

Mr Tim Ireson
Parramatta Park and Western Sydney Parklands Trust
PO Box 3064 Parramatta NSW 2124
e: tim.ireson@wspt.nsw.gov.au

Project reference: WOL 1221

28 May 2015

Dear Tim,

Eastern Creek Business Hub Addendum to Ecological Assessments in support of s96 Application

Eco Logical Australia (ELA) has been commissioned by Western Sydney Parkland Trust (WSPT) to prepare an addendum to earlier ecological assessments in support of a proposed amendment to the approved development, previously referred to as Eastern Creek Business Hub (ECBH) – SSD 5175 (**Figure 1**). This addendum is written to assist the required s96 application under the *Environmental Planning and Assessment Act 1979 – Sect 96 Modification of consents-generally*. The amendment to SSD 5175 relates to the stormwater management systems.

The ECBH site is located on the Rooty Hill Road South, opposite the intersection of Rooty Hill Road South with Cable Place, Eastern Creek, NSW. The proposed development is for an industrial and commercial business hub. The original ecological assessment for the site was prepared by ELA (2012).

This addendum has been written to address an adjustment to the originally approved Stormwater Management Strategy, which generally involves adding an estate level detention basin and bio-retention, water quality, system which will service the northern catchment and road network. Some other components of the development design have changed due to the Stormwater Management System revision. The following provides a summary of the development elements and changes:

- **Development Layout:** The development layout, including proposed development lots and access road configuration, remains consistent with the layout previously approved.
- **Stormwater Management:** The adjustment to the Stormwater Management Strategy will include for the provision of an estate level detention basin and bio-retention, water quality, system which will service the northern catchment and road network (**Figure 2**). The originally approved strategy was for detention of stormwater and water quality provisions to be performed on-lot for each individual development lot. The proposed adjustment will consolidate the separate systems providing for an increased efficiency in treatment and also improving the flexibility for the development within the northern catchment lots.

The new combined detention basin and bio-retention basin is proposed to be located downstream of Estate Road adjacent to an area containing Shale Plains Woodland (SPW), which is to be restored to meet the Commonwealth *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act) listing condition of Cumberland Plain Woodland (CPW), and areas to be revegetated and managed

under a vegetation management regime with a particular focus on enhancement and restoration of vegetation to become representative of CPW.

The management of stormwater from the southern catchment and from upstream residential properties remains consistent with the originally approved design. Site discharge remains consistent utilising the two existing culverts beneath the M7 Motorway.

- **Stormwater System:** As a result of the stormwater attenuation being completed downstream of the estate access road, the un-attenuated flows need to be allowed for within the road drainage network. As such an increase in pipe sizes has been made to account for the increase flows present within the network. The piped overland stormwater system layout remains generally consistent with that originally approved.
- **Earthworks:** There are minor adjustments proposed to the earthworks to suit the stormwater management strategy modifications and also to suit a cut to fill balance over the site.
- **Intersection with Rooty Hill Road South:** There are no adjustments currently proposed to the intersection layout produced and approved under the original application.

Ecological Assessment Update

The existing ecological report (ELA 2012) is considered adequate to provide assessment into the additional stormwater management system in the context of potential impacts to listed species under the EPBC Act and NSW *Threatened Species and Conservation Act 1995* (TSC Act).

ECBH contains 5.5 ha of Shale Plains Woodland (SPW) and 1.49 ha of Alluvial Woodland (AW) (ELA 2012). SPW is a component of the listed critically endangered ecological community, Cumberland Plain Woodland (CPW), under the NSW TSC Act and Commonwealth EPBC Act. AW is listed as an endangered community under the NSW TSC Act, but is not nationally listed.

The Development Consent for ECBH SSD 5175 requires the applicant to retire 46.3 ecosystem credits of Grey Box-Forest Red Gum woodland (CPW equivalent under the NSW TSC Act listing) in accordance with the original ecological assessment prepared by ELA (2012) to offset the loss of 1.93 ha of CPW.

The vegetation in the north, adjacent to the proposed new basin and system (**Figure 2**), is comprised of 1.8 ha of SPW. This vegetation is in a highly stressed state and suffering from severe psyllid induced dieback (ELA 2012). The dieback has been exacerbated by years of drought followed by heavy rains and consequent waterlogging. This vegetation is currently enduring semi-permanent inundation due to restricted and poor drainage as a result of the M7 Motorway construction.

The revised northern basin will not result in any direct impacts to the listed vegetation communities on site as the system has been sited to avoid the need for additional vegetation clearance. An open swale/drain will pass through a small area (0.01ha) of degraded SPW but has again been sited to avoid canopy species. In this regard, no additional ecosystem credits are considered necessary. Of note, the formalisation of the northern stormwater management system will remove a current source of negative environmental impact, being the detrimental waterlogging, as well as improve the overall condition and extent of SPW vegetation more broadly across the site.

The conservation areas in the east of the ECBH site are still to remain largely undeveloped (except for the necessary stormwater facilities) and to be managed in accordance with a future management regime such that the ecological restoration works in this area will lead to an overall improved environmental outcome. Additionally, the basin and swales will be revegetated with wetland species, following a Vegetation Management Plan, which will increase fauna habitat diversity for amphibians and wetland birds.

Conclusions and Recommendations

A revision of the ELA (2012) ecological assessment was undertaken in the context of the revised northern stormwater management system and previous State approvals. The system is considered to be consistent with the previous impact assessments and biodiversity offset strategies in that it will not impact any additional listed vegetation communities or species under the NSW TSC Act or the Commonwealth EPBC Act. The s96 application is therefore supported.

The following safeguards are recommended to further minimise or avoid impacts to flora and fauna species:

- Prior to commencement of construction works, the construction limits should be clearly demarcated to avoid any unnecessary clearing of vegetation.
- Exotic vegetation to be cleared should be removed from the site and should not be mulched for spreading within the site.
- No cleared vegetation, mulch or soils should be stockpiled in areas supporting native vegetation.
- Revegetation within the swales and basins should be undertaken in accordance with a Vegetation Management Plan using native species reminiscent of CPW wetland species and should follow the former Department of the Environment and Conservation's Guidelines for recovering bushland on the Cumberland Plain (DEC 2005).

If you have any questions about any aspect of this addendum, please contact me on (02) 4201 2204.

Yours sincerely,



Jack Talbert
Environmental Scientist

Reference list

ELA 2012. *Ecological Assessment for the Eastern Creek Business Hub State Significant Development*. Prepared for Western Sydney Parklands Trust by Eco Logical Australia.

Department of Environment and Conservation (NSW). (2005). *Recovering Bushland on the Cumberland Plain: Best practice guidelines for the management and restoration of bushland*. Department of Environment and Conservation (NSW), Sydney.



Figure 1: Original Site Layout – extract from *Ecological Assessment for the Eastern Creek Business Hub State Significant Development (ELA 2012)*

Site Layout - Northern Stormwater Management System

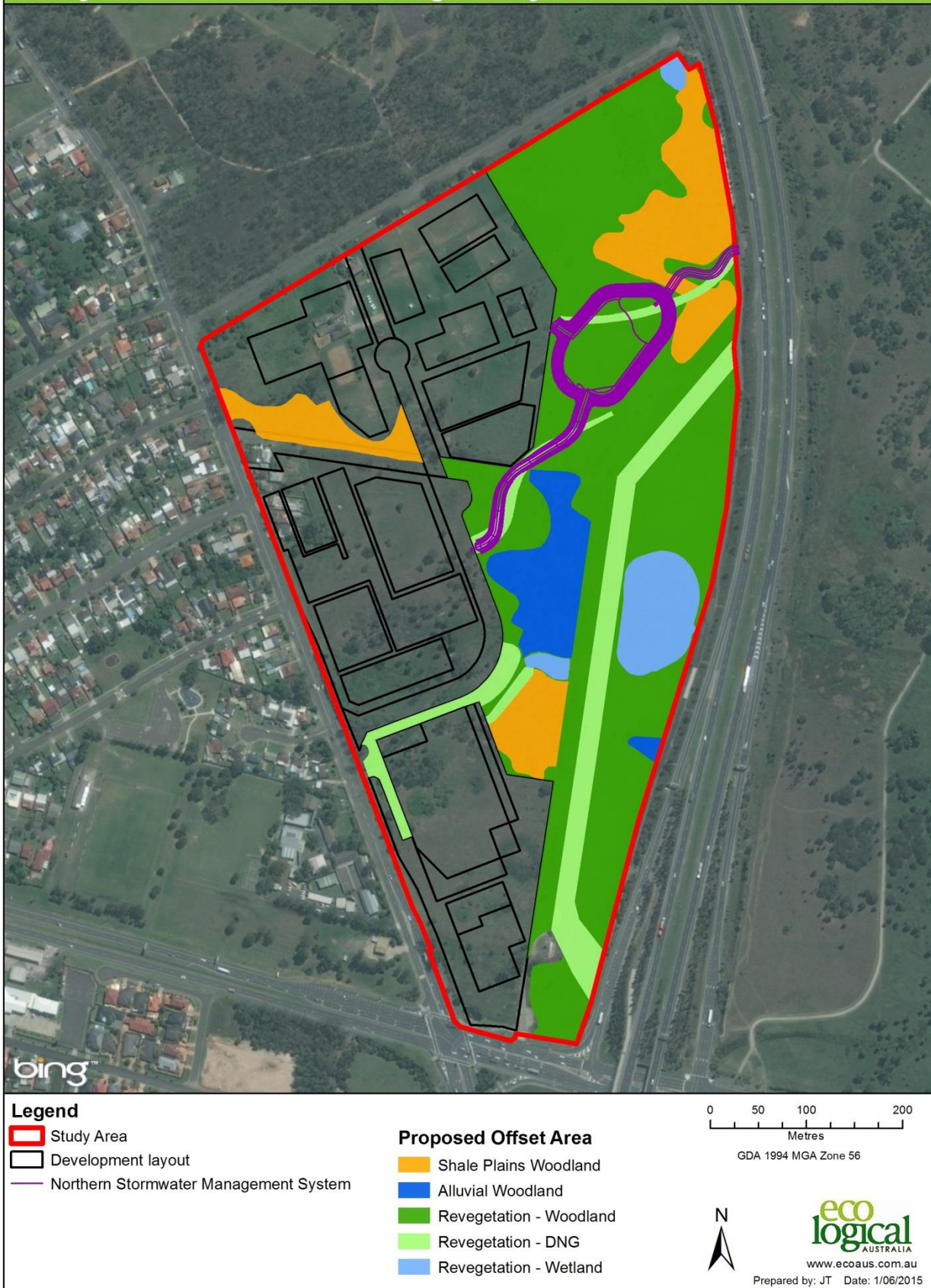


Figure 2: Site Layout including the revised Northern Stormwater Management System