4.3 Statutory Requirements

A number of legislative constraints exist for the site largely due to the presence of the two EEC's and the Eastern Bent-wing Bat and Grey-head Flying-fox. These include statutory requirements at local, state and national levels. A brief outline of the primary requirements of relevance to the future development of the site are listed below:

4.3.1 Federal

Assessment under the Commonwealth EPBC Act

Pursuant to the Commonwealth *Environment Protection and Biodiversity Conservation (EPBC) Act 1999*, an assessment of the impacts of proposed works on land that is critical habitat or is likely to affect threatened species, populations, or ecological communities, or their habitats listed under the *EPBC Act* ("Matters of National Environmental Significance"), must be undertaken. This involves assessing if the proposal is likely to have a significant impact on threatened species or their habitat or endangered ecological communities that occur at the site or have the potential to occur. If the assessment concludes that a significant impact is likely then a referral to the Minister of the Department of Environment and Heritage must be made to determine if further assessment is required under the Act.

Matters of National Environmental Significance (NES) listed under the EPBC Act of relevance to the site include:

- Blue Gum High Forest and Sydney Turpentine – Ironbark Forest, both listed as critically endangered ecological communities under the Act; and
- The Grey-headed Flying Fox, listed as a threatened species under the Act.

Accordingly, proposed future development on the site will need to be assessed pursuant to the EPBC Act, in terms of the significance of likely impacts on Blue Gum High Forest, Sydney Turpentine – Ironbark Forest, and the Grey-headed Flying Fox, in order to determine whether a referral to the Commonwealth Environment Minister should be made with respect to any proposed action.

The need to submit a Referral would depend on the type, location and extent of proposed future development on site, particularly with regard to the removal of EEC's and habitat and resources for listed threatened species. Given that the vegetation on site comprises 'critically endangered ecological communities' it is considered likely that any future development involving the loss of even a relatively small area of EEC vegetation would require Referral and that the development may be considered a controlled action requiring further assessment and potentially the provision of compensatory offset.

Feral animal control

The Draft Threat Abatement Plan for Competition and Land Degradation by Feral Rabbits (DEWR 2007) establishes a national framework for the responsible control of feral rabbits in order to reduce the threat these animals pose on native species and ecological communities.

4.3.2 State

Assessment under Section 5A of the NSW EP&A Act

Pursuant to the NSW *Environment Planning and Assessment Act 1979* (*EP&A Act*), an assessment of the impacts of the proposed works on land that is critical habitat or is likely to affect threatened species, populations, or ecological communities, or their habitats listed under the *TSC Act*, must be undertaken in the form of an Assessment of Significance. This involves assessing the potential impacts of the proposal based on seven criteria. These criteria aid in assessing if the proposal is likely to have a significant impact on threatened species or their habitat or endangered ecological communities which occur on the site or have the potential to occur. If the Assessment of Significance concludes that a significant impact is likely then a Species Impact Statement (SIS) must be prepared.

Two critically endangered ecological communities listed under the TSC Act occur on the subject site: Blue Gum High Forest and Sydney Turpentine – Ironbark Forest. The Grey-headed Flying Fox and the Common Bent-wing Bat, both listed as threatened species under the Act, are known to occur on site and the site provides potential habitat for a number of other threatened species that are known to occur in the locality.

Accordingly, any future development on site will need to be assessed pursuant to Section 5A of the TSC Act to determine the significance of likely impacts on two critically endangered ecological communities and at least two threatened fauna species and their habitats.

The imposition of a significant impact will depend on the type, location and extent of proposed future development on site, particularly with regard to the removal of EECs and habitat and resources for listed threatened species and proposed impact mitigation or environmental management measures. Given that the vegetation on site comprises 'critically endangered ecological communities' it is considered likely that any future development involving the loss of even a relatively small area of EEC vegetation would result in a significant impact and that a Species Impact Statement would be required. As DECC have already identified, their requirements for any future SIS would "most almost certainly" incorporate a requirement for the "identification and provision of compensatory offsets, which may include the purchase of suitable off-site lands" (DEC 2006).

Noxious Weeds Act 1995

Noxious weeds present across the site must be suppressed and controlled by the landowner under the NSW *Noxious Weeds Act 1995*. The removal of these weeds would also reduce current threats on the long-term viability and recovery capacity of the EEC's and threatened species habitat present on the site.

4.3.3 Local

Local Government Act

Council's Charter under the *Local Government Act* 1993 includes the obligation "to properly manage, develop, protect, restore, enhance and conserve the environment of the area for which it is responsible, in a manner that is consistent with and promotes the principles of ecologically sustainable development". The importance of protecting and managing the critically endangered ecological communities and threatened species and their habitats on site has been highlighted in this regard by Department of Environment and Conservation in their letter to Council (dated 11th April 2006).

4.4 Opportunities

The biodiversity value of the Hill Rd site are a constraint to future development of the site. However this conservation value may provide other opportunities for Council to gain value from the site.

The recent addition of Part 7A 'Biodiversity Banking' to the NSW TSC Act provide an opportunity to use the Hill Rd site as a future "biobank" site. . A biobanking agreement is similar to a covenant and is attached to the land title. It runs with the land, and will conserve the site in perpetuity with the aim of offsetting impacts of development on biodiversity values at another site. The biobanking legislation aims to offset "like for like" (i.e. similar species / habitats) with the intention of "maintaining or improving" biodiversity values. Biobanking credits will be calculated using the Biobanking Assessment Methodology created by DECC and will include values associated with threatened species, endangered ecological communities and native vegetation condition.

Biodiversity credits can be generated by landowners who commit to enhance and protect biodiversity values on their land through a biobanking agreement. Additional credit value is generated through management actions at the site that improve biodiversity values. Credits can be created and traded, to generate funds for the management of the site. Market forces will determine the value of biodiversity credits generated for a biobank site and hence the profitability of participating in the scheme.

DECC will set a minimum price for biodiversity credits based on the estimated cost of managing the biobank site for conservation. However, the remainder of the sale price for biodiversity credits is negotiated between the Biobanker and the Developer. There are a number of factors which would define the most valuable biodiversity credits and biobank sites. These include the presence of large numbers of threatened species, threatened species with limited distributions and/or threatened species likely to occur on development sites. The most valuable sites will be in areas subject to development pressure, as these will have the greatest demand for biodiversity credits and the poorest supply of vacant land for biobanking.

If Council chose to pursue the Biobanking option, the site would be need to be assessed using the Biobanking Assessment Methodology and then assigned credits. Developers could then purchase these credits to offset development that impacts similar habitats / species. Areas provided as offset sites will be protected in perpetuity and the sale of credits will include the cost of site management.

Biobanking has not commenced and so it is not possible to calculate the exact value of biodiversity credits. However DECC has released a Draft Biobanking Methodology for public comment and so it is possible to identify the attributes that are likely to define the most valuable biobank sites The Hill Rd site has potential as a biobank site in light of the following:

- The presence of EECs and threatened species habitat;
- The presence of native vegetation types which are extensively cleared across NSW. These may be traded to offset the clearing of any other vegetation type that is less cleared in NSW and so would be available to a relatively large number of potential buyers;
- It is located in Baulkham Hills Shire which features high development pressure and a relative scarcity of other suitable biobanking sites. Therefore, credits generated from such a site are likely to be in high demand and council may be able to negotiate a higher price for their sale; and
- The site has potential for improvement e.g. fencing, weed removal, or the extension of the bushland via planting / assisted regeneration. Improving the ecological values of a site will increase credit value.

Although the site has potential value as a biobank other factors need to be considered:

- The Biobanking scheme has not commenced and there is some uncertainty how the scheme will proceed, particularly the amount of demand for biodiversity credits and the value of those credits; and
- The Hill Rd site is relatively small, which would reduce the number of credits generated and make management actions (such as fencing and weed control) less economical.

DECC is aiming to provide training to local government in regards to the biobanking legislation and how this will interact with local planning and development. The BioBanking Handbook for Local Government is being finalised following feedback received from local government.
http://www.environment.nsw.gov.au/biobanking/localgovtcourse.htm

GHD can provide a more detailed assessment of the viability of using the biobanking legislation in regards to the site if Council requires.

As an alternative to biobanking, Council could retain the site and potentially use it as a development offset when negotiating with DECC in regards to other sites.

5. Conclusion and Recommendations

The site contains a number of ecological features of high conservation significance, which represent a high constraint in terms of future development capability. The vegetation on the site largely comprises Blue Gum High Forest listed as critically endangered under the TSC Act and the EPBC Act, with a smaller area of Sydney Turpentine – Ironbark Forest, listed as endangered under the TSC Act and critically endangered under the EPBC Act. Two threatened fauna species, the Eastern Bent-wing Bat (Abel Ecology 2005) listed as vulnerable under the TSC Act, and the Grey-headed Flying-fox, listed as vulnerable under the TSC Act and the EPBC Act, have been recorded on site. The site also provides potential habitat for a range of other threatened fauna known or thought to occur in the locality and the vegetation and creeklines present contribute to local and regional wildlife corridors.

Whilst the site has a reasonably high level of noxious weed and woody weed infestation, there remains a suitable diversity of native species present within the EECs to facilitate effective regeneration and long-term viability if appropriate weed control measures and revegetation plans are put in place across the site and on adjoining properties. From an ecological perspective there is also the opportunity for future use of the site to make a substantial contribution to the conservation of biodiversity in the locality through the protection and enhancement of vegetation and habitat and consolidation of, and contribution to, the local and regional corridor network

The existing cleared and modified areas of the site are considered of low conservation significance/development constraint and provide some opportunity for future development. However, future development of these areas would need to incorporate appropriate impact mitigation and environmental management measures to avoid impacts on retained areas.

Future development of the site is likely to require some removal of vegetation that comprises part of an endangered ecological community, known or potential habitat for threatened fauna species and which contributes to vegetation connectivity on and off site. Consequently, it is highly likely that impact assessments under the relevant State and Federal Environmental and Planning legislation will be required. The potential for future development to impose a significant impact will be dependent on the type and location of development proposed, the areas of vegetation and habitat features to be removed and/or retained and the impact mitigation and environmental management measures to be implemented. If a significant impact is proposed there will likely be a requirement under both the State and Federal legislation for the provision of compensatory offset.

Based on our ecological assessment and constraints and opportunities analysis the following considerations with respect to development options are provided:

1. It is recommended that development on the site be restricted to areas of low conservation significance/development constraint as mapped (Appendix F).

- High Density Urban Housing – High-density housing is not recommended on the site due the sensitive nature of the vegetation present. Direct and indirect impacts on native flora and fauna on the site from such development would be greatly increased through an increase in urban impacts. Urban run-off issues and subsequent increase in nutrient load entering the site would compromise weed control efforts on the site and favour exotic species. Garden escapes from backyards, already a problem due to the dumping of garden waste on the reserve, would exacerbate existing weed problems on the site. Impacts on native fauna would similarly increase from the increase of

domestic dogs and cats in the new housing areas. However, this option may be feasible if strict controls for urban nutrient run-off, spread of weeds, and impacts on native flora and fauna were appropriately mitigated and controlled.

- Medium or Low Density Urban Housing – This development option would be severely restricted on the site due to the restricted areas available for medium and large house blocks. It would also provide similar ecological impact issue to higher density housing, only in a reduced way. Again, this option may be feasible if strict controls for urban nutrient run-off, spread of weeds, and impacts on native flora and fauna were appropriately mitigated and controlled.

2. Nature Conservation Reserve and Passive Recreation– the site could be retained as a nature conservation reserve, and be subject to a comprehensive weed control and bush regeneration program. This option would allow for the incorporation of limited low-impact passive recreation on site, such as walking tracks, cycle paths, and on-lead dog areas. It is recommended that appropriate fencing be erected around areas of vegetation to be retained during the initial regeneration of the site, in order to protect these areas from further impacts of rubbish dumping, and to discourage the access of people and domestic animals into these sensitive areas.
3. Stormwater Controls – It is recommended that gross pollutant traps and filtration systems be installed on all stormwater outlets entering the site. This will help control nutrient levels entering the waterway, and the spread of weed species into the site and adjacent reserves via the creek line.

Any development proposals for the site will need to address all issues pertaining to the protection and management of native vegetation, EEC's and threatened fauna species and their habitats present on the site. A previous ecological assessment conducted on the site by Abel Ecology (2005) proposed a number of recommendations for the general protection and management of vegetation, EEC's and habitat values across the site. The incorporation of a number of those recommendations, along with the proposal of some new recommendations, has been made following the recent site surveys and ecological assessment.

- Native Vegetation Retention - It is recommended that all native vegetation present on the site mapped as areas of high and medium conservation significance/high and medium constraint (Appendix F), including those species indicative of the EEC's Blue Gum High Forest and Sydney Turpentine – Ironbark Forest as well as any isolated native canopy trees, be retained on site. This will help to preserve EEC's and threatened fauna habitat on site as well as the connectivity values of the vegetation on site and with surrounding areas of bushland to the north and south of the site. It will also ensure the aesthetic values of the site are maintained.
- Native Fauna Habitat Retention - It is recommended that significant habitat features including Hollow-bearing trees, stags, and fallen timber be retained on site. These features provide essential habitat for threatened species known and thought to occur across the site and within the locality.
- Vegetation Management - It is recommended that a comprehensive Vegetation Management Plan be prepared for the site to encompass the regeneration and revegetation of the site. Included in this would be the installation of an appropriate Noxious weed control program, the incorporation of an appropriate planting regime of understorey species, and the management of the riparian zone along the length of the creek and stormwater drainage channels on site, including

appropriate erosion and sediment control. This will also help to ensure the aesthetic values of the site are enhanced and maintained.

- Feral animal control – It is recommended that a feral animal control program be implemented to control the Rabbit population present on the site. Fox control should also be considered for the site and surrounding Council reserves.
- Signage - Appropriate signage should be erected at strategic areas across the site to encourage pet owners to have dogs on leads in the park and to discourage the dumping of garden waste and rubbish on the site. Signs promoting the ecological attributes of the site are also recommended.

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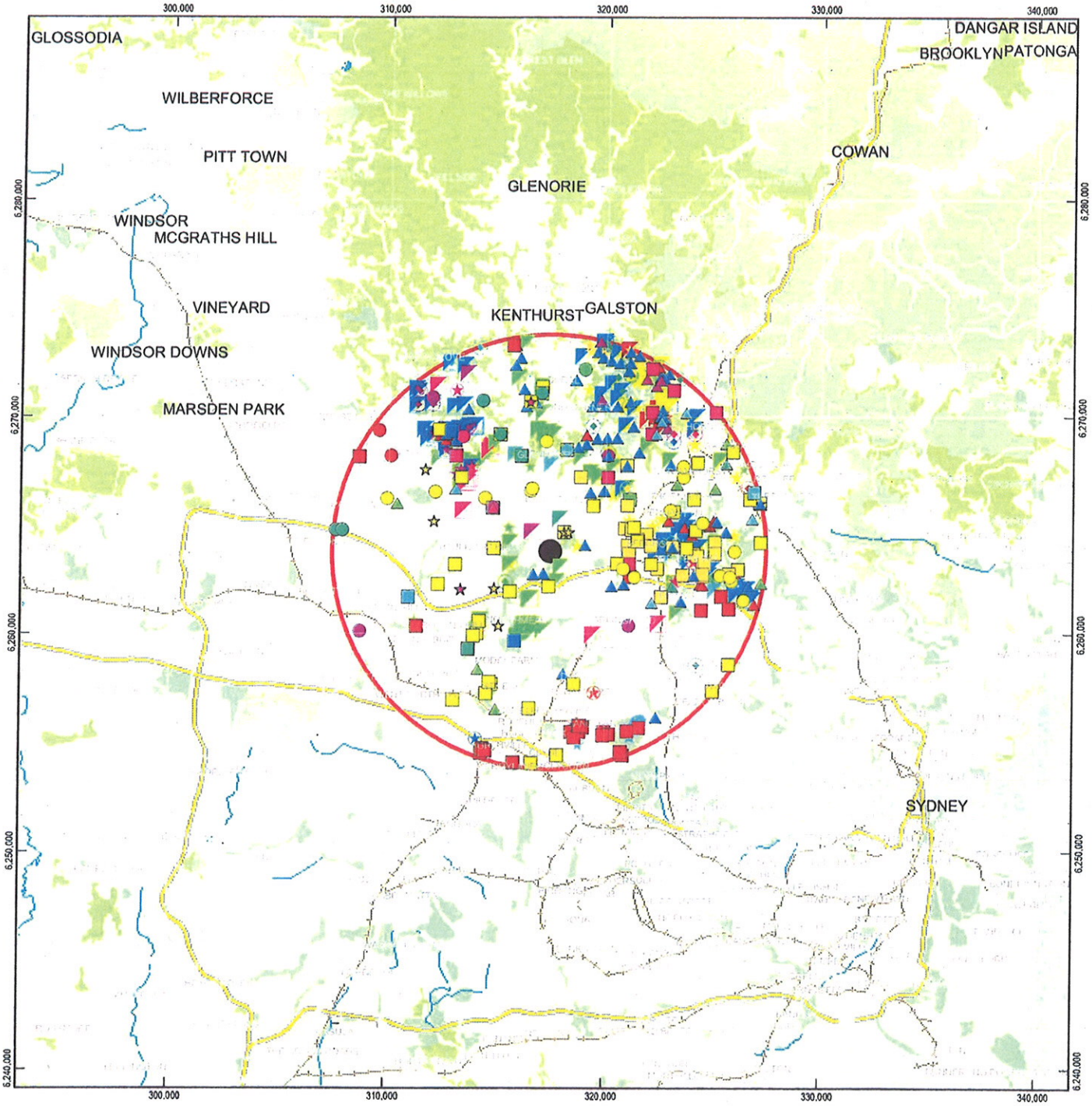
Appendix A

Threatened Species Map



Legend

- Site Location Hill Road
- 10km radius of site

Threatened Fauna

- Barking Owl
- Black Bittern
- Black-chinned Honeyeater (eastern subspecies)
- Broad-billed Sandpiper
- Cumberland Plain Land Snail
- Diamond Firetail
- Eastern Bentwing-bat
- Eastern False Pipistrelle
- Eastern Freetail-bat
- Gang Gang Cockatoo Population, Hornsby & Ku-ring-gai L
- Gang-gang Cockatoo
- Glossy Black-Cockatoo
- Greater Broad-nosed Bat
- Green and Golden Bell Frog
- Grey Falcon
- Grey-headed Flying-fox
- Large-eared Pied Bat
- Large-footed Myotis
- Masked Owl
- Osprey
- Pink Robin
- Powerful Owl
- Red-crowned Toadlet
- Regent Honeyeater
- Sooty Oystercatcher
- Spotted-tailed Quoll
- Superb Fruit-Dove
- Superb Parrot
- Swift Parrot
- Yellow-bellied Sheathtail-bat

Threatened Flora

- Acacia bynoeana
- Acacia gordonii
- Acacia pubescens
- Darwinia biflora
- Darwinia peduncularis
- Epacris purpurascens var. purpurascen
- Eucalyptus camfieldii
- Eucalyptus nicholii
- Eucalyptus scoparia
- Eucalyptus sp. Cattai
- Galium australe
- Genoplesium baueri
- Grammitis stenophylla
- Haloragodendron lucasii
- Hibbertia superans
- Leptospermum deanei
- Leucopogon fletcheri subsp. fletcheri
- Melaleuca deanei
- Persoonia hirsuta
- Persoonia mollis subsp. maxima
- Pimelea curviflora var. curviflora
- Pimelea spicata
- Pomaderris prunifolia var. prunifolia
- Syzygium paniculatum
- Tetratheca glandulosa
- Wilsonia backhousei

1:250,000
0 2.5 5 10
Kilometres (at A4)
Map Projection: Transverse Mercator
Horizontal Datum: Geocentric Datum of Australia 1994
Grid: Map Grid of Australia, Zone 56

N

Baulkham Hills Shire Council
Hill Road Reserve+

Job Number 21-17235
Revision REVA
Date 9 April 2008

DECC Threatened Species Records

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