

Vegetation Condition Report

Kellerberrin Shire Reserve R33419

RE: CPS 8253/1



AUTHORS :

Principal Botanist – Stephen Fry

Santaleuca Consulting

GIS, I.T. and Photos – Dylan Copeland

NRM Consultant

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Santaleuca Consulting
Steve & Michelle Fry (owners and proprietors)
PO Box 278, Naremburn, WA, 6369
0428 647 419 | 0428 647 409 | info@santaleucasandalwood.com.au
www.santaleucasandalwood.com.au | www.facebook.com/Santaleuca



VEGETATION CONDITION REPORT R 33419

The Shire of Kellerberrin will offer, as part of an offset proposal to Clearing Permit Application number CPS 8253/1, the re-vesting of Reserve 33419, which is currently vested with the Shire for the purposes of gravel extraction, to the purpose of Nature Conservation. In order to calculate the value of the Reserve 33419, a Vegetation Condition Survey is required, as part of the conditions outlined by the Department of Water and Environmental Regulation.

Reserve 33419 is a mixed collection of vegetation types, with the large majority based on sandy gravel soils, ideal for the extraction of gravel for road construction. It is bisected almost in half in a north western – south eastern direction by Baandee North Road, the subject of a clearing permit application. A full vegetation survey through this area is contained within the document: *Vegetation Survey: Baandee North Rd, SLK 23 – SLK 29.25*. This survey was written in response to CPS8590/1 Clearing Permit Application and contains all the relevant flora survey information required for the offset proposal relevant to CPS8253/1.

VEGETATION CONDITION SCORES:

By referring to the map of R33419 below, colour codes have been used to delineate each vegetation association. Scoring is based on the Keighery (1994) condition scale and rate as Pristine – 9-10, Excellent – 8-9, Very Good – 6-8, Good – 4-6, Poor – 2-4 and Degraded – 0-2. The condition scores are rated for their quality at all levels of the vegetation association, from top storey to ground cover. A pristine vegetation will have every level present, with a diverse relevant representation of species common to that vegetation association, where the presence of exotic weed species is either nil or close to it.

METHODOLOGY:

By using a reconnaissance survey, the entire Reserve was walked by following each break of vegetation association and logged using GPS tracking. Any species found on these tracks were added to the vegetation species lists, found earlier in the report. Vegetation condition was also recorded with associated photos taken at relevant points.

In all the tracks, notwithstanding we were traversing different vegetation types, visibility was over 200 metres in woodland, 150 metres in low heathland and 100 metres in the small mallee area on the south side of the road. Vegetation was naturally denser and more diverse in the roadside survey outlined in the preceding report due to extra runoff of rain water and edge effects. Where there may have been some agricultural weeds on roadsides, unless indicated in the following chart, they did not extend into the remnant proper.

HISTORICAL NOTES:

The Reserve 33419 has been used historically for the extraction of gravel, exclusively on the north side of the road. The bare area of 3.8 hectares on the map below is the current finish to extraction of gravel and has had no remedial work done to rehabilitate it. At its' edges

there are topsoil mounds pushed up prior to mining and could be used to spread over a ripped pit floor and would result in some regenerative activity. Areas to the north of the pit are more historical disturbances which have subsequently revegetated themselves. Although there are old areas of waste, machinery and typical historical rubbish, it is now incorporated into the revegetated landscape.

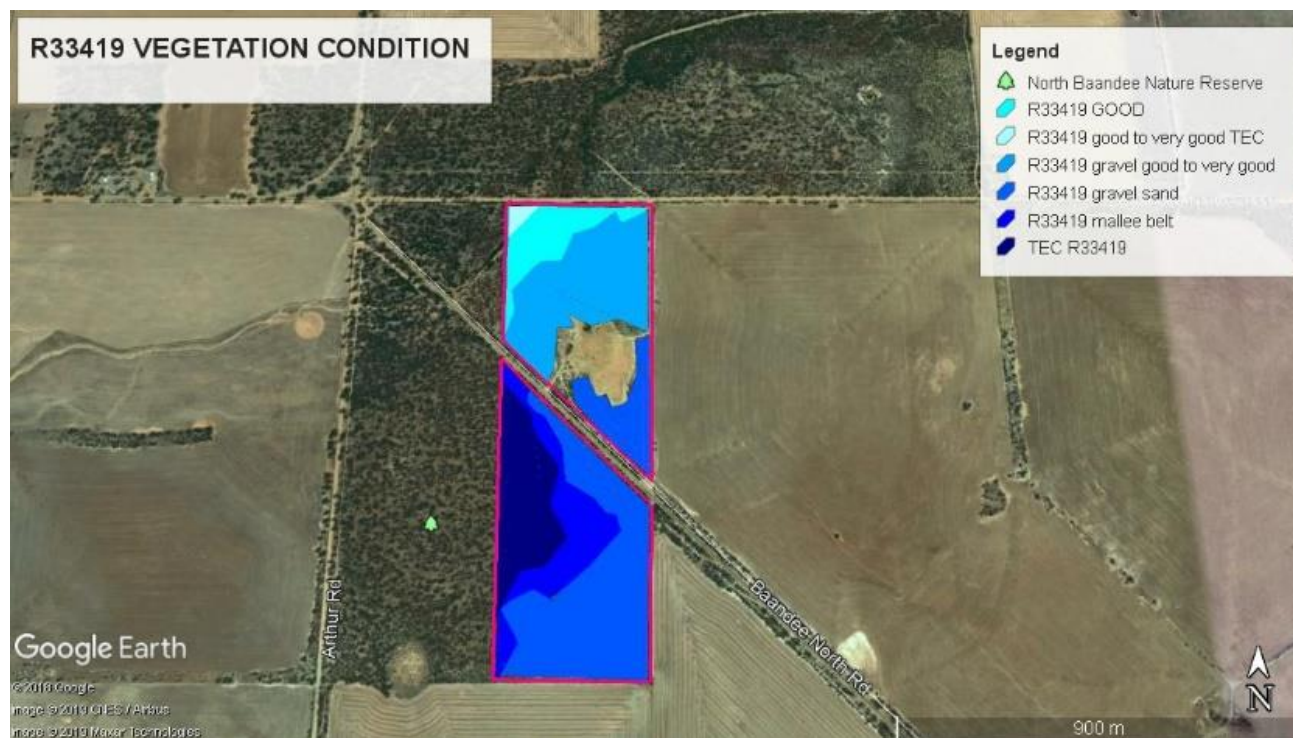
It must be noted that Baandee North was an historical settlement with an associated population including a school. As in all old settlement areas randomly scattered rubbish is prevalent, especially throughout the gravel reserve on the north side of the road. The south side is rubbish free and relatively pristine in this respect.

Enhanced drainage works have also played a part in altering the landscape quality. The very north west corner of the reserve overlays a natural drainage line. With the associated floodplain on either side of it, agricultural weeds have infiltrated the lowest contours of the site and affect about 4 hectares severely. Enhanced drains have been installed since, but the environmental impact of flooding remains.

WEATHER CONDITIONS:

The previous year has been below average for rainfall in the area. In the Eastern Wheatbelt generally, rainfall has been isolated to a small window between June and early August. This weather pattern has affected the germination of annuals especially. It is notable that annual species are significantly lower in number and density and some species which would be expected to be present are not. This fact had to be taken into account when assessing understorey densities.

SHIRE OF KELLERBERRIN RESERVE: R33419



COLOUR CODE	DESCRIPTION	KEIGHERY SCALE SCORE	NUMERIC AL SCALE SCORE	AREA ha	NOTES
	Gimlet woodland, TEC	Pristine	9-10	5.4	60-70% crown cover
	Mallee jam woodland	Pristine	9	4.8	Transition zone
	Mixed Sheoak woodland with sandplain heath	Excellent to pristine	8-9	13.3	Minimal disturbances, varied soil depths
	Sheoak, Acacia shrub land to 3m	Good to Very good	6-7	9.1	Very disturbed soil with good regrowth
	Sheoak, Acacia shrub land to 3m	Good	5	3.65	Agricultural weeds dominate understorey
	Gimlet woodland TEC	Good to Very Good	6	0.35	Ag weeds dominate understorey. Parrot damage to canopy.
	Open gravel pit floor	Degraded	1	3.7	

DISCUSSION:

The purpose of this report was specifically to map, delineate vegetation associations and score the vegetation associations. Specific flora species lists are to be found within the accompanying document *"Vegetation Survey: Baandee North Rd, SLK 23 – SLK 29.25"*. As such, no attempt is made within this document to detail that work again. Any species found within the wider survey within the Reserve R33419, which was not found in the original road reserve survey, has been included in the original species survey. As this Reserve R33419 is an integral part of the road reserve flora it was felt appropriate to include them there.

The reserve R33419 is vested in the Shire of Kellerberrin for the purpose of gravel extraction. It has been used for this purpose, with 3.7 hectares completely mined and devoid of any meaningful vegetation. Another 13 hectares have been disturbed and have revegetated themselves to a surprising level of diversity. North of the gravel pit the vegetation becomes undisturbed and Excellent quality. North of the road, much of the remnant is pristine.

By offering this remnant as an addition to the Conservation Reserve, it will add a very healthy portion of remnant to the already existing DBCA Baandee North Conservation Reserve.

This report is to be used to calculate the value of the Reserve 33419 as an offset for the clearing which will occur under Clearing Permit application number 8253/1.

A further report will be used to offer a revegetation project in addition to this reserve. That report will be titled *“Reference Sites Survey for a Revegetation Project on the Shackleton – Kellerberrin Road, Kellerberrin.”*