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Attention: Mr Andrew Robson

**2024 ANNUAL NATIVE VEGETATION AND WEED ANNUAL COMPLIANCE AUDIT
LOCKYER ENERGY PROJECT, 2.5KM NORTH OF GATTON, QUEENSLAND (EPBC 2017/7994)**

This report has been provided by S5 Environmental in response to Condition 13 of the Australian Government's Approval package for the Lockyer Energy Project, 2.5km North of Gatton, Queensland (EPBC 2017/7994). This report provides comments, recommendations and photographic records of any weed incursion and the general health and diversity of native vegetation through the Offset Area A and Offset Area B as specified in Attachment C of the EPBC Approval Notice for the Lockyer Energy Project, 2.5km north of Gatton, Queensland (EPBC 2017/7994). Refer to **Figure 1** below.

S5 Environmental Terrestrial Ecologist, Jackie Thomson BSc. and Environmental Scientist, Joanne Day, B.EnvSc., undertook a detailed site inspection on the 10th September 2024.

Conditions on the day of the inspection were warm and clear with a maximum temperature recorded of 32.6°C. Available rainfall observations at the Bureau of Meteorology weather station 40082 (University of Queensland Gatton) have not recorded rain to-date in September. In the three months prior to the inspection, total rainfall recorded was below the mean with June recording 17.6mm (below the mean of 40.6mm), July recorded 20.6mm (below the mean of 36.4mm) and 37.4mm total recorded in August (above the mean of 26.2mm), however since November last year (previous inspection), rainfall has been above average with a total of 834.6mm recorded against a mean of 659.7 for those months and a long term annual mean of 758.7mm (BOM, 2024).



Figure 1. Attachment C of the EPBC Approval Notice for the Lockyer Energy Project, 2.5km north of Gatton, Queensland (EPBC 2017/7994) (Source: GHD drawing Offset Area and Assessment Unit Job 91-10341 Rev 4 dated 27/04/2017)

Table 1. Vegetation and Landscape Condition

Area	Description	RE
Offset Area A	<p>Offset Area A is woodland, generally in good health, with a native canopy, shrub and ground cover layer. Canopy throughout Offset Area A appeared to be comprised of <i>Corymbia citriodora</i> subsp. <i>Variegata</i>, <i>Eucalyptus crebra</i>, <i>E. fibrosa</i> subsp. <i>Fibrosa</i>, <i>E. trachyploia</i> and <i>E. tereticornis</i>, with the area generally reflecting remnant RE 12.9-10.5 described as “Woodland complex often with <i>Corymbia trachyphloia</i> subsp. <i>trachyphloia</i>, <i>Corymbia citriodora</i> subsp. <i>variegata</i>, <i>Eucalyptus crebra</i>, <i>E. fibrosa</i> subsp. <i>fibrosa</i> on quartzose sandstone”.</p> <p>The shrub layer through the area includes numerous soap trees (<i>Alphitonia excelsa</i>), forest hop-bush (<i>Dodonaea triquetra</i>) and sickle wattle (<i>Acacia falcata</i>) along with slender rice flower (<i>Pimelea linifolia</i> subsp. <i>linifolia</i>), curry bush (<i>Cassinia laevis</i>), and a dense native ground cover layer which includes woolly bush-pea (<i>Pultenaea petiolaris</i>), <i>Ozothamnus</i> spp, native sarsaparilla (<i>Hardenbergia violacea</i>), yellow buttons (<i>Chrysocephalum apiculatum</i>), prickly bitter pea (<i>Daviesia villifera</i>), winter apple (<i>Eremophola debilis</i>), threeawn speargrass (<i>Aristida vagans</i>), black speargrass (<i>Heteropogon contortus</i>), wiry panic (<i>Entolasia stricta</i>), kangaroo grass (<i>Themeda triandra</i>), <i>Dianella</i> spp and <i>Lomandra</i> spp.</p> <p>Patches of dead canopy anecdotally due to storm activity through the region in 2021, have previously been observed through the central area, refer Figure 2 below. This area is a plateau and contains a slightly different assemblage to its north, with species such as quinine bush (<i>Petalostigma pubescens</i>), hovea (<i>Hovea planifolia</i>) and dogwood (<i>Jacksonia scoparia</i>) more prevalent through this area. Weed load is reduced through this area when compared to the northern and western extents, and although lantana (<i>Lantana camara</i>) and creeping lantana (<i>Lantana montevidensis</i>) are present, it is scattered, with denser patches not observed on this occasion. Re-growth of impacted canopy and recruitment has continued with improved condition from the dry conditions of 2023, although pioneer densities of wattle have reduced slightly as the area matures.</p> <p>Associated with the western edge of the rocky plateau are numerous small grass trees (<i>Xanthorrhoea latifolia</i>).</p> <p>An ephemeral stream transects the site from west to east across the northern extent with some sections as previously noted, being eroded.</p>	<p>12.9-10.5</p> <p>And</p> <p>12.9-10.2</p>

	<p>Lantana patches and exotic <i>sida</i> spp. are present along this area and shallow, pooled areas are dominated by lomandra and sedge species. A small volume of water remained in one location with smaller pools almost dried out. No other water was observed through the offset areas but was noted to be present in the dams in the south, outside of the offset areas. Lantana patches and exotic <i>sida</i> spp. are present along the ephemeral stream and wetter areas are dominated by lomandra and sedge species.</p> <p>Scattered infestations of lantana remain, mostly through the northern and western extents, which is typical of edge effects around a remnant patch of vegetation and in this case likely experiencing incursion from neighbouring properties. The lantana was in improved condition when compared to the dry conditions in 2023 but the extent of coverage does not appear to have increased. S5 Environmental understand that the lantana, particularly along the western boundary, has been sprayed with herbicide as a control measure on an annual basis and were advised that a new contractor has recently been engaged to improve management. An occasional prickly pear (<i>Opuntia spp.</i>) and fireweed (<i>Senecio madagascariensis</i>) were also observed through these impacted areas. Lantana, prickly pear and fireweed are State Category 3 restricted matters under the <i>Biosecurity Act 2014</i>.</p> <p>As with 2023, shrub and midstorey layers tended to be slightly less dense to the east however, the area appeared in good condition, showing evidence of recruitment and, like the centre of the site, did not have the denser weed infestations associated with the western and northern extents.</p>	
<p>Offset Area B</p>	<p>Offset Area B largely consisted of naturally regenerated spotted gum (<i>Corymbia citriodora subsp. Variegata</i>), which were approximately 8 m tall, as well as emergent canopy and patches of sickle wattle, recruitment appears ongoing. Small bare areas were present which should be monitored until they meet the planting densities specified in the Landscape and Revegetation Plan (Litoria, 2022). The groundcover incorporated native and exotic pasture grass. A thicket of Lantana and exotic <i>sida</i> spp. remains located in the centre of this offset area.</p>	<p>None</p>

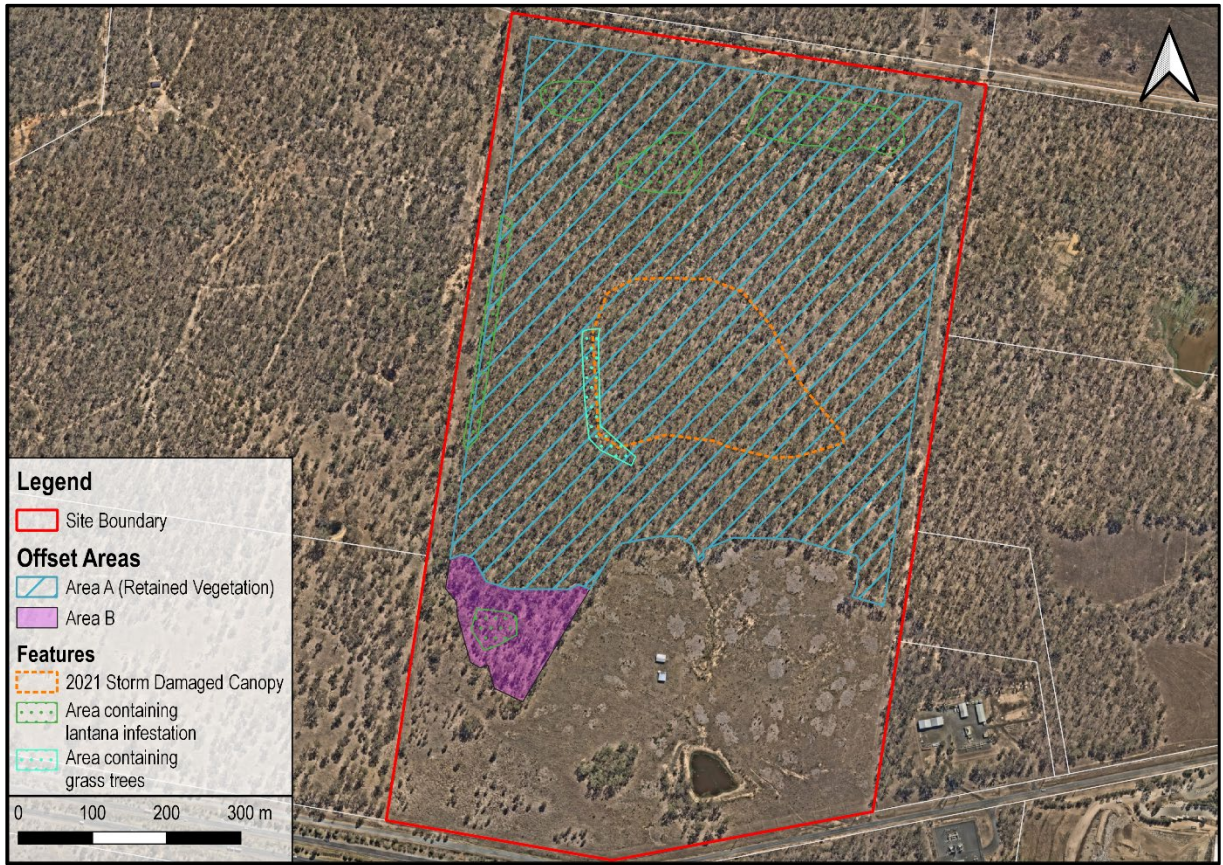


Figure 2. Site Features Identified within the Offset Areas.



Plate 1: Eastern extent of Offset Area A.



Plate 2: Western slope of the plateau area in Offset Area A.



Plate 3: View through the southern slope of the plateau area.



Plate 4: Looking north-west on the southern slope of the plateau area.



Plate 5: Central area of Offset Area A.



Plate 6: Lantana in centre of the northern portion of Offset Area A.



Plate 7: Open area in Offset Area B bordered on the western side by lantana.



Plate 8: View through Offset Area B to the south-east.



Plate 9: Dense lantana on adjacent property to the west.
Lantana on this property is in good condition when compared to lantana on the subject property.

Based on the findings of the audit of vegetation within Offset Areas A and B, S5 Environmental recommend the following ongoing maintenance and management actions to ensure ongoing compliance with the Approval Package:

- It is understood that weed maintenance has been undertaken to control lantana on an annual basis and that a new contractor has been commissioned to undertake treatment in the near future. On this occasion the lantana was in improved health due to improved climactic conditions but does not appear to have spread. Ongoing weed maintenance is to be undertaken to specifically control lantana, but also any other weeds observed. The success of this ongoing maintenance is to be monitored and control measures increased if required;
- Natural regeneration is continuing to occur within Offset Area B. Lantana remains present throughout however, is particularly dense in the area noted on **Figure 2**, above. Once treatment of the lantana infestation has been undertaken, infill planting of tube stock may be required to ensure target densities are met, improve diversity, minimise re-establishment of weeds on and to stabilise bare areas. Refer Table 1 on LRP06 of the Litoria Landscape & Revegetation Plan (Ref: 20076 LRP01-08 dated 27/02/2022) for planting schedules including proposed species mix and target densities; and
- The area identified previously as being impacted by storms in 2021, in the approximate centre of Offset Area A (refer **Figure 2**), has remained in good health since the 2023 inspection (S522202EL002_v1.0 dated 21 November 2023). Re-growth of impacted canopy and natural regeneration has continued with improved condition from 2023. Recruitment of eucalyptus/corymbia species is present although pioneer densities of wattle species has reduced as the vegetation matures, there are good densities and variety of species at the shrub and ground layer including quinine bush, soap tree, sickle wattle, forest hop-bush, hovea, dogwood, woolly bush-pea, *Ozothamnus* spp, slender rice flower, native sarsaparilla, prickly bitter pea, *Dianella* spp and *Lomandra* spp.



Should you wish to discuss, please do not hesitate to contact me on (07) 3505 3053.

Sincerely,

A handwritten signature in black ink, appearing to read 'Joanne Day', is positioned above a horizontal line.

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