

Report for Mr Frances (Frank) Sammut

90 Dunkeld Drive

HERRON WA 6211

**In support of. APPLICATION TO CLEAR NATIVE VEGETATION UNDER THE
ENVIRONMENTAL**

PROTECTION ACT 1986 – REQUEST FOR INFORMATION

Application for an Area Permit to clear vegetation within for the construction of a power line.

Cockleshell Gully road area CPS 8992/1 see map.

Report prepared by Donald Williams. Williams and Son.

Limitations of report.

This report has been compiled by Donald Williams, Williams and Son for Mr Frances (Frank) Sammut. In some circumstances there may be constraints owing to time of survey restraints. October is a preferred time for identification of most species. Flowering of some flora is erratic in a second consecutive below average rainfall year. Every attempt has been made at correct identification and current nomenclature.

The report is based on conditions encountered and information gleaned during preparation of this report. The preparation of this report has been made in a professional and independent manner.

The author appreciates the value of the unique flora of this area and has considerable experience in revegetation and general vegetation of the area. The author is prepared to be involved in the management and continuation of this application.

Contents.

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- 2 Map showing three sections of survey.**
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1 Notes and explanation in support of this application.

Flora surveys were conducted as Transects running East west. 3 parallel transect in each of the 3 sections. The aim was to cove 100% of the area surveyed.

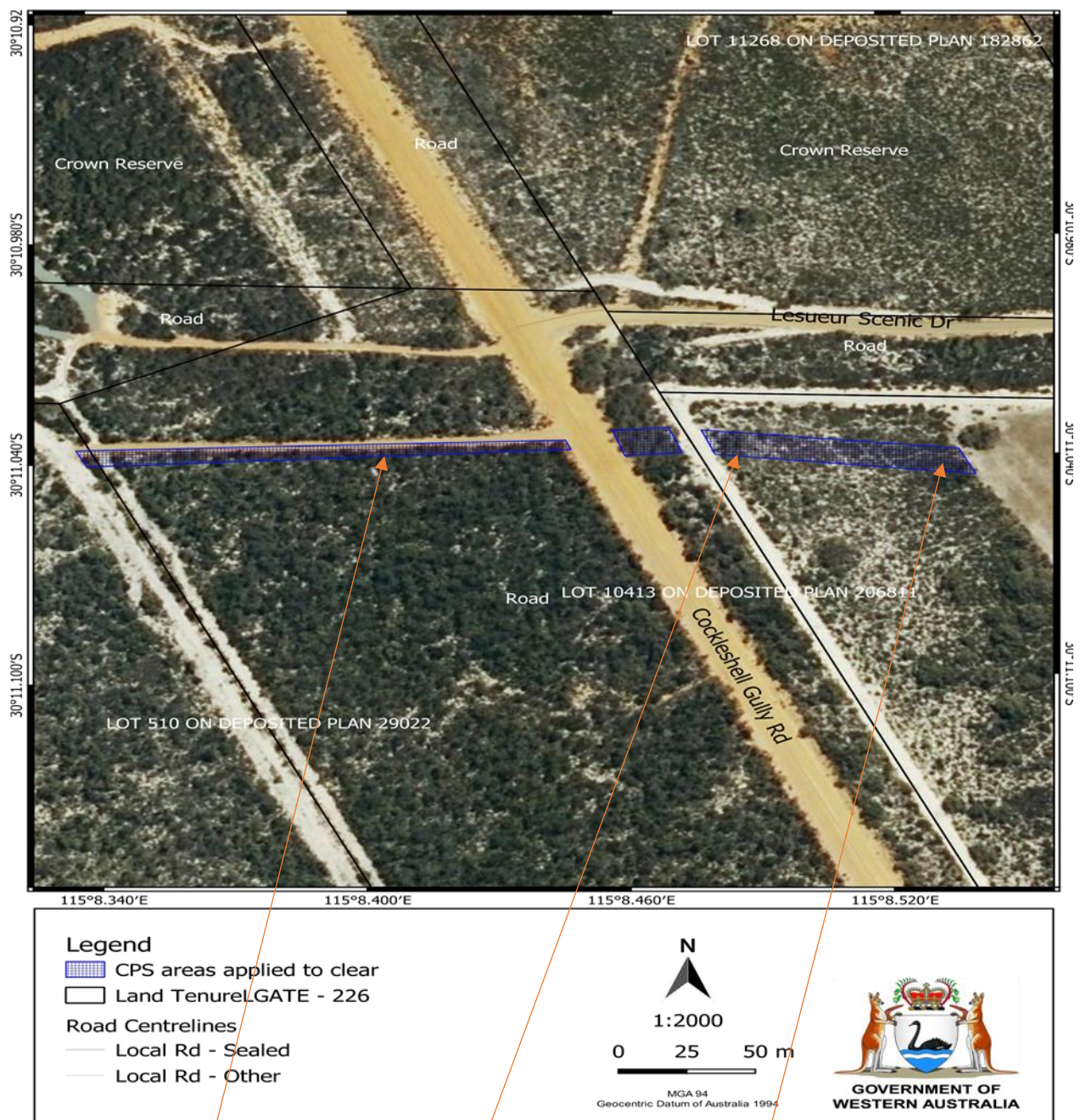
Note that there is an area East of the Cockleshell Gully Road Eastern boundary that has been grazed by domestic stock. This is known to be private freehold land held by the Errington family. Permission for the survey and powerline construction has been granted by this family. See map on page 6. This area is partially degraded. That is a lower density of native vegetation than the other two areas. Also, there is a population of introduced species.

Power poles should if possible be located where regeneration will occur. Phytophthora (Die Back) hygiene should be exercised as area appears to be free of this problem.

No Threatened or priority species were recorded during the survey.

There is no visible indication that the vegetation has been burnt in the last 10 years.

A list of Rare and Priority Flora with the potential to occur within cps 8992 1 has been included. These species were searched for but not located. Late September, October and November is when a large percentage of these species flower. This makes the timing of the survey very satisfactory.



Survey to West of Cockleshell Gully Road.

Survey to East of Cockleshell Gully Road.

Survey to East of Cockleshell Gully Road on private property.

3 Flora Surveys conducted 13-10-2020 Species list and notes to each section.

Flora list East of Cockleshell Gully Road Private property (Errington) 13-10-2020.

| Species name | % of cover and comments. |
|--|---|
| <i>Actinotus leucocephalus</i> | <1 |
| <i>Adenanthos cygnorum</i> | 5+ Vigorous growth. |
| <i>Alexgeorgea subterranea</i> | 1 |
| <i>Allocasuarina humilis</i> | 1 |
| <i>Anigozanthos humilis</i> | 1 |
| <i>Anigozanthos pulcherrimus</i> | <1 |
| <i>Austrostipa hemipogon</i> | 1 |
| <i>Banksia shuttleworthiana</i> | <1 1 plant only. |
| <i>Banksia stenoprion</i> | 3 |
| <i>Blancoa canescens</i> | <1 |
| <i>Cassytha pomiformis or glabella</i> | 1 |
| <i>Conospermum crassinervium</i> | <1 |
| <i>Conostylis canterinata</i> | <1 |
| <i>Conostylis teretifolia</i> | <1 |
| <i>Dampiera linearis</i> | <1 |
| <i>Darwinia sanguinea</i> | 1 |
| <i>Desmocladius semiplanus</i> | <1 |
| <i>Drosera spilos</i> | <1 |
| <i>Eremaea ectadioclada</i> | 2 |
| <i>Eucalyptus tottiana</i> | 10 |
| <i>Haemodorum spicatum</i> | <1 |
| <i>Hakea flabellifolia</i> | <1 1 plant only. |
| <i>Hemiphora bartlingii</i> | <1 |
| <i>Hibbertia crassifolia</i> | 2 |
| <i>Hybanthus floribundus</i> Subsp. Hill River | <1 |
| <i>Jacksonia floribunda</i> | 1 |
| <i>Laxmannia sessiliflora</i> Subsp. Drumondii | <1 |
| <i>Lechenaultia stenocephala</i> | <1 |
| <i>Levenhookia stipata</i> | <1 very small number of very small species. |
| <i>Melaleuca carrii</i> | 1 |
| <i>Neurachne alopecuroides</i> | <1 |
| <i>Patersonia occidentalis</i> | <1 |
| <i>Petrophile brevifolia</i> | 1 |
| <i>Petrophile macrostachys</i> | <1 |
| <i>Petrophile teretifolia</i> | <1 |
| <i>Podothea gnaphaloides</i> | <1 Large numbers but small cover. |
| <i>Scaevola canescens</i> | <1 |
| <i>Scaevola repens</i> | 1 |
| <i>Stylidium crossoccephalum</i> | <1 |
| <i>Thryptomene hyporhytis</i> | 1 |
| <i>Thysanotus triandrus</i> | <1 |
| <i>Verticordia grandis</i> | < 1 |
| <i>Verticordia nobilis</i> | <1 |
| <i>Xanthorrhoea preissii</i> | 1 |
| | |

Notes to above Flora list East of Cockleshell Gully road Private property (Errington) 13-10-2020. The vegetation is open as result of livestock grazing. On the Keighery scale 1994 this area would be rated Good (4) There is an established population of introduced species.

Flora list East of Cockleshell Gully Rd verge 13-10-20.

| Species name | % of cover and comments. |
|--|---------------------------------------|
| <i>Acacia blakelyi</i> | 5% to 10% dominant on road verge. |
| <i>Adenanthos cygnorum</i> | 10 % |
| <i>Alexgeorgea subterranea</i> | < 1 Common but sparse nature. |
| <i>Allocasuarina humilis</i> | 1 |
| <i>Anigozanthos manglesii</i> | <1 1 only plant. |
| <i>Banksia stenoprion</i> | 5 |
| <i>Blancoa canescens</i> | <1 |
| <i>Cassytha pomiformis or glabella</i> | <1 |
| <i>Conospermum wycherleyi</i> Subsp <i>glabrum</i> | 1 |
| <i>Dampiera linearis</i> | <1 |
| <i>Darwinia sanguineous</i> | <1 less common in undisturbed area. |
| <i>Eucalyptus tottiana</i> | 35 Is the dominant species this site. |
| <i>Hibbertia crassifolia</i> | 1 |
| <i>Jacksonia floribunda</i> | 3 |
| <i>Laxmannia sessiliflora</i> Subsp. <i>Drummondii</i> | <1 |
| <i>Mesomelaena tetragona</i> | <1 |
| <i>Scholtzia involucrata</i> | <1 |
| <i>Stirlingia latifolia</i> | <1 |
| <i>Thysanotus triandrus</i> | <1 |
| <i>Thryptomene hyporhytis</i> | 1-2% |
| <i>Tricoryne elatior</i> | < 1 mainly on road verge. |
| <i>Xanthorrhoea preissii</i> | 2 plants only. |
| <i>Waitzia suaveolens</i> Var <i>suaveolens</i> | <1 |

Notes to above flora list East of Cockleshell Gully Road, Vegetation is dense. On the Keighery scale 1994 this area would be rated Excellent (2). No invasive weeds. Except on the fire break/buffer between vegetation and private property fence line. There is no evidence of Phytophthora (Die Back).

Flora list West of Cockleshell Gully Road 13-10-20.

| Species name | % of cover and comments |
|--|---|
| <i>Acacia pulchella</i> | <1 |
| <i>Adenanthos cygnorum</i> | 5-10% |
| <i>Alexgeorgea subterranea</i> | 1 |
| <i>Allocasuarina humilis</i> | 1 |
| <i>Banksia attenuata</i> | 15% |
| <i>Banksia menziesii</i> | 20% |
| <i>Banksia prionotes</i> | 5% |
| <i>Blancoa canescens</i> | <1 |
| <i>Cassytha pomiformis or glabella</i> | <1 |
| <i>Conospermum crassinervium</i> | <1 |
| <i>Conospermum wycherleyi</i> Subsp <i>glabrum</i> | <1 |
| <i>Conostylis canterinata</i> | <1 |
| <i>Dampiera linearis</i> | <1 |
| <i>Darwinia sanguineous</i> | <1 In disturbed areas |
| <i>Dasypogon obliquifolius</i> | <1 |
| <i>Desmocladius semiplanus</i> | <1 |
| <i>Drosera porrecta</i> | <1 |
| <i>Eremaea ectadioclada</i> | 1 |
| <i>Eucalyptus tottiana</i> | 25% |
| <i>Gompholobium tomentosum</i> | <1 |
| <i>Haemodorum spicatum</i> | <1 |
| <i>Hibbertia crassifolia</i> | <1 |
| <i>Hibbertia subvaginata</i> | <1 |
| <i>Jacksonia floribunda</i> | 2 |
| <i>Johnsoniana pubescens</i> | <1 |
| <i>Lasiopetalum drumondii</i> | <1 |
| <i>Neurachne alopecuroides</i> | <1 |
| <i>Patersonia occidentalis</i> | <1 |
| <i>Petrophile linearis</i> | <1 |
| <i>Scaevola repens</i> | <1 |
| <i>Stirlingia latifolia</i> | <1 |
| <i>Stylidium crossoccephalum</i> | <1 |
| <i>Stylidium maitlandianum</i> | <1 |
| <i>Scholtzia involucreta</i> | <1 |
| <i>Thysanotus triandrus</i> | <1 |
| <i>Tricoryne elatior</i> | <1 Is not <i>T. Tenella</i> or <i>T Sp. eneabba</i> |
| <i>Xanthorrhoea preissii</i> | 1 |

Notes to above flora list West of Cockleshell Gully Road. Vegetation is dense. On the Keighery scale 1994 this area would be rated Excellent (2). No invasive weeds. There is a slight edge effect on the North side of the survey. There is no evidence of Phytophthora (Die Back).

4 Rare and Priority Flora with the potential to occur within CPS 8992-1

| Species name and conservation status | Notes and explanation |
|---|--|
| <i>Paracaleana dixonii</i> T | Occurs over granite Flowers October January occurs further North I.E. Eneabba not sighted this survey. |
| <i>Thelymitra stellata</i> T | Occurs Lesueur National Park and Cockleshell gully area flwrs. Oct Nov. I am familiare with this species occurs with more gravel and clay. |
| <i>Eucalyptus leprophloia</i> T | I am familiar with this species as I manage 1 population could not be missed owing to height. |
| <i>Spirogardnera rubescens</i> T | I am familiar with this unique species occurs on Tootbaradi Road and Marchagee Track in gravel only. |
| <i>Eucalyptus absita</i> T | I am familiar with this species occurs on Badgingarra Dandaragan Road and Koonah Road I have conducted a count for CALM some 15 years ago. |
| <i>Hakea megalosperma</i> T | Occurs in Lesueur Nat Park and to East on laterite. Not on site in deep white sand |
| <i>Drosera allantostigma</i> P1 | Has been recorded to the South East on Cantabilling Road main population further upstream on Hill river near Brand Highway. Flwr. Nov to Dec. Loam, silica sand or peaty soils. Margins of winter-wet depressions. |
| <i>Goodenia xanthotricha</i> P2 | Has only been recorded on well drained sites mainly hillsides and hilltops in rocky lateritic areas. Flowers Nov to Feb. No Goodenia on site. |
| <i>Arnocrinum gracillimum</i> P3 | I am familiar with this species occurs on our Property Hi Vallee occurs in deep white well drained sands. Flwrs. Oct, Nov. Not located on this survey. Was P 2. |
| <i>Synaphea lesueurensis</i> P2 | Has been recorded to the East on Cantabilling Road and Lesueur national park. Main population to the North in Lesueur National Park. Does not appear to be any species of the genera Synaphea on this site. |
| <i>Synaphea xela</i> P2 | Has been recorded Yeramullah Road. Does not appear to be any species of the genera Synaphea on this site. |
| <i>Persoonia filiformis</i> P2 | Flowers yellow Nov. to Dec. There does not appear to be any species of the genera Persoonia evident at this site. |
| <i>Stackhousia</i> Sp. Red blotched corolla P3 | Nearest recorded population over 10 Km. North. There do not appear to be any species of the Genera Stackhousia or Tripterococcus (A related species) at this site. |
| <i>Tetratheca angulata</i> P3 | There does not appear to be any species of the genera Tetratheca at this site. |
| <i>Haemodorum loratum</i> P3 | Appears to occur in more open sites than the dense vegetation at this site. Haemodorum spicatum (a more common species) was located in small numbers. |
| <i>Thysanotus anceps</i> P3 | All records indicate that this species is a sandy gravel species. Has been locate at Mount Peron. Thysanotus triandrus was located on site and has several different characteristics. |
| <i>Phlebocarya pilosissima</i> subsp. <i>pilosissima</i> P3 | Flowers Sept. Oct. Occurs on our property Hi Vallee. Appears to be located more inland (East) |

| Species name and conservation status | Notes and explanation |
|--|---|
| <i>Hakea longiflora</i> P3 | I am very familiar with this species as I manage a population on Hi Vallee. Occurs in clay to laterite in association with lateritic Mesas. Soil type is not suitable for this species on the site. |
| <i>Lepidobolus quadratus</i> P3 | I am very familiar with this species as I manage a population on Hi Vallee. Has a distinctive square stem hence name. Does not occur at site |
| <i>Verticordia fragrans</i> P3 | Has been recorded north end of Nylagarda road. The Verticordias on site (Noblis and Grandis) flower Yellow and Red respectively) V. fragrans flowers white. Not on site. |
| <i>Austrostipa</i> Sp. Cairn Hill P3 | Has been recorded north end of Nylagarda road. There are the species Austrostipa hemipogon located on site. |
| <i>Stylidium torticarpum</i> P3 | Nearest recorded population western end of Cantabilling Road. Flowers red to pink. Stylidium crossoccephalum on site flowers white. |
| <i>Gompholobium gardnerianum</i> P3 edit | This species is described as low scraggly or scrambling shrub. Gompholobium tomentosa occurs on site and is very upright in form. |
| <i>Verticordia insignis</i> Subsp. eomagis P3 | I am very familiar with this species as I have counted many in the Watheroo National Park. This species occurs in very well drained white to yellow sand. Has different form and leaves to the two Verticordia on site. |
| <i>Thysanotus vernalis</i> P3 | Does not appear to have been recorded west of Cockleshell Gully Road. Thysanotus on this site appears to Thysanotus triandrus. |
| <i>Guichenotia alba</i> P3 | There does not appear to be any species of the Genera Guichenotia on this site. This may change after fire. |
| <i>Banksia subulata</i> P3 | I am very familiar with this species as I have collected the species for research purposes. Mast A.R. Williams D. Coll. No. 629 This species occurs considerably further East than this site, Tootbardi Road. |
| <i>Conostephium magnum</i> P4 | This genera Conostephium was not present in this survey area. Conostephium pendulum occurs elsewhere on the Sammut property. |
| <i>Banksia elegans</i> P4 | Occurs from the North boundary of Dandaragan shire Northwards to Irwin. Would not be at this site. |
| <i>Eucalyptus macrocarpa</i> subsp. <i>elachantha</i> P4 | This species is extremely distinctive with large blue ovate leaves. Does not occur on site |
| <i>Thelymitra apiculata</i> P4 | I am very familiar with this species. It occurs in lower more open Kwongan vegetation. |
| <i>Grevillea rudis</i> P4 | I am very familiar with this species It occurs on very well drained lateritic soils. No species of the genera grevillea on this site. |
| <i>Desmocladius elongatus</i> P4 | I am very familiar with this species as I manage a population on Hi Vallee. Desmocladius semiplanus was recorded on this site. |
| <i>Thysanotus glaucus</i> P4 | Not recorded on site has distinctive form. Thysanotus on this site appears to Thysanotus triandrus. |

| Species name and conservation status | | Notes and explanation |
|--------------------------------------|----|--|
| <i>Eucalyptus pendens</i> | P4 | I am very familiar with this species as I manage the largest single population of this species in Western Australia on Hi Vallee, occurs on high lateritic soils. Does not occur at site. |
| <i>Calytrix chrysantha</i> | P4 | No species of the genera Calytrix located in this survey. Calytrix depressa located elsewhere on Sammut property. |
| <i>Hakea neurophylla</i> | P4 | I am very familiar with this species as I manage a population of this species on Hi Vallee, It occurs on clay lateritic soils in conjunction with lateritic mesas. It has very distinctive nerved leaves hence the name. Does not occur at site. |

5 Pictures on site.



Showing open nature of Eastern most site (Private Property).



Showing Dense vegetation East side of Cockleshell Gully Road.

6 References.

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