Level 5
12 Creek Street
Brisbane QLD 4000
t: (07) 3239 9600

Date: 10 September 2020

Our ref: 12084

Billinudgel Property Pty Ltd
T/As North Byron Parklands
PO Box 517
Bangalow NSW 2479

Attention: Mat Morris

Dear Mat,

Camping Modification – Ecological Impact Assessment

We understand Billinudgel Property Pty Ltd have development consent (SSD 8169) to utilise a site in the Byron Shire (The Parklands Site) to undertake cultural events. As well as several small events, two major events are undertaken per year: Splendour in the Grass (SITG) and Falls Festival Byron (FFB).

Patrons can attend either as day patrons or camping patrons. Camping patron numbers are fixed at 25,000 for SITG and 30,000 for FFB. However, total (maximum) patron numbers has recently increased to 50,000 for SITG and 35,000 for FFB, as approved under as the current development consent.

To address the increase in overall patron numbers that were approved in the development consent, promoters have had to increase the footprint of the event area (for safety and operational reasons) at the expense of the traditional camping ground areas. For SITG and FFB, this means a reduction in camping capacities.

The knock-on effect from reduced camping is a greater number of day patrons, which has implications for traffic management to and from the site each event day.

To remedy this issue, Parklands met with the Department of Planning, Industry and Environment (DPIE) to discuss modifying the Development Consent to expand the camping footprint into land owned by the group immediately north of the existing main campgrounds (Figure 1).

We understand that there will be no change to the following aspects of the current development consent:

- Number of event days;
- Number of campers; and
- Number of total patrons on site.

The only proposed change is an adjustment to the Approved Land Use Structure Plan involving the addition of 31 ha of land (Figure 1). This includes the relocation of the emergency assembly area to the east of the proposed campground expansion area. The campground expansion area is proposed to cater for patrons that camp during SITG, FFB and other events, and therefore is proposed to be used up to 20 days per year.

The purpose of this letter is to provide the results of an environmental assessment that was undertaken to support the modification application. The assessment provides details of the exiting environmental values, potential environmental impacts and mitigation / management requirements. It should be noted that all mitigation and management recommended in this letter is consistent with existing relevant approved documentation, namely:

- The Biodiversity Assessment Report (BAR) (Eco Logical Australia [ELA], September 2018);
- The Koala Plan of Management (KPoM) (ELA, May 2019); and
- Flora and Fauna Monitoring Program and Adaptive Management Plan (FAFMPAAMP) (ELA, April 2019).

Specifically, this letter is limited to assessing project requirements under s7.17 of the *Biodiversity Conservation Act 2016* (BC Act), which relates to modification of planning approvals. It also responds to requirements under the *State Environmental Planning Policy (Koala Habitat Protection) 2019* (Koala SEPP). Assessment of other potential permits and licences that may be required are not included in the scope of this letter.

In summary, the results of the assessment show that the modification will not result in significant impacts to threatened species or ecological communities listed under the BC Act

No native vegetation clearing is proposed, whilst indirect impacts to biodiversity due to noise, light and human disturbance will be minor and only occur during times when the campground is being used (i.e. up to 20 days per year). Overall a net benefit to existing native vegetation communities and habitat value is expected across the development site due to the continued implementation of the approved Ecological Structure Plan (rehabilitation plan), as described in the FAFMPAAMP (ELA 2019).

The modification is not expected to increase the impact on the eight biodiversity values listed in s1.4 and s1.5 of the *Biodiversity Conservation Regulation 2017* (BC Regulation) and BC Act, respectively. Therefore, a BDAR to support the modification application is not considered to be required.

The full assessment is provided on the following pages.

Regards,

Steve Jarman

Senior Ecologist

Assessment Methodology

Existing reporting, mapping and documented environmental values were reviewed to support the assessment. This assessment has been undertaken at a desktop level only.

Within this letter, the term "project area" refers the land area associated with the campground expansion and proposed emergency assembly area. I.e. the project area includes land area associated with elements of the modification only.

The term "development site" refers to the whole of the site including the project area and the previously approved development site (Figure 1).

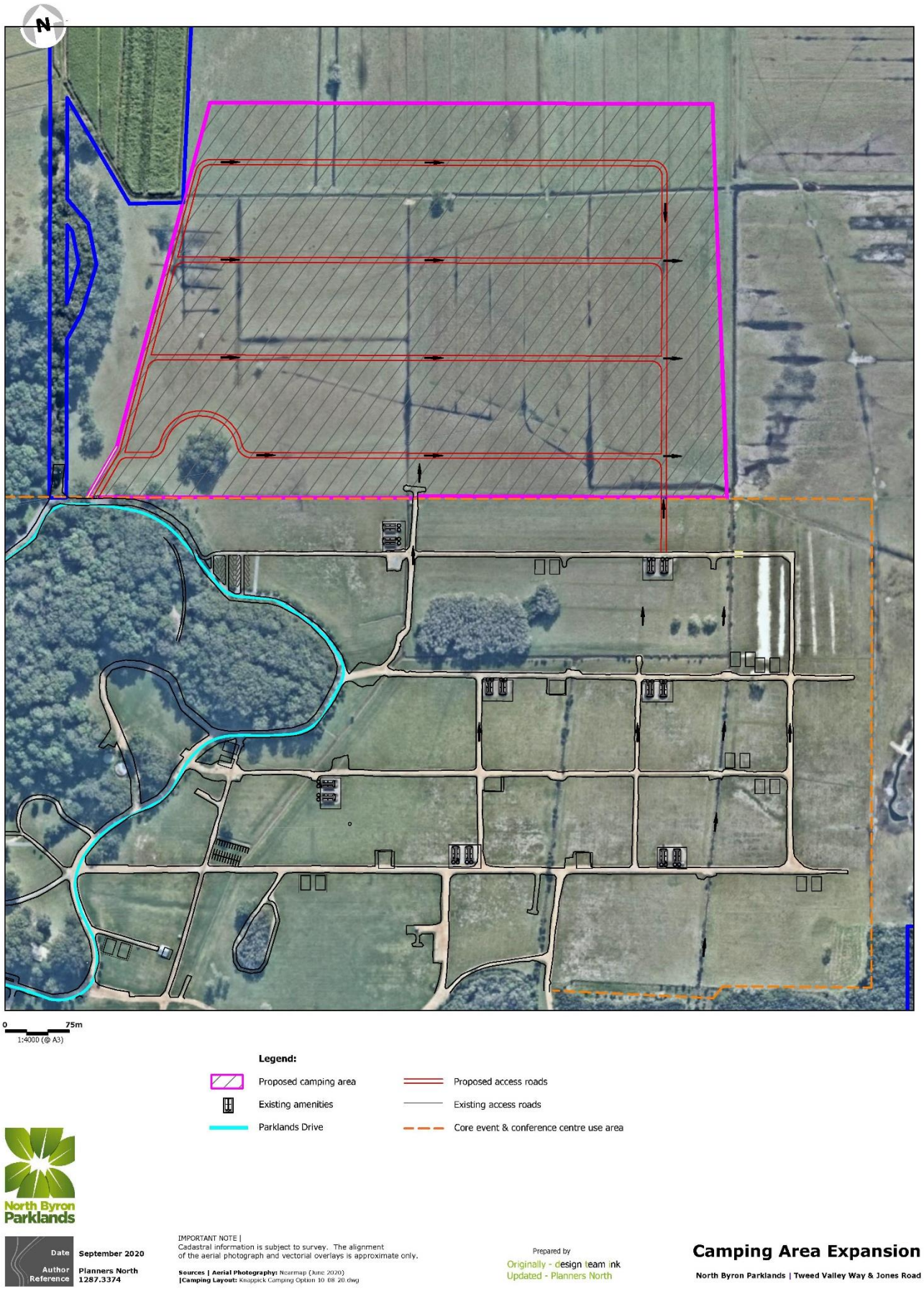

Figure 1: Project Area

Legislative Framework

Section 7.17 of the BC Act states that a Biodiversity Development Assessment Report (BDAR) is required to support the modification application unless the authority determining the application for the modification will not increase the impact on biodiverse values. To assess the impact on biodiversity values, this letter provides comment against each of the eight biodiversity values within s1.4 and s1.5 of the *Biodiversity Conservation Regulation 2017* (BC Regulation) and BC Act, respectively (refer to page 16). Based on the results of this assessment it is considered that a BDAR is not required to support the modification as no increase in impact to biodiversity values is likely and the modification will not result in impacts that trigger the NSW Biodiversity Offset Scheme. However, it is acknowledged that the final decision on the requirement is to be determined by the authority assessing the modification application (i.e. DPIE).

Furthermore, the proposed modification does not:

- Directly impact an area mapped on the Biodiversity Values Mapping (Figure 2);
- Result in vegetation clearing that exceeds the clearing thresholds (the threshold is 0.5ha, and no clearing is proposed);
- Result in a significant impact, pursuant to Section 7.3 of the BC Act; or
- Result in a serious or irreversible impact

Regarding requirements under the Koala SEPP, s15 of the SEPP states that:

> *A development application made, but not finally determined, before the commencement of this Policy in relation to land to which this Policy applies must be determined as if this Policy had not commenced.*

However, s16 of the SEPP also states:

> *A plan of management approved under* State Environmental Planning Policy No 44—Koala Habitat Protection *before the commencement of this Policy in relation to the whole of a local government area or a part of a local government area continues to apply to that area as if this Policy had not commenced.*

Hence, the existing approved KPoM (ELA, May 2019) will still apply to the development site. Nonetheless, the KPoM will require an update to include the project area due to practical reasons; however, our interpretation is that the KPoM will not require subsequent and formal re-approval for reasons discussed below.

It is noted that the project area includes Koala Development Application Mapping and Site Investigation Areas mapping, as per Figure 3; however, pursuant to s9(1) of the Koala SEPP, the development assessment process only applies to areas of land that:

> *(a) is identified on the Koala Development Application Map, and*
>
> *(b) has an area of at least 1 hectare (including adjoining land within the same ownership), and*
>
> *(c) does not have an approved koala plan of management applying to the land.*

As the Koala Development Application Mapping (Figure 3) within the project area is less than 1 ha and is not core koala habitat, re-approval of the KPoM is not considered necessary. This interpretation should be confirmed with DPIE.

Figure 2: Biodiversity Values Mapping

Figure 3: Koala SEPP mapping

Baseline Environmental Setting

Wetlands and waterways

The modification area contains several mapped hydrolines under the *Water Management (General) Regulation 2018* (Figure 4). These hydrolines are narrow, constructed drainage lines offering limited habitat value. Additionally, the modification area does not contain 'key fish habitat', as per the *Fisheries Management Act 1994* and there are no major waterways within close proximity to the modification area.

The modification area contains no areas of coastal wetlands under the Coastal Management SEPP mapping (Figure 5). There are mapped areas of coastal wetlands south west and south east of the

modification area, these areas are addressed in the Biodiversity Assessment Report (BAR) (ELA September 2018).

Figure 4: *Water Management (General) Regulation 2018* Hydroline Spatial Data

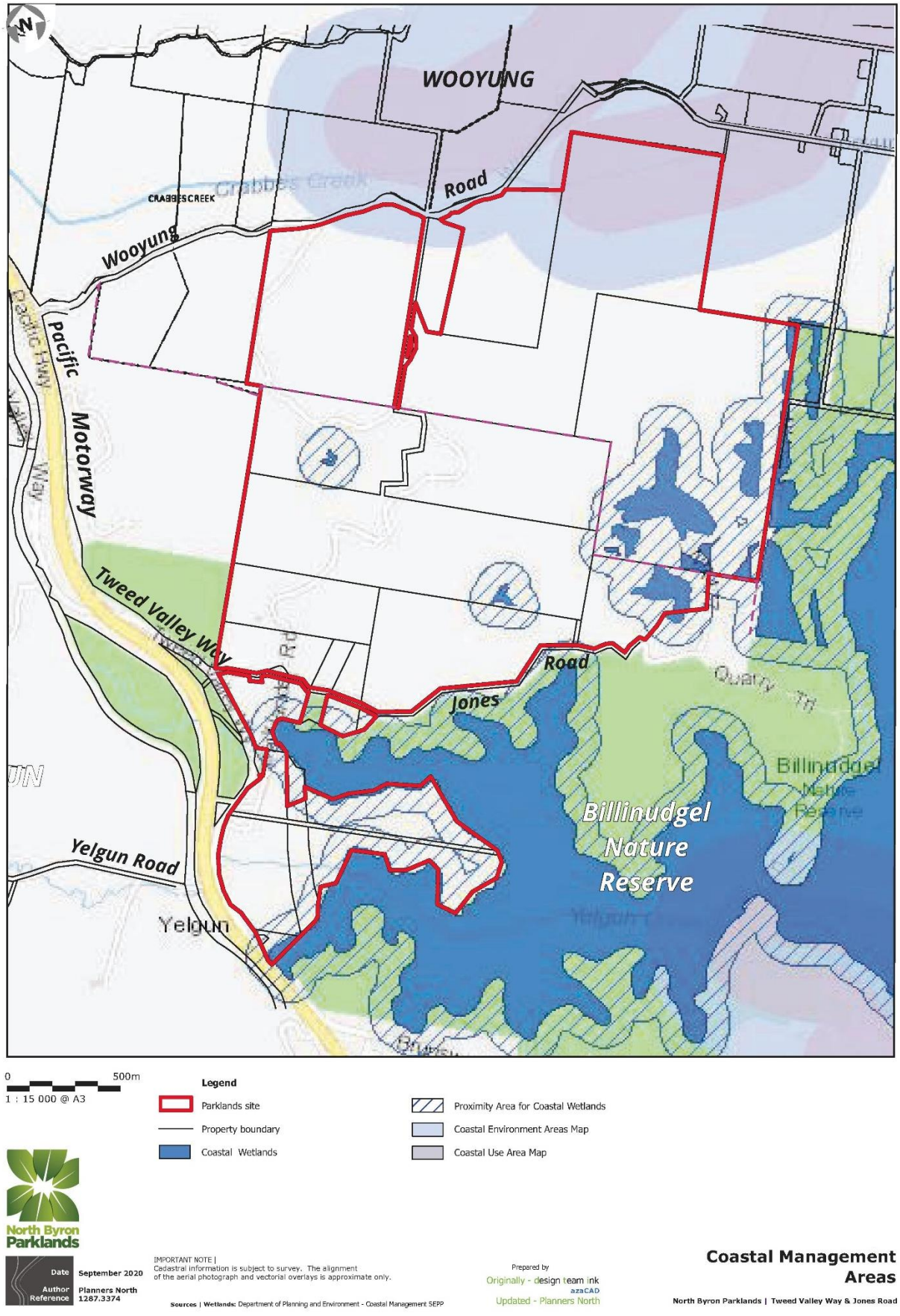

Figure 5: Coastal Management SEPP Mapping

Vegetation communities

The project area contains mostly cattle pasture, with a small stand of eucalypt trees (0.33 ha) in the south-west of the proposed campground expansion area. Although no flora survey of the land has occurred, the pasture is assumed to be consistent with pasture within the development site, i.e. it consists mainly exotic grasses such as *Setaria sphacelata* (South African Pigeon Grass) and *Paspalum mandiocanum* (Broad-leaved Paspalum) (Figure 6). The small area of eucalypts is likely to contain no native understory and only exotic pasture species (see Figure 7).

There is an area of vegetation to the west of the project area, which is most likely Plant Community Type (PCT) 693 (Blackbutt forest) and/or PCT 749 (Brushbox forest), consistent with vegetation across the development site (please refer to the BAR for more information). This vegetation is likely to be in medium to good condition, and is outside of the project area.

Figure 6. Looking north at the project area. Previously approved footprint is behind.

Figure 7. Small stand of vegetation to remain

Threatened Flora

The BAR (ELA September 2018) outlines results of extensive threatened flora species survey and assessment. There are a total of five listed flora species determined to be known on the development site as follows:

Known

- Rough-shelled Bush Nut (*Macadamia tetraphylla)*
- Stinking Cryptocarya (*Cryptocarya foetida*)
- Durobby / Coolamon Rose Apple (*Syzygium moorei*)
- Pink Nodding Orchid (*Geodorum densiflorum)*
- Green-leaved Rose Walnut (*Endiandra muelleri subsp. bracteata)*

Figure 8 shows no threatened flora records within the project area. It is considered unlikely that any threatened flora will exist in the project area.

Threatened Fauna

The BAR (ELA 2018) outlines results of extensive fauna surveys undertaken for the development site. 18 state and commonwealth listed fauna species were determined to be known to occur on the development site as follows:

- *Climacteris picumnus victoriae* (Brown Treecreeper)
- *Glossopsitta pusilla* (Little Lorikeet)
- *Ptilinopus magnificus* (Wompoo Fruit-Dove)
- *Ptilinopus regina (*Rose-crowned Fruit-Dove)
- *Tyto longimembris (*Eastern Grass Owl)
- *Thersites mitchellae* (Mitchell's Rainforest Snail)
- *Phascolarctos cinereus* (Koala)
- *Chalinolobus dwyeri* (Large-eared Pied Bat)
- *Falsistrellus tasmaniensis* (Eastern False Pipistrelle)
- *Kerivoula papuensis* (Golden-tipped Bat)
- *Miniopterus australis* (Little Bentwing-bat)
- *Miniopterus schreibersii oceanensis* (Eastern Bentwing-bat)
- *Myotis Macropus* (Southern Myotis)
- *Mormopterus norfolkensis* (Eastern Freetail-bat)
- *Nyctophilus bifax* (Eastern Long-eared Bat)
- *Pteropus poliocephalus* (Grey-headed Flying-fox)
- *Saccolaimus flaviventris* (Yellow-bellied Sheathtail-bat)
- *Syconycteris australis* (Common Blossom-bat).

As the project area is actively grazed, it is considered unlikely that any threatened fauna utilise the project area.

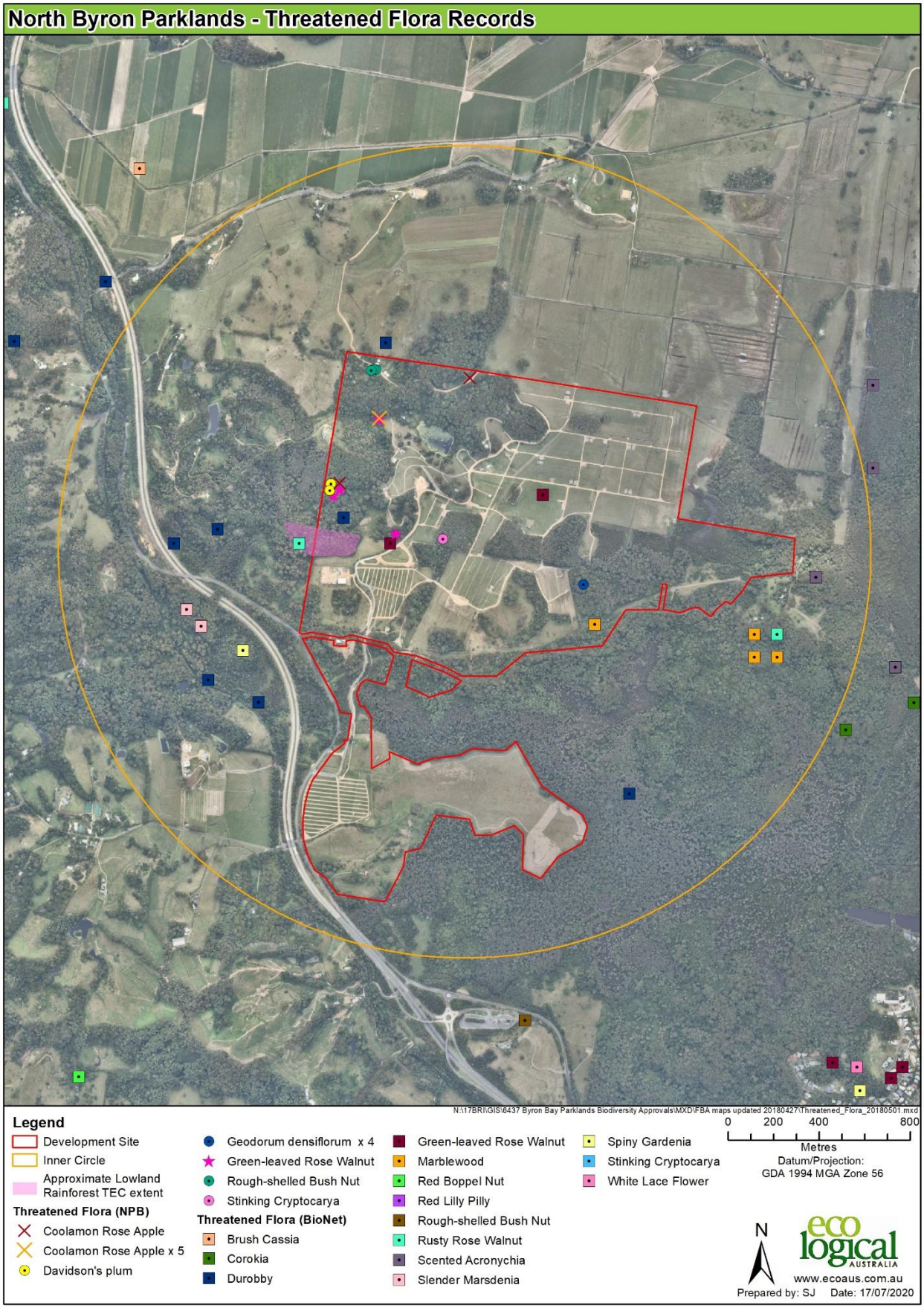

Figure 8. Threatened species records – Flora

Impact Assessment

The following activities will occur during construction:

- Construction of four east-west event laneways (6m wide gravel roads like existing campground laneways);
- Construction of two north-south connecting roads (connecting to the existing spine road in the west and the existing campgrounds in the east); and
- A number of vehicle/pedestrian drain crossings as required.

The works will not result in clearing of native vegetation communities and will result in limited clearing of existing pasture grass areas, which are dominated by exotic grass species. The eucalypt trees in the south-western part of the project area will not be cleared.

Furthermore, the modification will not result in:

- Clearing of vegetation within the Biodiversity Values Mapping area;
- Clearing of koala habitat areas mapped under the Koala SEPP;
- Works within a Wetland area or wetland proximity area under the *State Environmental Planning Policy (*Coastal Management*) 2018*;
- Works within a key fish habitat area, as per the *Fisheries Management Act 1999*.

Works on waterfront land will occur however, and a controlled activity permit from DPIE (Water) may be required.

Indirect impacts during events are consistent with those described in the existing Biodiversity Assessment Report (ELA, September 2018). In summary however, the impacts will be limited to event times, which includes set up and pack down days prior to and after the event, and up to an aggregate total of 20 days per year (this includes SITG, FFB and other events). Relevant predicted indirect impacts include the following:

- The risk of vehicular strike is expected to increase to a small degree during event times due to increased traffic.
- Noise, light and/or human disturbance impacts to the adjacent vegetation community to the west of the campground expansion area. These impacts would influence local fauna movement in varying ways during event periods. Predicted impacts to fauna species is outlined in Table 24 of the BAR (ELA, 2018). Previous surveys indicate that these impacts are temporary and rapidly reversible at the conclusion of events (see Appendix F of the BAR). Wildlife are likely to move away from disturbance during events, and good connectivity to suitable habitat is available adjacent to the proposed area of disturbance. It is not expected that increases in noise, light or human disturbance associated with the modification would result in longer times before wildlife return to the area (if they display avoidance behaviours due to noise, light or human disturbance).
- Lighting impacts are not expected to increase significantly due to the campground expansion. Light spillage is also reduced by the use of appropriate technologies, as described in the mitigation section below.

- Increased numbers of people / vehicle movements on site presents a weed and plant pathogen pathway. However, the development site long history of disturbance, with over 50 exotic flora species known to occur across the Parklands. As part of the ongoing environmental stewardship of the site, the Parklands have implemented a program of bush regeneration. This includes weed management throughout areas of remnant vegetation, and as such, habitat for threatened flora species. Ongoing management has significantly reduced the presence of weeds across the site and has resulted in an overall improved condition of the vegetation. This program would continue and would more than offset any potential introduction of weeds due to the modification.
- The risk of bushfire is increased during events due to the large numbers of people occupying the site. However, this also poses a significant safety issue for the event patrons and therefore stringent fire management protocols are implemented. The primary aim of these measures is to prevent fire and manage it effectively, from a public safety perspective, if a fire occurs. However, these measures would also benefit the vegetation and habitat on site.

These indirect impacts would have a negligible to minor impact on threatened species, should they occur within the development site. However, the Koala, Brown Treecreeper and Mitchell's Rainforest Snail are considered to be at a higher risk due to their small population sizes, observed regional declines (Koala), dependence upon forest habitats in the broader study area, and their susceptibility to fire. Effective implementation management and mitigation measures as described below will further reduce potential impacts.

As the project is restricted to pasture areas, the modification will not result in clearing of native vegetation. Furthermore, the number of days per year when events are being held is low, with a large majority of the year being free of any disturbance within the proposed campground expansion area. Hence, the project is highly unlikely to significantly impact threatened flora or fauna during construction or during events. Nonetheless, it is noted that no formal threatened flora or threatened fauna habitat survey has been undertaken in the proposed area of works.

Mitigation and management to reduce potential impacts

The mitigation and management provided below is consistent with measures already in place for events and are as per existing documentation approved as part of the original development consent. The following mitigation and management is proposed as part of the modification:

- Lighting controls will be implemented taking public safety considerations into account. Measures will include:
  - Lighting levels to provide adequate illumination for safety purposes;
  - Over-night lighting (i.e. after performances have ceased each evening) will be minimised to that necessary for public safety;
  - The forest to the east will not be illuminated;
  - Illumination of individual trees within the site may occur providing they are not currently in blossom and/or are occupied by fauna
- Temporary human exclusion fencing closely bordering (within 10 m of) forest blocks/Biodiversity Values Mapping areas within event areas will be provided (including the stand of trees in the south-west of the project area). The temporary human exclusion fencing

used in these locations will be 'fauna-friendly', incorporating a minimum 100 mm continuous gap at the base of the fence for movement of smaller fauna. The 1.8 m high fence is made of wire strands covered with hessian, which Koalas are able to climb over or pass under.

- A Construction Environmental Management Plan will be prepared and implemented for all construction works to further minimise impacts to environmental values.
- The existing environmental monitoring and adaptive management program as described in the FAFMPAAMP (ELA 2019) will be updated to apply to the modification. Monitoring includes both Event Impact Monitoring (EIM) as well as an ongoing monitoring program outside of event times. The FAFMPAAMP includes provisions for additional monitoring and/or investigation if increased impacts are detected. The FAFMPAAMP will be updated to include the additional monitoring sites shown in forest area to the west of the campground expansion area (circled in yellow on Figure 9). This additional Koala Spot Assessment Technique (KSAT) site has been included due to the previous observation of koala scats at that location by Biolink in 2016 whilst the vegetation photopoint can be established/monitored easily at the same location to detect any impacts to vegetation.
- The KPoM (ELA 2019) will also be updated to reflect the modification. This includes addition of the KSAT site, as mentioned above. The existing provisions of the KPoM will not need to change.

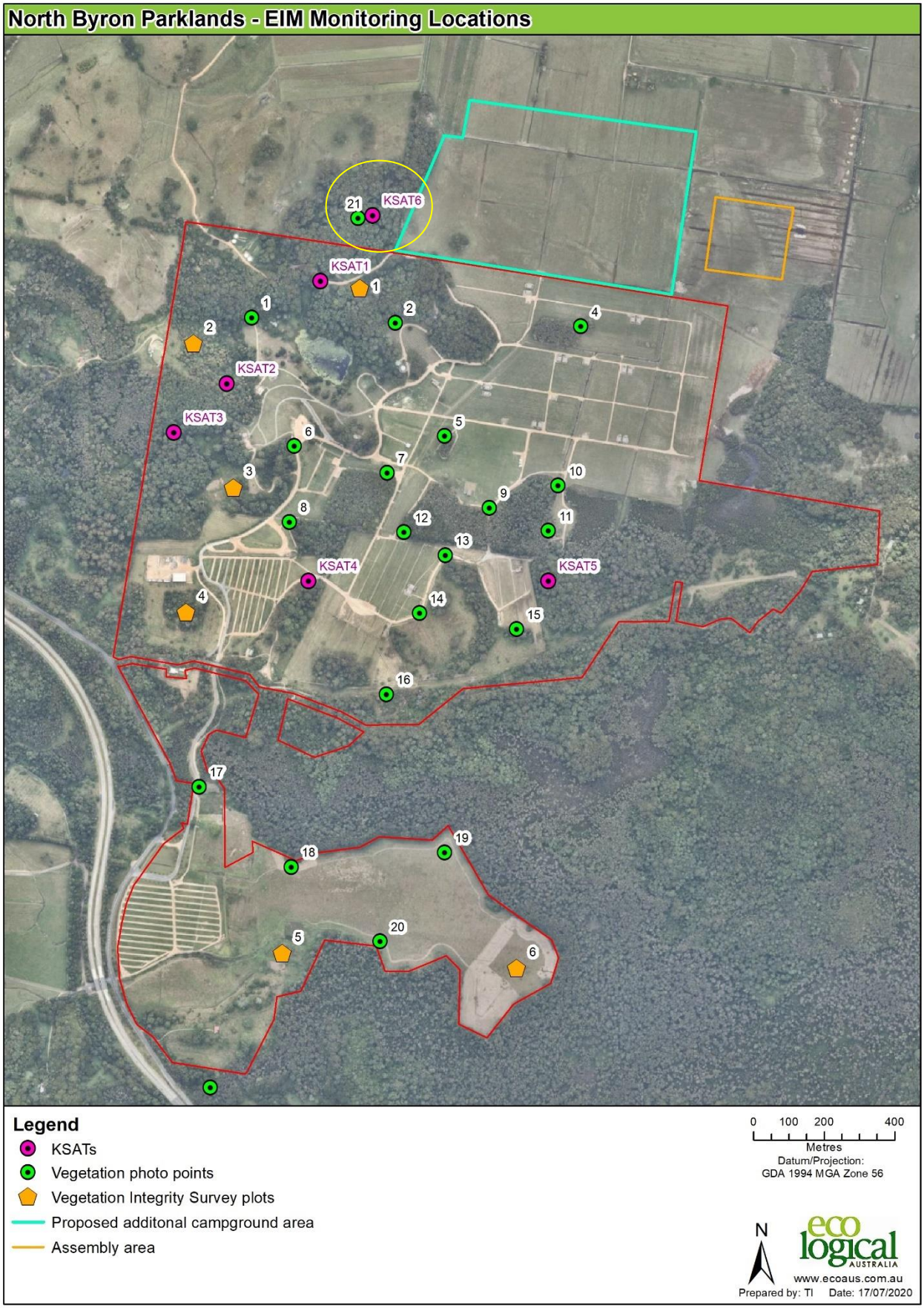

Figure 9: Proposed additional survey locations (circled in orange)

BDAR Requirements

Based on the impact assessment, and associated mitigation measures described above, the modification is not expected to increase the impact on the eight biodiversity values mentioned in Table 1. Therefore, a BDAR is not considered to be required.

Table 1: Biodiversity Conservation Act and Regulation Biodiversity Values

Requirement	Response
Pursuant to Section 1.5 of the *Biodiversity Conservation Act 2016*, the following are biodiversity values for purposes of the act:	
(a) vegetation integrity—being the degree to which the composition, structure and function of vegetation at a particular site and the surrounding landscape has been altered from a near natural state.	No native vegetation communities or associated habitat values will be directly impacted by the modification.
(b) habitat suitability—being the degree to which the habitat needs of threatened species are present at a particular site.	As above. Only minor and temporary impacts are predicted due to noise, light and human disturbance. The habitat needs of threatened species will persist in the forest patch to the west. Overall a net benefit to existing native vegetation communities and habitat value is expected across the development site. This is due to the continued implementation of the Ecological Structure Plan (rehabilitation plan), as described in the FAFMPAAMP (ELA 2019).
Pursuant to Section 1.4 of the *Biodiversity Conservation Regulation 2017* The following are prescribed as additional biodiversity values for the purposes of the Act—	
(a) threatened species abundance—being the occurrence and abundance of threatened species or threatened ecological communities, or their habitat, at a particular site.	Only minor and temporary impacts are predicted due to noise, light and human disturbance. The habitat needs of threatened species will persist in the forest patch to the west and threatened species abundance is not expected to change over time. This has been previously demonstrated as part of past biodiversity monitoring events. It will also be monitored into the future as part of the FAFMPAAMP (ELA 2019). Overall a net benefit to existing native vegetation communities and habitat value is expected across the development site. This is due to the continued implementation of the Ecological Structure Plan (rehabilitation plan), as described in the FAFMPAAMP (ELA 2019).
(b) vegetation abundance—being the occurrence and abundance of vegetation at a particular site,	No native vegetation communities or associated habitat values will be directly impacted by the modification.
(c) habitat connectivity—being the degree to which a particular site connects different areas of habitat of	No native vegetation communities or associated habitat values will be directly impacted by the modification. The

Requirement	Response
threatened species to facilitate the movement of those species across their range,	modification will not result in further habitat fragmentation of barriers to movement through forest patches.
(d) threatened species movement—being the degree to which a particular site contributes to the movement of threatened species to maintain their lifecycle	As above.
(e) flight path integrity—being the degree to which the flight paths of protected animals over a particular site are free from interference	As above.
(f) water sustainability— being the degree to which water quality, water bodies and hydrological processes sustain threatened species and threatened ecological communities at a particular site.	There will be no changes to water quality of hydrology due to the modification, and therefore no impacts to water quality, water bodies and hydrological processes that sustain threatened species and threatened ecological communities. All wastewater during event times will be managed via appropriate treatment facilities.

Conclusion

The modification will not result in significant impacts to threatened species or ecological communities listed under the BC Act.

No native vegetation clearing is proposed, whilst direct impacts are limited to the area of existing pasture. Indirect impacts to biodiversity due to noise, light and human disturbance will be minor and only occur during times when the campground is being used (i.e. up to 20 days per year). Overall a net benefit to existing native vegetation communities and habitat value is expected across the development site due to the continued implementation of the Ecological Structure Plan (rehabilitation plan), as described in the FAFMPAAMP (ELA 2019).

The modification is not expected to increase the impact on the eight biodiversity values mentioned in Table 1. Therefore, a BDAR to support the modification is not considered to be required.

References

Biolink (2016). North Byron Parklands SEPP No. 44 Koala Monitoring Report, Report to Billinudgel Property Trust.

NSW Government, Department of Primary Industries (2020). *Key Fish Habitat Map*, accessed 18/07/2020 at https://www.dpi.nsw.gov.au/__data/assets/pdf_file/0005/634361/TweedKFHMap.pdf.

Eco Logical Australia (September 2018). *Biodiversity Assessment Report* (BAR).

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Eco Logical Australia (April 2019). *Flora and Fauna Monitoring Program and Adaptive Management Plan* (FAFMPAAMP).