areas of HLRF and the adjoining 7(b) corridor.

The incorporation of the Green-thighed Frog habitat has resulted in the conservation of 331m of medium quality habitat and 337m of low quality habitat. This is compared to a loss of 221m of medium quality habitat and 187m of low quality habitat. In total, 58% of medium quality habitat and 64% of medium quality habitat is retained. No high quality habitat is affected, as it is mostly located within the 7(b) conservation corridor within HEZ Nominees-owned lands.

### Yellow-bellied Glider

In relation to this species, there is a reduction in habitat area in which it is known to occur. However the overall retained habitats within Precinct 1 that connect to the retained areas of Deferred Area 1 and the 7(b) corridor are relatively similar in size. The form of the habitat (i.e. exposure to edge effects) will however change as it will be narrower and more linear in shape. 88 hollow-bearing trees will be removed as a result of the encroachment within Deferred Area 1, while 37 will be retained. This equates to retention of 30% of the existing hollows within the Deferred Area. This should be considered in light of the fact that in total of 110 hollow-bearing trees will be retained within Precinct 1, only slightly less than the original total of Deferred Area one.

#### Swift Parrot

In terms of impacts upon this species, the mature trees contained within Deferred Area 1 are of most value. Of the total of 42 mature Forest Red Gums, 28 (or 66%)

are proposed to be retained. Of the total of 3 mature Spotted Gums, 3 (or 100%) are proposed to be retained. In combination with the proposed retention of 49 out of 159 winter-flowering mature trees (and another approximately 500 winter-flowering mature trees within 7(b) conservation zones), this retention rate is considered to be acceptable and complies with Commonwealth requirements.

#### Hunter Lowland Redgum Forest

With 20m buffers included, approximately 3.75ha of HLRF will be retained within the undeveloped portion of Deferred Area 1, which equals retention of 77%, or 65% according to the updated Bell 2008 mapping. It could reasonably be expected that this retention in the Deferred Area, plus the incorporation of the additional 1.09ha within Precinct 1, in combination with the conservation of approximately 55ha within HEZ-owned 7(b) conservation lands, will ensure adequate protection of this EEC post-development.

## Mature and Hollow-bearing Trees

Of the total of 42 mature Forest Red Gums, 28 (or 66%) are proposed to be retained. Of the total of 3 mature Spotted Gums, 3 (or 100%) are proposed to be retained. In combination with the proposed retention of 49 out of 159 winter-flowering mature trees (and another approximately 500 winter-flowering mature trees within 7(b) conservation zones), this retention rate is considered to be acceptable and complies with Commonwealth requirements.

88 hollow-bearing trees will be removed as a result of the encroachment within Deferred Area 1, while 37 will be retained. This equates to retention of 30% of the existing hollows within the Deferred Area. This should be considered in light of the fact that in total of 110 hollow-bearing trees will be retained within Precinct 1, only slightly less than the original total of Deferred Area one.

#### Buffer / Enlargement of 7(b) corridor

Approximately 11.5ha of the vegetation and habitat within Deferred Area 1 is proposed to be developed. This will result in the reduction in width of the overall north – south corridor and the reduction in buffer to that 7(b) area. The dedication of the 7(b) lands to conservation though has already been a significant addition to conservation outcomes in the region, particularly for HLRF and its associated habitats and threatened species. In particular, the central 7(b) corridor is already at minimum approximately 235m in width, a substantial buffer.

### 2.6.3 Conclusions

In conclusion, it can be demonstrated that for the majority of ecological characteristics for which Deferred Area 1 became deferred, the Precinct 1 masterpan provides for acceptable environmental outcomes. Nearly the entire population of *Callistemon linearifolius* will remain protected. The majority of *Eucalyptus glaucina* and its HLRF habitat has been protected or incorporated into the masterplan. When combined with the conservation of a major proportion of the HLRF within the Cessnock – Kurri area this is an excellent outcome. In fact, the retention of HLRF within HEZ Nominees land represents conservation or approximately a total of 60ha, which is 47% of the total known HLRF within the Cessnock – Kurri area (Bell 2008). More conservation is also likely as development progresses in other future Precincts.

In terms of mature (for Swift Parrot) and hollow-bearing trees, retention of both of these characteristics is considered to be acceptable, given the Precinct 1 outcomes and the retention of over 500 winter-flowering mature trees within the 7(b) conservation zone.

In terms of the buffer impacts, the buffer will be substantially reduced. However the corridor is already at least 235m in width and is considered likely to be able to withstand a level of edge effect. However it should be noted that such edge effects will be minimised as part of the ongoing bush restoration of this corridor.

# 2.7 Compliance with DECC Guidelines

#### 2.7.1 Submissions

Submissions have been made in relation to the EAR not fully complying with DECC Guidelines for Threatened Species Assessment (2005).

In terms of survey effort, the ECMP on-ground surveys resulted in one of the most comprehensive flora and fauna surveys possible. The grid methodology meant that every part of the development zoned land (and much of the conservation zoned land) was surveyed intensively. The species likely to be affected by the proposal were well known by the time that the survey was undertaken. This resulted in the survey being focussed on detailed habitat assessment, including quantitative analysis of densities of a variety of important habitat features such as mature and hollow trees and of disturbance including rubbish dumping and erosion. This level of survey is in excess of the general survey level required by DECC. In addition, RPS HSO ecologists have generally been on-site at HEZ on a regular basis, often daily and weekly. Such a level of survey and visitation by ecologists is considered to have provided an excellent ongoing surveillance of the site for threatened flora and fauna, ensuring the ecological data remains relatively current. It has also been the experience of RPS HSO ecologists that when ground-truthing existing ECMP data for individual DA's that it is highly accurate.

DECC's Threatened Species Assessment Guidelines have been considered as part of the process for development design. In effect, the avoidance, mitigation and offsetting impact consideration process has been ongoing over a number of years. This has included the process that lead to the issuing of the Assumed Concurrence by DECC. The issuing of the Assumed Concurrence demonstrated that DECC was of the opinion that impacts had been appropriately avoided, mitigated and offset. This has resulted in substantial areas of high biodiversity within the HEZ LEP area being identified and zoned for conservation purposes. Deferred Areas also supported the conservation zoned areas and it is considered that the original intent and purpose of the identification of the Deferred Areas has been maintained in the design process that has lead to the precinct 1 layout for which Concept approval is sought.

#### 2.7.2 Conclusions

It is considered that the level of survey and assessment for Precinct 1 and components is more than adequate and that enough information has been provided on which a decision should be made. Such information includes the Statement of Commitments, which are generally consistent with the existing Habitat Management Strategy controls previously approved by DECC.

### 2.8 Current Environmental Commitments

HEZ Nominees are already undertaking significant environmental projects within the Hunter Economic Zone, including many with Precinct 1. The existing environmental projects include:

- Undertaking seed collection and propagation from the site and using plant material grown from this seed in significant bushland restoration and site landscaping activities;
- Working with DECC in relation to scientific study of the success of re-use of topsoil in landscaping activities (including reusing topsoil using original soil horizons);
- 3. Removal of rubbish from bushland under the supervision of ecologists;
- 4. Limiting access to the site through erection and maintenance of fencing, including gates and bollards, thereby excluding trailbike riders etc;
- 5. Fencing of areas of conservation value (such as 7b-zoned lands, Deferred Areas etc) when in close proximity to development
- 6. Erection of over 120 nest boxes on site to date, including regular monitoring and maintenance. Nest boxes are being inhabited by a diverse range of fauna:
- 7. Coordinated pest control with DECC and the Department of Lands within HEZ, Crown Lands and Werakata National Park; and
- 8. Supervision by qualified ecologists of all site activities likely to impact habitats, including removal of hollow-bearing trees.

It is evident that HEZ are already undertaking numerous activities to protect and enhance post-development environments. This will only increase as development progresses and the HEZ Association (HEZA) coordinates environmental outcomes for individual lots and common lands. It is considered that this demonstrates HEZ Nominees commitment to ensuring the development is undertaken in the most sensitive manner possible.

# 3 CONCLUSION

It is concluded that this document has responded to the submissions relevant to ecological factors such that there is no reason as to why the Precinct 1 and components should not be considered and approved by the Department of Planning.

# 4 REFERENCES

Biosis Research (2008) Targeted Surveys for the Regent Honeyeater in the Hunter Economic Zone – Survey Results

Harper Somers O'Sullivan (2004) Ecological Constraints Master Plan (ECMP) for the Hunter Economic Zone (HEZ)

Harper Somers O'Sullivan (2006) Species Impact Statement for the Pelaw Main Bypass to the Hunter Economic Zone (HEZ)

Saunders, D. (2002) Assessment of Swift Parrot Sites near Cessnock, Lower Hunter Valley Region, NSW - including the Hunter Employment Zone, NSW National Parks and Wildlife Service.