



PREFERRED PROJECT REPORT

MAJOR PROJECT APPLICATION NO. 08_0194

**KINGS FOREST STAGE 1
SUBDIVISION AND BULK EARTHWORKS**

PREPARED FOR:

PROJECT 28 PTY LTD

PREPARED BY:

DARRYL ANDERSON CONSULTING PTY LTD

OCTOBER 2012

Suite 7, Corporate House
8 Corporation Circuit
Tweed Heads South NSW 2486

Ph: 07 55233611
Fax: 07 55233612
Email: admin@daconsulting.com.au

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2	Scope of Work	113691—PSP-4a (SCOPE OF WORK)	21 August 2012
3	Site Analysis	113691—PSP-4a (SITE ANALYSIS)	23 August 2012
4	Precinct Plan	113691—PSP-4a (PRECINCT ANALYSIS)	21 August 2012
5	Open Space Network	113691—PSP-4a (OPEN SPACE NETWORK)	21 August 2012
6	Road Hierarchy	113691—PSP-4a (ROAD HIERARCHY)	21 August 2012
7	Potential Bus Route	113691—PSP-4a (POTENTIAL BUS ROUTE)	21 August 2012
8	Density Matrix Summary	113691—PSP-4b (DENSITY MATRIX SUMMARY)	12 October 2012
9	Development Matrix	113691—PSP-4b (DEVELOPMENT MATRIX)	12 October 2012
10	Indicative Subdivision Plan	113691-LD-1f	12 October 2012
11	Indicative Staging Plan	113691-STG-10a	12 October 2012
12	Plan of Development – Detail 1	113691-PSP-9	15 August 2012
13	Plan of Development – Detail 2	113691-PSP-9	15 August 2012
14	Plan of Development – Detail 3	113691-PSP-9	15 August 2012
15	Road Network – Precinct 5	113691-RH-2	29 August 2012
16	Car Parking Plan – Detail 1	113691-CPP-7a	12 October 2012
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19	Precinct Bushfire Plan	113691-BFMP-5c	23 August 2012
20	Typical Setback Plan – Traditional Dwelling	113691-PSP-6	15 August 2012
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PREFERRED PROJECT REPORT

MAJOR PROJECT APPLICATION NO. 08_0194 KINGS FOREST STAGE 1 – SUBDIVISION AND GOLF COURSE

1.0 INTRODUCTION AND BACKGROUND

Darryl Anderson Consulting Pty Ltd has been commissioned by Project 28 Pty Ltd to prepare a Preferred Project Report in respect of the Kings Forest Stage 1 Project Application.

On 10 November 2006, State Environmental Planning Policy (Major Projects) 2005 Amendment No. 10 (Kings Forest) was published in Government Gazette No. 135 pursuant to which part of Kings Forest was rezoned but the majority remained in a 2(c) Urban Expansion zone.

Subsequently, following approval of Concept Plan No. 06_0318 for Kings Forest, zoning amendments were undertaken by way of a State Environmental Planning Policy (Major Development) 2005 Amendment which came into effect on 10 September 2010.

On 19 August 2010, Concept Plan Approval No. 06_0138 was issued for Kings Forest for the carrying out of the following:

- ♦ Residential development for approximately 4500 dwellings;
- ♦ Town centre and neighbourhood centre for future retail and commercial uses;
- ♦ Community and education facilities;
- ♦ Employment land;
- ♦ Golf course;
- ♦ Open space;
- ♦ Wildlife corridors;
- ♦ Protection and rehabilitation of environmentally sensitive land;
- ♦ Utility services infrastructure;
- ♦ Water management areas and lake; and
- ♦ Roads and pedestrian and bicycle paths.

Subsequently, the Concept Plan was modified (Modification No. 1) on 22 December 2010. The modification involved minor amendments to the Concept Plan as detailed in Section 4 of the Environmental Assessment Report for MP08_0194.

On 23 December 2010 the Director General of the Department of Planning and Infrastructure issued amended Director General's Environmental Assessment Requirements in respect of Major Project Application No. 08_0194 being an application for:

- ♦ Subdivision to create new lots for future development;
- ♦ Construction of the entrance road to the site and associated intersection works on Tweed Coast Road;
- ♦ Alignment and construction of the proposed Kings Forest Parkway from Tweed Coast Road via Precincts 4/5 through to the western side of the site, as well as the alignment of the two proposed roads through State Environmental Planning Policy No. 14 areas to access the southern (Cudgen Paddock) area;
- ♦ Rural retail development to the east of Tweed Coast Road and access arrangements to this part of the site;
- ♦ Construction works for the first stage (Precinct 5) of urban development; and
- ♦ Bulk earthworks across the site.

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The Project Application was lodged in November 2011 and that application proposed the following key elements:

- ♦ Subdivision to create new lots for future development;
- ♦ Bulk earthworks across the site;
- ♦ Road works comprising:
 - construction of the entrance road into the site and associated intersection works on Tweed Coast Road;
 - alignment and construction of the proposed Kings Forest Parkway from Tweed Coast Road via Precincts 4 and 5 through to the western precincts; and
 - alignment and part construction of two proposed roads through SEPP 14 areas to access the southern precincts;
- ♦ Development of 2,126m² of floor space for rural retail development and access arrangements within Precinct 1;
- ♦ Construction of subdivision and infrastructure works along the Kings Forest Parkway and within Precincts 1 and 5;
- ♦ Maintenance of the existing east-west agricultural drainage channel in the SEPP 14 wetlands within the central part of the site; and
- ♦ The Plan of Development for Precinct 5.

The Project Application also includes the dedication, in due course, of land to the NSW National Parks and Wildlife Service and Tweed Shire Council (see Section 3.9 of the Environmental Assessment Report, Volume 1), subject to entering into a Voluntary Planning Agreement.

Insofar as the subdivision component is concerned, the application proposed the creation of 8 master lots (Lots 1 to 8) and further subdivision of proposed Lot 2 into 410 lots which will yield approximately 442 dwellings, being Precinct 5.

2.0 SUBMISSIONS RECEIVED AND AMENDED PROJECT APPLICATION

2.1 Submissions

During the public exhibition period (December 2011 to January 2012) 302 public submissions and 10 agency submissions were received. Agency submissions were received from:

- ♦ Department of Planning and Infrastructure, (including Ecological Australia Pty Ltd)
- ♦ Tweed Shire Council
- ♦ Environmental Protection Authority
- ♦ Department of Primary Industries
- ♦ Roads and Maritime Services
- ♦ Rural Fire Service
- ♦ Essential Energy
- ♦ NSW Finance and Services (Housing and Property Group)
- ♦ NSW Trade and Investment (Mineral Resources Branch)
- ♦ NSW Office of Water

Following a review of the submissions and in accordance with the Department of Planning and Infrastructure letter dated 7 March 2012, a Response to Submissions Report was prepared and submitted to the Department on 4 May 2012.

The purpose of the Submissions Report was to identify intended actions to address the key issues raised in each submission.

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A meeting between Project 28 Pty Ltd representatives and Officers of the Department of Planning and Infrastructure was held on 15 May 2012 to discuss the intended actions and agree on outcomes contained within the Response to Submissions Report.

Following the meeting, the Department of Planning and Infrastructure confirmed that a Preferred Project Report is required to address the changes to the proposal, including amended Layout Plans and Specialist Reports.

In preparing revised plans and specialist reports, a number of meetings have been held with the Department of Planning and Infrastructure, Tweed Shire Council and other State Agencies to discuss and, where possible, agree on responses to key issues.

2.2 Description of Amended Project Application

Concept Plan

Revised Kings Forest Development Code

The Kings Forest Development Code is essentially the same as the Cobaki Development Code. Operational experience and implementation of the Cobaki Code and the Kings Forest Code has identified several controls requiring “*housekeeping*” type amendments. These amendments are intended to assist with the interpretation of the Code, address anomalies and correct inconsistencies.

Consequential amendments to the various figures are also proposed to achieve consistency with the preferred project as described in this PPR.

Details of the proposed changes are contained in Section 3.1.10 and **Appendix 24** of the PPR.

Having regard to the nature and scale of the proposed changes, no additional impacts are likely to result other than those identified within the original Environmental Assessment.

Relocation of Neighbourhood Centre

The approved Concept Plan provides for a neighbourhood centre in Precinct 8. In response to issues raised regarding structured open space (see below), more detailed “*Structure Planning*” has been undertaken which results in the precinct neighbourhood centre being relocated to adjacent Precinct 6. The revised site has improved road access and exposure and a better spatial relationship with the relocated structured open space playing fields.

The revised location is approximately 100m southwest of the approved location (see Volume 3, Appendix 5, Revised Concept Plan).

The revised site is within an area which is relatively unconstrained in terms of biophysical and geophysical considerations, as indicated in the revised Appendices 10, 11, 18, 20, 21, 28 and 29 which ensure that impacts are minimised.

For Concept Planning purposes, the revised location for the neighbourhood centre is assessed as having negligible impacts.

Relocation and Consolidation of Structured Open Space Areas

The approved Concept Plan provides for structured open space (active) totalling approximately 18.96 hectares on the eastern side of Precinct 7 abutting the wetland area.

Proposed amendments to the Concept Plan accompanying the Project Application indicate that structured open space would be provided in two locations. One area was located in Precinct 4 adjacent to the town centre and the larger area was located in Precinct 9 adjacent to the neighbourhood centre and future community facility/ education precinct.

Following discussions with Council Officers, it is apparent that Council would prefer an aggregated area of structured open space incorporating the total land area required by the projected population.

This arrangement provides a more appropriate spatial land use allocation and also assists with flood mitigation and accordingly the proposed amendments to the Concept Plan have been revised to provide for one structured open space area within Precinct 9 comprising approximately 19 hectares, as shown on the proposed amended Concept Plan at **Appendix 5**. Council Officers have indicated that the revised area is generally satisfactory.

The Revised Management Plans at Appendix 10 do not identify any significant constraints within the revised structured open space area or alternatively identify appropriate mitigation measures to ensure that impacts are acceptable, particularly in relation to threatened species of flora and fauna and compensatory habitat areas.

The aggregated structured open space area also serves a flood mitigation function. The Revised Concept Plan Layout has been remodelled based on the aggregated structured open space area and the revised Preliminary Flood Assessment at **Appendix 18** concludes that the proposed Kings Forest development results in no adverse impacts on peak flood levels external to the site.

The revised layout also provides for a better urban design outcome and achieves a balance between the site's key opportunities and constraints.

Amended Road Layout, New Connection to Melaleuca Road and New Road Types

The approved Concept Plan shows indicative road alignments for the connector road network. Following more detailed design work and "*Structure Planning*", the Revised Concept Plan (Volume 3, Appendix 5) shows more details of the proposed road network on slightly amended alignments.

The Concept Plan has been informed by the Revised Precinct Plan and Revised Road Hierarchy Plan at Volume 3, Appendix 5 of the PPR.

The new road connection to Melaleuca Road has been included in response to issues raised by the RMS (see Section 3.4.7). The connection is shown on the relevant drawings at **Appendix 5**.

For Concept Planning purposes, additional impacts resulting from the relatively minor changes to the road alignment are assessed as minimal and potential impacts are addressed and mitigated in the revised suite of Management Plans at **Appendix 10**.

Town Houses Instead of Apartments

The Environmental Assessment Development Matrix provides for apartments and terraces in the urban zone.

Following a review of the Precinct 5 layout and product types it was considered that an improved product mix, urban design outcome and commercial viability could be achieved by defining the previous apartments as townhouses in a three storey configuration and introducing a new form of townhouse in a two storey configuration. The revised Precinct 5 layout provides for a townhouse site in the southern part of the Precinct. This area was proposed in the Environmental Assessment as traditional detached dwellings however difficulties arose with achieving satisfactory bushfire asset protection zones and perimeter roads/fire trails and therefore the site has been designated for townhouse development.

Project Approval

The following table describes the proposed subdivision.

Proposed Lot	Proposed Use	Area
Lot 1	Precinct 1 – rural supplies development	2.368 ha
Lot 2	Precinct 5 – residential development and part of Kings Forest Parkway	41.28 ha
Lot 3	Environmental protection areas to be dedicated to NPWS (including roads proposed to be closed)	180.6 ha
Lot 4	Environmental protection areas to be offered to TSC for dedication	5.18 ha
Lot 5	Environmental protection areas to be offered to TSC for dedication	4.686 ha
Lot 6	Regional sewer pump station	396m ²
Lot 7	Precincts 2, 3 and 4	36.94 ha
Lot 8	Road to southern precincts	1.119 ha
Lot 9	Part of Kings Forest Parkway and road to southern precincts	3.967 ha
Lot 10	Precincts 6 to 14	592.2 ha

Precinct 1

The precinct layout has been revised such that all infrastructure including the bushfire asset protection zone is clear of the 50m ecological buffer. As a result, clearing of littoral rainforest is not required.

The building layout has also been amended to enable the APZ to be located clear of the outer 20m of the ecological buffer and the building has been reduced from 2060m² to 2036m². The building will be used for rural supplies as contemplated by the Kings Forest Development Code.

The revised layout avoids the littoral rainforest and any development within the 50m ecological buffer and therefore is assessed as having reduced environmental impacts compared to the previous layout proposed in the Environmental Assessment. In addition, the reconfigured site layout also improves site circulation for service vehicles and the car parking layout.

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Precinct 5 – Revised Subdivision Layout

The following table described the revised Precinct 5 Subdivision Layout.

Proposed Lot	Proposed Use	No. of Lots
Stage 2(1) 1 to 110	Residential	110
111	Public Reserve (1.2504ha)	1
112	Drainage Reserve (3116m ²)	1
113	Sewer pump station (588m ²)	1
Stage 2(2) 201 to 223	Residential	23
Stage 2(3) 301 to 315	Residential	15
316	Public Reserve (4107m ²)	1
317	Drainage Reserve (2587m ²)	1
Stage 2(4) 401 to 439	Residential	39
Stage 2(5) 501 to 559	Residential	59
560	Drainage Reserve (4684m ²)	1
Stage 2(6) 601 to 623	Residential	23
624	Public Reserve (2500m ²)	1
625	Drainage Reserve (1.086ha)	1
Stage 2(7) 701 to 749	Residential	49
750	Drainage Reserve (3.163m ²)	1
Stage 2(8) 801 to 831	Residential	31
832	Drainage Reserve (5094m ²)	1
Stage 2(9) 901 to 926	Residential	26
927	Drainage Reserve (5650m ²)	1
Stage 2(10) 1001	Residential	1
1002	Drainage Reserve (2946m ²)	1
1003	Public Reserve (2.477ha)	1
TOTAL RESIDENTIAL		376
TOTAL PUBLIC RESERVE		4
TOTAL DRAINAGE RESERVE		8
TOTAL SEWER PUMP STATION		1

The layout has been revised to address issues raised in submissions and to further mitigate potential impacts, particularly in relation to development within the outer 20m of the ecological buffer on the eastern perimeter of the precinct. In summary, the revised layout includes a townhouse precinct in the southern part of the site, larger lots along Kings Forest Parkway and an additional passive open space area in the south eastern part of the site to achieve compliance with Council's criteria in relation to accessibility of usable passive open space areas.

The revised layout reduces the number of residential lots from 410 to 376 and reduces the number of dwellings from 442 to 431. It also ensures that the only development within the outer 20m of the ecological buffer is the Koala fence and the bioinfiltration and vegetated swale (stormwater management facility). The Koala fence will be located as shown on the Precinct 5 Swale Section Drawing at **Appendix 23**, to enable Council to access and maintain the fence and the drainage swale.

In summary, the revised layout is designed to address key issues raised in the submissions and further mitigate potential impacts. In this regard it should be noted that the 50m ecological buffer comprises grasslands of low ecological value, the inner 30m of which will be rehabilitated and restored in accordance with the revised suite of Management Plans at Appendix 10.

The Koala fence will also ensure that Koalas do not enter the urban area and thus mitigate potential impacts arising from conflicts between motor vehicles, dogs and Koalas. Revised staging of Precinct 5 has also been developed to ensure that infrastructure can be provided economically and sequentially and to achieve an appropriate product mix for each stage.

In summary, the revised layout substantially mitigates potential adverse impacts on the adjoining habitat areas to the east by providing a 30m ecological buffer and by providing a perimeter road to act as a partial bushfire APZ in addition to a small area within the 20m ecological buffer.

East-West Drain Maintenance

A rehabilitation regime for Blacks Creek is currently being negotiated with NSW Fisheries and NPWS. The approved Rehabilitation Plan and the revised Drainage Maintenance Management Plan at **Appendix 10** will largely determine the future maintenance regime. It is proposed that maintenance will be carried out in accordance with the approved Rehabilitation Plan and the revised Drainage Maintenance Management Plan.

An appropriate provision has been included in revised SOC (**Appendix 17**) for the Concept Plan Approval in relation to Blacks Creek remediation and management.

Relocation of Proposed Zone Substation

In response to issues raised by the DECC, it is proposed to relocate the substation from the area of land east of Precinct 5 to be dedicated to the NPWS to an appropriate site within Precinct 2, generally as shown on the Revised Precinct Plan and Concept Plan at Appendix 5. This will mitigate potential conflicts between the zone substation and access requirements and the habitat area to be dedicated to the NPWS.

Amended Management Plans

To address the key issues raised in submissions and reflect consequential amendments required as a result of the revised Precincts 1 and 5 layouts, the Management Plans accompanying the Environmental Assessment have been appropriately amended. The amended plans are contained in Appendix 10 of the PPR.

Revised Statement of Commitments

To address the key issues raised in the submissions and reflect the changes made to the Project Application, the Statement of Commitments has been appropriately revised. The Revised Statement of Commitments is contained at Appendix 17 of the PPR.

Bulk Earthworks, Staging and Sequencing

The Construction Management Plan has been amended, in response to submissions received, to clarify earthworks sequencing and staging.

The CMP includes an Earthworks Management Plan and a Haulage Management Plan addressing potential haul routes and impact mitigation measures for the haulage of fill material from a source external to the site (see Appendix 10, Section 6). The revised Management Plans will assist in mitigating potential adverse impacts, particularly within the ecological buffer areas.

Amended Kings Forest Design Guidelines – Precinct 5

The Design Guidelines submitted with the Environmental Assessment have been revised to address key issues raised in the submissions and to reflect the revised layout and product mix.

3.0 RESPONSE TO KEY ISSUES

Key issues raised by State Agencies and members of the public have been identified following an assessment of the submissions. Those key issues are summarised in the following sections, together with a response identifying the action taken, or proposed to be taken, by Project 28 Pty Ltd to address each issue.

DEPARTMENT OF PLANNING AND INFRASTRUCTURE

3.1 DGR 1.1 Consistency with the Instrument of Approval and Development Code

3.1.1 Issue – CP Condition B2, Amended Flora and Fauna Monitoring Report

Condition B2 requires a draft outline of a flora and fauna monitoring report. (DOPI, Page 1)

Tweed Shire Council has made the following recommendation:

RECOMMENDATION: That an Annual Flora and Fauna Monitoring Report be prepared in accordance with Concept Plan Condition 82 prior to the approval of the Project Application. (TSC, Page 109)

Response:

*A draft outline of a Flora and Fauna Monitoring Report is contained at Section 5.0 of **Appendix 10**.*

3.1.2 Issue – CP Condition B3, Further Protection of Heath Land

Condition B3 requires the protection of Heathland for the full 50m of the ecological buffer in certain parts of the site. (DOPI, Page 1)

Response:

*The revised Scope of Works Plan at **Appendix 5** provides an indicative illustration of the extent of works proposed in buffers.*

*In summary, roads in Precinct 7 have been realigned and removed from buffer, as indicated in **Appendices 1 to 5**. In addition, further heathland will be protected as indicated on the Cudgen Paddock Golf Course Plan at **Appendix 14**. Heathland will be retained in the inner 30m ecological buffer. In certain parts of the site, Heathland will be removed from the 20m outer buffer to accommodate the stormwater management areas (bio-infiltration and vegetated swales).*

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After the completion of these works however, these areas are to be revegetated with heathland and the full 50m of the ecological buffer will be protected within the land to be dedicated to either OEH or TSC as detailed in FIGURE 9 of the KPoM (**Appendix 10**). Further mapping of existing heath areas has been undertaken and a review of the earthworks staging also has been undertaken to minimise potential impact on heath vegetation. Earthworks within the golf course 50 m buffers will be removed where heath is to be naturally regenerated. This issue is further addressed in Section 3.1.9.

3.1.3 Issue – CP Condition B4, East-West Wildlife Corridors

Condition B4 requires details of east-west wildlife corridors to be submitted prior to determination of Stage 1. (DOPI, Page 1, TSC, Page 64)

Tweed Shire Council has made the following recommendation in relation to this issue.

RECOMMENDATION: That further options are explored with DoP, OEH, Tweed Shire Council, appropriate experts and the proponent to implement one or more east-west wildlife corridors generally in accordance with Concept Plan Condition 84 prior to the determination of Stage 1. (TSC, Page 112)

Response:

An East West Wildlife Corridor Assessment Report is contained at **Appendix 21**. In summary, the Report concludes that the creation of a corridor from Wetland areas in the west of the site through adjoining properties to the north-west and eventually linking to Stotts Island Nature Reserve is not viable. Instead, TSC is advocating links to the south-west (Eviron Road underpass). The following extract from **Appendix 21** further addresses this issue.

“In a regional context, the Kings Forest site is considerably isolated (in terms of wildlife movement) from areas of regionally significant habitat. This is due to the Tweed River and extensive agricultural and residential development to the north, Tweed Coast Road and the Pacific Ocean to the east, and the Pacific Motorway and agricultural lands to the west (FIGURES 3 & 5). Fauna linkages to the north and west of the site are highly disturbed. Thus, currently the only effective connections with other significant habitat areas is to the south of the site (Carrick 2009).

The Concept Plan application discussed the efficacy of promoting a corridor to the north-west, linking Kings Forest and Stotts Island Nature Reserve (SINR). Carrick (2009) noted that, whilst there are some sparsely vegetated linkages extending from the eastern side of the Cudgen road fauna overpass to Stotts Island Nature Reserve, several kilometres of open agricultural fields occur to the west of the Pacific Motorway. An extension of the East-West corridor to the north-west could facilitate the dispersal of wildlife from Cudgen Nature Reserve (CNR) to SINR. However, it is unlikely to provide an effective linkage between habitats of regional importance due to intervening land-uses and major barriers such as the Pacific Motorway and Tweed River (FIGURE 3).

The following actions would be necessary if an East-West corridor in the northern portion of the Kings Forest site were to provide effective fauna movement to the north-west:

- *Revegetation of cleared grazing lands and portions of sugar cane land; and*
- *Structures to funnel fauna to the Motorway land bridge (Cudgen road fauna overpass).*

This could create an effective connection between the CNR and the SINR, approximately 2km to the north-west of the Kings Forest site. Stotts Island is situated in the Tweed River (**FIGURE 3**) and is the largest remnant of subtropical floodplain rainforest remaining in New South Wales (NPWS 2001). However, the prospect of the long-established sugar cane fields to the north and west of the Kings Forest site becoming revegetated, so as to offer meaningful habitat for native wildlife, is considered extremely remote.

Land-use to the north-west of the Kings Forest site is predominantly agricultural and includes the agri-tourist attraction Tropical Fruit World (**FIGURE 3**). This property is substantially cleared of native vegetation and includes a variety of fruit orchards and plantations comprising approximately 500 kinds of fruit. This area of highly fragmented vegetation represents a significant obstruction to faunal movement between the Kings Forest site and the Pacific Motorway fauna overpass.

Extending the East-West corridor in this north-west direction would create additional habitat and improve dispersal between SEPP 14 Wetland areas within the Kings Forest site. However, it is considered that unless there is supplementary revegetation in adjacent properties, any extension of the East-West corridor to the north would be ineffective in achieving connectivity between regionally significant habitat areas. As meaningful revegetation in these areas is highly unlikely, a northern corridor is no longer considered necessary.

Regardless of the fact that a north-west corridor was promoted in the Concept Plan application, it is considered that a more appropriate location for an extension of the East-West corridor would be in the direction of the Eviron Road underpass to the south-west, as indicated by the direction of the arrow in **FIGURE 3**. This may require some revegetation around the decommissioned Turner's sand quarry lake (**FIGURE 3**) and extensive revegetation within adjacent agricultural properties between the existing East-West corridor and the Eviron Road underpass. As can be seen in **FIGURE 3**, this would be a more suitable direction for an extended wildlife corridor as there are substantial areas of native vegetation to the west of the Pacific Motorway. This is a view advocated by the Tweed Shire Council as discussed with Mark Kingston (15th June, 2012). Extending the East-West corridor in this direction could potentially link the Kings Forest site to habitat areas in the south that are of regional significance, such as the Mooball National Park and Mount Jerusalem National Park (**FIGURE 9**)."

As a consequence of the above, a modification of Condition B4 of the Concept Plan Approval is also sought to amend Condition B4 such that only a southern corridor is required. Condition B4 is in the following terms:

"As identified in the Koala Plan of Management, an east west wildlife corridor of up to 100 metres wide (with a minimum of 50 metres at any one point) must be established. The corridor should be established to provide for habitat and the movement of threatened native fauna that inhabit the site.

Prior to the determination of Stage 1, the Proponent shall also demonstrate the practicality or need for establishing a further east west 50 metre wide corridor along the southern boundary of the site.

The details of this modification, including regeneration/revegetation of the corridor, the preferred long term protection mechanism, and the practicality of a new southern east west corridor are to be submitted to the satisfaction of the Director-General prior to determination of Stage 1."

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Amendment of Condition B4 is requested as follows:

“As identified in the Koala Plan of Management, an east west wildlife corridor of up to 100 metres wide (with a minimum of 50 metres at any one point) must be established. The corridor should be established to provide for habitat and the movement of threatened native fauna that inhabit the site. The proponent shall demonstrate the practicality of the corridor prior to determination of Stage 1.

The details of this modification, including regeneration/revegetation of the corridor and the preferred long term protection mechanism are to be submitted to the satisfaction of the Director-General prior to determination of Stage 1.”

3.1.4 Issue – CP Condition C1, Plan of Development

Condition C1 requires the Plan of Development (PoD) to be consistent with the Kings Forest Development Code. (DOPI, Page 1)

Response:

*The revised Plan of Development at **Appendix 5** is consistent with Kings Forest Development Code, as indicated in the Compliance Tables at **Appendix 22**.*

3.1.5 Issue – CP Condition C2, Management Plans

The Project Application proposed that Condition C2 be amended as follows:

“Prior to the issue of the Construction Certificate for all future works, where relevant, stage specific Management Plan updates are to be prepared providing where, as relevant, details on timelines for implementation of recommended works including maintenance periods and measurable performance and completion criteria....”

Tweed Shire Council has raised an issue with the proposed amendment to Concept Plan Condition C2 and has recommended that Concept Plan Condition C2 relating to the updating of Management Plans with future Project Applications be retained.

Response:

The proposed amendments to Condition C2 are intended to provide greater certainty and flexibility in terms of what applications require Management Plans and when those Plans are required. By way of illustration, it is likely that future Development Applications will be required for minor boundary adjustments and for minor structures which would clearly not require Management Plan updates.

In addition, the amended suite of Management Plans accompanying this Preferred Project Report include a Summary Implementation Matrix and are in a format which is more user friendly and adaptable.

In the circumstances, the applicant maintains the request for amendment of Condition C2 as proposed in the Project Application.

3.1.6 Issue – CP Condition C4, Affordable Housing

Condition C4 requires a plan showing possible locations of affordable housing in the various precincts. (DOPI, Page 1)

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Response:

The Precinct Plan at **Appendix 5** shows a possible location within Precinct 7 for affordable housing. However, affordable housing will only be provided subject to NRAS funding.

NRAS funding (Round 4) for Kings Forest was unsuccessful. Affordable housing will only be provided within the generally nominated area subject to NRAS funding.

Affordable housing has not been nominated for Precinct 5 because this is the first Precinct in the project and its location is not such as would give rise to affordable land costs and therefore it is considered that Precinct 7 as proposed is the most appropriate having regard to accessibility, bus routes, affordability, etc.

3.1.7 Issue – CP Condition C9, Restrictions on Cats

In summary, this Condition provides that the future Development Applications must demonstrate that the keeping of cats within the Kings Forest site shall be totally prohibited and that all residential lots are to be encumbered to this effect with a Section 88B Instrument under the NSW Conveyancing Act 1919.

Tweed Shire Council supports this Condition and the Department of Planning and Infrastructure has advised that it would not support any amendment to the Condition. It is therefore proposed that Condition C9 remain unchanged.

3.1.8 Issue – CP Condition C17, Further Threatened Flora Surveys

Condition C17 requires further survey for the square-stemmed spike rush within precincts 13, 14 and 16 to be carried out in the appropriate season. (DOPI, Page 1)

Response:

Surveys for this species have been completed multiple times between 2009-2011. This species has not been recorded on the subject site since the Australia Koala Foundation (AKF) record in 2005. It is possible that the species was originally misidentified or that the species no longer occurs. In view of the above no further surveys will be undertaken.

3.1.9 Issue – CP Condition C20, Development within Ecological and Agricultural Buffers

Condition C20 requires all future development applications proposing development within either ecological or agricultural buffer to demonstrate that Clauses 7 or 8 of the MD SEPP have been addressed. (DOPI, Page 1)

The revised Scope of Works Plan at **Appendix 5** provides an indicative illustration of the extent of works proposed in buffers.

Clauses 7 and 8 of the SEPP are reproduced as follows:

"7 Ecological buffers

- (1) Consent must not be granted to development on land within an ecological buffer unless the consent authority is satisfied, after considering a detailed environmental assessment, that:
 - (a) the development complies with the objectives for ecological buffers and other provisions of this clause, and
 - (b) there is no practicable alternative to siting the development within the buffer.

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- (2) The objectives for ecological buffers are:
 - (a) to protect wetlands or areas of particular habitat significance, and
 - (b) to restrict development so that, as far as practicable, it does not occur within ecological buffers, and
 - (c) to help ensure that development is designed, sited and managed so as to minimise its impact on the ecological and hydrological functions of ecological buffers, and
 - (d) to encourage the restoration and maintenance of native vegetation and the ecological processes of land within and adjacent to wetlands or areas of particular habitat significance.
 - (3) Development on land within an ecological buffer is to:
 - (a) incorporate effective measures to manage wetlands or areas of particular habitat significance, and
 - (b) be designed and sited to maintain connectivity of vegetation and minimise vegetation clearing, soil disturbance and alterations to the rate, volume or quality of surface and ground-water flows, and
 - (c) retain and maintain all existing native vegetation outside the area immediately required for the development, and
 - (d) incorporate measures to regenerate native vegetation for all disturbed areas within the buffer, and
 - (e) incorporate appropriate stormwater and erosion control measures to protect the buffer from surface water run-off or other disturbance.
 - (4) When considering whether or not there is a practicable alternative to siting development inside an ecological buffer, the consent authority must consider:
 - (a) the design, type and site cover of the proposed development, and
 - (b) the physical characteristics of the land on which the development is proposed to be carried out, and
 - (c) the suitability of the land for the proposed development.
 - (5) Before deciding whether or not to grant consent to development on land within an ecological buffer, the consent authority must consult the Department.

8 Agricultural buffers

Consent must not be granted to development on land within an agricultural buffer unless the consent authority:

- (a) has considered the potential impact of the proposed development on agricultural activities on land adjoining the buffer and of those agricultural activities on future occupiers of land within the buffer, and
- (b) has consulted the Department of Primary Industries."

Response – Precinct 1

Ecological Buffer

As indicated on the revised plans at **Appendices 5 and 6**, the Precinct 1 layout has been revised such that all infrastructure including the bushfire asset protection zone is clear of the 50m ecological buffer. As a result, clearing of littoral rainforest is not required.

In respect of Precinct 1 the building layout has been amended to enable the asset protection zone (APZ) to be located clear of the outer 20m of the ecological buffer.

The building will be used for "rural supplies" which is a permissible use in the Precinct Development Matrix for employment land under the Kings Forest Development Code.

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The amended layout reduced the number of buildings from two to one and reduces the building floor area from 2060m² to 2036m². The revised design complies with the 50m ecological buffer and the provisions of Clause 7 of State Environmental Planning Policy (Major Development) 2005.

Agricultural Buffer

The plan at **Appendix I** of the Environmental Assessment Report (EAR) indicates that the buildings were proposed at 7m from the northern property boundary. The revised plans provide for an 8m setback to the northern boundary and a reduced building footprint.

Clause 8 of SEPPMD relating to agricultural buffers is addressed in Section 7.22 of the EAR, including an assessment of potential impacts and mitigation measures.

Given that the building is smaller in size, does not include any openings in the northern wall (other than roller doors for servicing) and is setback 8m from the boundary, it is considered that the revised Precinct 1 development is not inconsistent with Clause 8. Further detail has been added to the Agricultural Buffer Assessment prepared by Gilbert & Sutherland (July 2012) (**Appendix 29**) to demonstrate the low risk of conflict.

Response – Precinct 5

Ecological Buffer

The layout of Precinct 5 has been amended such that no infrastructure is contained within the ecological buffers other than shallow stormwater management areas (bioinfiltration and vegetated swales) will be located within the outer 20m of the buffer. In addition only part of the outer asset protection zone within the outer 20m of the located within the outer 20m of the ecological buffer.

The issue concerning urban development in the Golf Course buffer including earthworks, etc. is acknowledged particularly in the context of Clause 7 of the SEPP rezoning amendment for Kings Forest. Further mapping of existing heath areas will be undertaken and a review of the earthworks staging will be undertaken to minimise potential impacts on heath vegetation.

Otherwise, it is intended to retain the existing layout and development proposals within buffers with the exception of Precinct 5.

As indicated on the revised Precinct 5 plans at **Appendices 4 and 5**, the Precinct 5 subdivision layout has been amended to remove all infrastructure from the 30m inner ecological buffer. The only infrastructure in the outer 20m of the ecological buffer will be a stormwater management areas (bioinfiltration and vegetated swales), part of a bushfire APZ, a Koala fence and encroachment by Road No. 9 in the south western corner of Precinct 5 for an area of 686m² (see **Appendix 23**).

In summary, the revised Precinct 5 layout and ecological buffer arrangements are not inconsistent with Clause 7 of SEPPMD in that encroachments into the outer 20m are relatively minor and do not involve any hard infrastructure other than a Koala fence.

Golf Course Precinct (12 – 14)

This Project Application seeks approval for bulk earthworks within the Golf Course Precinct, including parts of the ecological buffers. Concerns have been raised by Tweed Shire Council and State Agencies in relation to the adequacy of justification for the buffer encroachments in terms of Clause 7 of SEPPMD. Section 7.23 of the EAR addresses ecological buffers, including mitigation and management measures.

In addition to that Assessment, and to further address issues raised, the following additional information is provided.

- ♦ *The Cudgen Paddock Golf Course Layout Plans (**Appendix 14**) were used to inform the location of the zone boundary on the basis that there would be some encroachments into the ecological buffers to enable the golf course to be constructed.*
- ♦ *Project 28 Pty Ltd would not have agreed to the zone boundary locations or agreed in principle to dedicate free of cost 150 hectares (subject to agreement with NPWS) to the NPWS if the relatively minor buffer encroachments were not going to be accepted.*
- ♦ *To further mitigate potential impacts, earthworks within the buffers will be carried out on a staged basis such that disturbed areas are minimised and promptly rehabilitated (see **Appendix 10** Section 6). The staging of earthworks in the Precinct 12 – 14 ecological buffers will be further managed by the Environmental Officer.*
- ♦ *Further mapping of existing heath areas has been undertaken and earthworks staging has been revised to minimise potential impacts on heath vegetation.*
- ♦ *Earthworks within the golf course 50m buffers have been excluded where heath is to be naturally regenerated.*

In summary, it is considered that the amended proposal and additional information provided justifies the proposed works within the buffers having regard to the relevant provisions of Clause 7 of SEPPMD.

Other Precincts

*The Project Application has been amended to minimise earthworks from ecological buffers in all other Precincts. In general, earthworks are limited to the outer 20m of the 50m ecological buffer, as shown on the Scope of Works Plan at **Appendix 5**.*

Tweed Shire Council has made the following recommendation in relation to development within ecological and agricultural buffers:

RECOMMENDATION: That the Buffer Management Plans and other associated plans are revised consistent with Clause 7 of Part 6 of Schedule 3 of SEPP (Major Projects) to ensure that: (1) no clearing of existing native vegetation occurs in the Ecological Buffers; (2) no earthworks or infrastructure development occurs within the inner 30m of the Ecological Buffers; (3) the Inner Protection Areas for APZs are not contained within the ecological buffer; (4) any APZ Outer Protection Areas located within the Ecological Buffers are designed to maximise their ecological function consistent with RFS guidelines; (5) the functionality of APZs is not compromised by overlapping habitat restoration; (6) koala food trees are not planted the same areas used to restore heathland; (7) the koala fencing should be contained within the 20m outer ecological buffer and encompass all planted koala food trees;

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(8) further detail is provided to document offsets required under the Concept Plan and their implementation within buffer areas adjacent environmental protection zones ensuring there are no spatial conflicts; (9) the proposed road within the ecological buffer on the eastern side of Precinct 5 is moved outside of the ecological buffer; (10) any drainage swales be confined to the 20m outer ecological buffer and be designed so that they can be maintained without compromising the ecological integrity of adjacent habitat and; (11) the design of the proposed golf course maintains a minimum of 30m inner ecological buffer which should be densely revegetated. (TSC, Page 113)

Response:

The following specific responses are provided to the eleven issues raised by TSC.

1. *NOT agreed.*
The layout of Precinct 5 has been amended such that no infrastructure is contained within the ecological buffers other than stormwater management areas (bioinfiltration and vegetated swales), Koala fence and part of an APZ within the outer 20m of the buffer. The access road to southern Precincts will also cross the ecological buffer in the southern portion of Precinct 5.
2. *See comments above.*
3. *Agreed (generally). The 20m APZ will be located outside of the 50m ecological buffer. In Precinct 5 however, a portion of the outer 20m of the ecological buffer will accommodate part of the APZ (Section 2.2.2 of the Precinct 1 & 5 BMP at **Appendix 10**).*
4. *Agreed. See comments above and refer Section 2.3.2 of the Precinct 1 & 5 BMP at **Appendix 10**.*
5. *Agreed. As mentioned above, the outer 20m buffer will accommodate a portion of the APZ in some areas. However, the revegetation/regeneration of heathland is the only habitat restoration to occur within the outer 20m buffer.*
6. *NOT Agreed. Heath regeneration and Koala food tree plantings are not considered incompatible. Koala food tree planting areas will provide opportunities for revegetation with heath species (i.e. Koala food tree species will form the canopy with heath species comprising the sub-canopy and understorey) Refer Appendix 4 of the KPoM.*
7. *Agreed. See comments above. Koala exclusion fencing will be erected between the outer 20m buffer and inner 30m buffer and all Koala food tree plantings will be encompassed by Koala fencing.*
8. *Agreed. All Rehabilitation/Regeneration works to be carried out within ecological buffers will be completed in accordance with the Vegetation Management Plans. Revegetation of heath communities is proposed within the majority of the buffers to the EPZs within the Kings Forest site. Planting of Koala food trees will be completed, where appropriate, on the Kings Forest site including in the 30m inner buffer to EPZs (in accordance with the KPoM and Vegetation Management Plans). The creation of core Acid frog breeding habitat will be completed within the inner 30m buffers in accordance with the Threatened Species Management Plans. All proposed compensatory habitat is shown in Figures 10 & 10A -10L of the Precinct 1 & 5 Buffer Management Plan (**Appendix 10**).*

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9. Agreed. Only a portion of the Precinct 5 ecological buffer will accommodate the proposed road to the southern Precincts (686m²).
 10. Agreed. See comments above.
 11. NOT agreed. See comments above.

3.1.10 Issue – Kings Forest Development Code

The original Code was approved by the Director General of the Department of Planning and Infrastructure on 12 December 2010 as a component of the Concept Plan.

The Department therefore is requested to approve the amended Kings Forest Development Code in conjunction with modification of the Concept Plan Approval as proposed in this Project Application.

A copy of the amended Development Code is contained at **Appendix 24**.

Council's submission (Page 53) indicates that the Code references AS3959-1999 Construction and Building in Bushfire Prone Areas and that this standard has been amended and superseded by the 2009 version being AS3959-2009.

It is not clear where the Code refers to the 1999 version. Section 2.2.1 refers correctly to AS3959-2009.

Notwithstanding the above, consequential and housekeeping amendments to the Code are proposed as follows:

Figure 1.2.1 – Kings Forest Concept Plan

This Figure has been replaced with the amended Concept Plan.

Part A, Section 2.2 – Complying Development

This Section of the Code does not make reference to the requirement to provide rainwater tanks. A new Control 5 in Section 2.2 has therefore been included requiring rainwater harvesting to be provided in accordance with **Appendix C** as per the minimum lot size specified in the Code.

Note 6: The requirements in Control (5) above may include any rainwater storage required to comply with State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004.

Figure 5.1.1 – Kings Forest Precinct Areas

This Figure has been replaced with the amended Precinct Plan.

Figure 5.4.1 – Street Network Plan

This Figure has been replaced with the amended Street Network Plan.

Table 5.4.1

The term "frontage" is not defined. The controls and table have therefore been amended to call up "effective lot width" as defined in Appendix A of the Code. The heading Minimum Frontage Corner Allotments has also been changed to read "Minimum Effective Lot Width".

Section 5.4, Control 8

Control 8 has been amended to replace the word "frontage" with "effective lot width".

Section 5.4, Control 10

Control 10 has been amended by adding the words "or public footway".

Figure 5.4.2

Shows the street networks sections for Kings Forest. Council (at Page 58) of its submission has raised issues concerning an inconsistency between the cross sections in the Code and those in the Application Plans. The sections in the Application Plans are correct and therefore it is proposed to make minor amendments to the Code by replacing Figure 5.4.2 with the correct Figure. (Now Figure 5.4.1 in the amended Kings Forest Development Code at Appendix 24.

Section 5.6, Control 1(a)

A review of the matters to be included in a Precinct Plan results in the following changes:

Section 5.6, Control 1(a) – delete as this is an onerous and unnecessary requirement to be shown on the Plan of Development (POD).

Section 5.6, Control 1(d) – delete the word "fill" as the POD does not need to contain this information as the land will be filled to the design flood level at the subdivision stage.

Section 5.6, Control 1(e) – delete as this is an onerous and unnecessary requirement. All necessary easements will be shown on the final Plan of Subdivision when actual service locations are known based on Works As Executed Plans.

Section 5.6, Control 1(j) – the words "dwellings per lot" have been changed to read "bedrooms per dwelling" as this is a more relevant consideration for the purposes of determining contributions, etc. at the subdivision stage.

3.1.11 Issue – Plan of Development Precinct 5

Details on Plans. (TSC, Page 56)

Response:

Development control details have been deleted from the Plan of Development drawings (see **Appendix 5**).

Issue

Minimum Lot Dimensions. (TSC, Page 56)

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Response:

Relevant lots have been amended to comply with the minimum lot dimensions in the Kings Forest Development Code (see **Appendices 5 and 22**).

Issue

Building Height Limits. (TSC, Page 56)

Response:

The intent of the Kings Forest Development Code is to generally limit building heights to a maximum of two storeys. Section 3.14 of the Code provides development controls to enable a third storey to be provided where key criteria can be established.

The revised Design Guidelines expand on these criteria and address the intent of the Code and the intended character of Precinct 5.

It is submitted that the Clause is not overly generous and does not provide a gate for developing three storey dwellings across the entire Precinct 5, but rather provides flexibility such that good urban design outcomes can be achieved providing the Code provisions and Design Guidelines are complied with.

Issue

On Street Parking. (TSC, Page 56)

Response:

On Street Parking is shown on the Plans at **Appendix 5**.

Issue

Terrace Dwellings. (TSC, Page 57)

Response:

The amended POD at **Appendix 5** and Concept Plan drawings provide for a revised configuration of terrace dwellings to provide visual space and to include a secondary road frontage to lots nominated for terrace dwellings.

3.1.12 Issue – Stage 1 Project Application Design Guidelines

(TSC, Page 58)

Response:

Amended Kings Forest Design Guidelines for Precinct 5 are provided at **Appendix 25**. The amended Guidelines address the key issues raised by Tweed Shire Council and are generally consistent with the provisions of Clause 5.7 of the Kings Forest Development Code relating to Design Guidelines.

3.1.13 Issue – Design Review Panel

(TSC, Page 58)

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Response:

The Design Review Panel (comprising Reg Van Rij, Amy Degenhart and Darryl Anderson) has been appointed by Project 28 Pty Ltd (see **Appendix 26**).

3.2 DGR 2 Subdivision Design, Layout and Desired Future Character

3.2.1 Issue – DGR 2.5 – Management and Maintenance of Open Space

Further negotiations are required with council to resolve a number of long term asset maintenance issues. (DOPI, Page 2)

Tweed Shire Council has made the following recommendation in relation to this issue:

RECOMMENDATION: That all Management Plans to explicitly indicate their commencement and duration. All Plans should commence on approval of the Project Application and continue to be implemented by the proponent for a period of 5 years or until 90% of lots are sold, or until completion criteria have been met, whichever is longer. (TSC, Page 84)

Response:

A Voluntary Planning Agreement (VPA) is to be negotiated with Tweed Shire Council (TSC).

A letter of offer provided by Project 28 Pty Ltd, dated 22 August 2012 is contained at **Appendix 27**. The letter contains the key provisions proposed by Project 28 Pty Ltd for inclusion in the VPA.

The revised Statement of Commitments for the Concept Plan at **Appendix 17** also includes a provision relating to dedication of land to Council.

The revised Statement of Commitments for the Project Application at **Appendix 17** also provides for the transfer of certain land to the NPWS.

3.2.2 Issue – DGR 2.7 – Open Space Network

Open Space Network - Further negotiation with council is required concerning layout and maintenance of Open Space. (DOPI, Page 2)

Response:

The approved Concept Plan provides for structured open space (active) totalling approximately 18.96 hectares to be provided on the eastern side of Precinct 7 abutting the wetland area.

Proposed amendments to the Concept Plan accompanying the Project Application indicate that structured open space would be provided in two locations. One area was located in Precinct 4 adjacent to the town centre and the larger area to be located in Precinct 9 adjacent to the neighbourhood centre and future community facility/ education precinct.

Following discussions with Council Officers, it is apparent that Council would prefer an aggregated area of structured open space incorporating the total land area required by the projected population.

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*This arrangement provides a more appropriate spatial land use allocation and also assists with flood mitigation and accordingly the proposed amendments to the Concept Plan have been revised to provide for one structured open space area within Precinct 9 comprising approximately 19 hectares, as shown on the proposed amended Concept Plan at **Appendix 5**. Council Officers have indicated that the revised area is generally satisfactory.*

Project 28 Pty Ltd will dedicate a total amount of structured open space based on 1.7 hectares per 1000 population at the occupancy rates nominated in Section 94 Plan No. CP19 – Kings Forest/Casuarina Beach.

The structured open space shall be embellished in accordance with the provisions of Tweed Development Control Plan 2008, Section A5 – Subdivision Manual, in particular Table A5-8.3, Sports Playing Fields – Development Standards.

A minimum of 4 hectares shall be dedicated and embellished for each 1000 dwellings erected on Kings Forest.

These provisions have been included in the revised Statement of Commitments for the Concept Plan Approval (**Appendix 17**).

Council Officers have also raised questions in relation to the proposed access arrangements to the Depot Road sports fields.

Access to the sports fields from Depot Road will cease once Kings Forest Parkway is commissioned (two lanes only). New access will be provided to the Depot Road sports fields through Precinct 4.

Council has also raised concerns with regard to widened road reserves such as adjacent to the Precinct 5 roundabout on Kings Forest Parkway and related to issues concerning maintenance costs for additional public land.

Project 28 Pty Ltd will maintain lawns and landscaping within widened road reserves within Kings Forest Parkway and Precinct 5 for a period of 5 years, or until Precinct 5 is 80% built out, whichever occurs first.

3.3 DGR 4 Infrastructure Provision

3.3.1 Issue – DGR 4.1 – Infrastructure Capacity

The Electricity Substation should ideally be located outside of any environmental protection areas and on land above the 1 in 100 year ARI flood level. (DOPI, Page 2)

Response:

*Negotiations with Essential Energy to locate the substation in Precinct 2 are being undertaken a suitable area has been allocated in Precinct 5 (see revised Concept Plan at **Appendix 5**).*

Issue

Power Line Corridor Dedication (Essential Energy, Page 1)

Response:

The creation of any necessary easement will be undertaken subject to negotiations with Essential Energy and NPWS. An appropriate provision has been included in the Revised Statement of Commitments.

3.4 DGR 5 Traffic and Access

3.4.1 Issue – DGR 5.5 – Safe Passage of Wildlife

Further details are required on how the acoustic fence is to be maintained in the long term. (DOPI, Page 2)

Response:

*Details of the acoustic fence maintenance arrangements are included in the letter of offer dated 28 August 2012 at **Appendix 27**. In summary, Project 28 commits to construct the acoustic fence on Old Bogangar Road, being public land, and maintain it until such time as that road is widened to 4 lanes, or traffic studies indicate that the volume of traffic on that road requires such widening, or for a period of 4 years after completion of construction of the fence, whichever is the earlier. An appropriate provision has been included in the Revised Statement of Commitments to this effect.*

3.4.2 Issue – DGR 5.6 – Road Crossings of Waterways

The department is not convinced that road grids and unspecified traffic calming measures on Kings Forest Parkway and Cudgen Paddock Access Roads are appropriate measures to ensure safe wildlife passage between habitat areas. (DOPI, Page 3)

Response:

*Fauna underpasses have been provided through Kings Forest Parkway. Koala fencing to exclude Koalas from the urban area is proposed and the number of grids has been reduced. Details are contained in the revised Koala Plan of Management at **Appendix 10**. The implementation of fencing, grids and underpasses precludes the need for traffic calming devices. In addition, where roads traverse EPZs (eg. Cudgen Paddock access roads), all vehicles will be restricted to 40kph.*

3.4.3 Issue – DGR 5.7 – SEPP 14 Road Crossings

No specific detail has been provided on how safe fish passage will be maintained by SEPP 14 road crossings. (DOPI, Page 3)

Response:

Road crossings within SEPP 14 wetlands will be designed to maximise fish passage, in accordance with DPI Guidelines (Why do Fish Need to Cross the Road? Fish Passage Requirements for Waterway Crossings). Provisions have been included in the revised Statement of Commitments (SOC) to provide for detailed designs to accompany the Construction Certificate Application.

3.4.4 Issue – Traffic and Access and Impact Upon the Safety and Efficiency of the State Classified Road Networks and Further Traffic Assessment to Determine Signalisation of Intersection

Intersection with Tweed Coast Road. (TSC, Pages 38-40 and NSW RMS, Page 1)

Response:

Following consultation with both Tweed Shire Council and Roads & Maritime Services, a Revised Traffic Impact Assessment has been prepared and is contained at **Appendix 15**. In summary, a revised Analysis has been undertaken which reveals that:

- ♦ The interim intersection design will operate satisfactorily with Stage 1 of development until 2018. At that time, the intersection will need to be upgraded to either traffic signals or roundabout.
- ♦ The traffic signals and roundabout treatment will reach capacity by 2023 assuming full development of Kings Forest (4503 dwellings). Tweed Coast Road will need to be upgraded to four lanes by that time.
- ♦ Both the traffic signals and roundabout intersection treatments will operate satisfactorily in 2023 if Tweed Coast Road is upgraded to four lanes.

The Report concludes that whilst either a signalised intersection or a roundabout would operate satisfactorily, it is considered the pedestrian demands will not be high enough to warrant the installation of traffic signals and there is a need to provide for U turns at the intersection so that traffic approaching from the north can turn back and access the existing row of houses located to the north of the intersection which would be difficult to achieve with traffic signals.

Based on the analysis undertaken, the Report considers that traffic signals may only meet the warrants imposed by the RMS for the final stages of development. The Report therefore considers that a roundabout is preferable to traffic signals with respect to intersection capacity and performance.

As indicated on the revised Engineering Plans at **Appendices 1 and 2** and the revised Traffic Impact Assessment at **Appendix 15**, a compliant roundabout can be accommodated at the intersection.

3.4.5 Issue – Traffic and Access – Precinct 5

Precinct 5: Additional Road (Connection Roads 11 & 22. Garbage Vehicle Access. (TSC, Pages 40-42)

Response:

The plan of development has been modified to provide a roundabout at the intersection of Roads 8 and 19 and the layout has been amended to connect Roads 11 and 22 (see **Appendix 5**).

Other matters raised by Council have been addressed where relevant in the amended Appendices or will be included in the Construction Certificate drawings.

Issue

Potential Bus Route. (TSC, Page 40)

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Response:

*The plan of development has been modified to provide more pedestrian connectivity and to reduce walking distance to within 400 metres for at least 90% of lots (see **Appendix 5**).*

Issue

Bus Zones. (TSC, Page 40)

Response:

*Bus routes are shown on the Bus Routes Plan at **Appendix 5** and in the revised Traffic Impact Assessment at **Appendix 15**. Translink (local bus service provider) has been consulted and it is understood that the organisation is satisfied with the proposed bus routes. Further details are provided in **Appendix 15**.*

Issue

Kings Forest Parkway Cross Sections. (TSC, Page 40)

Response:

*Long sections and cross sections have been provided (see **Appendices 1 and 2**).*

Issue

Acoustic Fence Layout. (TSC, Page 41)

Response:

*Relevant plans and reports have been amended. The revised Environmental Noise Assessment demonstrates that the noise level penetration (at the openings in the acoustic fence) is within acceptable levels (see **Appendices 5 and 16**).*

Issue

Footpaths. (TSC, Page 41)

Response:

*As indicated on **Appendices 1 and 2**, relevant plans have been amended to include footpaths.*

Issue

Cycleways. (TSC, Page 41)

Response:

*As indicated on **Appendices 1 and 2**, relevant plans have been amended to show cycleways.*

Issue

Road Cross Sections (Roads 9, 10, 23 & 27). (TSC, Page 41)

Response:

*Cross sections have been provided on the amended Engineering Plans (see **Appendices 1 and 2**).*

Issue

Horizontal Road Alignment. (TSC, Page 41)

Response:

*The amended Engineering Plans **Appendices 1 and 2** have ensured the required curve radii have been incorporated and that swept paths for critical locations can be achieved.*

Issue

Plans of Development. (TSC, Page 42)

Response:

*The Amended Plan of Development at **Appendix 5** contains relevant information.*

3.4.6 Issue – Funding Mechanism for all Future Infrastructure Upgrades to the Surrounding Road Network

(NSW RMS, Page 1)

Response:

TSC request to cap the # of lots to 1,267 until the Tweed Coast Road duplication from Chinderah to Casuarina is not agreed to by Project 28 Pty Ltd.

TRCP (Road Contributions) have been received by TSC for many years for developments in the immediate area including "Casuarina and Salt".

In addition the Kings Forest development will contribute approx \$7,440 per lot in TRCP contributions which equates to approx \$33.5M at the current TRCP contribution over the life of the project.

The fact that TSC have not included this upgrade in its current 5 year budget is not the responsibility of Project 28 Pty Ltd.

Project 28 Pty Ltd will comply with current Section 94 Contribution Plans.

3.4.7 Issue – Alternate Connection to Cudgen Road

(NSW RMS, Page 1)

Response:

Investigations have been undertaken in relation to the potential for a connection to Durambah Road to the south of Kings Forest. Environmental constraints and geometric constraints imposed by the existing road alignment together with existing land uses preclude a feasible connection.

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However, preliminary investigations reveal that a connection to Melaleuca Road, McCollums Road and Cudgen Road could ultimately be feasible, particularly if the land adjacent to these roads identified as a proposed future urban release area in the Tweed Shire Council's adopted Tweed Urban Land Release Strategy 2009 were to be rezoned and developed in the long term.

Accordingly, a link has been provided on the Concept Plan to Melaleuca Road from Precincts 8 and 9 (see **Appendix 5**).

3.5 DGR 6 Hazard Management and Mitigation

3.5.1 Issue – DGR 6.1 – Contamination

Contamination - Further assessment in accordance with SEPP 55 is required. (DOPI, Page 3)

Tweed Shire Council has provided the following recommended condition in relation to this issue:

RECOMMENDED CONDITION: A site audit statement prepared by an accredited NSW Site Auditor appointed under the provisions of the Contaminated Land Management Act shall be provided to Tweed Shire Council certifying the suitability of the subject land for the intended purposes as per Part A of the Statement following completion of bulk earthworks and prior to the commencement of any structures on-site. (TSC, Page 50.)

Response:

*The cattle dip site (which TSC refer to above is not within the scope of works area of this Project Application – Stage 1) therefore an exclusion zone is not required at this stage as bulk earthworks are not proposed in the vicinity of the dip. Further information in relation to this issue is contained in the letter of advice at **Appendix 11**.*

With respect to the contamination assessment submitted in support of the Project Application, Council has identified:

- ♦ *That as the full extent of contamination associated with the former cattle tick dip is not delineated, the application fails to address commitment 5.4 in the Statement of Commitments under the concept plan approval.*

It is our contention that as the bulk earthworks proposed under the current project application does not include the area where the dip and associated contamination is located, the detailed (Stage 2) contamination assessment is not required at this time to satisfy commitment 5.4.

- ♦ *DGR 6.1 requires the proponent to - Identify any contamination on site and appropriate mitigation measures in accordance with the provisions of SEPP 55 – Remediation of land. Council considers that because there is no agreement with Council for the acceptance of a containment cell in future public land, an appropriate remediation strategy has not been identified and therefore the DGR has not been addressed.*

Gilbert & Sutherland met with Council on August 1, 2012 to discuss Council's submission on contamination issues and to seek in principle agreement for the location of a containment cell within future public land or road reserve. Council acknowledged a number of precedents for the use of containment cells within public land, and indicated a willingness to accept an appropriately designed and located cell on the Kings Forest site.

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Gilbert & Sutherland have written to Council to formalize this agreement noting that prior to a containment cell being constructed on site, it would be subject to detailed design in accordance with the relevant guideline (ANZECC 1999 - Guidelines for the containment of contaminated material), approval by the Site Auditor and agreement with Council's engineering and works departments.

In relation to the fuel tank, further investigations have been undertaken which indicate that the existing fuel tank is located outside the extent of earthworks proposed under this Project Application.

An appropriate provision is included in the Concept Plan Approval 06_0318 Statement of Commitments addressing the need for a Stage 2 Contamination Investigation with future applications.

Issue – DGR 6.3 – Bushfire

Bushfire - The vegetation to the east of Precinct 5 has been assessed by the RFS as 'Forest'. This will have implications for the width of asset protection zones along this perimeter and/or the construction standards for future dwelling under AS 3959-2009. (DOPI, Page 3, TSC and RFS, Pages 15 - 17)

Response:

*A Bushfire Risk Management Plan is contained at **Appendix 10**. The Plan is based on forest vegetation. Asset protection zones and building attack levels have been calculated on this basis and the Precinct 5 layout has been amended to accommodate the APZs in the outer 20m of the ecological buffer and/or within the perimeter streets.*

Issue

The department require that asset protection zone widths and locations to be finalised prior to determination. Building lines or envelopes are to be provided for all lots along the bushfire hazard interface in order for appropriate asset protection zones/building construction standards to be calculated. (DOPI, Page 3)

Response:

*The revised POD at **Appendix 5** and Bushfire Risk Management Plan at **Appendix 10** show the APZ widths and building attack level construction standards for each lot.*

Issue

Tweed Shire Council has provided the following recommendation in relation to implementation of Environmental Management Plans:

RECOMMENDATION: That conditions be imposed to ensure the proponent assumes responsibility for the implementation of the environmental management plans arising from this project application (including any necessary revisions) for a period of 5 years, or until 90% of lots are sold, or until completion criteria have been met, whichever is longer. After this time council will assume management responsibility for the dedicated areas. (TSC, Page 71)

Response:

See response at Section 3.2.1.

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Issue – Bushfire Risk Assessment

Tweed Shire Council has provided the following recommendation in relation to this issue:

RECOMMENDATION: That the Bushfire Risk Management Plan and associated plans (Vegetation, Threatened Species, Buffer and Koala Management Plans) are revised to ensure that: (1) ecological assets are appropriately managed to minimise damage from bushfire; (2) the Inner Protection Areas for APZs are not contained within the ecological buffer; and (3) any APZ Outer Protection Areas located within the Ecological Buffers are designed to maximise their ecological function consistent with RFS guidelines. (TSC, Page 75)

Response:

*The revised Management Plans at **Appendix 10** address this issue. In summary, the layouts have been changed for Precincts 1 and 5 to comply and the drainage swale, part of the APZ and Koala fence only will be contained within the outer ecological buffer for Precinct 5.*

3.5.2 Issue – DGR 6.5 – Flooding

Flooding - The notation on the Precinct 5 Plan of Development that states that there are no flood prone lots is incorrect, please amend. (DOPI, Page 3)

Response:

*The note has been removed from the Precinct 5 POD on the basis that the residential lots will be constructed to the design flood level or higher (see **Appendix 2**).*

3.5.3 Issue – Bushfire Management

Tweed Shire Council has provided the following recommendation in relation to this issue:

RECOMMENDATION: That all environmental management plans be revised to ensure they can be independently costed for a 5 year period under the proponent's management and thereafter on an annual maintenance schedule under the control of Council. (TSC, Page 71)

Response:

*See letter of offer at **Appendix 27**.*

Issue

Tweed Shire Council has provided the following recommendation in relation to costing of revised Management Plans:

RECOMMENDATION: That an independent consultant is engaged by the consent authority to cost all revised environmental management plans on a yearly basis up to 5 years under the control of the proponent and thereafter on an annual maintenance schedule under the control of Council. (TSC, Page 71)

Response:

DOPI is the "Consent Authority" – see comments above At Section 3.2.1.

3.5.4 Issue – Rural Retail Development and Access to Precinct 1

Asset protection zone. (NSW RFS, Page 1)

Response:

The RFS has provided recommended conditions for Precinct 1. As indicated in Section 3.1.9, the Precinct 1 layout has been revised, including the size and configuration of the proposed buildings and their location on the site.

3.5.5 Issue – Subdivision, Road Works and Infrastructure Works Within Precinct 5

Asset protection zones. (NSW RFS, Pages 2 & 3)

Response:

The Precinct 5 layout has been amended to address issues raised by DOPI, EPA and TSC.

3.6 DGR 7 Water Cycle Management

3.6.1 Issue – DGR 7.1 – Integrated Water Cycle Management

The department supports Council's request for the installation of a treatment basin at the outlet of the low flow pipe, for containment on contaminants prior to discharge to Blacks Creek. (DOPI, Page 3)

Response:

*Relevant plans have been amended to include final treatment facilities (see **Appendix 2**).*

Issue

The department also supports Council's request for further assessment of the potential impacts of the residual stormwater pollutants, particularly sediment and nutrients entering Blacks Creek and the connected estuarine system. (DOPI, Page 3)

Response:

*Further assessment has been undertaken and is included in the revised IWCMP at **Appendix 10**. This additional assessment demonstrates that there will be 'no worsening' of the water quality discharging from the site following development of the proposed stage 1 works.*

Issue

Integrated Water Cycle Management Plan

Provide clarification of terms used on Drawing No. 10468.3.6 'Vegetated Swales' and 'Bioretention Trenches'. (DOPI, Page 3)

Response:

*The term stormwater management areas (bioinfiltration and vegetated swales) is used in the drawing, and these devices are the same as the bioretention trenches described in the text. This issue has been clarified in the revised IWCMP at **Appendix 10**.*

Issue

Provide further discussion on the relative pollutant removal efficiencies of these different systems and the space that each requires. (DOPI, Page 3)

Response:

Further detail has been included in the revised IWCMP report at **Appendix 10**.

Issue

Will there be enough stormwater discharge from the eastern catchment for groundwater recharge (See 4.1.5 Groundwater Management Plan)? (DOPI, Page 4)

Response:

The groundwater modelling demonstrates sufficient recharge based on recharge into the swale from the eastern catchment only. The modelling for this precinct shows no adverse impacts to the existing groundwater regime. This issue is further addressed in **Appendix 10**.

3.6.2 Issue – DGR 7.2 – Erosion and Sedimentation Control

*Erosion and Sedimentation Control Plan – The earthworks staging drawings have been broken down into a more detailed set of drawings showing the sequencing of earthworks (see **Appendix 2** and **Construction Management Plan** at **Appendix 10**).*

The majority of work within and adjacent to the SEPP14 Wetlands proposed during the Stage 1 are bulk earthworks and the specific management measures would be related to erosion and sedimentation control.

*The ESCP (**Appendix 10**) has been revised to include specific controls and typical design drawings to ensure that works within and adjacent to SEPP 14 wetlands do not adversely impact upon these sensitive environments.*

Groundwater Impacts - Please provide missing Drawing 10468.6.2. (DOPI, Page 4)

Response:

*The missing drawing is included in **Appendix 10**.*

3.6.3 Issue – DGR 7.6 – Existing Drains

Existing Drainage Lines - Adequate impact assessment of the proposed drainage maintenance on Blacks Creek has not been provided. (DOPI, Page 4)

Response:

*The Drainage Maintenance Management Plan has been revised to address Agency submissions and reflects the amendment to the proposed minimal impact maintenance regime, which no longer includes trimming or removal of vegetation or removal of snags (see **Appendix 10**).*

Issue – Flooding and Coastal Management Issues

(NSW EPA, Page 19)

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Response:

*The flood modelling has been revised to reflect the proposal to avoid/minimise maintenance within Black's Creek (see **Appendix 18**). The layout and design surface levels have been adjusted to be consistent with the modelled outcomes.*

3.6.4 Issue – Drainage Maintenance

Drainage Maintenance and impacts to threatened species habitat. (DOPI/ELA, Page 18, TSC, Page 52)

Response:

*Based on the submissions from various departments, the proposal has been revised, removing the need to maintain Blacks Creek in the manner discussed in the Drain Maintenance Management Plan. Spraying of aquatic weeds is no longer proposed and this will avoid impacts to rare and threatened species within the SEPP14 (see **Appendix 10**).*

3.6.5 Issue – Erosion and Sediment Control

Erosion and Sedimentation Control Plan (Gilbert & Sutherland, 2011). (DOPI/ELA, Page 20)

Response:

*The ESCP has been revised to identify water quality monitoring locations and specific management practices for works within or adjacent to the SEPP 14 wetlands (see **Appendix 10**).*

3.6.6 Issue - Acid Sulfate Soil (ASS) and Groundwater Assessment

Tweed Shire Council has provided the following recommendation in relation to this issue:

FURTHER INFORMATION REQUIRED: Groundwater Management Plan - The on-maintenance phase period stipulated for groundwater monitoring/ management of potential impacts is 6 months and therefore does not take into account a full 12 month seasonal influences. Further, the reporting to Tweed Shire Council is annually. No commitment/corrective action required is provided should monitoring fail to meet criteria at the end of the on-maintenance period. Further information is required in this regard. (TSC, Page 50)

Response:

*Groundwater monitoring has been increased to 12 months and further information has been included regarding monitoring (see **Appendix 10**).*

3.6.7 Issue – Water Quality in Cudgen Creek and Stormwater Ecological Considerations

(TSC, Pages 33, 34 and 65)

Response:

The revised IWCM demonstrates that water quality discharged from the site under the treated developed case is equivalent to the water quality of the pre-developed case, and meets Council's deemed to comply requirements and the ANZECC Water Quality Guidelines for Fresh Water (1992).

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Monitoring points will be established within Cudgen Creek, where access allows, to identify potential impacts to Cudgen Creek and Cudgen Lake. These monitoring points have been added to the revised Summary Management Plan (SMP), (formerly SBMP), the Stormwater Management Plan and the Overall Water Management Plan at **Appendix 10**.

3.6.8 Issue – Integrated Water Cycle Management

(TSC, Page 76)

Response:

The IWCM has been revised to incorporate an assessment of the receiving environment and potential impacts to the receiving waters.

3.6.9 Issue – Erosion and Sedimentation Controls

(TSC, Page 77)

Response:

*Further consideration has been given to the long term of likely site disturbance, which will influence maintenance provisions. Council's water quality data has been reviewed and appropriate, performance criteria for receiving waters has been established and included in the revised ESCP at **Appendix 10**.*

3.6.10 Issue – Stormwater Management

Tweed Shire Council has provided the following recommendation in relation to this issue: RECOMMENDATION: That the impact of stormwater on Cudgen Creek, particularly Nitrogen export, be investigated more thoroughly consistent with DGR7.1 which explicitly requires impacts to be assessed on the "surrounding environment".

The IWCMP modelling is an indication of the proposals capacity to meet requirements of the Tweed Shire Council's Urban Stormwater Quality Management Plan, but it has not been demonstrated that the development will have no impact on water quality and aquatic habitat values in receiving environments. (TSC, Page 78)

Response:

*The IWCM has been revised to incorporate an assessment of the receiving environment and potential impacts to the receiving waters. The revised IWCM demonstrates that water quality discharged from the site under the treated developed case is equivalent to the water quality of the pre-developed case, and meets Council's deemed to comply requirements and the ANZECC Water Quality Guidelines for Fresh Water (1992). Monitoring points will be established within Cudgen Creek, where access allows, to identify potential impacts to Cudgen Creek and Cudgen Lake. Council's water quality data has been reviewed and has been used to establish interim water quality criteria for receiving waters which are included in the revised SWMP & SMP at **Appendix 10**.*

Issue – Stormwater Kings Forest Parkway

(TSC, Pages 32 & 33)

Response:

*Council require access to the proposed Bio filtration/ Stormwater reticulation along the median on Kings Forest Parkway. This can be set up during the initial earthworks stages. Council proposes that this is conditioned (see revised SOC at **Appendix 17**).*

3.6.11 Issue – Surface and Groundwater Hydrology

Tweed Shire Council has provided the following recommendation in relation to this issue:

RECOMMENDATION: That a thorough independent review of the groundwater hydrology impacts of the proposed development, with particular reference to possible ecological and catchment management implications, is conducted prior to approval of Stage 1. In addition to reviewing impacts on the surrounding natural environment, such a review should specifically address any uncertainties regarding the technical feasibility of the proponent's plans for habitat rehabilitation of groundwater-dependent or groundwater-sensitive vegetation communities or threatened species. (TSC, Page 79)

Response:

Groundwater issues have been considered in detail by NOW & responses to their submission are provided at Section 3.6.14.

3.6.12 Issue – Overall Water Management

Tweed Shire Council has provided the following recommendation in relation to this issue:

RECOMMENDATION: That further information be provided demonstrating that the range of measures proposed to manage golf course nutrient leaching will be effective in eliminating increased nutrient export to adjacent natural areas. (TSC, Page 79)

Response:

*The SMP & OWMP have been reviewed and revised as necessary to be consistent with the DECC document "Improving the environmental management of NSW Golf Courses". Water quality monitoring locations and criteria have been incorporated into relevant Management Plans (see **Appendix 10**).*

Issue

Tweed Shire Council has provided the following recommendation in relation to this issue:

RECOMMENDATION: That the Overall Water Management Plan is revised to include specific long term water quality monitoring in the Environmental Protection zones, Ecological Buffers, and in the receiving environment along Blacks Creek and Cudgen Creek including Cudgen Lake. (TSC, Page 79)

Response

The IWCMP and the Overall Water Management Plan have been revised to include water quality monitoring locations within Blacks Creek and Cudgen Creek and these are located to coincide with TSC's existing water quality data-set and to facilitate the identification of impacts to the receiving environment.

3.6.13 Issue – Maintenance of Existing Drainage Lines (Blacks Creek) and Policy for Dredging and Reclamation and Policy for Minimising Water Pollution

(NSW EPA, Page 17, NSW DPI, Pages 1 and 2)

Response

*The proposed maintenance regime for Blacks Creek has been substantially revised, to address multiple submissions raising these concerns (see revised Drainage Maintenance Impact Assessment (DMIA) and Drainage Maintenance Management Plan (DMMP) at **Appendix 10**).*

Issue – Policy for Snag (Large Woody Debris) Management

Overview. (NSW DPI, Page 2)

Response:

The proposed maintenance regime for Blacks Creek has been substantially revised, to address multiple submissions raising these concerns. Removal of snags has been deleted from the revised DMMP at Appendix 10.

3.6.14 Issue – NSW Office of Water Comments

Issues raised by NOW have been addressed in the revised at DMMP at **Appendix 10**.

NOW has recommended that seven conditions be imposed as follows:

Condition

The applicant to prepare a Surface Water Management Plan in consultation with and to the satisfaction of the NSW Office of Water prior to the commencement of works. (NOW, Page 2)

Response:

*An Overall Water Management Plan has been prepared which includes proposed management practice and monitoring requirements for surface water (Attached at **Appendix 10**). The OWMP could be revised as required to meet the satisfaction of NoW, prior to the commencement of works.*

Condition

The applicant to prepare a Groundwater Management Plan in consultation with and to the satisfaction of the NSW Office of Water prior to commencement of works. (NOW, Page 2).

Response:

*A Ground Water Management Plan (attached at **Appendix 10**) has been prepared which includes proposed management practice and monitoring requirements for ground water. The GWMP could be revised as required to meet the satisfaction of NoW, prior to the commencement of works.*

Condition

The applicant to prepare an Erosion and Sediment Control Plan to the satisfaction of the NSW Office of Water prior to commencement of works. (NOW, Page 3).

Response:

*An Erosion and Sediment Control Plan (attached at **Appendix 10**) has been prepared to establish appropriate management practice and monitoring requirements during the development of the site. The ESCP could be revised as required to meet the satisfaction of NoW, prior to the commencement of works.*

Condition

It is recommended that the applicant prepare an Acid Sulfate Soil Management Plan (ASSMP) to the satisfaction of the NSW Office of Water. (NOW, Page 3).

Response:

*An ASSMP has been prepared in accordance with industry best practice. The ASSMP could be revised as required to meet the satisfaction of NoW prior to the commencement of works. The ASSMP is contained at **Appendix 10**.*

Condition

The applicant to obtain the relevant licences under the *Water Act 1912* and the *Water Management Act 2000* (whichever is relevant at the time application is made) for all activities that intercept or extract groundwater and surface water prior to commencement of these activities. (NOW, Page 4).

Response:

*Licence applications will be lodged as required for activities intercepting groundwater (see revised SOC at **Appendix 17**).*

Condition

The applicant must ensure all monitoring bores and works that intersect groundwater are licensed with the NSW Office of Water. All Form A's association with the bores must be submitted to the NSW Office of Water. (NOW, Page 5).

Response:

Licences have been obtained for all monitoring wells on site. Any new monitoring wells will be licensed as required.

Condition

The applicant must ensure that infiltration / constructed detention basins, ponds, wetlands, diversion channels and Bioretention are constructed with an impermeable liner to prevent direct infiltration to the groundwater table. (NOW, Page 5).

Response:

Bioretention devices that are the subject of this project application do not infiltrate directly to groundwater and licences should not be necessary.

3.7 DGR 9 Flora and Fauna

3.7.1 Issue – DGR 9.3 – Wetland Habitats

Further specific detail is required on how wetland habitats are to be protected during bulk earthworks. (DOPI, Page 4)

Response:

Temporary high visibility fencing will be erected (in accordance with Australian Standard 4970-2009 Protection of Trees) to protect retained vegetation including wetland habitats. No machinery, rubbish or spoil will be stored within EECs (including wetland habitats) during the construction phase. Vehicle wash-down areas or access tracks will not be located in or immediately adjacent to EECs (including wetland habitats). Also refer to comments at Section 3.6.2.

In accordance with the ESCP (**Appendix 10**, Section 13), stockpiled soil should be stored at least 60m away from SEPP 14 wetlands (Table 13.3.3). Sediment fences should be installed up gradient of all vegetation to be retained (Drawing No. 10468.4.1). Where possible, tracks shall not be placed within retained vegetation.

If this is not possible, the tracks shall be identified on the Vegetation Management Plan, paved in locations to minimise environmental impact and constructed so as to minimise erosion. These tracks shall be locked with keys available only to approved personnel (Table 13.3.4). Erosion and sediment controls will be installed in accordance with the set of standard details provided in Drawing No. 10468.4.2.

3.7.2 Issue – DGR 9.4 – Management Plan Updates

Biodiversity Management Plans - The management plans lack the detail that project level plans require. (DOPI, Page 4)

Response:

*More detailed assessment of proposed impact and rehabilitation areas and more comprehensive and accurate Management Plans are contained at **Appendix 10**.*

Issue

A major deficiency in the EA and all the biodiversity management plans is a lack of detail on timelines for implementation of recommended works and measurable performance and completion criteria. (DOPI, Page 4)

The department require that a monitoring report be submitted with the PPR in order to address the above deficiencies. A more comprehensive Site Based Management Plan may fulfil this requirement, as suggested below. (DOPI, Page 4)

Response:

A Flora and Fauna Monitoring Report has been completed and is contained at **Appendix 10**. The Kings Forest Stage 1 Management Plan has been revised to reflect monitoring requirements recommended by James Warren & Associates (see **Appendix 10**).

Following consultations with TSC and DOPI, the Implementation and Summary Table was agreed to (email Stuart Withington dated 27 July 2012). The agreed Table has been included in each section of the Kings Forest Stage 1 Management Plan at **Appendix 10**.

3.7.3 Issue – Endangered Ecological Communities

Endangered Ecological Communities (EECs). (DOPI Ecological Australia(ELA), Page 4)

Response:

As EEC's on the site are vegetation communities, they have been addressed in the "Vegetation" Management Plan rather than the "Threatened Species" Management Plan. The TSMP clearly states in the objectives that it relates to Flora & Fauna. The VMP clearly states in its objectives that it includes EEC's. However, the TSMP now includes a section on EEC's and refers to the VMP for restoration, enhancement and management strategies.

The final alignment of the proposed roads through the central SEPP 14 wetlands was approved as part of the Concept Approval. The location of the road in question avoids the majority of significantly vegetation by utilising and existing cleared/regrowth corridor in this area.

The electricity substation will be relocated, to within the development footprint of Precinct 2, subject to negotiations with Essential Energy.

It is thought that EPA & ELA may be referring to dated vegetation mapping in relation to Littoral rainforest EEC. No Littoral rainforest EEC was mapped within the MP's that accompanied the Stage 1 application. An inspection and assessment of the area previously mapped as containing Littoral rainforest EEC was completed on 1st May 2012. The findings of this assessment demonstrate that although individual Littoral rainforest species occur, this vegetation community is highly degraded and does not meet the description of an endangered ecological community as defined in the EPBC Act. Details of this assessment are contained in APPENDIX 1 of the Precinct 1 & 5 Threatened Species Management Plan (**Appendix 10**).

3.7.4 Issue – Flora

Threatened Flora. (DOPI/ELA, Page 5)

Response:

The 5 additional species mentioned have not been recorded on the subject site despite numerous and detailed assessments of the subject site by a multitude of botanical experts spanning over the last 20+ years. No further assessment of flora species that "may potentially occur" on the subject site is considered necessary. In any event, the species mentioned would likely benefit from the proposed habitat retention, enhancement and restoration measures proposed.

The Recovery Plan for the Green-leaved rose walnut was incorrectly referenced but that has not affected the content of the TSMP. The TSMP has been appropriately amended (see **Appendix 10**).

JWA are more than qualified and experienced to identify specimens of *Phaiusaustralis* should they occur and are well aware that other species of *Phaius* occur in Australia.

It is agreed that the propagation of additional stems of the Stinking cryptocarya would be desirable (see revised SOC at **Appendix 17**).

ELA provide no argument/evidence/further comments as to why the proposed 10m buffer to the White yielyiel "seems inadequate". It is considered that a 10m buffer is adequate in conjunction with the other management actions detailed in the Precinct 12 - 14 TSMP (see **Appendix 10**, Section 23).

ELA note that there "is some inconsistency in the management actions between the different species". Management actions for different species will differ based on the specific requirements of each species, their position in the landscape, potential threats etc.

The ELA report mentions *Arthraxonhispidus* in one paragraph of the report when discussing the need for a detailed survey of vegetation areas on site prior to clearing. This is the only mention of this species in the entire report. This species has not been recorded from the subject site despite numerous detailed surveys discussed above. There are only six (6) records of this species in the entire Tweed LGA, the nearest of which occurs near Hastings Point, approximately 5km south of the subject site.

3.7.5 Issue – Fauna

Threatened Fauna. (DOPI/ELA, Page 6)

Response:

There may have been an error in the EAR in relation to numbers of Threatened species recorded and considered a possible occurrence on the site. The TSMP's now deal with 19 Threatened fauna species in total.

The ELA report notes a discrepancy between the monitoring proposal within the TSMP (5 years) and the SBMP (6 months). Relevant Management Plans have been amended to adopt the timeframes contained in **Appendix 27**.

3.7.6 Issue – Acid Frog Compensatory Habitat Plan

Acid Frog Compensatory Habitat Plan. (DOPI/ELA, Page 14, TSC, Page 66)

Response:

The Wallum froglet is the focus of the plan as this species is widespread across the site. The Wallum sedge frog has been recorded in a few isolated locations only. A brief synopsis of the habitat requirements of both species is provided. . However, Acid frog compensatory habitat will be created to accommodate the requirements of Wallum sedge frogs, as Wallum froglets will readily utilise this habitat also. More detail has been provided in the WFCHP (**Appendix 10**).

The Ecosense (2005) report is referenced as this plan was implemented as part of the Tugun Bypass and has been successful at recreating habitat for both species.

There is no requirement in the plan to show vegetation mapping. Numerous overlays on soil type, acid sulphate soils, aerial photography and Acid frog records were provided.

A summary of the existing values/features of each of the 14 proposed compensatory habitat areas (including photographs) was provided. Detailed assessments of each site will be completed as part of the WFCHP. It is agreed that melon-holes may not be required in all areas subject to the detailed assessment.

It is agreed that recreating the correct substrates in areas subject to earthworks will be a challenge however it has been completed successfully in the past as part of the Tugun Bypass.

Obviously breeding habitat does not currently occur in all proposed compensatory habitat areas. The entire philosophy of the plan revolves around creating additional breeding habitat in these areas. It is considered that these areas will be utilised by Acid frogs once there is suitable habitat (i.e. melon holes) created.

Specific measures have been detailed in numerous management plans to ensure pollution of proposed compensatory habitat areas within the golf course does not occur.

JWA disagree that there is no evidence to suggest that dense planting of sedges will assist in the prevention of mosquito breeding.

The ELA report states that the reference to the Tugun Bypass habitat is incorrect as melon-holes are proposed at Kings Forest instead of larger ponds, then lists a number of benefits of melon holes.

Council suggests that the proposal is "largely experimental" and fails to recognise that a similar project was undertaken during the Tugun Bypass and has been shown to be successful.

3.7.7 Issue – Feral Animal Management Plan

Feral Animal Management Plan. (DOPI/ELA, Page 16)

Response:

Consultation with the relevant Livestock Health and Pest Authority (LHPA) during feral animal control works could be conditioned. It is recommended in the FAMP that through the implementation of the identified control options, collaboration with adjoining landholders and organisations such as NSW National Parks and Wildlife Service, NSW Livestock Health and Pest Authorities and Tweed Shire Council should be included, with solid, ongoing working relationships developed with these stakeholders. Rabbits, *Gambusia holbrooki* and Indian (Common) mynas have been included in the FAMP. A Species Profile, assessment of possible control options and recommended control options for these species are contained in the FAMP (Sections 3, 4 and 5 respectively).

The incidence of accidental trapping of native frog species during light trapping would be mitigated through monitoring during the trapping as outlined in the FAMP. The severity and likelihood of this threat is far outweighed by the threat of Cane toad colonisation.

Installation of furniture at fauna underpasses is not agreed as the dimensions of the underpasses are not adequate for this to occur. However, underpasses are to be vegetated with Koala food trees, on both sides, within a 20m radius of the openings. This will facilitate safe dispersal through underpasses for native wildlife.

Issues – Control Options

Further discussion of control options is required. (DOPI, Page 4)

Further discussion of control options and a coordinated control program with neighbours, such as the NPWS is required. (DOPI, Page 5)

These inadequacies have previously been made in the Director-General's Report on the concept plan. (DOPI, Page 5)

Response:

A revised Feral Animal Control Plan is contained at Appendix 10. Control options have been considered further and discussed with reference to a coordinated approach with adjacent landholders and relevant agencies. Further discussion with NPWS regarding integrated feral animal control options is currently taking place.

Gambusia should be added as a threat. (DOPI, Page 5)

Response:

Gambusia have been added to the FAMP at Appendix 10.

Issue

Tweed Shire Council has made the following recommendation in relation to this issue:

RECOMMENDATION: That the Feral Animal Management Plan is revised to ensure that: (1) the aim of the Plan is expanded to include ecological communities, the built and human environments; (2) appropriate acknowledgement is given to changes in the landscape that will arise from the development and the need for ongoing management of feral species; (3) contemporary literature and regulations of relevance are included in the Plan; (4) Rabbits, Indian Mynas and Mosquito fish are included as priority species for action; (5) Rabbits and Ferrets (and Stoats) are not to be kept on the estate; (6) a clear strategy for the management for each feral species of concern including management objectives for each species, actions for each phase of the development (pre-construction, construction and operational phases), specific control strategies for any Threatened species, clearly defined management zones, timing/seasonality, preferred management options (eradication, containment etc) and responsibilities for action; (7) the monitoring and evaluation framework is measurable and comprehensive, is able to effectively inform the management response and can be evaluated against the stated objectives; (8) efforts are made to build solid and ongoing working relationships with key stakeholders, in particular adjoining landholders and relevant staff from organisations such as the NSW LHPA, NSW NPWS and Tweed Shire Council; (9) future drafts of the Plan should be developed in consultation with these parties; and (10) the implementation table is updated to reflect all actions, timings and responsibilities necessary to meet the stated objectives. (TSC, Page 100)

Response:

1. Not Agreed - The FAMP is designed to address the conservation areas only on the Kings Forest.
2. *NOT agreed. The FAMP was specifically prepared using the LandPartners plan that was approved with the Concept Plan. Targeted surveys of Feral animals would not likely identify any additional feral animal species on the site.*
3. *Agreed. Contemporary literature and relevant legislation/regulations have been reviewed and included in the FAMP (refer Section 2 of the FAMP at **Appendix 10**).*
4. *Agreed. Rabbits, Indian Mynas and Mosquito fish have been included in the FAMP.*
5. *Agreed. The FAMP states that Rabbits and mustelids (including ferrets and stoats) will not be permitted to be kept on the estate (refer Appendix 10 Section 17 of the FAMP - Section 5.5).*
6. *Agreed. Clear management strategies are outlined in this FAMP that include timing and responsibilities for each action (refer Implementation and Summary Table and Sections 4 & 5 of the FAMP).*
7. *Agreed. The monitoring framework is included in Section 7 of the FAMP. A more comprehensive monitoring program is detailed within the Flora and Fauna Monitoring Report, contained at Section 4.0 at Appendix 10.*
8. *Agreed. It is recommended in the FAMP that through the implementation of the identified control options, collaboration with adjoining landholders and organisations such as NSW National Parks and Wildlife Service, NSW Livestock Health and Pest Authorities and Tweed Shire Council should be included, with solid, ongoing working relationships developed with these stakeholders.*
9. *Agreed. The consultation process is currently in progress. Future drafts will be developed in consultation with the relevant stakeholders.*
10. *Agreed. An Implementation and Summary table has been included in the FAMP that outlines actions, timings and responsibilities to achieve the objectives of the FAMP.*

3.7.8 Issue – Review of Ecological Matters and Relevant Management Plans

Dedication of Environmental Lands and Long Term Management of Environmental Open Space (TSC, Page 62)

Response:

*These issues are addressed in the key provisions for inclusion in the VPA (**Appendix 27**) and revised SOC (**Appendix 17**).*

3.7.9 Issue – Matters of National Environmental Significance

Tweed Shire Council has provided the following recommendation in relation to this issue:
RECOMMENDATION: Council considers the proposed removal of Littoral Rainforest inappropriate and recommends Environmental Assessment and associated Management Plans are revised to ensure the retention and management of the Littoral Rainforest community in the vicinity of Precinct 1. (TSC, Page 66)

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Response:

In respect of Precinct 1 the building layout has been amended to enable the asset protection zone (APZ) to be located clear of the outer 20m of the ecological buffer. The extent of the littoral rainforest has been resurveyed by JWA and the amended layout will avoid disturbance.

3.7.10 Issue – Environmental Management Plans

Council requests that the proponent assumes responsibility for the implementation of the environmental Management Plans arising from this Project Application (including any necessary revisions) for a period of 5 years, or until 90% of lots are sold, or until completion criteria have been met, whichever is longer. (TSC, Page 67)

Response:

*NOT agreed – Project 28 Pty Ltd will maintain casual and structured open space for 3 years and environmental open space for up to 5 years or until such time as the rehabilitation reaches agreed performance standards, as indicated in the relevant Management Plans and Letter of Offer (**Appendix 27**).*

3.7.11 Issue – Staging of the Development and Long Term Management and Maintenance of Environmental Open Space

Tweed Shire Council has provided the following recommendations in relation to this issue:

RECOMMENDATION: Subject to further consideration at a later stage of issues related to the ownership and management of environmental areas within Precinct14 (proposed golf course), Council accepts dedication of the environmental lands (including buffers) proposed in Appendix L2 (see also Environmental Assessment Fig 4). (TSC, Page 68)

RECOMMENDATION: The Staging Plan for dedication of environmental lands to Tweed Shire Council should be reviewed and appropriately conditioned on the basis of the following principles: (1) dedication should occur as soon as practical after subdivision; (2) the extent of lands to be dedicated should include any environmental protection areas adjacent to the proposed stage extending to where such areas are intersected by any approved road alignment or adjoin environmental buffers to adjacent stages; (3) environmental buffers directly adjacent to a proposed stage should be dedicated with the approval of that stage; and (4) buffers to adjacent stages to be dedicated with the approval of those stages. (TSC, Page 68)

RECOMMENDATION: That the scope and intent of the above recommendations including the outcomes of discussions on an appropriate funding mechanism are to be embodied in a Voluntary Planning Agreement together with any other relevant matters (e.g. see p19 of EA) which is to be finalised prior to approval of Stage 1 of the development. (TSC, Page 71)

Response:

*Construction and Staging Plans are provided (see **Appendices 1, 2 and 3**). The timing of dedication and ongoing maintenance of environmental areas is addressed in the Letter of Offer at **Appendix 27**.*

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3.7.12 Issue – Safe Passage of Wildlife

Tweed Shire Council has provided the following recommendation in relation to this issue:

RECOMMENDATION: That the revised KPOM be reviewed consistent with DG5.5 and 9.8 to address: **(1)** additional fencing to seal off Precinct 5; **(2)** timing of fencings which should occur as soon as possible after approval; **(3)** installation of gates to prevent public access to undeveloped parts of the site; **(4)** design and modification of fencing adjacent to Tweed Coast Road; **(5)** design of traffic calming measures to prevent motor vehicle speeds in excess of 40kph through environmental areas; **(6)** the design of lighting to improve visibility in any areas where koalas and other wildlife are able to cross roads; and **(7)** the design of signage to ensure that motorists are aware of the possibility of encountering koalas and other fauna on roads through environmental areas. (TSC, Page 72)

Response:

Comments in relation to timing of fencing, lockable gates and fencing along tweed coast road are considered valid. However, any replacement of fencing along Tweed Coast Road should not be the responsibility of Project 28 Pty Ltd.

1. *Agreed. The proposed design of Koala exclusion fencing will completely enclose Precincts 1, 2, 3, 4 and 5. See FIGURES 10A & 10B in the revised KPOM at **Appendix 10**.*
2. *Temporary high visibility fencing is to be erected along the edge of the 30m inner buffer zone at Precincts 1 and 5 in accordance with AS 4970-2009. Permanent Koala exclusion fencing will generally be erected at the completion of bulk earthworks. Timing of fencing – see **Appendix 27**.*
3. *Agreed – gates will be installed to prevent public access to undeveloped parts of the site.*
4. *NOT agreed – TSC responsibility.*
5. *Agreed – There will be a 40kph speed limit set where roads traverse Environmental Protection areas. The design of fencing, grids and underpasses precludes the need for traffic calming devices..*
6. *Agreed? Where applicable lighting (capped) will be provided at all grids and additional potential koala and other wildlife crossing points, to reduce fauna and vehicle collisions.*
7. *Agreed – – The following signage (relating to koalas and other fauna on roads) is to be provided as discussed in the KPOM:*
 - *Permanent signage on the margins of EPZs (on/adjacent to Koala exclusion fencing) at intervals of no more than 100m, stating “Koala habitat area” and explaining the purpose of exclusion fencing;*
 - *Educational signage (at intervals of no more than 100m) where roads traverse environmental protection areas, stating “Koalas – slow down: Koala sightings (contact number)”;* and
 - *Educational signage at each grid location explaining their purpose and stating “Koala sightings (contact number)”.*

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Issue

Tweed Shire Council has provided the following recommendation in relation to this issue:

RECOMMENDATION: That the Environmental Assessment be revised to specifically outline the suite of measures proposed to maintain safe passage of wildlife through habitat areas consistent with DGR 5.5. (TSC, Page 72 and 73)

Response:

*Appropriate changes to relevant Management Plans have been made to address this issue (see **Appendix 10**). It is not considered necessary to amend the EA given the suite of measures contained in the revised Management Plans which include:*

- Fencing to exclude Koalas from the urban area (Precincts 1, 2, 3, 4 & 5).
- Lockable Gates
- Tweed Coast Road Fencing to exclude Koalas from the urban area
- Fauna Underpass within Kings Forest Parkway immediately west of the Tweed Coast Road and immediately west of Precinct 4.
- Fish Passage Facilities where required through roads

3.7.13 Issue – Fish Passage

Tweed Shire Council has provided the following recommendation in relation to this issue:

RECOMMENDATION: That the Environmental Assessment is revised to include a clear statement of policy and intent with respect to fish passage, along with accurate details of how this will be achieved in reality. Importantly, the impact of structures proposed in addition to road crossings, for example floodgates or causeways should also be addressed, including the location, maintenance, modification or installation of such structures on Blacks Creek. (TSC, Page 74)

Response:

Road crossings within SEPP 14 wetlands to be designed to maximise fish passage, in accordance with DPI Guideline (Why do Fish Need to Cross the Road? Fish Passage Requirements for Waterway Crossings). Further detail will be provided with the CC application.

*Relevant Management Plans have been revised to address this issue (see **Appendix 10**) and provisions have been included in the revised SOC (**Appendix 17**).*

3.7.14 Issue – Monitoring Impacts on Cudgen Nature Reserve

Tweed Shire Council has provided the following recommendation in relation to this issue:

RECOMMENDATION: That a detailed environmental monitoring program be prepared in consultation with NSW Office of Environment and Heritage (OEH) to ensure that any impacts of the development on Cudgen Nature Reserve are minimised. (TSC, Page 100)

Response:

NOT agreed. The multitude of MP's prepared for the Stage 1 application are considered more than adequate to monitor potential impacts within the vicinity of the Cudgen Nature Reserve. It is considered that any monitoring within the CNR should not be the responsibility of the proponent.

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3.7.15 Issue – Wallum Frog Habitat Compensation

Tweed Shire Council has provided the following recommendations in relation to this issue:

RECOMMENDATION: That further specialist review is undertaken to examine the technical feasibility of the proponents plans to re-establish acid frog habitat on the site. (TSC, Page 106)

RECOMMENDATION: Should the review above indicate that the proposal is feasible, a comprehensive acid frog management plan is prepared by the proponent in consultation with Department of Planning, independent expert(s), OEH and Tweed Shire Council prior to the determination of the Project Application. Such a Plan should specify contingencies in the event that the proposed plans perform poorly.

RECOMMENDATION: That the mapping of areas for acid frog habitat is reviewed to ensure that it does not impinge on areas suitable for the planting of koala feed trees or dry heathland.

Response: See comments at 3.7.6

Issue – Wallum Frog Habitat on Proposed Golf Course

(TSC, Page 108)

Response: See comments at 3.7.6

Issue – Impacts on Acid Frog Species

(NSW EPA, Page 2)

Response: See comments at 3.7.6

Issue – Acid Frog Compensatory Habitat

(NSW EPA, Page 11)

Response: See comments at 3.7.6

3.7.16 Issue – Koala Plan of Management

The KPOM should be revised to the satisfaction of EPA. (NSW EPA, Page 2)

Issue

Various issues. (DOPI, Page 5)

Response:

Issues raised by the Department are addressed in the revised KPOM at **Appendix 10**. In summary, the key changes to the KPOM include:

- An Implementation and Summary table that details the purpose, timing and responsibility of management/monitoring actions;
- References to contemporary literature;
- A revised Koala exclusion fencing design;

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-
- Further details regarding the impacts to Koala habitat from the proposed development;
 - A habitat assessment demonstrating that Koala trees, Acid frog habitat and heathland occur together on the Kings Forest site; and
 - Further description of Koala food tree plantings and compensatory habitat;

Issue

No removal of Koala food trees. (TSC, Page 96)

Response:

- ♦ It is unclear which areas "dominated by identified koala food trees" TSC are referring to as being removed from ecological buffers.
- ♦ Council's "conservative" estimate of 3,600 koala food trees to be removed is far from conservative and is unequivocally wrong. There will be minimal losses to Koala habitat as only isolated occurrences of Koala food trees will be removed. No Primary or Secondary (B) koala habitat is to be removed as a result of the Kings Forest Stage 1 development works. The proposed development will result in the loss of 6.68 ha of Secondary (A) habitat (i.e. areas where Primary food tree species are present but not dominant or co-dominant). This equates to a direct loss of seven hundred and forty-two (742) individual trees. Of these trees to be removed from Secondary (A) habitat, only eighteen (18) individual trees are considered Primary Koala food trees comprising seventeen (17) Swamp Mahogany and one (1) Tallowwood.
- ♦ It is proposed that approximately 7,875 Koala food trees and 7,875 other endemic Sclerophyll Forest species will be planted to offset this relatively minor and unavoidable loss.
- ♦ Council have suggested that Scribbly gum should be added to the list of Koala food trees on the site and whilst there may be a removal of some scribbly gums from the site this is considered to be extremely minor in relation to the habitat available on the site and the additional habitat proposed to be established.

Issue – Research Cited

Most research cited is quite dated. (DOPI, Page 5, TSC, Pages 64, 82 to 98 and 120 to 123)

Response:

We disagree that the references used are dated - they range from 1978 – 2012. Further references have been added to the KPoM including contemporary reference to preferred Koala food trees (NSW Koala Recovery Plan (DECC 2008)) and updated information regarding Koala Management within the Tweed Shire.

*Monitoring, timeframes and performance criteria were deferred to the preparation of the Annual Flora & Fauna Monitoring Report (CP Condition B2). This report is attached at **Appendix 10**.*

Issue

Land to which the Plan applies... (DOPI/ELA, Page 10)

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Response:

The report is Titled "Kings Forest Stage 1 Project Application: Koala Plan of Management", a detailed description of the proposed Stage 1 works is provided in Section 1.5, and the scope of works depicted in Figure 8.

Issue

The ELA report states that the KPoM has not considered the relationship between food tree species and soil landscapes on the site have not been considered, and on the other hand notes that the KPoM mentions up to 30 species may be preferred by the Koala but mentioning that an exhaustive list of 100 species is provided in the NSW Recovery Plan.

Response:

Having regard to the soil landscape on the subject site, the 100 potential food tree species would not all be relevant, particularly given the list within the Recovery Plan covers tree species occurring throughout all of NSW.

Issue

The proposed 5 year monitoring period would not be sufficient to cover all construction works.

Response

The KPoM is for Stage 1 works only. It is also considered that sufficient detail is contained on the monitoring to be undertaken. Further detailed methodologies would be included within the Annual Koala Monitoring Reports (AKMRs).

Issue

The ELA report suggests that floppy-top fencing should be used without providing justification as to why, then states that no justification is provided for the fencing proposed.

Response

Details and justification for the proposed fencing are provided and the particular type of fencing proposed has been utilised extensively in the northern NSW and south-east Qld regions.

The proposed fencing will completely enclose Precincts 1, 2, 3, 4 & 5. Fencing in Precinct 7 and other areas in the western portion of the Kings Forest site will be addressed upon the development of those areas.

The future fencing requirements for later stages of development would be subject to assessment at such time that the future DA's are prepared.

Issue

Underpasses and Grids

Response

This issue is addressed in the Revised KPOM at **Appendix 10**.

The grid leading into the western precincts would be temporary as future fencing of habitat areas in the western precincts would preclude the requirement for this particular grid.

Issue

Management Plan Integration

Response

*The revised Bushfire Risk Management Plan (**Appendix 10**) and revised KPOM (**Appendix 10**) address integration of bushfire management issues.*

Issue

Roads through Koala Habitat

Response

No roads through Koala habitat areas are proposed during Stage 1 works (i.e. earthworks haulage roads only). All vehicles will be restricted to a 40 km per hour speed limit on haulage roads that traverse EPZs.

Issue

Koala Management – Banning Dogs. (TSC, Page 64)

Response:

See Concept Plan Condition C2(2). An absolute ban is considered to be unreasonable. There is no requirement to ban dogs. Dogs & Koalas will not come into contact as residential areas will be enclosed by Koala exclusion fencing. It is this fencing plan that Council & the Koala advisory group have shown support for. Further details are contained in the KPOM on the proposed bushfire management measures & the specific treatment of proposed Koala food tree areas within and adjacent to APZ's.

Issue – Implementation Schedule

Tweed Shire Council has provided the following recommendation in relation to this issue:

RECOMMENDATION: That an implementation schedule should be included in a revised KPOM. This schedule should itemise all recommended actions required (including those detailed in other management plans) to ensure that the KPOM meets its aim. The schedule should show how each action meets the objectives of the KPOM, timing, frequency and responsibilities for action, resources required, costs, performance criteria, and outputs. (TSC, Page 84)

Response:

All management plans include an agreed Summary and Implementation Table.

Issue - Koala Plan of Management – Data, Monitoring, Koala Habitat, Additional Measures

Tweed Shire Council has provided the following recommendation in relation to this issue:

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RECOMMENDATION: That the KPOM be reviewed to ensure that offsets are not used to account for impacts that can be avoided or mitigated and that residual impacts are explicitly identified and used to inform the proposed offset strategy. (TSC, Page 89)

Response:

The loss of Koala habitat has been avoided where possible and will result in the loss of 742 individual trees from Secondary (A) habitat. It is proposed that approximately 7,875 Koala food trees and 7,875 other endemic Sclerophyll Forest species will be planted to offset this relatively minor and unavoidable loss.

Issue – Offsets

Tweed Shire Council has provided the following recommendation in relation to this issue:

RECOMMENDATION: That a review of all offset and habitat compensation arrangements is undertaken prior to approval of the project application. This is ensure that all offsets are clearly documented, that there is no spatial duplication of offsets for ecologically unrelated impacts, and that management and contractual arrangements for any off-site compensation, should it be required, is in place. (TSC, Page 89)

Response:

Further description of Koala food tree plantings and compensatory habitat are included in the revised KPOM including a habitat assessment demonstrating that Koala trees, Acid frog habitat and heathland occur together on the Kings Forest site. The location of compensatory habitat areas is detailed within the revised Buffer Management Plans.

Issue – Review of Koala Plan of Management

Tweed Shire Council has provided the following recommendation in relation to this issue:

RECOMMENDATION: That the consent authority seek an independent review of the revised KPOM in accordance Concept Approval condition B1. (TSC, Page 89)

Response:

The revised KPOM has been peer reviewed by Ecological Australia and their advice has generally been adopted, where relevant.

Issue – Revised Koala Plan of Management

Tweed Shire Council has provided the following recommendation in relation to this issue:

RECOMMENDATION: That the KPOM is revised to accurately reflect contemporary literature on: (1) and koala management and planning practices in the Tweed Shire; (2) koala feed trees in northern NSW; and (3) threats to the local koala populations from bushfire. (TSC, Page 89)

Response:

*The revised KPOM at **Appendix 10** addresses the issues in Council's Recommendation. See above comments.*

Issue – Baseline Monitoring

Tweed Shire Council has provided the following recommendation in relation to this issue:
RECOMMENDATION: That the KPOM be reviewed to include a baseline monitoring report prior to approval of the current project application in accordance with DGR 9.6 and Concept Plan Condition B2. (TSC, Page 89)

Response:

*The draft FFMR at **Appendix 10** includes baseline monitoring details.*

Issue – Annual Koala Monitoring Report

Tweed Shire Council has provided the following recommendation in relation to this issue:

RECOMMENDATION: That the KPOM be reviewed to include an outline of an Annual Koala Monitoring Report prior to approval of the current project application in accordance with DGR 9.6 and Concept Plan Condition 82.

This outline should provide a comprehensive list of all ecological monitoring parameters and management actions (including those detailed in other management plans) necessary to meet the aim of the KPOM together with information on how they are to be measured, how often, by whom, measurable performance criteria, and resources (technical and financial) necessary to carry out the actions themselves and the associated monitoring and reporting. (TSC, Page 89)

Response:

See above.

Issue – Review of KPOM

Tweed Shire Council has provided the following recommendation in relation to this issue:

RECOMMENDATION: That the KPOM is reviewed to ensure that: (1) sufficient areas can be located for koala food tree planting without compromising other management objectives in the Ecological Buffers or the integrity of existing vegetation communities (2) the list of potential koala feed trees is expanded to include scribbly gum (*Eucalyptus racemosa*) which should be used only in vegetation communities containing this species; (3) the KPOM acknowledges and provides sufficient habitat compensation for residual impacts arising from impediments to movement of koalas throughout the site; (4) it includes a comprehensive summary of all management actions including those detailed in other Plans, necessary meet the objectives of the KPOM.; and (5) revegetation and rehabilitation works will commence on approval of Stage 1. (TSC, Page 89)

Response:

Recommendations 1 to 4 have been agreed to and are included in the revised KPOM. Recommendation 5 is NOT agreed –revegetation and rehabilitation works will commence at the completion of bulk earthworks in accordance with the Buffer Management Plans and Vegetation Management plans.

Issue – Koala Plan of Management (Dogs)

Tweed Shire Council has provided the following recommendation in relation to this issue:

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RECOMMENDATION: That the KPOM is reviewed to ensure: (1) implementation of a complete ban on dogs within the site; and (2) provision is made to enable additional patrols and compliance by Council Rangers to police the ban. (TSC, Page 93)

Response:

See CP Condition C2(2). An absolute ban is considered to be unreasonable.

Issue – Alternative to Banning Dogs

Tweed Shire Council has provided the following recommendation in relation to this issue:

RECOMMENDATION: That should the recommendation to ban dogs from the site (see above) be considered unacceptable, the Project Application (including the KPOM) is reviewed to ensure that any roads though the environmental areas of the site include: (1) fencing on both sides of a design that will prevent the crossing by dogs and koalas; and (2) fauna underpasses are installed at intervals sufficient to allow unimpeded movement by wildlife including koalas across the roads. (TSC, Page 93)

Response:

See previous response regarding grids and fencing of habitat areas.

1. *Not agreed. Precincts 1, 2, 3, 4 and 5 will be completely enclosed by Koala exclusion fencing and associated gates and grids, eliminating the need to fence the two access roads (haulage only) that traverse through Environmental Protection areas to the southern portion of the Kings Forest site.*
2. *Agreed. The design and location of fauna underpasses have been included in the revised KPOM. These underpasses will facilitate the safe dispersal of wildlife.*

Issue – Revised KPOM and Revised Site Management Plan

Tweed Shire Council has provided the following recommendation in relation to this issue:

RECOMMENDATION: That the revised KPOM and where relevant the Site Management Plan be reviewed consistent with DGR 9.9 to: (1) make Friends of Koala the immediate contact point regarding advice on the management of any injured or dead animals found on or near the site; (2) ensure that Tweed Shire Council, Friends of Koala and EPA (previously DECCW; North East Branch) are forwarded any observation/incident reports together with information of actions taken and any immediate outcomes as soon as practical after the observation/incident; (3) ensure a 40kph speed limit where roads traverse the environmental protection areas during construction phases; (4) provide further detail on proposed educational signage and; (5) provide further detail and liaison on the scope, membership and resourcing of the proposed residents association. (TSC, Page 93)

Response:

1. NOT agreed – the OEH/TSC will be the first contact.
2. NOT agreed – the OEH/TSC will be forwarded any observation/incident reports.
3. Agreed.
4. Agreed. See comments at 3.7.12.

-
5. Agreed. A residents association having as one of its aims the protection of the local Koala population will be established by the Proponent. The residents association will be open to all Kings Forest residents in consultation with Tweed Shire Council, the NSW Environmental Protection Authority and the Office of Environment and Heritage.

Issue – Koala Plan of Management – Revegetation, Tree Removal, Dogs, Road Design

(TSC, Page 95)

Response

*The revised KPoM at **Annexure 10** addresses relevant issues. Management Plans will be prepared for each relevant future DA.*

Scribbly gum has been added to the Koala feed tree species list in the KPoM.

Removal of Koala food trees from buffers - refer to above comments on ecological buffers.

Issue – Koala Plan of Management – Sightings, Dog Exclusion, Education, Koala Injury

Procedures for Koalas Sighted in Construction or Urban Areas. (TSC, Page 97)

Response

Educational signage as described at 3.7.12 along with an information package (brochure/booklet and website) for purchasers of properties within Kings Forest will outline the correct procedures to follow for Koalas sighted in Construction and/or Urban Areas. TSC suggest that measures for operational phase stated in the KPoM need to also be included in the SMP. The SMP is for the construction phase only.

Issue – Specification for any Off-Leash Dog Exercise Areas

(TSC, Page 97)

Response:

It is not intended to provide any off-leash dog exercise area within Kings Forest specifically to service the needs of residents of Precinct 5. Such areas are provided by Council at South Kingscliff beach, South Fingal/Kingscliff beach, South Cabarita beach, Corowa Park and Turnock Park. The provision of an off-leash dog exercise area within the western parts of Kings Forest will be considered in future Project Applications/Development Applications in relation to residential subdivision of that part of the property.

Issue – Koala Awareness and Education Measures

(TSC, Page 98)

Response:

Prior to entering into any sales agreement with respect to the subdivided allotments within Precinct 5 an environmental awareness and extension program will be undertaken which will include, but not necessarily be limited to, the following:

-
- An information package for purchasers of land at Kings Forest shall be commissioned by the Proponent. This shall be approved by a suitably qualified person and comprise, firstly, a brochure or booklet provided free of charge to all original purchasers of Kings Forest properties and made available through appropriate service outlets within the Kings Forest estate; and
 - A web page containing the required information.

In addition

- Signage pursuant to the objectives of this Plan will be provided in appropriate locations adjacent to Kings Forest Parkway and within Precinct 5, and
- A residents association having as one of its aims the protection of the local Koala population will be established by the Proponent. The residents association will be open to all Kings Forest residents in liaison with Friends of the Koala, Tweed Shire Council, the NSW Environmental Protection Authority and the NSW National Parks and Wildlife Service.

The revised KPoM provides further details of the above measures.

Liaison with other groups re scope and resourcing, etc. would be at the discretion of Project 28 Pty Ltd.

Issue – Reporting of Koala Deaths and Injuries

(TSC, Page 98)

Response:

Any observations of Koalas (including any mortality if it was to occur on Kings Forest during development) will be reported in accordance with the recommendations of the Office of Environment and Heritage. Incidents will also be reported to TSC.

Issue – Koala Plan of Management

(NSW EPA, Page 7)

Response:

There is no requirement to acknowledge the Koala Advisory Group or the DRAFT CKPoM in the Kings Forest KPoM. The Kings Forest KPoM was required to be prepared in accordance with the provision of SEPP 44 because a shire-wide KPoM was not in existence.

Issue – Consistency of Commitments – KPOM and VMP

(NSW EPA, Page 8)

Response:

See previous comments regarding koala trees & heath in combination. Referencing other MP's in the KPoM rather than continually regurgitating what is already detailed elsewhere is considered to be an appropriate approach. It is noted in the introduction of the KPoM that it must be read in conjunction with a list of other MP's.

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3.8 DGR 10 Earthworks

Issue

Figure 2 of the EA and the Scope of Works Plan at Appendix H are inconsistent. (DOPI, Page 6)

Response:

*Amended drawings are contained at **Appendices 2 and 5.***

Issue

The department requires further detailed plans showing the sequence of earthworks and maximum exposed areas. (DOPI, Page 6)

Response:

*Detailed plans are provided at **Appendix 2** and contained within the Bulk Earthworks Management Plan which forms part of the Construction Management Plan at **Appendix 10.***

Issue

Plans submitted for earthworks in Precinct 4 are not sufficiently detailed for Project level approval. (DOPI, Page 6)

Response:

*Clause 50 of the Environmental Planning and Assessment Regulations, 2000 prescribes the information that must accompany a Development Application (a Project Application is considered to be equivalent to a Development Application in relation to this issue), the revised Engineering Drawings for bulk earthworks at **Appendix 2** comprise preliminary Engineering Drawings as required by Schedule 1, Part 1, Clause 2(g) of the EPA Regulation. Further grading of Precinct 4 has been undertaken to provide evidence that flood free levels for development can be achieved and that future stormwater infrastructure can be engineered and installed to Tweed Shire satisfaction.*

Detailed Engineering Plans will accompany the Construction Certificate Application, in accordance with the requirements of Schedule 1, Part 3, Clause 6 of the EPA Regulation 2000.

Issue

Further details are required of the proposed recipient location of fill from Precinct 5 (and Precinct 4 if further details are provided) to enable movement of fill from Precinct 5. (DOPI, Page 6)

Response:

*Detailed plans are contained at **Appendix 2** and within the Bulk Earthworks Management Plan at **Appendix 10.***

Issue

Further discussion is required on how the bulk earthworks across the rest of the site is intended to be undertaken. (DOPI, Page 6)

Response:

*Further discussion and detailed plans are contained in **Appendices 1 and 2.***

Plans and reports have been amended to refer to AS3798-2007.

3.8.1 Issue – Bulk Earthworks

Bulk earthworks and impact of fill. (TSC, Pages 34-37)

Response:

*Issues raised by Council in relation to bulk earthworks are addressed in the revised Engineering Report and Plans at **Appendices 1 and 2.***

*A Haulage Management Plan based on a potential source of fill and a likely haul route and traffic volumes is contained at **Appendix 10.***

Issue

Cut and Fill Batters and Future Maintenance. (TSC, Page 37)

Response:

*Mortons Urban Solutions Design Batters do not exceed 1V:4H with the exception of some road batters to negate disturbance to environmentally sensitive areas. These batters are designed at 1V:2H as indicated on the revised Engineering Plan at **Appendix 2.** And if required will be constructed of a structural fill other than sand. These batters will be engineered and certified by a certified Geotechnical engineer.*

Issue

Engineering Drawings. (TSC, Page 37)

Response:

One set of A1 drawings have been provided to assist in the review and interpretation of the drawings.

3.9 Water and Sewer Infrastructure

Issues

- ♦ Sewer and Water Report. (TSC, Page 42)
- ♦ Existing Sewer System & Description. (TSC, Page 42)
- ♦ Sewer Flow Estimates. (TSC, Page 43)
- ♦ Sewer Strategy. (TSC, Page 43)
- ♦ Water Strategy. (TSC, Page 44)
- ♦ Sewer Reticulation. (TSC, Page 44)

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- ♦ Sewer Pump Stations. (TSC, Page 44)
 - ♦ Water Reticulation. (TSC, Page 45)
 - ♦ Existing Council 600mm diameter trunk water main. (TSC, Page 45)

Response:

Issues relating to water and sewer infrastructure are addressed in the revised Engineering Services Report and Plans at **Appendices 1 and 2**.

Issue

Subdivision Plan. (TSC, Page 45)

Response:

A separate lot for a sewer pump station has been included in the amended Subdivision Plans (see **Appendix 4**).

Issue

Integrated Water Management Plan. (TSC, Page 45)

Response:

The revised IWCMP recognises Council's adopted Demand Management Strategy and acknowledges that recycled water would not be available to reduce demand on potable supply. The revised IWCMP is contained at **Appendix 10**.

Issue

Rainwater Tank Sizes. (TSC, Page 46)

Response:

The Kings Forest Development Code has been amended to include provisions requiring rainwater tanks for Complying Development (see **Appendix 24**).

3.10 Acid Sulfate Soil (ASS) and Groundwater Assessment

3.10.1 Issue – Recommended Condition

TSC has recommended the following condition:

"Any Management Plan or Variation to such Management Plan submitted to Tweed Shire Council for approval/review shall be subject a fee as stipulated within Tweed Shire Council's current adopted Fees and Charges Policy." (TSC, Page 50)

Response:

Recommended condition accepted (the proponent will pay any fees that are statutorily required).

3.11 Waste Management

3.11.1 Issue – Waste Management Plan

Council recommends that a Waste Management Plan accompany the PPR. (TSC, Page 52)

Response:

Preparation of a generic WMP at this stage is of little value as a management tool. When final Engineering Plans are prepared and a contractor has been appointed, a WMP will be prepared and submitted for approval prior to the issue of a CC. The revised SOC includes this commitment.

3.12 Fencing

3.12.1 Issue – Fencing/Signage at the Entrance to Kings Forest

Visual Impacts. (TSC, Page 55)

Response:

*The revised Stage 1 Statement of Landscape Intent at **Appendix 8** contains details of the entry fencing and signage.*

*A VPA will be negotiated in relation to management and maintenance of the proposed entry signage and statements within the road reserves, generally in accordance with the letter of offer dated 22 August 2012 at **Appendix 27**.*

3.12.2 Issue – Acoustic Fencing Along Kings Forest Parkway

Visual Impacts. (TSC, Page 55)

Response:

*The Precinct 1 Landscape Concept Plan at **Appendix 7** shows proposed landscaping, and textures to mitigate the visual impacts of the fence.*

3.13 Amendment to the Concept Plan

3.13.1 Issue – Precinct 4 – Town Centre Precinct

Proposed Town Centre. (TSC, Page 59)

Response:

The approved Concept Plan locates the town centre in the northern part of Precinct 4, immediately south of the Deport Road sports fields and immediately west of Kings Forest Parkway.

The amendment to the Concept Plan accompanying the Project Application does not propose to vary the location or size of the town centre.

The amendment does propose an area of structured open space on the southern side of the town centre, however the structured open space area is now proposed to be aggregated into one structured open space area in Precinct 9, as discussed in Section 3.2.2.

3.13.2 Issue – Condition C13 – Geotechnical Assessment

Council recommends that Condition C13 is not amended.

Response:

In summary, Condition C13 requires a detailed Geotechnical Assessment Report to be submitted with each future Development Application for subdivision.

The Project Application proposes a modification of the condition to require that a detailed Geotechnical Assessment be prepared, where relevant, with each future Development Application for subdivision.

The intent of this minor amendment is to ensure that Development Application involving boundary adjustments and the like do not trigger a detailed Geotechnical Assessment.

Project 28 Pty Ltd therefore confirms the request to modify Condition C13 as proposed in the Environmental Assessment.

3.14 Precinct 12

3.14.1 Issue – Adjoining Allotment

(TSC, Page 59)

Response:

Precinct 12 (Residential) adjoins Lot 77 which is also zoned residential. Investigation of a road link to this lot is a requirement of Council's Subdivision Manual (TDCP2008, Section A5).

*A provision has been included in the revised SOC for Concept Plan Approval 06_0218 requiring future Development Applications over Precinct 12 to investigate a road link to Lot 77 (see **Appendix 17**).*

3.15 Operation of the SEPP 2005 and the LEP 2006

(TSC, Page 59)

Response:

Project 28 Pty Ltd agree with the approach of TSC and DOPI in relation to the new shire wide Local Environmental Plan replacing SEPP (Major Development) generally as outlined in Councils submission.

3.16 Weed Control/Vegetation Management Plan

Issues

Aims and objectives and performance criteria. (DOPI, Page 5)

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Weed species. (DOPI/ELA, Page 10)

Response:

*These issues are addressed in the revised WMPs and VMPs at **Appendix 10**. Section 1.2 of the revised VMPs outlines the aims and objectives in which assisted natural regeneration is listed as a specific objective of the plan.*

It is considered that the Performance Criteria detailed within the revised VMPs and WMPs are adequate for all vegetation communities to be rehabilitated on the Kings Forest site and that it is therefore unnecessary to tailor specific criteria for differing vegetation communities (refer Section 4.4 of VMPs and Section 4.5 of WMPs).

Vegetation mapping will be updated prior to bulk earthworks for the compiling of baseline data. As part of this mapping, areas that are appropriate for soil seedbank translocation will be identified. APPENDIX 1 of the Precinct 1 & 5 Vegetation Management Plan details the methodology for soil seedbank translocation.

Once the site is occupied, a list of noxious and environmental weed species will be provided to residents and written into the Development Control Plan or other development design requirements for the site, to avoid the use of weed species for planting in private gardens (refer Section 3.2 of WMPs).

3.16.1 Issue – Threatened Species Management Plan

Clarification of incompatible restoration priorities and proposed Acid Frog compensatory measures. (DOPI, Page 5)

Response:

Acid frog compensatory habitat will be created in concomitance with heath revegetation and Koala food tree planting. Overlapping proposals for these habitat types are not considered incompatible. Existing vegetation communities on the Kings Forest site are indicative that Acid frog habitat, Koala habitat and areas of heathland are not mutually exclusive. A habitat assessment was completed on the 6th August 2012 to demonstrate that these habitat types occur together on the Kings Forest site. Details of this assessment are included as APPENDIX 4 of the KPoM.

In areas where there is some overlap in the characteristics and objectives of proposed regeneration/revegetation areas, Koala feed tree species would form the canopy with heath species forming the sub-canopy and understory. Acid frog habitat would be created in the form of melon holes within these areas (refer revised TSMPs for details of Acid frog compensatory habitat).

3.16.2 Issue – Site Based Management Plan

This Plan requires amendment to fulfil its purpose. (DOPI, Page 6, ELA, Page 21)

Response:

The SBMP has been revised and renamed "Summary Management Plan" (SMP) to condense related sections and provide further detail on performance criteria and monitoring requirements. The SMP has also been reviewed and revised as necessary to be consistent with the DECC document "Improving the environmental management of NSW Golf Courses".

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3.16.3 Issue – Landscaping

Tweed Shire Council has made the following recommendation in relation to this issue:

RECOMMENDATION: That the species used for landscaping be revised to reflect appropriate locally native species where possible. Acceptable species should be negotiated with Council staff. (TSC, Page 72)

Response:

*The revised Landscape Plans at **Appendices 7 and 8** address this issue.*

3.17 Engineering

3.17.1 Issues Below

- ♦ Ensuring the provision of stormwater treatment at all urban drainage outlets. (TSC)
- ♦ Long term hydraulic operation of Blacks Creek and associated modelling;
- ♦ Concept stormwater management for Precinct 4 to verify bulk earthworks plans;
- ♦ Lack of impact assessment for fill importation from external sources under the bulk earthworks concept plans;
- ♦ Traffic modelling and the subsequent intersection designs with Tweed Coast Road;
- ♦ Road widths and bus accessibility within Precinct 5;
- ♦ Lack of detail on engineering plans for on street parking, footpaths and cycle ways. (TSC)

Response:

*These issues have been further addressed in the revised Engineering Report and Plans at **Appendices 1 and 2** and relevant Management Plans at **Appendix 10**. Details will be submitted with the Construction Certificate Application Plans.*

3.17.2 Issue – Conflicting Rehabilitation and Revegetation Objectives

(TSC, Page 64)

Response:

The relevant MP's clearly and precisely state that some areas will be utilised for more than one rehabilitation purpose (i.e. koala trees in combination with frog habitat etc.) and how this is to be achieved.

3.17.3 Issue – Other Plans of Management

Issue

Tweed Shire Council has made the following recommendation in relation to this issue:

RECOMMENDATION: That further review of the management plans is conducted to ensure there are no inconsistencies in the implementation of the plans of management as required by DGR 9.4 and Concept Plan Condition C2. (TSC, Page 84)

Response:

All Management Plans have been revised to address key issues and the amendments to the project (see **Appendix 10**).

Issue

Tweed Shire Council has made the following recommendation in relation to this issue:

RECOMMENDATION: That all Management Plans should be revised to include a detailed implementation schedule which should itemise all recommended actions required (including those detailed in other management plans) to ensure that the relevant Plan meets its aims. The schedule should show how each action meets the objectives of the Plan, timing, frequency and responsibilities for action, resources required, costs, performance criteria, and outputs. (TSC, Page 84)

Response:

The agreed Summary and Implementation Table is attached to each revised Management Plan.

Issue

Tweed Shire Council has made the following recommendation in relation to this issue:

RECOMMENDATION: Performance criteria for all environmental Management Plans are revised in consultation with Department of Planning, Office of Environment and Heritage, and Tweed Shire Council to ensure they are specific, measurable, achievable, relevant and timely. (TSC, Page 84)

Response:

The revised Management Plans at **Appendix 10** address relevant issues.

3.17.4 Issue – Golf Course Management Plan

Council notes that the Golf Course Management Plan is not included in the Project Application. (TSC, Page 84)

Response:

The Golf Course Management Plan provisions have been integrated into the SMP at **Appendix 10**.

Issue

A Golf Course Management Plan is not included with the Project Application. (TSC, Page 108)

Response:

A Golf Course Management Plan will accompany the future Development Application to construct and operate the Golf Course. The suite of revised Management Plans at **Appendix 10** adequately address relevant issues likely to arise as a result of bulk earthworks within the Golf Course Precinct.

3.17.5 Issue – Vegetation Management Plan

(DOPI/ELA, Page 9)

The first 7 comments/recommendations are fairly specific and are addressed in the revised management plans as follows:

- *Harvesting of Slash Pine is to be completed as soon as possible to remove the continuing input of wilding propagates (refer revised WMPs);*
- *Species lists are also included for the planting of Littoral Rainforest species in the Precinct 1 30m inner buffer (refer Section 2.2 of Precinct 1 & 5 BMP);*
- *Errors in the spelling of some scientific species names have been amended;*
- *Any bush regeneration company employed is to be suitably qualified and experienced in the local area;*
- *The timing of wetland works (June to September) is specified in Section 3.4.3 of the revised VMPs;*
- *When planting out seedlings, a slow release fertiliser and water crystals should be used (to manufacturers recommendations) to maximise survival rates (refer Section 3.4.4 of VMPs); and*
- *All retained vegetation is to be fenced in accordance with Australian Standard 4970-2009 Protection of Trees and no machinery, rubbish or spoil is to be stored, or vehicle washdown area located within retained vegetation (refer revised VMPs and WMPs).*

It is difficult to determine which Figure 9 ELA is referring to when they mention "the VMP". There were three VMP's prepared for three different sections of the site. In any event, all VMP's are relevant to all vegetated areas. Figures showing regeneration/revegetation are specific to those areas shown. Weed control will be completed throughout remaining areas.

There is potentially an error in JWA Figure 10 (Precinct 1 & 5 VMP). The correct precinct boundary has been used however an error has been made when identifying/overlaying heath regeneration areas (ie. the boundaries of these areas were not updated with the last layout change).

JWA utilised LandPartners management zones which were included in the VMP approved as part of the Concept Approval. We don't see the issue if the boundaries of the Management Zones don't follow the vegetation boundaries. The Management Zones do not cover all vegetated areas as these management zones identify areas requiring site specific works. As discussed above, weed control will be completed throughout all vegetated areas.

Tweed Shire Council has made the following recommendation in relation to this issue:

RECOMMENDATION: That the work units and associated management actions in the Vegetation Management Plans are revised to include all areas for which works are proposed. (TSC, Page 99)

Response:

*The VMP at **Appendix 10** has been revised to address this issue.*

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The VMPs utilise the work areas identified in the Revised Vegetation Management Plan (Landpartners 2009). As portions of the ecological buffers have been identified as requiring regeneration and/or revegetation works and occur outside of the LandPartners work areas, these are included in the works schedule as 'Additional Work Areas' (refer Section 3.4.2 of VMPs) and are also detailed in the Buffer Management Plans.

Issue

Short, Medium and Long Term Habitat Rehabilitation Measures. (TSC, Page 99)

Response:

The timing of habitat rehabilitation measures is detailed within the revised Buffer Management Plans, Vegetation Management Plans, Weed Management Plans and Threatened Species Management Plans. Monitoring programs are outlined in the Flora and Fauna Monitoring Report contained at Section 4.0 at Appendix 10.

Issue

Revegetation and Regeneration. (TSC, Page 99)

Response:

See previous comments regarding Koala food trees and heath in combination.

Issue

Rehabilitation of Creeks and Drainage Lines has not been explicitly addressed as required by DGR 9.10. (TSC, Page 99)

Response:

*The Drainage Maintenance Management Plan at **Appendix 10** details appropriate management practices for the occasional desilting of Blacks Creek which would be undertaken only as required to maintain its hydrological capacity, however no rehabilitation is proposed given the need for Tweed Shire Council to maintain the Creek in perpetuity.*

Issue

Monitoring of Water Quality and Vegetation Health in Buffers and Environmental Areas. (TSC, Page 100)

Response:

The inclusion of Water quality monitoring within a "Vegetation" Management Plan makes no sense.

*Water quality monitoring in waters directly affected by runoff from the site is proposed. Monitoring locations are identified in the revised Overall Water Management Plan at **Appendix 10**.*

Issue

Monitoring of Vegetation Health Performance Criteria. (TSC, Page 100)

Response:

See previous comments regarding the Flora and Fauna Monitoring Report contained at Section 5.0 at **Appendix 10**.

Issue – Precinct 1 & 5 Vegetation Management Plan

(NSW EPA, Page 13)

Response:

See previous comments regarding the detail of the VMP's (in response to DGR 9.4). More detailed assessment would be particularly relevant to any areas to be dedicated to the CNR. The more detailed assessments would include: identification & mapping of weed infestations, re-mapping/ground-truthing 2005 vegetation mapping, an assessment of restoration potential of each proposed rehab area, collection of baseline data from existing vegetation communities to allow the preparation of site-specific revegetation species lists and relevant performance criteria.

Numerous impact assessments have been completed at the subject site during rezoning and the Concept application. The VMP is required to identify how potential impacts will be mitigated, not complete another assessment of potential impacts.
This issue will be addressed in the PPR.

It is disagreed that koala trees & heath are inconsistent. The requirement that revegetation works should mimic natural communities that would have occurred in each proposed work area is not an unreasonable requirement.
This issue will be addressed in the PPR.

The recommendations contained in Attachment 3 of the EPA Submission (Pages 13 – 15) are addressed in the revised SOC.

3.17.6 Issue – Review of Relevant Literature

(TSC, Page 101)

Response:

The aim of the Feral Animal Management Plan follows that of the Approved plan prepared for the Concept Application. As stated by DGR 9.11 it was required to "Provide an update to the Feral Animal Management Plan....". This does not suggest a change to the aims or objectives of the plan.

3.17.7 Issue – Further Protection of Heathland

Tweed Shire Council has made the following recommendation in relation to this issue:

RECOMMENDATION: The Environmental Assessment and related Management Plans should be revised to include: (1) a long-term protection mechanism such as Environmental Protection zoning for all heathland to be restored and; (2) specific provisions to manage weeds (and other issues) in areas denoted as "Heath to be Naturally Regenerated". (TSC, Page 110)

Response:

All areas of proposed heath retention/regeneration occur in either Environmental Protection Zones or Ecological buffers and will be dedicated to either OEH or TSC. This is considered more than adequate to ensure their long-term protection. Furthermore, the provisions of both Weed Management Plans and Vegetation Management Plans will ensure these areas are appropriately restored and managed.

1. Agreed.
2. Agreed – Weed hygiene will apply to machinery entering the site as well as movement within the site to minimise the risk of introducing new weeds and/or spreading existing weeds. See revised Weed Management Plan at **Appendix 10**.

3.17.8 Issue – Drainage Management Plan

(NSW EPA, Page 3)

Response:

The DMMP at **Appendix 10** has been revised to reflect changes to the proposed management regime for Blacks Creek (ie minimal impact to reflect natural regime) which addresses this issue.

3.18 Aboriginal Cultural Heritage

3.18.1 Issue – Aboriginal Cultural Heritage Issues

The EPA has recommended six condition of approval. (NSW EPA, Page 3)

Response:

The Project Cultural Heritage Consultants (Everick) has provided the following comments on the conditions:

1. Continued Consultation

This recommendation is consistent with the CHMP. Consultation with the Aboriginal stakeholders should continue over an appropriate keeping place. Six monthly project updates are required.

2. Monitoring

This is a condition of the CHMP. Monitoring kits should be prepared. If Stage 1 works require monitoring, appropriate persons should be identified.

3. Find procedure

The find procedure proposed by EPA contradicts EvericksCHMP. CHMP allows for immediate clearance of sites with a density of less than 5 artefacts per m2. EPA is recommending stop work and consultation for all finds, regardless of size. DOPI has advised that the approved CHMP prevails over the recommended EPA conditions.

4. Human remains procedure

This recommendation is consistent with the CHMP.

5. Impacts to CH to be negotiated in accordance with CHMP

This recommendation is consistent with the CHMP. This is reasonable. Monitoring Kits to include an OEH Aboriginal Site Impact Recording Form.

6. Inductions

This recommendation is consistent with the CHMP.

These issues are further addressed in the revised SOC.

3.19 Issue – Flooding

(TSC, Pages 28-30)

Response:

*The flood modelling has been revisited on the basis that Blacks Creek will be an unmaintained creek with future growth. Details are contained in **Appendices 10 and 29**. Consequential amendments to the subdivision layout and specialist reports and plans have been made to address the outcomes of the revised modelling.*

4.0 COMMONWEALTH ENVIRONMENTAL PROTECTION AND BIODIVERSITY CONSERVATION ACT

The Project Application was referred to the Federal Department of Sustainability, Environment, Water, Population and Communities for approval under the Commonwealth Environmental Protection and Biodiversity Conservation Act. Following assessment of the application the Department requested further information. The additional information provided to the Department is contained at **Appendix 30**.

5.0 SUMMARY AND CONCLUSION

As reflected in the foregoing sections and Appendices, the final Project Application addresses all relevant key issues and resolves those issues by a combination of amendments to the original Project Application, preparation of amended Specialist Reports, Plans and Management Plans, where necessary and the identification of significant impact mitigation measures as reflected in the revised Statement of Commitments.

Following negotiations with Officers of Council and consultations with Officers of the Department of Planning and Infrastructure, a letter dated 29 May 2012 was forwarded to Council and the Department setting out Project 28 Pty Ltd's commitments in relation to the dedication and management of environmental land and other land at Kings Forest.

A further letter of undertaking dated 22 August 2012 was forwarded to DOPI. A copy of that commitment and letter is contained at **Appendix 27**. It is proposed that these documents form the basis of a Voluntary Planning Agreement to be finally negotiated with Tweed Shire Council and finalised prior to the issue of a Subdivision Certificate for the first residential lot within Precinct 5. This provision has also been included in the revised Statement of Commitments.

In summary, the final Project Application described in this Preferred Project Report is considered to achieve a high level of compliance and is consistent with ESD Principles. It also achieves a sound balance between the site's key opportunities and constraints and the need to achieve commercially viable outcomes.

Approval of the application is considered to be sustainable and in the public interest and the Department is therefore respectfully requested to grant Project Approval subject to appropriate conditions.

Darryl Anderson Consulting Pty Ltd

A.C.N. 093 157 165

Town Planning & Development Consultants