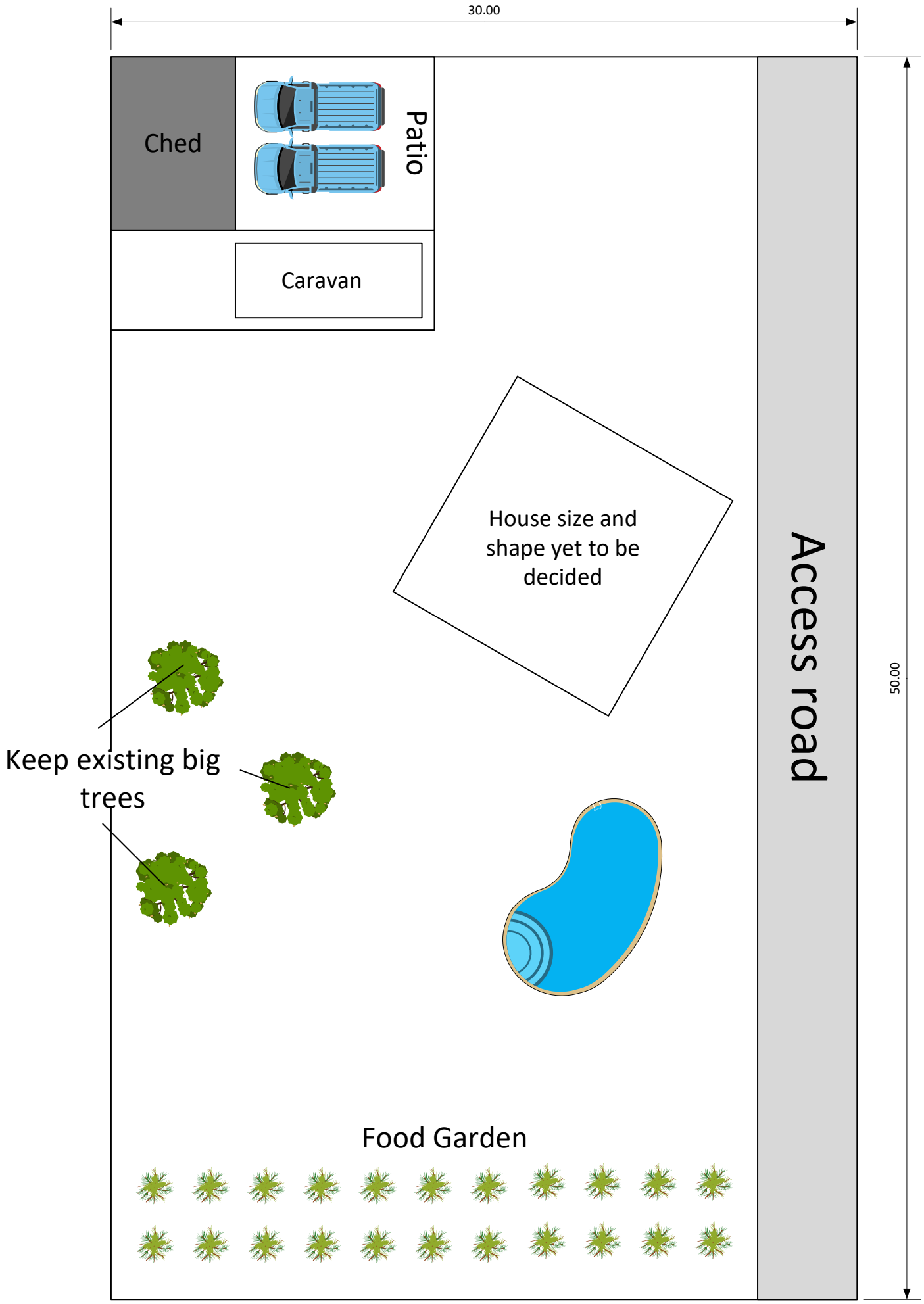

30.00
Ched
Patio
Caravan
House size and shape yet to be decided
Access road
50.00
Keep existing big trees
Food Garden

EcoRex Report Number 01/07/2025

Survey Report – Endangered, Vulnerable and Near Threatened Flora, lot2RP747074, Kuranda, Queensland.
Prepared for Mr. Yves Lovarco.

This report has been based upon the conditions encountered during the investigation and on the best available information. The accuracy of the advice provided in this report may be limited by reasonably unforeseeable errors or misgivings in searchers and information reviewed.

This report does not constitute legal advice and is open to third party and government official interpretation of legislation and may thus be modified and adapted to this regard.

Plant names follow those listed in the Census of the Queensland Flora. Non-native species are denoted by an asterisk (*) and are generally included under the comments field.

EcoRex, 174 Harvey Rd, Redlynch, 4870 Queensland
Mobile 0499784030 e-mail: johan@ecorex.com.au

……

I **Petrus Johannes Hendrick Hurter**, certify that:

a. I have adhered to all statutory requirements and flora survey guideline requirements; and
b. In the area surveyed I have not found any species of plants that are currently listed as Endangered, Vulnerable or Near Threatened in the Nature Conservation (Wildlife) Regulation 2006 (section 5); and
c. The flora survey part of the report is an accurate and full account of the flora survey.
d. Authorised for issue.

1 July 2025

Contents

1. Introduction.

EcoRex has been engaged by Mr Yves Lovarco (the owner) to undertake an Endangered, Vulnerable, and Near Threatened (EVNT) flora survey of his property, Lot 2RP747074, also known as 1 Kuranda Heights Road, Kuranda, Queensland (Map 1).

Map 1. Location of lot2RP747074 in relation to Kuranda and other local landmarks.

1.1. Background.

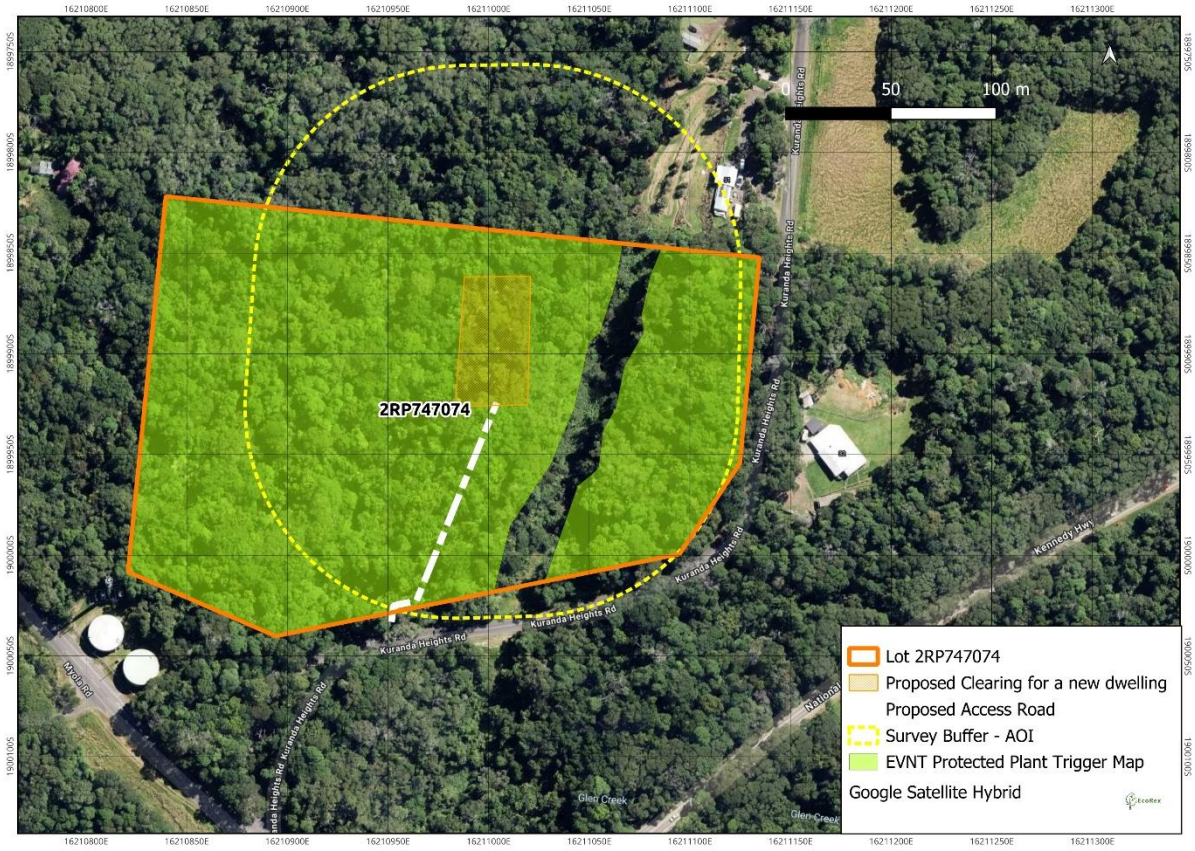
The owner wishes to clear a section of the lot for a new dwelling and access road.

The proposed clearing is in a mapped trigger area (Map 2), which requires a statutory Protected Plant Survey under the *Nature Conservation Act 1992* (NCA) to identify the potential presence of Endangered, Vulnerable, and Near Threatened (EVNT) flora species.

2. Statutory Requirements.

This report fulfills the statutory requirements, for that required for reporting on the presence of Endangered, Vulnerable or Near Threatened plant species (EVNT) as is prescribed by the NCA and the CV of Johan Hurter is attached as Appendix A.

The area surveyed for EVNT Flora is depicted in Map 2 and consists of a buffer area of at least 100 meters surrounding the proposed clearing – the Area of Interest (AOI).



Map 2. The AOI extent and proposed clearing extent on lot 2RP747074.

3. Methodology.

The report and survey methodology follows the accepted sequence of Desktop assessment, followed by a Site investigation (Field Survey).

3.1. Desktop Survey

A desktop assessment was conducted through a review of relevant databases and associated information pertaining to the following list. The findings from these searches and information reviews provide insight into the ecological characteristics and broader landscape context of the survey area (Area of Interest – AOI) and potential EVNT flora that may be present.

The following databases and sources of information were reviewed:

- Regional Ecosystem mapping. The most recent version of the DES's remnant regional ecosystem (RE) vegetation mapping (version 6.0) was used to provide an indication of the status and location of remnant vegetation, of the project site. This mapping was overlaid on a digital colour aerial image base sourced from Queensland Globe or Google Maps.
- Wildlife Online database of flora and fauna. This database holds records of plants and animals that have been either sighted or collected within a given radius of the site (a search parameter can be prescribed which limits the search area to a given radius around a central point).
- Protected Matters database of Matters of National Environmental Significance (MNES). This database applies a range of bio-models to predict the presence of species of flora and fauna, and other matters of National Environmental Significance cited under the Environmental Protection and Biodiversity Conservation Act 1999 (EPBC Act).
- HERBRECS database of plant records. This database provides confirmed records of plant

collections made within a specified area, of which voucher specimens are held by the Environmental Protection Agency's (EPA) Queensland Herbarium. Data from this source provides useful information on the known location of rare and threatened species and expedites targeted surveys for such plants in the field as well as being a valuable source of what plant taxa are generally present on site or nearby.

- Atlas of Living Australia is a centralized searchable database for locally and regionally recorded fauna and flora.
- Literature review. A range of scientific papers and other literature were reviewed for each taxon potentially expected within the survey area (Listed in the References).
- Queensland Globe – Queensland online mapping and planning services provided by the State Government of Queensland.
- Tablelands Regional Council online planning tools (GIS).

All database searches were undertaken using a standard 2km buffer surrounding the Project area, using the approximate central point of the site (Latitude -16.820162°:145.625936°Longitude) and lot and plan search for Lot 2RP747074.

An initial likelihood assessment of species potentially occurring in the project area was conducted prior to this field assessment, based on the results of any initial field surveys, current state vegetation mapping and database records.

Likelihood assessments were undertaken using the known distribution and preferred habitat of the species and the identification of these habitat values from data base searches. The criteria used to assess the likelihood of threatened species occurring within the survey area is presented in Table 1.

Table 1. Assessment criteria used to evaluate taxa flagged as potentially occurring on site.

Likelihood	Definition
Known	Taxon was positively identified and recorded in the survey area during a previous field assessment; previous records of occurrence within the project area.
Likely	There are known records within the nearby surrounding area and suitable habitat exists on site.
Potentially	Known records occur within the surrounding area, but habitat in the survey area is sub-optimal, marginal, or degraded.
Unlikely	Habitat in the survey area might be suitable or marginal; however, no known records of the taxon exist within the surrounding area.
Very Unlikely	Obligate habitat taxa with no suitable habitat on site
None	E.g., Obligate marine taxa not expected in a terrestrial environment

3.2. Field Survey Methodology.

3.2.1. Survey Team.

The EVNT survey team was led by Johan Hurter a qualified, EVNT Flora Survey Botanist with more than 10 years' experience within the Wet Tropics Bioregion. Assisting with the field survey was Juliet Saltmarsh (Environment Officer/Ecologist) and Avean Hurter (qualified Fauna Spotter Catcher/Ecologist). Both Juliet Saltmarsh and Avean Hurter have accompanied Johan Hurter on many EVNT surveys within the Wet Tropics Bioregion over the past four years.

3.2.2. Survey Methodology.

The survey methodology conforms to the 'Flora survey guidelines – Protected Plants' (Flora survey guidelines) for species listed under the Nature Conservation Act 1992 (DEHP 2014), using the 'timed meander survey method' (Section 6.2.2).

3.2.3. Survey Timing

The survey coincided with a survey of other Matters of Environmental Significance that took place on the 14th, 20th and 25th of June 2025.

The survey timing was undertaken within the potential flowering/fruiting period for all protected flora and other species. Flowering and fruiting data were acquired directly from The Atlas of Living Australia (ALA) (2025) and HERBRECS (2025) online herbarium record labels.

3.2.4. Species Identifications

All potential protected taxa and other flora involved are very well known to the investigators as local flora and easily distinguishable and identifiable even when not in flower or fruiting. When in doubt, taxa are cross referenced and identified using standard keys used in professional identification and electronic copies of the TYPE specimens and an EcoRex proprietary electronic field herbarium. In most cases taxa are only identified to species level.

3. Desktop Review Results and Discussions.

Five EVNT flora species (Table 2) were assessed as having a likelihood to occur within the AOI, primarily based on searches Department of Environment, Tourism, Science and Innovation (DETSI) Databases (June 2025).

Table 2. List of EVNT flora with a likelihood of occurring within the AOI and assessed against the criteria in Table 1.

Taxon	NCA Conservation Status	Likelihood of Occurence
Rhodamnia sessiliflora	Endangered	Likely
Rhodamnia spongiosa	Critically Endangered	Likely
Rhodomyrtus canescens	Endangered	Unlikely
Rhodomyrtus pervagata	Endangered	Likely
Archontophoenix myolensis	Endangered	Likely

Multiple records of *Rhodamnia sessiliflora* have been documented in the Kuranda area, preserved specimens and observations. *R. sessiliflora* is a poorly known small tree endemic to tropical north Queensland, primarily associated with notophyll vine forest and complex mesophyll vine forest elevations of 50–600m within the Wet Tropics bioregion. Most recorded occurrences are concentrated in the southern Atherton Tablelands and Bellenden Ker Range (Hyland, 1983; Bostock & Holland, 2007). The species is characterised by sessile leaves and conspicuous terminal inflorescences, distinguishing it from morphologically similar taxa such as *Rhodamnia maideniana*. It was first formally described by B. Hyland in 1983. Like other members of the Myrtaceae family, *R. sessiliflora* is highly susceptible to the invasive fungal pathogen *Austropuccinia psidii*, which poses a critical threat to its reproductive capacity and long-term viability (Pegg et al., 2017). Field surveys in recent years have reported reduced flowering and dieback in known populations.

Multiple records of *Rhodamnia spongiosa* have been documented within a 2 km radius of the proposed development area in Kuranda. This species is known to occur in three geographically separate populations in South-East Queensland, the Atherton Tablelands, and the Iron Range region. *Rhodamnia spongiosa* has observable morphological variation between specimens from the three

distinct populations, potentially indicating regional differentiation. The species exhibits slow growth rates and is sparsely distributed across its known range. Species within the *Rhodamnia* genus, along with other members of the Myrtaceae family, are highly susceptible to the invasive fungal pathogen *Austropuccinia psidii*. Myrtle Rust infection significantly impairs plant reproductive capacity by preventing flowering and fruiting, causing foliar damage. Predictive modelling indicates that some affected taxa, including *R.spongiosa*, may be reduced to the final remaining individuals in the wild due to the impacts of this disease.

Rhodomyrtus canescens, known as *Crater Ironwood* is restricted to upland and mountain rainforests in north-east Queensland. It typically occurs at altitudes from 500 to 1,200m, along disturbed habitats such as road edges and logging tracks within upland and wet sclerophyll forests. *R. canescens* currently has no occurrence records mapped in the Kuranda region, with the closest located east of Bilwon State Forest and on Mount Lewis Road. *R. canescens* was formally described by C.T. White & W.D. Francis (1920), with taxonomic revisions by A.J. Scott (1978) reassigning it from a varietal status in *R. trineura*. Its preference for disturbed rainforest environments appears as adaptive, but it also suggests reliance on ongoing habitat maintenance. *R. canescens* is highly susceptible to myrtle rust (*Austropuccinia psidii*). This taxon is unlikely to be present, due to a lack of suitable habitat and environmental conditions.

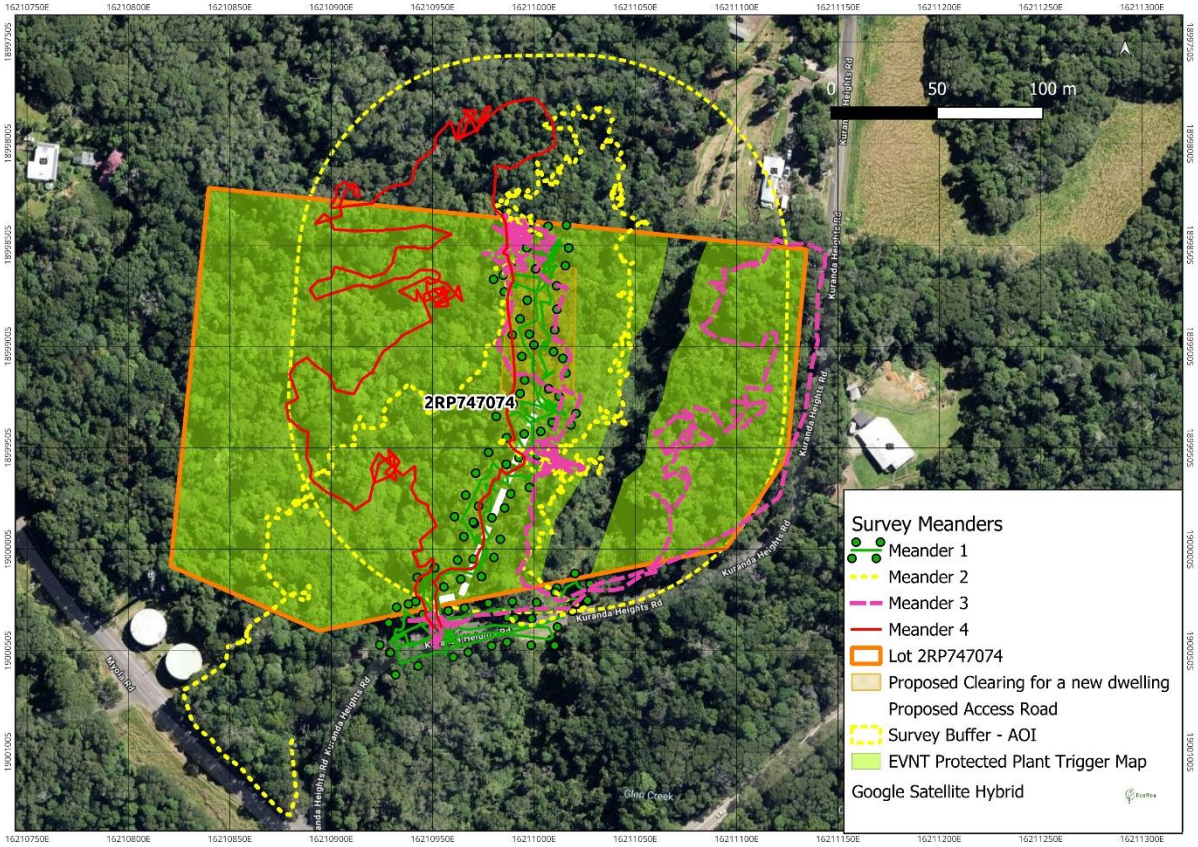
Rhodomyrtus pervagata is a shrub or small tree endemic to lowland and upland rainforests of northeastern Queensland. It is commonly found in disturbed habitats, including regenerated rainforest, roadsides, and post-cyclone regrowth, typically below 800 m elevation. Within the Kuranda region, multiple records exist, including one preserved specimen within 2 km of the site. The species was formally described by B. Hyland in 1983 and is considered characteristic of early-successional rainforest vegetation. *R. pervagata*'s ability to colonise disturbed areas suggests it plays a role in rainforest regeneration.

Archontophoenix myolensis commonly known as *Myola Palm*, is a tall, solitary palm species endemic to a restricted area in northeastern Queensland. It is known to occur in a few remnant subpopulations nearby in Warril creek, north of the proposed development area. This species typically occupies riparian rainforest and wet sclerophyll forest along the Barron River near Kuranda, occurring at elevations between 350-400m. It is distinguished from the common Bungalow Palm (*Archontophoenix alexandra*) by having terete mesocarp fibres which are loose and disassociating from the seed mesocarp when dry while that of the more common Bungalow Palm are flat wider than 0.5 mm and appressed to the endocarp and will come off from the seed with the mesocarp. The terete fibres on the Myola Palm seed are hypothesised to serve a rheophytic dispersal function to anchor the seed to in-stream substrates, enhancing the species' ability to establish and persist in dynamic riparian environments subject to seasonal hydrological fluctuations. *A. myolensis* is considered highly susceptible to changes in water table levels and disturbance to streambanks.

4. Field Survey Results.

4.1. Survey Effort.

A total of four meanders (Map 3) were completed, augmented by random observations while also executing vegetation survey quadrats and setting out fauna survey camera traps within the AOI.



Map 3. Survey effort, depicting the location and extent of survey meanders within the AOI.

4.2. EVNT Flora.

The survey did not find any EVNT flora within the survey buffer.

5. References.

1. Bean, A.R. (2015). A conspectus of *Polyscias* J.R.Forst. & G.Forst. (Araliaceae) in Queensland, Australia. *Austrobaileya* 9(3): 445–456
2. Blake, ST (1971). A Revision of *Plectranthus* (Labiate) in Australasia', Contributions from the Queensland Herbarium, no. 9, pp. 1–120.
3. Bostock, P.D. (1998) Thelypteridaceae, In: Orchard, AE, 'Ferns, Gymnosperms and Allied Groups', Flora of Australia, vol. 48, Melbourne, CSIRO.
4. Chinnock, R.J. (1998). *Huperzia*, in Flora of Australia Volume 48, ed. PM McCarthy, ABRS/CSIRO Publishing, Melbourne, pp. 77–84.
5. Conrad J. Hoskin, Megan Higgie, Keith R. McDonald & Craig Moritz.2005. Reinforcement drives rapid allopatric speciation. *Nature* 437/27.
6. Department of Environment and Heritage Protection. (2014). Flora survey guidelines – Protected Plants. Flora survey guidelines for species listed under the Nature Conservation Act 1992.
7. Department of Infrastructure, Local Government and Planning. (2016). State Planning Policy: Mining and Extractive Resources – State Interest Guideline. Queensland State Government, Brisbane.
8. Department of the Environment (2014). *Approved Conservation Advice for* Phaius australis *(Common Swamp-orchid)*. Canberra: Department of the Environment.
9. Department of the Environment, Water, Heritage and the Arts (2008). *Approved Conservation*

Advice for Alloxylon flammeum *(Red Silky Oak)*. Canberra: Department of the Environment, Water, Heritage and the Arts.

10. Department of the Environment, Water, Heritage and the Arts (2008). *Approved Conservation Advice for* Canarium acutifolium *var.* acutifolium. Canberra: Department of the Environment, Water, Heritage and the Arts.
11. Department of the Environment, Water, Heritage and the Arts (2008). *Approved Conservation Advice for* Carronia pedicellata. Canberra: Department of the Environment, Water, Heritage and the Arts.
12. Department of the Environment, Water, Heritage and the Arts (2008). *Approved Conservation Advice for* Dendrobium callitrophilum. Canberra: Department of the Environment, Water, Heritage and the Arts.
13. Department of the Environment, Water, Heritage and the Arts (2008). *Approved Conservation Advice for* Dendrobium lithocola. Canberra: Department of the Environment, Water, Heritage and the Arts.
14. Department of the Environment, Water, Heritage and the Arts (2008). *Approved Conservation Advice for* Dendrobium mirbelianum. Canberra: Department of the Environment, Water, Heritage and the Arts.
15. Department of the Environment, Water, Heritage and the Arts (2008). *Approved Conservation Advice for* Dendrobium nindii. Canberra: Department of the Environment, Water, Heritage and the Arts.
16. Department of the Environment, Water, Heritage and the Arts (2008). *Approved Conservation Advice for* Diplazium cordifolium. Canberra: Department of the Environment, Water, Heritage and the Arts.
17. Department of the Environment, Water, Heritage and the Arts (2008). *Approved Conservation Advice for* Diplazium pallidum. Canberra: Department of the Environment, Water, Heritage and the Arts.
18. Department of the Environment, Water, Heritage and the Arts (2008). *Approved Conservation Advice for* Eleocharis retroflexa. Canberra: Department of the Environment, Water, Heritage and the Arts.
19. Department of the Environment, Water, Heritage and the Arts (2008). *Approved Conservation Advice for* Lastreopsis walleri. Canberra: Department of the Environment, Water, Heritage and the Arts.
20. Department of the Environment, Water, Heritage and the Arts (2008). *Approved Conservation Advice for* Myrmecodia beccarii. Canberra: Department of the Environment, Water, Heritage and the Arts.
21. Department of the Environment, Water, Heritage and the Arts (2008). *Approved Conservation Advice for* Phaius pictus. Canberra: Department of the Environment, Water, Heritage and the Arts.
22. Department of the Environment, Water, Heritage and the Arts (2008). *Approved Conservation Advice for* Huperzia filiformis *(Rat's Tail Tassel-fern)*. Canberra: Department of Sustainability, Environment, Water, Population and Communities.
23. Department of the Environment, Water, Heritage and the Arts (2008). *Approved Conservation Advice for* Huperzia lockyeri. Canberra: Department of Sustainability, Environment, Water, Population and Communities.
24. Department of the Environment, Water, Heritage and the Arts (2008). *Approved Conservation Advice for* Huperzia marsupiiformis *(Water Tassel-fern)*. Canberra: Department of Sustainability,

Environment, Water, Population and Communities.

25. Department of the Environment, Water, Heritage and the Arts (2008). *Approved Conservation Advice for* Huperzia prolifera *(Square Tassel-fern)*. Canberra: Department of Sustainability, Environment, Water, Population and Communities.
26. Department of the Environment, Water, Heritage and the Arts (2008). *Approved Conservation Advice for* Plectranthus gratus. Canberra: Department of the Environment, Water, Heritage and the Arts.
27. Department of the Environment, Water, Heritage and the Arts (2008). *Approved Conservation Advice for* Plesioneuron tuberculatum. Canberra: Department of the Environment, Water, Heritage and the Arts.
28. Department of the Environment, Water, Heritage and the Arts (2008). *Approved Conservation Advice for* Polyscias bellendenkerensis. Canberra: Department of the Environment, Water, Heritage and the Arts.
29. Department of the Environment, Water, Heritage and the Arts (2008). Approved Conservation Advice for Ristantia gouldii. Canberra: Department of the Environment, Water, Heritage and the Arts.
30. Department of the Environment, Water, Heritage and the Arts (2008). *Approved Conservation Advice for* Tylophora rupicola. Canberra: Department of the Environment, Water, Heritage and the Arts.
31. Department of the Environment, Water, Heritage and the Arts (2008). *Approved Conservation Advice for* Zeuxine polygonoides. Canberra: Department of the Environment, Water, Heritage and the Arts.
32. Dowe, J.L. 2010. Australian palms : biogeography, ecology and systematics. CSIRO Publishers. Victoria, Australia.
33. Ebihara, A., Dubuisson, J.-Y., Iwatsuki, K., Hennequin, S., Ito, M. (2006). A taxonomic revision of Hymenophyllaceae. *Blumea* 51: 240.
34. Fact Sheet (2010) – *Acalypha lyonsi* - Australian Tropical Rainforest Plants. Version 6.1. (http://www.anbg.gov.au/cpbr/cd-keys/RFK7/key/RFK7/Media/Html/entities/Acalypha_lyonsii.htm)
35. Fact Sheet (2010) – *Alloxylon flammeum* - Australian Tropical Rainforest Plants. Version 6.1. http://www.canbr.gov.au/cpbr/cd-keys/RFK7/key/RFK7/Media/Html/entities/Alloxylon_flammeum.htm
36. Fact Sheet (2010) – *Canarium acutifolium* var. *acutifolium* - Australian Tropical Rainforest Plants. Version 6.1. http://www.canbr.gov.au/cpbr/cd-keys/RFK7/key/RFK7/Media/Html/entities/Canarium_acutifolium.htm
37. Fact Sheet (2010) – *Carronia pedicellata* - Australian Tropical Rainforest Plants. Version 6.1. http://www.canbr.gov.au/cpbr/cd-keys/RFK7/key/RFK7/Media/Html/entities/Carronia_pedicellata.htm
38. Fact Sheet (2010) – *Dendrobium mirbelianum* - Australian Tropical Rainforest Orchids. https://www.anbg.gov.au/cpbr/cd-keys/RFKOrchids/key/rfkorchids/Media/Html/Durabaculum_mirbelianum.htm
39. Fact Sheet (2010) – *Dendrobium nindii* - Australian Tropical Rainforest Orchids. https://www.anbg.gov.au/cpbr/cd-keys/RFKOrchids/key/rfkorchids/Media/Html/Durabaculum_nindii.htm
40. Fact Sheet (2010) – Phaius australis - Australian Tropical Rainforest Orchids. https://www.anbg.gov.au/cpbr/cd-keys/RFKOrchids/key/rfkorchids/Media/Html/Phaius_australis.htm
41. Fact Sheet (2010) – *Phaius pictus* - Australian Tropical Rainforest Orchids. https://www.anbg.gov.au/cpbr/cd-keys/RFKOrchids/key/rfkorchids/Media/Html/Phaius_pictus.htm
42. Fact Sheet (2010) – *Phyllanthera grayi* - Australian Tropical Rainforest Plants. Version 6.1. http://www.canbr.gov.au/cpbr/cd-keys/RFK7/key/RFK7/Media/Html/entities/Phyllanthera_grayi.htm
43. Fact Sheet (2010) – *Plectranthus gratus* - Australian Tropical Rainforest Plants. Version 6.1. http://www.canbr.gov.au/cpbr/cd-keys/RFK7/key/RFK7/Media/Html/entities/Plectranthus_gratus.htm

44. Fact Sheet (2010) – *Polyscias bellendenkerensis* - Australian Tropical Rainforest Plants. Version 6.1.http://www.canbr.gov.au/cpbr/cd-keys/RFK7/key/RFK7/Media/Html/entities/Polyscias_bellendenkerensis.htm

45. Fact Sheet (2010) – *Ristantia gouldii* - Australian Tropical Rainforest Plants. Version 6.1. http://www.canbr.gov.au/cpbr/cd-keys/RFK7/key/RFK7/Media/Html/entities/Ristantia_gouldii.htm

46. Fact Sheet (2010) – *Sphaerantia discolor* - Australian Tropical Rainforest Plants. Version 6.1. http://www.canbr.gov.au/cpbr/cd-keys/RFK7/key/RFK7/Media/Html/entities/Sphaerantia_discolor.htm

47. Fact Sheet (2010) – *Vappodes lithocola* - Australian Tropical Rainforest Orchids. https://www.anbg.gov.au/cpbr/cd-keys/RFKOrchids/key/rfkorchids/Media/Html/Vappodes_lithocola.htm

48. Fact Sheet (2010) – *Zeuxine polygonoides* - Australian Tropical Rainforest Orchids. https://www.anbg.gov.au/cpbr/cd-keys/RFKOrchids/key/rfkorchids/Media/Html/Zeuxine_oblonga.htm

49. Forster, P.I. (1992). A taxonomic revision of *Tylophora* R.Br. (Asclepiadaceae: Marsdenieae) in Australia. Australian Systematic Botany 5(1): 46.

50. Forster, P.I. (1994). A taxonomic revision of *Acalypha* L. (Euphorbiaceae) in Australia. *Austrobaileya* 4(2): 209-226.

51. Forster, P.I. (1996). *Marsdenia*. In: *Flora of Australia* 28. Australian Biological Resources Study, Canberra.

52. Herbert, J. (2006). National recovery plan for the fern *Chingia australis*. Report to Department of the Environment and Water Resources, Canberra. Queensland Parks and Wildlife Service, Brisbane.

Holtt., (1986). *Chingia australis* In: Kew Bull. 41(3): 518.

53. Huxley, C.R. & Jebb, M.H.P. (1993). The tuberous epiphytes of the Rubiaceae 5: a revision of *Myrmecodia*. *Blumea* 37(2): 271-334.

54. Jones, D.L. (1998). Dryopteridaceae In: Flora of Australia, 48: 393–418. ABRS/CSIRO, Melbourne.

55. Jones, D.L. (2006). A complete guide to native orchids of Australia, including the island territories, New Holland (Australia).

56. Kern, J.H. (1974). Cyperaceae. Flora Malesiana. 1(2)7: 435-753.

57. **L**abiak, P.H., Sundue, M., Rouhan, G., Hanks, J.G., Mickle, J.T., Moran, R.C. (2014). Phylogeny and historical biogeography of the Lastreopsid ferns (Dryopteridaceae). American Journal of Botany 101(7):1207-1228.

58. Neldner, V.J., Wilson, B.A., Thompson, E.J. and Dillewaard, H.A. (2012) Methodology for Survey and Mapping of Regional Ecosystems and Vegetation Communities in Queensland, Version 3.2, Queensland Herbarium, Queensland Department.

59. Paton,A.J., Mwanyambo, M., Govaerts, R.H.A., Smitha, K., Suddee, S., Phillipson, P.B., Wilson, T.C., Forster, P.I., Culham, A. (2019). Nomenclatural changes in *Coleus* and *Plectranthus* (Lamiaceae): a tale of more than two genera. *PhytoKeys* 129: 1–158.

60. Venter, H.J.T. & Verhoeven, R.L. (2001). Diversity and Relationships within the Periplecoidea (Apocynacea). *Annals Missouri Botanical Garden* 88: 566.

61. Weston, T., Øllgaard, B., Field, A., Almeida, T., Kessler, M., Barrington, D. (2018). Phylogenetic systematics, morphological evolution, and natural groups in neotropical *Phlegmariurus* (Lycopodiaceae). *Molecular Phylogenetics and Evolution* 125: 1–13

62. Wilson. P.G. & Hyland, B.P.M. (1988). New taxa of rainforest Myrtaceae from northern Queensland. *Telopea* 3(2): 257–271.

6. Appendix A – EVNT Flora CV.

Johan Hurter

Qld Threatened Plant (EVNT) Survey Botanist CV

Johan is a tertiary educated, technically proficient professional Botanist with more than 30 years of demonstrated experience related to all aspects of Botany from Queensland's Regional Ecosystems, Tropical Plant Ecology, Ecophysiology, Taxonomy and all acceptable scientific vegetation survey techniques and field work methodologies, inclusive of statistical data analysis, vegetation descriptions and analysis, vegetation mapping, vegetation monitoring, weed mapping and monitoring and consulting as sole proprietor of EcoRex.

Johan also has a wide range of experience in various botanical biomes including recent in the Northern Brigalow Belt, Wet Tropics, Arid Central Australia, Great Victorian Desert, Great and Little Sandy Deserts NT, Kimberley's, Pilbara, Murchison, Gascoyne South-West WA, Swan Coastal Plain, New Caledonia, Africa, North Island, and various offshore Islands of New Zealand.

Johan has published more than 100 technical publications in international peer reviewed journals. Subjects range from plant biochemistry, vegetation descriptions and ecology, 20+ newly described plant species as sole or senior author, conservation, IUCN red listing and DNA sequencing. Johan is also responsible for numerous new plant name combinations such as *Vachelia nilotica* and others within the old concept of *Acacia*.

Johan also has the honor of being commemorated with the plant names *Eremophila hurteri* and *Dioscorea hurteri*.

Protected Flora Survey List for January 2025 to June 2025.

- Curtain Fig National Park, Curtain Fig Boardwalk Replacement. EVNT Flora survey done for Queensland Parks and Wildlife Services.
- SERENITAS Lifestyle Retirement Village, Kewarra Beach, EVNT Flora Survey. Done for SERENITAS.
- Danbullan Rd, Geotech failure remediation site, Tinnaroo. EVNT Flora Survey done for the Tablelands Regional Council.
- EVNT Flora Survey. Soley Rd Culvert Replacement. Done for ARO Industries, Cairns.
- EVNT Flora Survey. Armanasco Rd, Bramston Beach. Done for Bramston Beach Developments Pty Ltd.

Address:

EcoRex, 174 Harvey Rd, Redlynch 4870, Queensland, Australia

Relevant Education:

Bachelor of Science, 1990

Bachelor of Science (Hons) Botany, 1992

Relevant Professional Memberships:

International Association of Vegetation Scientists (IAVS)

International Association of Plant Taxonomists (IAPT)

International Plant Names Index Author Number 36756-1 as P.J.H. Hurter

Australian Rangeland Society

Contact:

Mobile 0499784030 or johan@ecorex.com.au

EcoRex

EcoRex Report Number 06/07/2025

Matters of Environmental Significance – Lot 2RP747074, Kuranda.

Prepared for Mr Yves Lovarco.

This report has been based upon the conditions encountered during the investigation and on the best available information. The accuracy of the advice provided in this report may be limited by reasonably unforeseeable errors or misgivings in searchers and information reviewed.

This report does not constitute legal advice and is open to third party and government official interpretation of legislation and may thus be modified and adapted to this regard.

Plant names follow those listed in the Census of the Queensland Flora. Non-native species are denoted by an asterisk (*) and are generally included under the comments field.

EcoRex, 174 Harvey Rd, Redlynch, 4870 Queensland
Mobile 0499784030 e-mail: johan@ecorex.com.au

……

6 July 2025

Contents

1. Introduction

The owner of Lot 2RP747074 (1), has engaged EcoRex to undertake a survey and report on Matters of Environmental Significance (MES) that may constrain his proposed development application (DA) with the Mareeba Shire Council (MSC) to clear a section of the lot for a driveway and new dwelling – the Area of Interest (AOI) (Map 2).

The lot is located on the western outskirts of Kuranda, Queensland – on the corner of Myola Rd and Kuranda Height Road, Queensland.

1. The AOI in relation to local landmarks and the town of Kuranda.

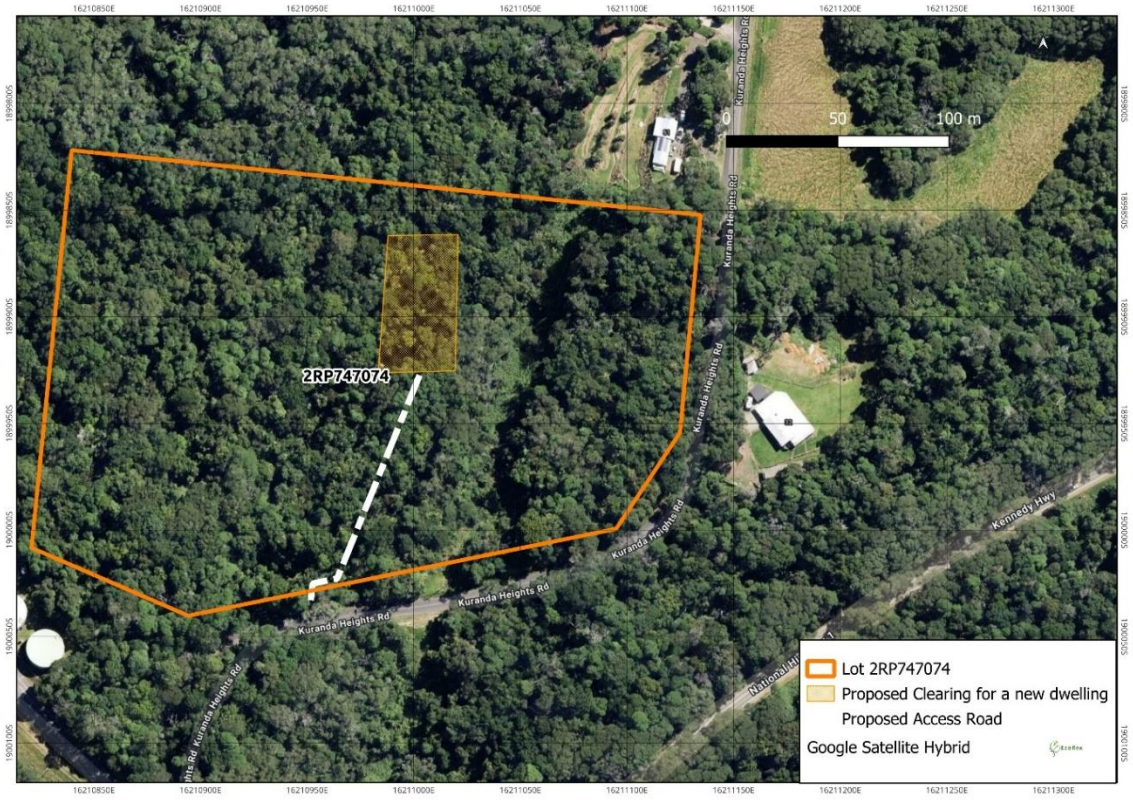
1.1. Background.

The aim of the proposed DA is to construct a house pad (±2,200 m^2) and entrance driveway. The development footprint is proposed to be limited to essential clearing for residential access and construction only as the owner wishes to retain the ambiance of a rainforest around the new dwelling.

The proposed works are intended to proceed as a single-stage development, with construction anticipated to commence in 2025.

1.2. Scope.

Investigate and report on all MES that could constrain the proposed DA with MSC and any other potential assessing authority.



Map 2. The AOI and relevant clearing proposals for the DA.

2. Methodology.

The survey methodology follows the accepted sequence of Desktop survey followed by a Site Investigations.

2.1. Desktop Review.

A review of databases and information relating to the following open sources of information (OSINF) list was undertaken as a desktop assessment. The results of these searches and reviews of information assist with gaining a better understanding of the ecology and broader landscape of the survey area.

The following databases and sources of information were reviewed:

- Regional Ecosystem mapping. The most recent version of the DES's remnant regional ecosystem (REDD) vegetation mapping (version 13.1, May 2024) was used to provide an indication of the status and location of remnant vegetation, of the project site.
- Wildlife Online database of flora. This database holds records of plants and animals that have been either sighted or collected within a given radius of the site (a search parameter can be prescribed which limits the search area to a given radius around a central point).
- Protected Matters database of Matters of National Environmental Significance (MNES). This database applies a range of bio-models to predict the presence of species of flora and fauna,

and other matters of NES as cited under the Environmental Protection and Biodiversity Conservation Act 1999 (EPBC Act).

- HERBRECS database of plant records. This database provides confirmed records of plant collections made within a specified area, of which voucher specimens are held by the Environmental Protection Agency's (EPA) Queensland Herbarium. Data from this source provides useful information on the known location of rare and threatened species and expedites targeted surveys for such plants in the field as well as being a valuable source of what plant taxa are generally present on site or nearby.
- Atlas of Living Australia is a centralized searchable database for locally and regionally recorded fauna and flora.
- Literature review. A range of scientific papers and other literature were reviewed for each taxon potentially expected within the survey area.
- Far North Queensland Regional Organisation of Councils (FNQROC).

All database searches were undertaken using a standard 2km buffer surrounding the Project area, using the approximate central point of the site (Latitude: -16.82033° Longitude: 145.62568°) or Lot and Plan search (2RP747074).

Data for purely estuarine, oceanic, and pelagic marine taxa is not evaluated for this terrestrial site.

An initial likelihood assessment of species potentially occurring in the project area was conducted prior to this field assessment, based on the results of any initial field surveys, current state vegetation mapping and database records.

Likelihood assessments were undertaken using the known distribution and preferred habitat of the species and the identification of these habitat values from data base searches. The criteria used to assess the likelihood of threatened species occurring within the survey area is presented in Table 1 below.

Table 1. Assessment criteria used to evaluate taxa flagged as potentially occurring on site.

Likelihood	Definition
Known	Taxon was positively identified and recorded in the survey area during a previous field assessment; previous records of occurrence within the project area.
Likely	There are known records within the nearby surrounding area and suitable habitat exists on site.
Potentially	Known records occur within the surrounding area, but habitat in the survey area is sub-optimal, marginal, or degraded.
Unlikely	Habitat in the survey area might be suitable or marginal; however no known records of the taxon exist within the surrounding area.
Very Unlikely	Obligate habitat taxa with no suitable habitat on site
None	E.g., Obligate marine taxa not expected in a terrestrial environment

2.2 Flora and Vegetation Field Survey.

The AOI was visited on several occasions between 7 June and 27 June 2025. Visits were conducted for such purposes as is required for the survey of vegetation communities, and other mandatory survey requirements as mandated by the Nature Conservation Act (1992) and EPBC Act (1999).

2.2.1. Vegetation Communities.

Vegetation communities discernible in the field were surveyed using the methodology for recording quaternary type information as defined by the 'Methodology for Survey and Mapping of Regional Ecosystems and Vegetation Communities in Queensland' (Nelder et al. 2012).

2.2.2. Endangered, Vulnerable and Near Threatened (EVNT) Flora.

EVNT flora, if observed in the field was catalogued and positions recorded in the field within the AOI.

2.2.3. Survey Timing.

The survey timing was undertaken within the potential flowering/fruiting period for all conservation significant flora and other species. Flowering and fruiting data were acquired directly from The Atlas of Living Australia (ALA, 2025) or online herbarium record labels (HERBRECS).

2.2.4. Flora Species Identification.

All conservation significant taxa and other flora involved are very well known to the investigators as local flora and easily distinguishable and identifiable even when not in flower or fruiting. When in doubt, taxa are cross referenced and identified using standard keys used in professional identification and compared to electronic copies of the TYPE specimens and an EcoRex proprietary electronic field herbarium.

2.3. Fauna Field Survey Methodology.

The AOI comprises a well-structured remnant forest, contiguous with adjacent low-density residential areas, riparian zones, the town of Kuranda and native regrowth vegetation, forming a mosaic of transitional habitats between forested, residential and pasture environments.

Given the structural complexity and connectivity of these habitats, the site presents excellent potential for supporting diverse vertebrate fauna. However, a fauna trapping program was deemed unnecessary due to the non-intrusive nature of the investigation and the primary objective of habitat quality assessment. Data collection was performed exclusively through passive, observational, and low-impact methods consistent with the *Terrestrial Vertebrate Fauna Survey Guidelines for Queensland* (DES, 2018) and informed by the best practice methodologies outlined in Thompson and Thompson (2017).

These include:

- Bio acoustic survey.
- Visual diurnal surveys.
- Scat identification.

- Checking surrounding roads, paths, and tracks for incidental roadkill.

Physical observations on the presence of fauna were also done in conjunction with the Flora and, Vegetation Survey.

Specific fauna identified in the desk top review as potential Matters of National Environmental Significance (MNES) or Matters of State Environmental Significance (MSES), were targeted.

Remote surveillance survey sites were established, representing the confluence of waterways or well-developed remnant and regrowth vegetation or remnant riparian regions.

Each remote surveillance site consisting of:

- an ultrasonic (Anabat Swift, Titley Scientific) passive detector,
- an acoustic (Anabat Chorus, Titley Scientific) passive detector,
- Six random placed unbaited infrared wildlife cameras.

Bio acoustic survey data was analysed using Anabat Insight (Titley Scientific) and Kaleidoscope analyses software (Wildlife Acoustics) and compared to an EcoRex proprietary animal vocalization data base or for unidentified bird calls compared against a CornellLab Birdsong database.

3. Desktop Survey Results and Analysis.

3.1. AOI Site Description and Terrain Information.

The whole lot is approximately 4.9 hectares in size and nearly completely covered by remnant vegetation ubiquitous to the Kuranda area and Macalister Range.

3.1.2. Bioregion.

The AOI falls within the Wet Tropics Bioregion (Bioregion 7) and specifically the Macalister sub region.

3.1.3. Surface Geology, Soils and Land zone.

The AOI falls within Qld Land zone 11, which consists of metamorphosed rocks, forming folded ranges, hills and lowlands.

Metamorphosed rock layers can be interspersed with sedimentary un-metamorphosed layers including mudstones and Graywacke. Primarily lower Permian and older sedimentary formations which are generally moderately to strongly deformed. Includes low- to high-grade and contact metamorphics such as phyllites, slates, gneisses of indeterminate origin and serpentinite, and interbedded volcanics.

Soils are mainly shallow, gravelly Rudosols and Tenosols, with Sodosols and Chromosols on lower slopes and gently undulating areas. Soils are typically of a skeletal, very low, low to moderate fertility with a poor ground and shrub vegetation cover and very low carrying capacity after clearing.

These nutrient poor soils can be very evident in road cuttings and batters and contrast strongly against soils derived from intrusive geologies in the area and have very low herbivorous higher fauna carrying capacity due to the low nutrient levels.

3.1.4. Catchment Area.

The AOI falls within the catchment of the Barron River which terminates on the Coral Sea Coast just north of Cairns International Airport.

3.1.5. Terraine and Relief.

The AOI relief shows a moderately steep relief, especially towards creek lines. The colluvial movement of upper soils in the surrounding higher areas and downward nutrient flow being obvious along lower lying creek and water flow lines.

3.1.6. Climate.

Kuranda and the AOI, experiences only mild variations in temperature and its seasons consist of a dry season and a wet season. Temperatures seldom rise above 31°C or rarely drop below 20°C.

3.1.7. Local Government Area.

The AOI falls within the Local Government Area (LGA) of Mareeba Shire Regional Council (MSC).

3.2. Matters of State Environmental Significance (MSES).

All MSES potentially applicable to the AOI and a 2 km buffer extent is presented in Table 2.

Table 2. Summary of MSES present within the AOI.

Category	Area	Proportion
1a Protected Areas - estates	0 ha	0.00%
1b Protected Areas - nature refuges	0 ha	0.00%
1c Protected Areas - special wildlife reserves	0 ha	0.00%
2 State Marine Parks - highly protected zones	0 ha	0.00%
3 Fish habitat areas (A and B areas)	0 ha	0.00%
4 Strategic Environmental Areas (SEA)	0 ha	0.00%
5 High Ecological Significance wetlands on the Map of Queensland	0 ha	0.00%
6a High Ecological Value (HEV) wetlands	0 ha	0.00%
6b High Ecological Value (HEV) waterways	0 km	Not applicable
7a Threatened (endangered or vulnerable) wildlife	4.57 ha	93.30%
7b Special least concern animals	4.57 ha	93.30%
7c i Koala habitat area - core (SEQ)	0 ha	0.00%
7c ii Koala habitat area - locally refined (SEQ)	0 ha	0.00%
8a Regulated Vegetation - Endangered/Of concern in Category B (remnant)	0 ha	0.00%
8b Regulated Vegetation - Endangered/Of concern in Category C (regrowth)	0 ha	0.00%
8c Regulated Vegetation - Category R (GBR riverine regrowth)	0.06 ha	1.20%
8d Regulated Vegetation - Essential habitat	4.57 ha	93.30%
8f Regulated Vegetation - within 100m of a Vegetation Management Wetland	0 ha	0.00%

Category	Area	Proportion
9a Legally secured offset areas - offset register areas	0 ha	0.00%
9b Legally secured offset areas - vegetation offsets through a Property Map of Assessable Vegetation	0 ha	0.00%

3.2.1. State Biodiversity Corridors.

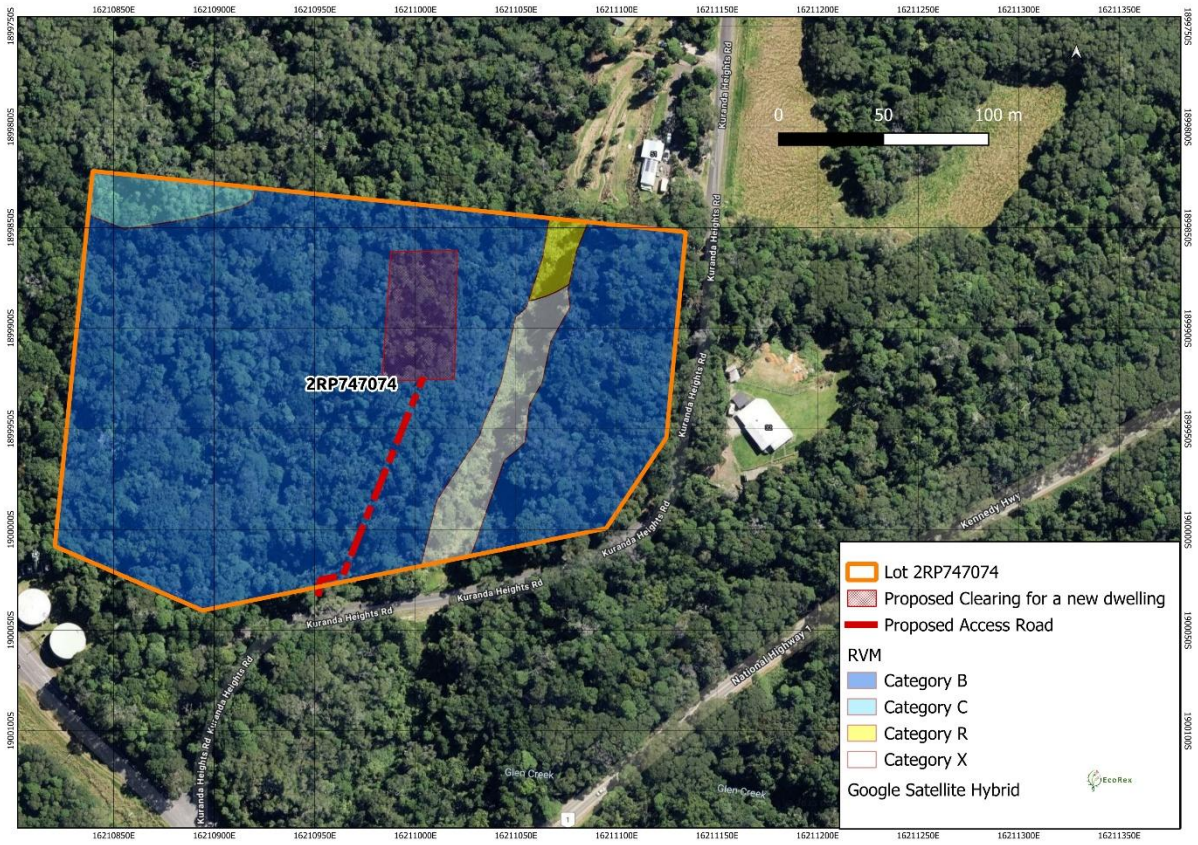
The AOI and whole of Kuranda township, also falls within a 3 km buffer of the centre line of a declared biodiversity corridor that extends along the Macalister Range.

3.2.2. Regulated Vegetation Mapping (RVM).

A summary of vegetation categories on the AOI as regulated by the Vegetation Management Act (1999) is listed in Table 3and depicted in Map 3

Table 3. Regulated Vegetation extent on the lot.

Vegetation category	Extent (ha)
Category B	4.43
Category C	0.14
Category R	0.06
Category X	0.27
Total	4.9



Map 3. RVM for the AOI.

The greater part of the property and proposed clearing areas fall within Category B vegetation.

3.2.3. Property Map of Assessable Vegetation (PMAV).

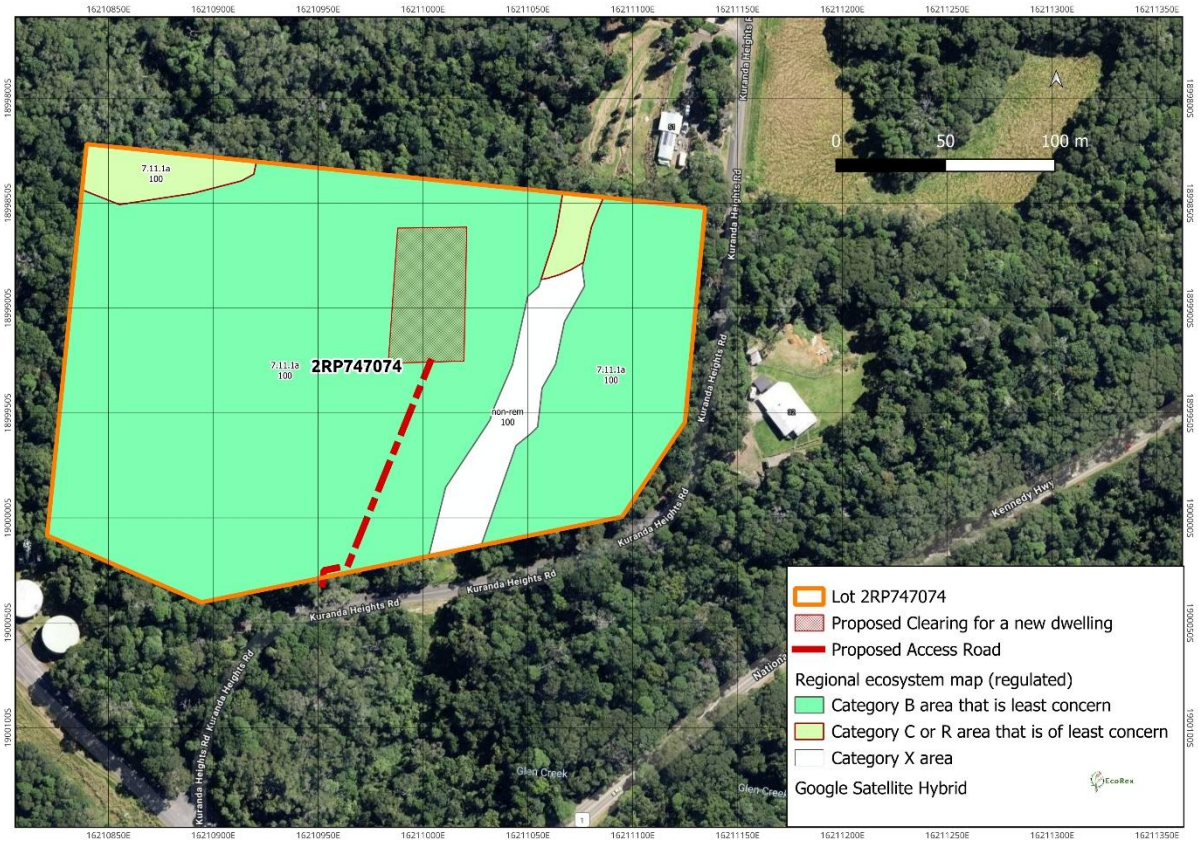
There is no Property Map of Assessable Vegetation (PMAV) on this property.

3.2.4. Regional Ecosystems (RE's).

A single RE is mapped for the AOI (Map 4) and is described in Table 4.

Table 4. RE's of the AOI.

Regional Ecosystem	VMA Status	Extent (Ha)	Short Description	Biodiversity Classification	% of AOI
7.11.1a	No concern at present	4.43	Simple to complex mesophyll to notophyll vine forest on moderately to poorly drained metamorphics (excluding amphibolites) of moderate fertility of the moist and wet lowlands, foothills, and uplands. Not a Wetland. 7.11.1a Mesophyll vine forest. Lowlands and foothills on metamorphics. Very wet and wet rainfall zones.	No Concern	90.34
Non-remnant	None	0.48	None	None	9.70



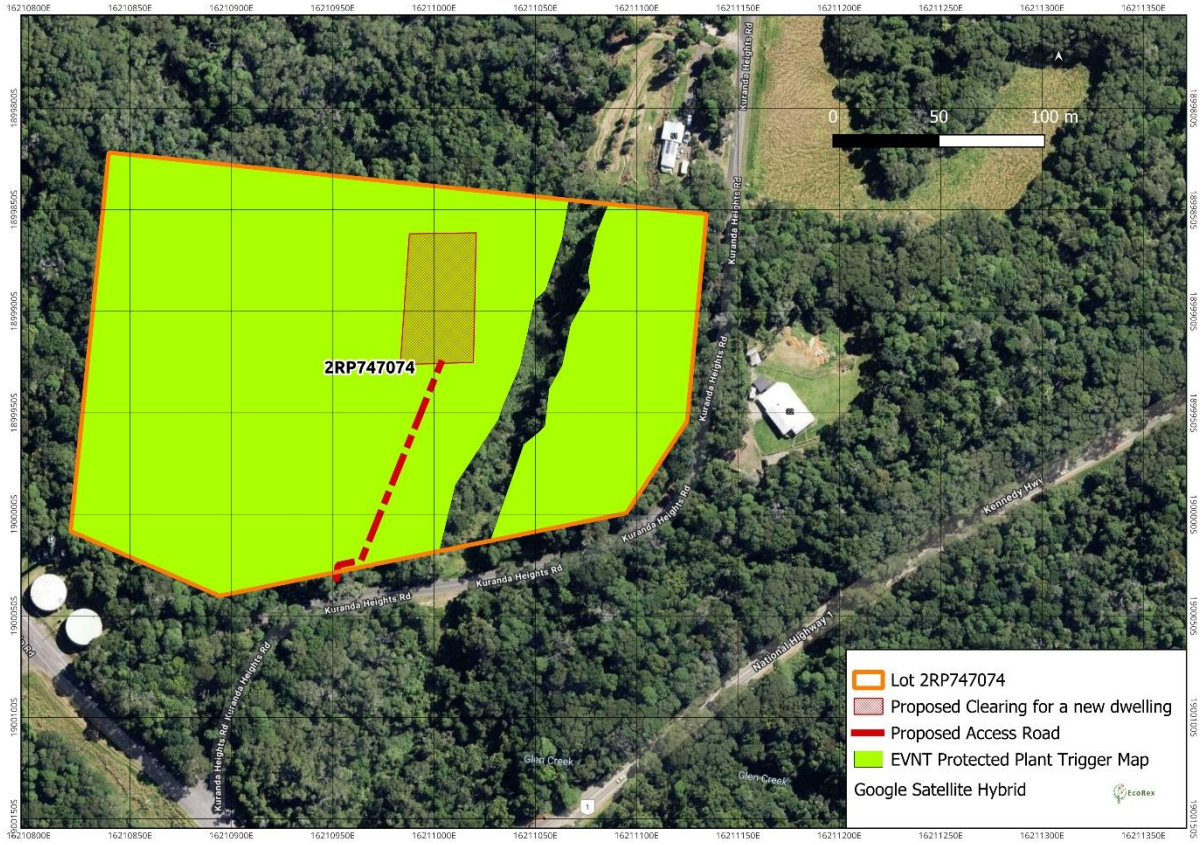
Map 4. Regional Ecosystem mapping for the AOI.

3.2.5. EVNT Protected Plant Trigger Mapping.

The AOI contains an area (Map 5) that mandates that a statutory protected plant survey for Endangered, Vulnerable and Near Threatened (EVNT) flora must be done under the jurisdiction of

the Department of Environment, Tourism, Science, Technology and Innovation (DETSI), by a suitably qualified individual as prescribed by the Queensland Nature Conservation Act (1992).

An EVNT Flora Survey conducted in the survey period, did not find any EVNT Flora within the AOI, and is reported on elsewhere for DETSI.



Map 5. EVNT Flora Survey Trigger Map for the AOI.

3.2.6. Endangered, Vulnerable and Near Threatened (EVNT) Flora.

Queensland NCA (1992) listed EVNT flora that could potentially occur within the AOI and designated Protected Flora trigger area in Map 5, is listed and assessed against the criteria of Table 1 in Table 5 below.

Flora Matters of State Environmental Significance as highlighted by MSES searches that may occur within the AOI.

Table 5. Potential EVNT Flora that may occur within the AOI.

Taxon	NCA 1992 Status	Potential for Occurrence
Archontophoenix myolensis	Endangered	Likely
Linospadix palmerianus	Near Threatened	Likely
Rhodamnia spongiosa	Critically Endangered	Likely
Rhodomyrtus pervagata	Endangered	Likely
Rhodomyrtus canescens	Endangered	Likely

Archontophoenix myolensis is a rare palm species endemic to the Kuranda region and is known from only a few verified collection and observation events. It has not been recorded within the Area of Interest (AOI), but a single specimen has been recorded approximately 2 km from the AOI, and the species has been documented in the broader locality across five distinct records between 1976 and 2010. These include multiple preserved specimens housed by the Australian Tropical Herbarium (ATH) in 1976, and additional records from the Queensland Herbarium (BRI) in 1993 and 1996, as well as photographic observations in 2010 (ALA, 2025). This species typically inhabits well-shaded, moist rainforest gullies and is often overlooked due to its morphological similarity to the more widespread *Archontophoenix alexandrae*.

Linospadix palmerianus, commonly known as the walking stick palm, is a small, clustering palm endemic to northeastern Queensland. It typically inhabits the understory of upland and mountain rainforests, thriving at elevations between 300 and 1,600 meters, particularly on granite and metamorphic substrates. While traditionally considered confined to the Mts. Bartle Frere and Bellenden-Ker ranges, recent data indicates a potential broader distribution.

Rhodamnia spongiosa is a small to medium-sized rainforest tree, typically attaining heights of 10–12 metres, and is known from three discrete populations in Queensland: south-eastern Queensland, the Atherton Tablelands, and Iron Range. This taxon is taxonomically incompletely known, with observable morphological variation between individuals from each of the three regions. Although multiple occurrence records exist across its range, the species is considered highly localised, with plants occurring only sporadically within suitable habitat. Growth rates are extremely slow, and recruitment is limited. Like many species within the Myrtaceae family, *Rhodamnia spongiosa* is highly susceptible to Myrtle Rust (*Austropuccinia psidii*). Modelling suggests that for several *Rhodamnia* taxa, the current individuals may represent the last of their species unless effective management actions are implemented.

Rhodomyrtus canescens is a small to medium-sized rainforest tree endemic to Queensland, typically reaching heights of 10–12 metres. It is known from three discrete populations: south-eastern Queensland, the Atherton Tablelands, and the Iron Range. While there are no documented records of this species in the immediate vicinity of Kuranda, multiple verified occurrences have been recorded in the Cairns region. This taxon is taxonomically incompletely known, with observable morphological variation between individuals from each of the three regions. Although multiple occurrence records exist across its range, the species is considered highly localised, with plants occurring only sporadically within suitable habitat. Growth rates are extremely slow, and recruitment is limited. Like many species within the Myrtaceae family, *Rhodomyrtus canescens* is highly susceptible to Myrtle Rust (*Austropuccinia psidii*).

Rhodomyrtus pervagata, commonly known as ironwood is a small to medium-sized rainforest tree endemic to northeastern Queensland. It typically grows in and on the margins of coastal and sub-coastal rainforests, from the Windsor Tablelands south to the Paluma Range National Park, preferring soils derived from granite or basalt. *Rhodomyrtus pervagata* has been recorded in various locations across its range. The species is known to favour disturbance and is a characteristic component of rainforest regrowth.

3.2.7. Conservation Significant Fauna.

Results from a data base search for potential EVNT Fauna that may occur within the AOI is assessed in Table 6 against the criteria in Table 1.

The nearby historical record of *Litoria dayi* is associated with a location described only as “20 miles west of Cairns.” This imprecise spatial reference carries a low georeferencing confidence level, limiting its utility in accurately inferring current presence or habitat suitability within the Area of Interest (AOI).

Litoria myola, a cryptic and range-restricted species endemic to the Kuranda region, and has only been reliably recorded further north of the AOI, primarily within the Warril Creek and Myola localities. To date, there are no verified records of *L. myola* occurring outside this known range. Due to its morphological similarity to *Litoria serrata*, this species is susceptible to misidentification by non-specialists.

Erythrura trichroa (Blue-faced parrot finch), is a small finch associated with clearings in rainforests and marshy bogs with grassy edges in and around rainforests. It has also been recorded in gardens near such habitat. There are no recent verifiable records of this species from the Kuranda area.

Kuranda is well known for the presence of Cassowary and there is some potential for this species to occur or traverse the AOI. Cassowaries require very large home ranges and will persist in areas, such as Kuranda where locals feed the birds.

Table 6. Potential EVNT fauna that may occur within the AOI.

Taxon ID	Taxon	NCA 1992 Status	Potential for Occurrence in the AOI
579	*Litoria dayi*	Vulnerable	Unlikely
31630	*Litoria myola*	Critically Endangered	Unlikely
1087	*Casuarius casuarius*	Endangered	Potentially
1378	*Erythrura trichroa*	Near Threatened	Unlikely

3.2.8. Essential Habitat

Essential habitat mapping is indicated only for Cassowaries and covers the whole extent of Category B vegetation within the AOI.

3.3. Matters of National Environmental Significance.

The EPBC MNES search tool results are presented in Table 7 below.

Table 7. EPBC MNES search results.

Matters of National Environmental Significance	Presence nearby
Threatened Ecological Communities (TEC’s)	1
Listed Threatened Species	35
Listed Migratory Species	3

3.3.1. Threatened Ecological Communities

A search for Threatened Ecological Communities as Vegetation MNES, brought to light the potential presence of two EPBC listed Threatened Ecological Communities (TEC's).

1. Broad leaf tea-tree (*Melaleuca viridiflora*) woodlands in high rainfall coastal north Queensland.
2. Lowland tropical rainforest of the Wet Tropics.

Known RE's from the AOI and comparative equivalents of mapped regional ecosystems to TEC's are shown in Table 8.

Table 8. Comparative equivalents of Threatened Ecological Communities.

Threatened Ecological Community	EPBC Status	Qld Regional Ecosystem Equivalents	Known Site Regional Ecosystems	Likelihood of Occurrence
Broad leaf tea-tree (*Melaleuca viridiflora*) woodlands in high rainfall coastal north Queensland	Endangered	7.3.8a-d., 7.5.4g., 8.3.2a., 8.5.2c., 8.5.6.	7.11.1a	None
Lowland tropical rainforest of the Wet Tropics	Endangered	Components relevant to Regional Ecosystems occurring on landform 11 RE7.11.1 (a, c); 7.11.2 (a); 7.11.23 (a, b); 7.11.3 (a) below 80 m ASL.	7.11.1a (above 80 m ASL)	None

Although the site is mapped as having a Regional Ecosystem associated with Lowland Tropical Rainforests of the Wet Tropics, the site lies at an altitude (320 m ASL to 380 m ASL) that is much higher than the required elevation that is below 80 m ASL to be classified as Lowlands. Site altitude thus precludes this TEC to be present.

None of the listed TEC's occur on site.

3.3.2. EPBC Listed Threatened Flora.

EPBC listed flora highlighted from the EPBC search tool are listed in Table 9 and analysed against the criteria in Table 1.

Table 9. Flora Matters of Environmental Significance as highlighted by the EPBC search tool for the AOI.

Taxon	EPBC Status	Habitat	Flowering/Fruiting time	Likelihood of Occurrence
Alloxylon flammeum	Vulnerable	Forest	February onwards	Unlikely
Archontophoenix myolensis	Endangered	Forest Ravines	May onwards	Likely
Canarium acutifolium	Vulnerable	Forest	February onwards	Unlikely
Coleus gratus	Vulnerable	Forest	All year	Unlikely

Taxon	EPBC Status	Habitat	Flowering/Fruiting time	Likelihood of Occurrence
Diplazium cordifolium	Vulnerable	Rain Forest	Wet season	Unlikely
Diplazium pallidum	Endangered	Rain Forest	Wet season	Unlikely
Leichhardtia araujacea	Critically Endangered	Forest/Woodland	January onwards	Unlikely
Myrmecodia beccarii	Vulnerable	Coastal Forest	Year round (peak in October)	Very Unlikely
Phaius pictus	Vulnerable	Swamps	February onwards	Very Unlikely
Phalaenopsis rosenstromii	Endangered	Gallery Forest	February onwards	Unlikely
Phlegmariurus filliformis	Endangered	Forest	February onwards	Unlikely
Polyphlebium squarrosus	Critically Endangered	Forest	February onwards	Unlikely
Phlegmariurus tetrastichoides	Vulnerable	Forest	February onwards	Unlikely
Polyphlebium endlicherianum	Endangered	Rock pavements	February onwards	Unlikely
Vappodes lithocola	Endangered	Rock pavements	February onwards	Unlikely
Zeuxine polygonoides	Vulnerable	Forest	February Onwards	Unlikely

Except for *Archontophoenix myolensis,* already discussed under MSES, all these taxa can be excluded based on their very narrow habitat requirements.

3.3.3. EPBC Listed Threatened Fauna.

A list of fauna considered for presence within the AOI is provided in Table 10. Most of the taxa are unlikely to occur due to a lack of suitable habitat, or the site not being core habitat. Some of the records are old and inaccurate and just state Kuranda and may be from further north, south or in the hinterland. The most likely taxa to occur on Site are listed with an asterisk.

Table 10. Fauna of National Significance which are considered for potential occurrence on Site.

Taxon	EPBC Status	Likelihood of Occurrence
*Casuarius casuarius**	Endangered	Potentially
Calidris canutus	Vulnerable	Very Unlikely
Calidris ferruginea	Critically Endangered	Very Unlikely
Dasyurus hallucatus	Endangered	Potentially
*Dasyurus maculatus gracilis**	Endangered	Potentially
Hipposideros semoni	Vulnerable	Very Unlikely
Macroderma gigas	Vulnerable	Unlikely
Mesembriomys gouldii rattoides	Vulnerable	Very Unlikely
Petauroides minor	Vulnerable	Unlikely
Phascolarctos cinereus	Endangered	Very Unlikely
Pteropus conspicillatus	Endangered	Very Unlikely
Rhinolophus robertsi	Vulnerable	Potentially
Saccolaimus saccolaimus nudicluniatus	Vulnerable	Potentially
Litoria nyakalensis	Critically Endangered	Unlikely

Taxon	EPBC Status	Likelihood of Occurrence
Litoria myola	Critically Endangered	Unlikely
Litoria dayi	Vulnerable	Unlikely
Melanotaenia eachamensis	Endangered	Very Unlikely
Tyto novaehollandiae kimberli	Vulnerable	Very Unlikely
Varanus mertensi	Endangered	Very Unlikely

3.3.4. EPBC Listed Migratory Species.

Non marine migratory fauna species considered for occurrence within the AOI are listed in Table 11.

None of the fauna species are considered to have any likelihood of occurring within the AOI due to narrow habitat requirements for mostly expansive water nearby and shallow flats for wading.

Table 11. Listed migratory Fauna of National Significance which were considered for potential occurrence within the AOI.

Taxon	EPBC Status	Likelihood of Occurrence
Cuculus optatus	Migratory	Unlikely
Hirundapus caudacutus	Vulnerable Migratory	Unlikely
Hirundo rustica	Migratory	Unlikely
Motacilla flava	Migratory	Unlikely
Actitis hypoleucos	Migratory	Unlikely
Calidris acuminata	Vulnerable Migratory	Unlikely
Calidris canutus	Vulnerable Migratory	Unlikely
Calidris ferruginea	Critically Endangered Migratory	Unlikely
Calidris melanotus	Migratory	Unlikely
Charadrius leschenaultii	Vulnerable Migratory	Very Unlikely
Gallinago harwickii	Vulnerable Migratory	Unlikely
Numenius madagascariensis	Critically Endangered Migratory	Unlikely
Pandion haliaetus	Migratory	Unlikely
Tringa nebularia	Endangered Migratory	Unlikely

3.4. Matters of Local Environmental Significance.

Most of the Matters of Local Environmental Significance have already been dealt with in the preceding sections as MSES and MNES.

The AOI is located in the Far North Queensland Regional Landscape and Rural Residential Area and is zoned Rural Residential under the Mareeba Shire Council Planning Scheme.

This zoning permits dwelling houses as accepted or code assessable development, provided that key planning criteria such as setbacks, vegetation retention, bushfire hazard mitigation, and slope stability are met.

Accordingly, the proposed development within the AOI aligns with the intent of the Planning Scheme and is not considered inconsistent with the zoning provisions, provided that environmental considerations are addressed during vegetation clearing and the siting of the building pad.

4. Field Survey Results.

4.1. Field Survey Synopsis.

The field survey found:

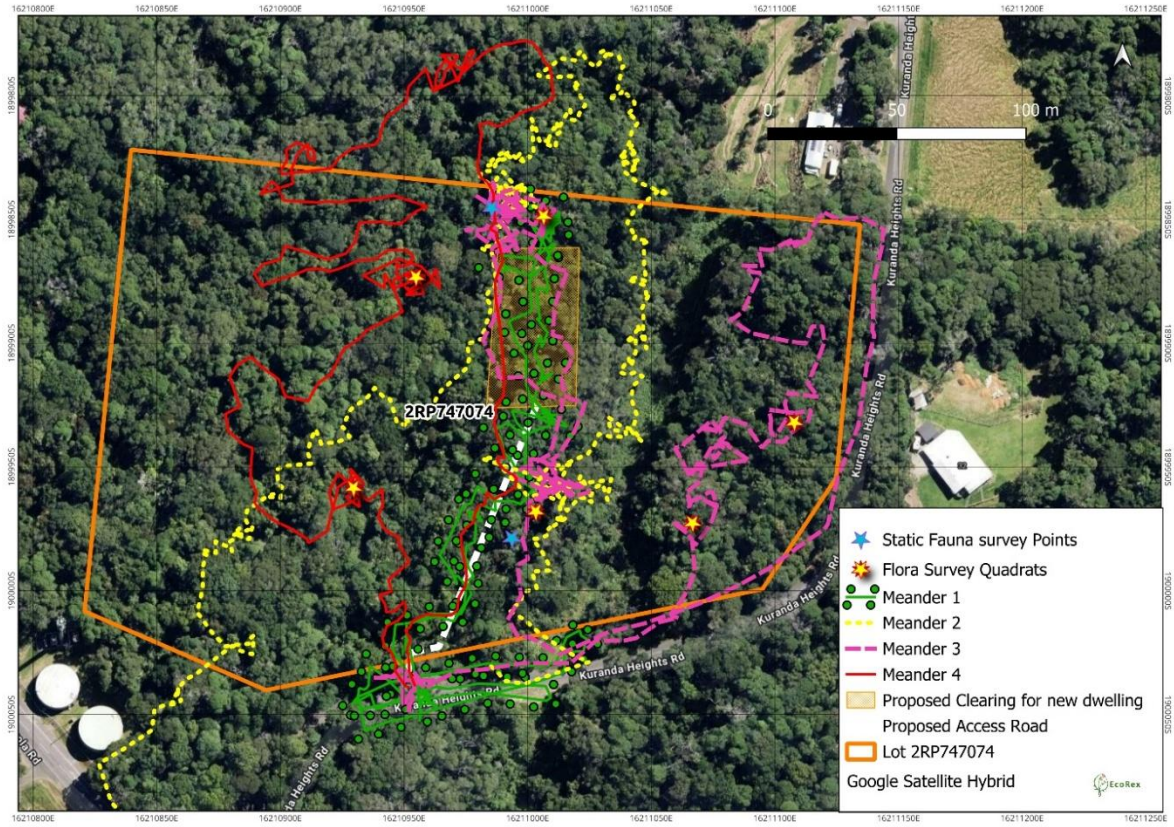
- No incongruence with the existing vegetation mapping for the AOI.
- No incongruence with the mapped regional ecosystems for the AOI.
- No EVNT flora within a 100-meter buffer zone of the proposed clearing areas.
- No EVNT fauna present within the survey period and no evidence for resident EVNT fauna was found within the AOI.

4.2. Survey Effort.

The combined survey effort within the Area of Interest (AOI) is illustrated in Table 12and Map 6

Table 12. Survey effort.

Survey Type	Number	Time
EVNT survey meanders	Four	Four Days
Camera Traps	Eight	Eight Days Seven Nights
Ultrasonic Bat Detectors	Two	Eight Days Seven Nights
Bio acoustic Monitors	Two	Eight Days Seven Nights



Map 6. Combined survey extent.

Targeted flora and fauna surveys were undertaken between 7 June and 27 June 2025, with a focus on detecting EVNT species.

4.3. Endangered Vulnerable and Near Threatened (EVNT) Flora.

The survey did not find any EVNT flora.

4.4. Vegetation.

The access road and proposed new dwelling site falls completely within the VMA mapped Category B vegetation and an example of the vegetation structure and general dominant species composition is given in Table 13.

4.5. Fauna.

4.5.1. Endangered Vulnerable and Near Threatened Fauna.

No presence of EVNT fauna was found on site.

4.5.2. Fauna Breeding Places.

No evidence of fauna breeding places was found within the proposed clearing area or proposed entrance road route. No other fauna breeding places were observed within the AOI.

5. Discussion.

5.1. Flora and Vegetation.

The vegetation of the AOI and lot is as described by the state vegetation mapping and consists of typical vegetation and flora of the Macalister Range and aligned to that of RE 7.11.1 and is characterised by various non characterizing Notophyll trees of no particular dominance and high variety of lianas, including *Calamus* species, *Smilax* sp., *Austrosteensia* sp., *Hibbertia scandens*, *Tetracera* sp. and the ubiquitous *Flagellaria indica.*

5.2. Fauna.

Fauna is typical of the surrounding forest fauna and common species observed and recorded included the Red-legged Pademelon (*Thylogale stigmatica*), Giant White-tailed Rat (*Uromys caudimaculatus*), common birds including Orange-footed Scrubfowl *(Megapodius reinwardt*), Emerald Dove (*Chalcophaps indica*) and Victoria's Rifle Bird (*Ptiloris victoriae*).

No reptiles or amphibians were physically recorded except for audible calls along the creek that belong to the Mottled Barred Frog (*Mixophyes coggeri*) a common species around Kuranda creeks.

Table 13. Example of vegetation observed within the AOI.

Representing Flora Quadrats (Map 6**Error! Reference source not found.**):			
Structural Information			
Tier	Species Composition	Height (m)	Cover %
T1	*Alstonia scholaris, Elaeocarpus bancroftii, Endiandra palmerstoni, Syzygium kuranda, Castanospermum australe*	15-25	60-80
T2	*Guoia lassioneura, Polyscias australiana, Melicope elleryana, Syzygium cryptophlebium, Acacia cinncinata*	6-15	50-60
Lianas	*Calamus australis, Calamus motti, Calamus radicalis, Tetracera nordtiana, Austrosteensia stipularis*		
S1	*Benstonia monticola, Alstonia muelleriana, Pittosporum rubignosum, Cryptocarya mackinoniana,*	3-6	60-80
S2	*Benstonia monticola, Gardenia ovularis, Gahnia sieberiana, Linospadix microcaryus*	1-3	40-50
G1	*Oplismenus compositus, Taenitis pinnata, Balanophora fungosa, Apostasia wallichii, Leptaspis banksii*	0.5-1	10-15

6. Development Impact Assessment.

The proposed clearing of Category B vegetation will trigger an assessment of the development by the State Assessment and Referral Agency (SARA).

The proposed development will result in the clearing of a small area of remnant vegetation within the AOI, which is currently classified as of no concern at present by the VMA (1999) and a biodiversity classification of no concern at present

There are no Fauna or Flora species present that are classified as Endangered, Vulnerable or Near Threatened.

The development footprint does not directly encroach on critical riparian zones or wetlands.

7. Conclusion.

The field survey results indicate that the proposed development will not significantly impact on any MNES or MSES within the AOI.

7.1. Rural Residential Zoning.

- Under Mareeba Shire Council's scheme, a dwelling house is typically accepted development in the Rural Residential Zone, provided it complies with all applicable codes.
- These may include:
    - Bushfire hazard overlays,
    - Effluent disposal requirements,
    - Setbacks and building envelopes.

The zoning does not override state vegetation regulations.

7.2. Clearing of Category B Vegetation.

From – VMA, Schedule 21 – Exempt Clearing Work, *Part 2, Table 1*:

- Item 1 allows clearing on freehold land for necessary built infrastructure, including a dwelling house, where:
    - The clearing is reasonably necessary,
    - The total area cleared is less than 2 hectares, and
    - It's not in a mapped area of significant concern (e.g., koala, wetland, reef catchment).

It thus appears that bar any unforeseen other rulings, the development proposal should be acceptable within the limits provided to EcoRex by the owner.

8. Recommendations.

Based on the survey results, a recommendation to mitigate potential environmental impacts would be to limit vegetation clearing to the essential area required for the development footprint.

8.1. Disposal of cleared vegetation.

Cleared vegetation should preferably be disposed of by tub grinding where practically possible and the resultant mulch used on site to cover exposed earth around the building pad to prevent erosion and weed growth.

Burning of cleared trees should be limited to areas where it is not practically possible to use a tub grinder or similar and ashes returned to the environment when cold or safe to do so. These actions will limit further loss of nutrients from the surrounding topsoil.

9. References and Resources.

1. Atlas of Living Australia. https://www.ala.org.au/. Accessed between 20-26th June 2025.

2. Australian Government Department of the Environment. (n.d.). Consultation document on listing eligibility and conservation actions: Litoria dayi (lace-eyed tree frog). https://www.dcceew.gov.au/sites/default/files/env/consultations/00012e32-4db9-409a-9d63-67430547a043/files/consultation-document-litoria-dayi.pdf

3. CSIRO & Dowe, J. L. (2020). *Archontophoenix myolensis* Dowe. In *Australian Tropical Rainforest Plants* (Edition 8). Lucidcentral. https://apps.lucidcentral.org/rainforest/text/entities/archontophoenix_myolensis.htm

4. CSIRO & Dowe, J. L. (2020). *Linospadix palmerianus* (F.M.Bailey) Burret. In *Australian Tropical Rainforest Plants* (Edition 8). Lucidcentral. https://apps.lucidcentral.org/rainforest/text/entities/linospadix_palmerianus.htm

5. CSIRO, & Domin, K. (2020). *Rhodamnia spongiosa* (F.M.Bailey) Domin. In *Australian Tropical Rainforest Plants* (Edition 8). Lucidcentral. https://apps.lucidcentral.org/rainforest/text/entities/rhodamnia_spongiosa.htm

6. CSIRO & Guymer, G. P. (2020). *Rhodomyrtus pervagata* Guymer. In *Australian Tropical Rainforest Plants* (Edition 8). Lucidcentral. https://apps.lucidcentral.org/rainforest/text/entities/rhodomyrtus_pervagata.htm

7. CSIRO, White, C. T., & Francis, W. D. (2020). *Rhodomyrtus canescens* C.T.White & W.D.Francis. In *Australian Tropical Rainforest Plants* (Edition 8). Lucidcentral. https://apps.lucidcentral.org/rainforest/text/entities/rhodomyrtus_canescens.htm

8. Board of Trustees of the Royal Botanic Gardens, Kew. (n.d.). Rhodamnia sessiliflora Benth. Plants of the World Online. Retrieved May 16, 2025, from https://powo.science.kew.org/taxon/urn:lsid:ipni.org:names:601135-1.

9. Bostock, P. D., & Holland, A. E. (2007). Census of the Queensland flora 2007. Queensland Herbarium, Environmental Protection Agency.

10. Conrad J. Hoskin, Megan Higgie, Keith R. McDonald & Craig Moritz. (2005). Reinforcement drives rapid allopatric speciation. Nature 437/27.

11. Cook, O. F. (1915). A new genus of palms allied to Archontophoenix. Journal of the Washington Academy of Sciences, 5(4), 116-122.

12. Craig, M. D. (2003). An ecological study of the Blue-faced Parrot-Finch (Erythrura trichroa macgillivrayi) near Yungaburra, Australia. Emu - Austral Ornithology, 103(4), 363–368. https://doi.org/10.1071/MU02047

13. Department of Environment Protection and Biodiversity Conservation (EPBC). (2024). Survey guidelines for Australia's threatened mammals. Guidelines for detecting mammals listed as threatened under the Environment Protection and Biodiversity Conservation Act 1999. Canberra 2024.

14. Department of Environment Protection and Biodiversity Conservation (EPBC). (2024). Survey guidelines for Australia's threatened mammals. Guidelines for detecting mammals listed as threatened under the Environment Protection and Biodiversity Conservation Act 1999. Canberra.

15. Department of Environment and Heritage Protection. (2014). Flora survey guidelines – Protected Plants. Flora survey guidelines for species listed under the Nature Conservation Act 1992.

16. Department of Infrastructure, Local Government and Planning. (2016). State Planning Policy: Mining and Extractive Resources – State Interest Guideline. Queensland State Government, Brisbane.

17. Department of the Environment and Energy. (2017, July 13). Approved Conservation Advice for Litoria dayi (lace-eyed tree frog). Canberra: Australian Government. https://www.environment.gov.au/biodiversity/threatened/species/pubs/86707-conservation-advice-13072017.pdf

18. Department of the Environment, Water, Heritage and the Arts. (2008, March 26). Approved Conservation Advice for Archontophoenix myolensis (Myola Archontophoenix). Canberra: Australian Government. Approved under section 266B of the Environment Protection and Biodiversity Conservation Act 1999.

19. Department of the Environment, Water, Heritage and the Arts. (2009, December 23). Approved Conservation Advice for Litoria myola (Kuranda Tree Frog). Canberra: Australian Government. https://www.environment.gov.au/biodiversity/threatened/species/pubs/82063-conservation-advice.pdf

20. Department of the Environment, Water, Heritage and the Arts. (2010). Significant impact guidelines for the endangered southern cassowary (Casuarius casuarius johnsonii) Wet Tropics population: EPBC Act policy statement 3.15. Nationally Threatened Species and Ecological Communities. https://www.dcceew.gov.au/environment/epbc/publications/significant-impact-guidelines-endangered-southern-cassowary-casuarius-casuarius-johnsonii

21. Dowe, J.L. (2010). Australian palms: biogeography, ecology and systematics. CSIRO Publishers. Victoria, Australia.

22. EPBC Search Tool, https://pmst.awe.gov.au/. Accessed 25 June 2025.

23. EcoRex. (2025, May 14). Protected Plant Impact Management Plan – Rhodamnia sessiliflora, Millaa Millaa Falls, Bus Parking Precinct Upgrade, Queensland. Prepared for Trinity Engineering.

24. Fensham, R. J., & Radford-Smith, J. (2021). Unprecedented extinction of tree species by fungal disease. Biological Conservation, 261, 109276. https://doi.org/10.1016/j.biocon.2021.109276

25. Fensham, R. J., Carnegie, A. J., Laffineur, B., Makinson, R. O., Pegg, G. S., & Wills, J. (2020). Imminent extinction of Australian Myrtaceae by fungal disease. Trends in Ecology & Evolution, 35(10), 828–830. https://doi.org/10.1016/j.tree.2020.03.012

26. Forster, P.I. (1994). A taxonomic revision of Acalypha L. (Euphorbiaceae) in Australia. Austrobaileya, 4(2), 209–226.

27. Forster, P.I. (1996). Marsdenia. In Flora of Australia 28. Australian Biological Resources Study, Canberra.

28. Forster, P.I. (1996). Marsdenia. In: Flora of Australia 28. Australian Biological Resources Study, Canberra.

29. Guymer, G. P., & Jessup, L. W. (1986). New species of Rhodamnia Jack (Myrtaceae) from Australia. Austrobaileya, 228-234.

30. Hurter, J. (2025). Revised V2 Endangered, Vulnerable and Near Threatened Flora Survey Report for a Geotech Failure on, Danbulla Rd, Lake Tinaroo. EcoRex Report 23/01/2025, prepared for ARO Industries, Cairns.

31. Huxley, C.R., & Jebb, M.H.P. (1993). The tuberous epiphytes of the Rubiaceae 5: a revision of Myrmecodia. Blumea, 37(2), 271–334.

32. Hyland, B. P. M. (1983). A revision of Rhodamnia (Myrtaceae) in Australia. Brunonia, 6(1), 45–68. https://doi.org/10.1071/BRU9830045

33. Kern, J.H. (1974). Cyperaceae. Flora Malesiana, 1(2)7, 435–753.

34. Latch, P. (2007). Recovery plan for the southern cassowary (Casuarius casuarius johnsonii). Prepared for the Cassowary Recovery Team. Environmental Protection Agency, The State of Queensland. https://www.agriculture.gov.au/sites/default/files/documents/sth-cassowary.pdf

35. Neldner, V.J., Wilson, B.A., Thompson, E.J. and Dillewaard, H.A. (2012) Methodology for Survey and Mapping of Regional Ecosystems and Vegetation Communities in Queensland, Version 3.2, Queensland Herbarium, Queensland Department.

36. Pegg, G. S., Carnegie, A. J., Giblin, F. R., Perry, S., Ireland, K. B., Lawson, S. A., & Dann, E. K. (2017). Managing myrtle rust in Australia: A collaborative approach. Australasian Plant Pathology, 46(3), 231–243. https://doi.org/10.1007/s13313-017-0495-2

37. Queensland Government. (2024). Erythrura trichroa – Taxon details. WildNet. Retrieved July 4, 2025, from https://wildnet.science-data.qld.gov.au/taxon-detail?taxon_id=1378

38. Queensland Government. (2024). Linospadix palmerianus – Taxon details. WildNet. Retrieved July 4, 2025, from https://wildnet.science-data.qld.gov.au/taxon-detail?taxon_id=12768

39. Queensland Government. (2024). Litoria myola – Taxon details. WildNet. Retrieved July 4, 2025, from https://wildnet.science-data.qld.gov.au/taxon-detail?taxon_id=31630

40. Queensland Government. (2024). Rhodamnia spongiosa – Taxon details. WildNet. Retrieved July 4, 2025, from https://wildnet.science-data.qld.gov.au/taxon-detail?taxon_id=16288

41. Queensland Government. (2024). Rhodomyrtus canescens – Taxon details. WildNet. Retrieved July 4, 2025, from https://wildnet.science-data.qld.gov.au/taxon-detail?taxon_id=16293

42. Queensland Government. (2024). Rhodomyrtus pervagata – Taxon details. WildNet. Retrieved July 4, 2025, from https://wildnet.science-data.qld.gov.au/taxon-detail?taxon_id=16292

43. Scott, A. J. (1978). A revision of Rhodomyrtus (Myrtaceae). Kew Bulletin, 311-329.

44. Scott, A. J. (1978). A revision of the genus Rhodomyrtus (Myrtaceae). Brunonia, 1(2), 145–218. https://doi.org/10.1071/BRU9780145

45. Snow, N. (2007). Systematics of the Australian species of Rhodamnia (Myrtaceae). Systematic Botany Monographs, 1-69.

46. Snow, N., McFadden, J., Evans Evans, T. M., Salywon, A. M., Wojciechowski, M. F., & Wilson, P. G. (2011). Morphological and molecular evidence of polyphyly in Rhodomyrtus (Myrtaceae: Myrteae). Systematic Botany, 36(2), 390-404.

47. White, C. T., & Francis, W. D. (1920). Contributions to the Queensland flora, No. 6. Botany Bulletin, 18, 1–31.

48. WildNet, https://www.qld.gov.au/environment/plants-animals/species-information/wildnet. Accessed between 18th - 27th June 2025.

51. Wilson, P.G., & Hyland, B.P.M. (1988). New taxa of rainforest Myrtaceae from northern Queensland. Telopea, 3(2), 257–271.

Acknowledgement

Petrus Johannes Hurter

174 Harvey Rd
REDLYNCH
QLD 4870
Australia

Where clearing is to be conducted:
LOT 2/RP747074

DES Reference: APP0148457

Dear Petrus Johannes Hurter,

Thank you for submitting a flora survey report related to clearing native plants under a protected plant clearing exemption.

Please retain this acknowledgement as receipt of your flora survey report submitted under the requirements of “Code of Practice For The Take or Use of a Protected Plant Under An Exemption” which confirms your compliance with Section 48 of Nature Conservation (Plants) Regulation 2020. Please note this acknowledgement is not a clearing permit.

For clearing related to this flora survey report to be exempt under the relevant regulations the clearing must be completed within 3 years after the relevant flora survey was conducted.

It is strongly recommended that for audit purposes you keep this email and acknowledgement of receipt together with the relevant flora survey trigger map, flora survey report and any other documentation relating to the clearing in question.

Please visit www.des.qld.gov.au for information about available online services.

Enquiries:

Email: wildlife@des.qld.gov.au
Postal Address: PO Box 2454, Brisbane, Qld, 4001

ABN 46 640 294 485

DA Form 1 – Development application details

Approved form (version 1.6 effective 2 August 2024) made under section 282 of the Planning Act 2016.

This form **must** be used to make a development application **involving code assessment or impact assessment**, except when applying for development involving only building work.

For a development application involving **building work only**, use *DA Form 2 – Building work details*.

For a development application involving **building work associated with any other type of assessable development (i.e. material change of use, operational work or reconfiguring a lot)**, use this form (*DA Form 1*) **and** parts 4 to 6 of *DA Form 2 – Building work details.*

Unless stated otherwise, all parts of this form **must** be completed in full and all required supporting information **must** accompany the development application.

One or more additional pages may be attached as a schedule to this development application if there is insufficient space on the form to include all the necessary information.

This form and any other form relevant to the development application must be used to make a development application relating to strategic port land and Brisbane core port land under the *Transport Infrastructure Act 1994*, and airport land under the *Airport Assets (Restructuring and Disposal) Act 2008.* For the purpose of assessing a development application relating to strategic port land and Brisbane core port land, any reference to a planning scheme is taken to mean a land use plan for the strategic port land, Brisbane port land use plan for Brisbane core port land, or a land use plan for airport land.

Note: *All terms used in this form have the meaning given under the Planning Act 2016, the Planning Regulation 2017, or the Development Assessment Rules (DA Rules).*

PART 1 – APPLICANT DETAILS

1) Applicant details	
Applicant name(s) (*individual or company full name*)	Yves Lovarco
Contact name *(only applicable for companies)*	
Postal address *(P.O. Box or street address)*	PO BOX 3009
Suburb	Cairns
State	QLD
Postcode	4870
Country	Australia
Contact number	0490045375
Email address *(non-mandatory)*	yves@alovalight.com
Mobile number *(non-mandatory)*	
Fax number *(non-mandatory)*	
Applicant's reference number(s) *(if applicable)*	

1.1) Home-based business
☐ Personal details to remain private in accordance with section 264(6) of *Planning Act 2016*

2) Owner's consent
2.1) Is written consent of the owner required for this development application?
☐ Yes – the written consent of the owner(s) is attached to this development application
☒ No – proceed to 3)

PART 2 – LOCATION DETAILS

3) Location of the premises *(complete 3.1) or 3.2), and 3.3) as applicable)*

***Note**: Provide details below and attach a site plan for any or all premises part of the development application. For further information, see DA Forms Guide: Relevant plans.*

3.1) Street address and lot on plan

☒ Street address AND lot on plan (all lots must be listed), or

☐ Street address **AND** lot on plan for an adjoining or adjacent property of the premises *(appropriate for development in water but adjoining or adjacent to land e.g. jetty, pontoon. All lots must be listed).*

a)	Unit No.	Street No.	Street Name and Type	Suburb
			Kuranda Heights Road	Kuranda
	Postcode	Lot No.	Plan Type and Number *(e.g. RP, SP)*	Local Government Area(s)
	4881	2	RP747074	Mareeba
b)	Unit No.	Street No.	Street Name and Type	Suburb
	Postcode	Lot No.	Plan Type and Number *(e.g. RP, SP)*	Local Government Area(s)

3.2) Coordinates of premises *(appropriate for development in remote areas, over part of a lot or in water not adjoining or adjacent to land e.g. channel dredging in Moreton Bay)*

***Note**: Place each set of coordinates in a separate row.*

☐ Coordinates of premises by longitude and latitude

Longitude(s)	Latitude(s)	Datum	Local Government Area(s) *(if applicable)*
		☐ WGS84 ☐ GDA94 ☐ Other:	

☐ Coordinates of premises by easting and northing

Easting(s)	Northing(s)	Zone Ref.	Datum	Local Government Area(s) *(if applicable)*
		☐ 54 ☐ 55 ☐ 56	☐ WGS84 ☐ GDA94 ☐ Other:	

3.3) Additional premises

☐ Additional premises are relevant to this development application and the details of these premises have been attached in a schedule to this development application

☒ Not required

4) Identify any of the following that apply to the premises and provide any relevant details

☐ In or adjacent to a water body or watercourse or in or above an aquifer

Name of water body, watercourse or aquifer:

☐ On strategic port land under the *Transport Infrastructure Act 1994*

Lot on plan description of strategic port land:

Name of port authority for the lot:

☐ In a tidal area

Name of local government for the tidal area *(if applicable)*:

Name of port authority for tidal area *(if applicable)*

☐ On airport land under the *Airport Assets (Restructuring and Disposal) Act 2008*	
Name of airport:	
☐ Listed on the Environmental Management Register (EMR) under the *Environmental Protection Act 1994*	
EMR site identification:	
☐ Listed on the Contaminated Land Register (CLR) under the *Environmental Protection Act 1994*	
CLR site identification:	

5) Are there any existing easements over the premises?

Note: Easement uses vary throughout Queensland and are to be identified correctly and accurately. For further information on easements and how they may affect the proposed development, see DA Forms Guide.

☒ Yes – All easement locations, types and dimensions are included in plans submitted with this development application

☐ No

PART 3 – DEVELOPMENT DETAILS

Section 1 – Aspects of development

6.1) Provide details about the first development aspect

a) What is the type of development? *(tick only one box)*

☐ Material change of use ☐ Reconfiguring a lot ☒ Operational work ☐ Building work

b) What is the approval type? *(tick only one box)*

☒ Development permit ☐ Preliminary approval ☐ Preliminary approval that includes a variation approval

c) What is the level of assessment?

☒ Code assessment ☐ Impact assessment *(requires public notification)*

d) Provide a brief description of the proposal *(e.g. 6 unit apartment building defined as multi-unit dwelling, reconfiguration of 1 lot into 3 lots)*:

Vegetation clearing

e) Relevant plans

***Note**: Relevant plans are required to be submitted for all aspects of this development application. For further information, see DA Forms guide: Relevant plans.*

☐ Relevant plans of the proposed development are attached to the development application

6.2) Provide details about the second development aspect

a) What is the type of development? *(tick only one box)*

☐ Material change of use ☐ Reconfiguring a lot ☐ Operational work ☐ Building work

b) What is the approval type? *(tick only one box)*

☐ Development permit ☐ Preliminary approval ☐ Preliminary approval that includes a variation approval

c) What is the level of assessment?

☐ Code assessment ☐ Impact assessment *(requires public notification)*

d) Provide a brief description of the proposal *(e.g. 6 unit apartment building defined as multi-unit dwelling, reconfiguration of 1 lot into 3 lots)*:

e) Relevant plans

***Note**: Relevant plans are required to be submitted for all aspects of this development application. For further information, see DA Forms Guide: Relevant plans.*

☐ Relevant plans of the proposed development are attached to the development application

6.3) Additional aspects of development
☐ Additional aspects of development are relevant to this development application and the details for these aspects that would be required under Part 3 Section 1 of this form have been attached to this development application
☒ Not required
6.4) Is the application for State facilitated development?
☐ Yes - Has a notice of declaration been given by the Minister?
☒ No

Section 2 – Further development details

7) Does the proposed development application involve any of the following?	
Material change of use	☐ Yes – complete division 1 if assessable against a local planning instrument
Reconfiguring a lot	☐ Yes – complete division 2
Operational work	☒ Yes – complete division 3
Building work	☐ Yes – complete *DA Form 2 – Building work details*

Division 1 – Material change of use

***Note**: This division is only required to be completed if any part of the development application involves a material change of use assessable against a local planning instrument.*

8.1) Describe the proposed material change of use			
Provide a general description of the proposed use	Provide the planning scheme definition *(include each definition in a new row)*	Number of dwelling units *(if applicable)*	Gross floor area (m^2) *(if applicable)*

8.2) Does the proposed use involve the use of existing buildings on the premises?
☐ Yes
☐ No

8.3) Does the proposed development relate to temporary accepted development under the Planning Regulation?	
☐ Yes – provide details below or include details in a schedule to this development application	
☐ No	
Provide a general description of the temporary accepted development	Specify the stated period dates under the Planning Regulation

Division 2 – Reconfiguring a lot

***Note**: This division is only required to be completed if any part of the development application involves reconfiguring a lot.*

9.1) What is the total number of existing lots making up the premises?

9.2) What is the nature of the lot reconfiguration? *(tick all applicable boxes)*	
☐ Subdivision *(complete 10)*	☐ Dividing land into parts by agreement *(complete 11)*
☐ Boundary realignment *(complete 12)*	☐ Creating or changing an easement giving access to a lot from a constructed road *(complete 13)*

10) Subdivision				
10.1) For this development, how many lots are being created and what is the intended use of those lots:				
Intended use of lots created	Residential	Commercial	Industrial	Other, please specify:
Number of lots created				

10.2) Will the subdivision be staged?	
☐ Yes – provide additional details below ☐ No	
How many stages will the works include?	
What stage(s) will this development application apply to?	

11) Dividing land into parts by agreement – how many parts are being created and what is the intended use of the parts?				
Intended use of parts created	Residential	Commercial	Industrial	Other, please specify:
Number of parts created				

12) Boundary realignment			
12.1) What are the current and proposed areas for each lot comprising the premises?			
Current lot		Proposed lot	
Lot on plan description	Area (m^2)	Lot on plan description	Area (m^2)
12.2) What is the reason for the boundary realignment?			

13) What are the dimensions and nature of any existing easements being changed and/or any proposed easement? *(attach schedule if there are more than two easements)*				
Existing or proposed?	Width (m)	Length (m)	Purpose of the easement? *(e.g. pedestrian access)*	Identify the land/lot(s) benefitted by the easement

Division 3 – Operational work

***Note**: This division is only required to be completed if any part of the development application involves operational work.*

14.1) What is the nature of the operational work?		
☐ Road work	☐ Stormwater	☐ Water infrastructure
☐ Drainage work	☐ Earthworks	☐ Sewage infrastructure
☐ Landscaping	☐ Signage	☒ Clearing vegetation
☐ Other – please specify:		

14.2) Is the operational work necessary to facilitate the creation of new lots? *(e.g. subdivision)*	
☐ Yes – specify number of new lots:	
☒ No	

14.3) What is the monetary value of the proposed operational work? *(include GST, materials and labour)*

$6000

PART 4 – ASSESSMENT MANAGER DETAILS

15) Identify the assessment manager(s) who will be assessing this development application

16) Has the local government agreed to apply a superseded planning scheme for this development application?

- ☐ Yes – a copy of the decision notice is attached to this development application
- ☐ The local government is taken to have agreed to the superseded planning scheme request – relevant documents attached
- ☐ No

PART 5 – REFERRAL DETAILS

17) Does this development application include any aspects that have any referral requirements?
***Note**: A development application will require referral if prescribed by the* Planning Regulation 2017.

- ☒ No, there are no referral requirements relevant to any development aspects identified in this development application – proceed to Part 6

Matters requiring referral to the **Chief Executive of the *Planning Act 2016*:**

- ☐ Clearing native vegetation
- ☐ Contaminated land *(unexploded ordnance)*
- ☐ Environmentally relevant activities (ERA) *(only if the ERA has not been devolved to a local government)*
- ☐ Fisheries – aquaculture
- ☐ Fisheries – declared fish habitat area
- ☐ Fisheries – marine plants
- ☐ Fisheries – waterway barrier works
- ☐ Hazardous chemical facilities
- ☐ Heritage places – Queensland heritage place *(on or near a Queensland heritage place)*
- ☐ Infrastructure-related referrals – designated premises
- ☐ Infrastructure-related referrals – state transport infrastructure
- ☐ Infrastructure-related referrals – State transport corridor and future State transport corridor
- ☐ Infrastructure-related referrals – State-controlled transport tunnels and future state-controlled transport tunnels
- ☐ Infrastructure-related referrals – near a state-controlled road intersection
- ☐ Koala habitat in SEQ region – interfering with koala habitat in koala habitat areas outside koala priority areas
- ☐ Koala habitat in SEQ region – key resource areas
- ☐ Ports – Brisbane core port land – near a State transport corridor or future State transport corridor
- ☐ Ports – Brisbane core port land – environmentally relevant activity (ERA)
- ☐ Ports – Brisbane core port land – tidal works or work in a coastal management district
- ☐ Ports – Brisbane core port land – hazardous chemical facility
- ☐ Ports – Brisbane core port land – taking or interfering with water
- ☐ Ports – Brisbane core port land – referable dams
- ☐ Ports – Brisbane core port land – fisheries
- ☐ Ports – Land within Port of Brisbane's port limits *(below high-water mark)*
- ☐ SEQ development area
- ☐ SEQ regional landscape and rural production area or SEQ rural living area – tourist activity or sport and recreation activity
- ☐ SEQ regional landscape and rural production area or SEQ rural living area – community activity
- ☐ SEQ regional landscape and rural production area or SEQ rural living area – indoor recreation
- ☐ SEQ regional landscape and rural production area or SEQ rural living area – urban activity
- ☐ SEQ regional landscape and rural production area or SEQ rural living area – combined use
- ☐ SEQ northern inter-urban break – tourist activity or sport and recreation activity

☐ SEQ northern inter-urban break – community activity
☐ SEQ northern inter-urban break – indoor recreation
☐ SEQ northern inter-urban break – urban activity
☐ SEQ northern inter-urban break – combined use
☐ Tidal works or works in a coastal management district
☐ Reconfiguring a lot in a coastal management district or for a canal
☐ Erosion prone area in a coastal management district
☐ Urban design
☐ Water-related development – taking or interfering with water
☐ Water-related development – removing quarry material *(from a watercourse or lake)*
☐ Water-related development – referable dams
☐ Water-related development –levees *(category 3 levees only)*
☐ Wetland protection area

Matters requiring referral to the **local government:**

☐ Airport land
☐ Environmentally relevant activities (ERA) (*only if the ERA has been devolved to local government)*
☐ Heritage places – Local heritage places

Matters requiring referral to the **Chief Executive of the distribution entity or transmission entity:**

☐ Infrastructure-related referrals – Electricity infrastructure

Matters requiring referral to:

- The **Chief Executive of the holder of the licence**, if not an individual
- The **holder of the licence**, if the holder of the licence is an individual

☐ Infrastructure-related referrals – Oil and gas infrastructure

Matters requiring referral to the **Brisbane City Council:**

☐ Ports – Brisbane core port land

Matters requiring referral to the **Minister responsible for administering the *Transport Infrastructure Act 1994*:**

☐ Ports – Brisbane core port land *(where inconsistent with the Brisbane port LUP for transport reasons)*
☐ Ports – Strategic port land

Matters requiring referral to the **relevant port operator**, if applicant is not port operator**:**

☐ Ports – Land within Port of Brisbane's port limits *(below high-water mark)*

Matters requiring referral to the **Chief Executive of the relevant port authority:**

☐ Ports – Land within limits of another port *(below high-water mark)*

Matters requiring referral to the **Gold Coast Waterways Authority:**

☐ Tidal works or work in a coastal management district *(in Gold Coast waters)*

Matters requiring referral to the **Queensland Fire and Emergency Service:**

☐ Tidal works or work in a coastal management district *(involving a marina (more than six vessel berths))*

18) Has any referral agency provided a referral response for this development application?

☐ Yes – referral response(s) received and listed below are attached to this development application
☒ No

Referral requirement	Referral agency	Date of referral response

Identify and describe any changes made to the proposed development application that was the subject of the referral response and this development application, or include details in a schedule to this development application *(if applicable).*

PART 6 – INFORMATION REQUEST

19) Information request under the DA Rules

☒ I agree to receive an information request if determined necessary for this development application

☐ I do not agree to accept an information request for this development application

***Note**: By not agreeing to accept an information request I, the applicant, acknowledge:*

- *that this development application will be assessed and decided based on the information provided when making this development application and the assessment manager and any referral agencies relevant to the development application are not obligated under the DA Rules to accept any additional information provided by the applicant for the development application unless agreed to by the relevant parties*
- *Part 3 under Chapter 1 of the DA Rules will still apply if the application is an application listed under section 11.3 of the DA Rules or*
- *Part 2under Chapter 2 of the DA Rules will still apply if the application is for state facilitated development*

Further advice about information requests is contained in the DA Forms Guide.

PART 7 – FURTHER DETAILS

20) Are there any associated development applications or current approvals? *(e.g. a preliminary approval)*

☐ Yes – provide details below or include details in a schedule to this development application

☒ No

List of approval/development application references	Reference number	Date	Assessment manager
☐ Approval ☐ Development application			
☐ Approval ☐ Development application			

21) Has the portable long service leave levy been paid? *(only applicable to development applications involving building work or operational work)*

☐ Yes – a copy of the receipted QLeave form is attached to this development application

☒ No – I, the applicant will provide evidence that the portable long service leave levy has been paid before the assessment manager decides the development application. I acknowledge that the assessment manager may give a development approval only if I provide evidence that the portable long service leave levy has been paid

☐ Not applicable *(e.g. building and construction work is less than $150,000 excluding GST)*

Amount paid	Date paid (dd/mm/yy)	QLeave levy number (A, B or E)
$		

22) Is this development application in response to a show cause notice or required as a result of an enforcement notice?

☐ Yes – show cause or enforcement notice is attached

☒ No

23) Further legislative requirements

Environmentally relevant activities

23.1) Is this development application also taken to be an application for an environmental authority for an **Environmentally Relevant Activity (ERA)** under section 115 of the *Environmental Protection Act 1994*?

☐ Yes – the required attachment (form ESR/2015/1791) for an application for an environmental authority accompanies this development application, and details are provided in the table below

☒ No

***Note**: Application for an environmental authority can be found by searching "ESR/2015/1791" as a search term at www.qld.gov.au. An ERA requires an environmental authority to operate. See www.business.qld.gov.au for further information.*

Proposed ERA number:		Proposed ERA threshold:	
Proposed ERA name:			

☐ Multiple ERAs are applicable to this development application and the details have been attached in a schedule to this development application.

Hazardous chemical facilities

23.2) Is this development application for a **hazardous chemical facility**?

☐ Yes – *Form 536: Notification of a facility exceeding 10% of schedule 15 threshold* is attached to this development application

☒ No

***Note**: See www.business.qld.gov.au for further information about hazardous chemical notifications.*

Clearing native vegetation

23.3) Does this development application involve **clearing native vegetation** that requires written confirmation that the chief executive of the *Vegetation Management Act 1999* is satisfied the clearing is for a relevant purpose under section 22A of the *Vegetation Management Act 1999*?

☐ Yes – this development application includes written confirmation from the chief executive of the *Vegetation Management Act 1999* (s22A determination)

☒ No

***Note**: 1. Where a development application for operational work or material change of use requires a s22A determination and this is not included, the development application is prohibited development.*
2. See https://www.qld.gov.au/environment/land/vegetation/applying for further information on how to obtain a s22A determination.

Environmental offsets

23.4) Is this development application taken to be a prescribed activity that may have a significant residual impact on a **prescribed environmental matter** under the *Environmental Offsets Act 2014*?

☐ Yes – I acknowledge that an environmental offset must be provided for any prescribed activity assessed as having a significant residual impact on a prescribed environmental matter

☒ No

***Note**: The environmental offset section of the Queensland Government's website can be accessed at www.qld.gov.au for further information on environmental offsets.*

Koala habitat in SEQ Region

23.5) Does this development application involve a material change of use, reconfiguring a lot or operational work which is assessable development under Schedule 10, Part 10 of the Planning Regulation 2017?

☐ Yes – the development application involves premises in the koala habitat area in the koala priority area

☐ Yes – the development application involves premises in the koala habitat area outside the koala priority area

☒ No

***Note**: If a koala habitat area determination has been obtained for this premises and is current over the land, it should be provided as part of this development application. See koala habitat area guidance materials at www.desi.qld.gov.au for further information.*

Water resources

23.6) Does this development application involve **taking or interfering with underground water through an artesian or subartesian bore, taking or interfering with water in a watercourse, lake or spring, or taking overland flow water under the *Water Act 2000***?

☐ Yes – the relevant template is completed and attached to this development application and I acknowledge that a relevant authorisation or licence under the *Water Act 2000* may be required prior to commencing development

☒ No

***Note**: Contact the Department of Resources at www.resources.qld.gov.au for further information.*

*DA templates are available from planning.statedevelopment.qld.gov.au**.** If the development application involves:*

- *Taking or interfering with underground water through an artesian or subartesian bore: complete DA Form 1 Template 1*
- *Taking or interfering with water in a watercourse, lake or spring: complete DA Form1 Template 2*
- *Taking overland flow water: complete DA Form 1 Template 3.*

Waterway barrier works

23.7) Does this application involve **waterway barrier works?**

☐ Yes – the relevant template is completed and attached to this development application

☒ No

DA templates are available from planning.statedevelopment.qld.gov.au. For a development application involving waterway barrier works, complete DA Form 1 Template 4.

Marine activities

23.8) Does this development application involve **aquaculture, works within a declared fish habitat area or removal, disturbance or destruction of marine plants?**

☐ Yes – an associated *resource* allocation authority is attached to this development application, if required under the *Fisheries Act 1994*

☒ No

***Note**: See guidance materials at www.daf.qld.gov.au for further information.*

Quarry materials from a watercourse or lake

23.9) Does this development application involve the **removal of quarry materials from a watercourse or lake** under the *Water Act 2000?*

☐ Yes – I acknowledge that a quarry material allocation notice must be obtained prior to commencing development

☒ No

***Note**: Contact the Department of Resources at www.resources.qld.gov.au and www.business.qld.gov.au for further information.*

Quarry materials from land under tidal waters

23.10) Does this development application involve the **removal of quarry materials from land under tidal water** under the *Coastal Protection and Management Act 1995?*

☐ Yes – I acknowledge that a quarry material allocation notice must be obtained prior to commencing development

☒ No

***Note**: Contact the Department of Environment, Science and Innovation at www.desi.qld.gov.au for further information.*

Referable dams

23.11) Does this development application involve a **referable dam** required to be failure impact assessed under section 343 of the *Water Supply (Safety and Reliability) Act 2008* (the Water Supply Act)?

☐ Yes – the 'Notice Accepting a Failure Impact Assessment' from the chief executive administering the Water Supply Act is attached to this development application

☒ No

***Note**: See guidance materials at www.resources.qld.gov.au for further information.*

Tidal work or development within a coastal management district

23.12) Does this development application involve **tidal work or development in a coastal management district**?

☐ Yes – the following is included with this development application:
- ☐ Evidence the proposal meets the code for assessable development that is prescribed tidal work *(only required if application involves prescribed tidal work)*
- ☐ A certificate of title

☒ No

***Note**: See guidance materials at www.desi.qld.gov.au for further information.*

Queensland and local heritage places

23.13) Does this development application propose development on or adjoining a place entered in the **Queensland heritage register** or on a place entered in a local government's **Local Heritage Register**?

☐ Yes – details of the heritage place are provided in the table below

☒ No

***Note**: See guidance materials at www.desi.qld.gov.au for information requirements regarding development of Queensland heritage places.*

For a heritage place that has cultural heritage significance as a local heritage place and a Queensland heritage place, provisions are in place under the Planning Act 2016 that limit a local categorising instrument from including an assessment benchmark about the effect or impact of, development on the stated cultural heritage significance of that place. See guidance materials at www.planning.statedevelopment.qldgov.au for information regarding assessment of Queensland heritage places.

Name of the heritage place:		Place ID:	

Decision under section 62 of the *Transport Infrastructure Act 1994*

23.14) Does this development application involve new or changed access to a state-controlled road?

☐ Yes – this application will be taken to be an application for a decision under section 62 of the *Transport Infrastructure Act 1994* (subject to the conditions in section 75 of the *Transport Infrastructure Act 1994* being satisfied)

☒ No

Walkable neighbourhoods assessment benchmarks under Schedule 12A of the Planning Regulation

23.15) Does this development application involve reconfiguring a lot into 2 or more lots in certain residential zones (except rural residential zones), where at least one road is created or extended?

☐ Yes – Schedule 12A is applicable to the development application and the assessment benchmarks contained in schedule 12A have been considered

☐ No

***Note**: See guidance materials at www.planning.statedevelopment.qld.gov.au for further information.*

PART 8 – CHECKLIST AND APPLICANT DECLARATION

24) Development application checklist	
I have identified the assessment manager in question 15 and all relevant referral requirement(s) in question 17 ***Note**: See the Planning Regulation 2017 for referral requirements*	☒ Yes
If building work is associated with the proposed development, Parts 4 to 6 of *DA Form 2 – Building work details* have been completed and attached to this development application	☐ Yes ☒ Not applicable
Supporting information addressing any applicable assessment benchmarks is with the development application ***Note**: This is a mandatory requirement and includes any relevant templates under question 23, a planning report and any technical reports required by the relevant categorising instruments (e.g. local government planning schemes, State Planning Policy, State Development Assessment Provisions). For further information, see DA Forms Guide: Planning Report Template.*	☒ Yes
Relevant plans of the development are attached to this development application ***Note**: Relevant plans are required to be submitted for all aspects of this development application. For further information, see DA Forms Guide: Relevant plans.*	☒ Yes
The portable long service leave levy for QLeave has been paid, or will be paid before a development permit is issued *(see 21)*	☒ Yes

	☒ Not applicable

25) Applicant declaration
☒ By making this development application, I declare that all information in this development application is true and correct ☒ Where an email address is provided in Part 1 of this form, I consent to receive future electronic communications from the assessment manager and any referral agency for the development application where written information is required or permitted pursuant to sections 11 and 12 of the *Electronic Transactions Act 2001* ***Note**: It is unlawful to intentionally provide false or misleading information.*
Privacy – Personal information collected in this form will be used by the assessment manager and/or chosen assessment manager, any relevant referral agency and/or building certifier (including any professional advisers which may be engaged by those entities) while processing, assessing and deciding the development application. All information relating to this development application may be available for inspection and purchase, and/or published on the assessment manager's and/or referral agency's website. Personal information will not be disclosed for a purpose unrelated to the *Planning Act 2016*, Planning Regulation 2017 and the DA Rules except where: • such disclosure is in accordance with the provisions about public access to documents contained in the *Planning Act 2016* and the Planning Regulation 2017, and the access rules made under the *Planning Act 2016* and Planning Regulation 2017; or • required by other legislation (including the *Right to Information Act 2009*); or • otherwise required by law. This information may be stored in relevant databases. The information collected will be retained as required by the *Public Records Act 2002.*

PART 9 – FOR COMPLETION OF THE ASSESSMENT MANAGER – FOR OFFICE USE ONLY

Date received: | Reference number(s):

Notification of engagement of alternative assessment manager	
Prescribed assessment manager	
Name of chosen assessment manager	
Date chosen assessment manager engaged	
Contact number of chosen assessment manager	
Relevant licence number(s) of chosen assessment manager	

QLeave notification and payment *Note: For completion by assessment manager if applicable*			
Description of the work			
QLeave project number			
Amount paid ($)		Date paid (dd/mm/yy)	
Date receipted form sighted by assessment manager			
Name of officer who sighted the form			