

Department of Agriculture, Water and the Environment  
c/ EPBC.permits@environment.gov.au

Date: [REDACTED]

To Whom it May Concern,

**RE: Methods statement in support of Application for a permit to access biological resources in Commonwealth areas**

Please see below for supporting information for [REDACTED] application to access biological resources in Commonwealth areas in Queensland.

**Methods Statement**

As there is no specific impact or action planned, the approach to ecological assessments will be to provide Defence with sufficient information to allow broad training planning capability and options for environmental management planning. Surveys will be designed to adequately describe key values, identify key risks and map the distribution of both of these across Shoalwater Bay Training Area and Expansion Area (SWBTA/SWBEA), as well as Greenvale Training Area (GVTA) for a number of projects including koala and biocondition surveys (SWBTA/SWBEA) and baseline ecological assessments (SWBEA and GVTA). To do this, we will employ:

- a combination of Queensland Herbarium detailed (tertiary level) and observational (quaternary level) flora survey sites to assess the structure and composition of the regional ecosystems present, and ground-truth their distribution
- surveys for threatened flora species in habitats most likely to support them
- fauna habitat descriptions
- non-capture fauna survey techniques (active searching, diurnal bird surveys, remote cameras, bat echo-location devices, spotlighting).

This approach will provide a baseline from which more intensive and/or targeted future work could be conducted if required, e.g. to address gaps identified or in response to planned development or training activities to satisfy Commonwealth Significant Impact Guidelines 1.2 and following Commonwealth or state survey guidelines.

*Flora survey*

Flora survey methods will follow appropriate Queensland and Commonwealth guidelines, including:

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- Methodology for Survey and Mapping of Regional Ecosystems and Vegetation Communities in Queensland.
  - Queensland Flora Survey Guidelines - Protected Plants.
  - BioCondition: A Condition Assessment Framework for Terrestrial Biodiversity in Queensland. Assessment Manual. These areas may contain Critically Endangered, Endangered, Vulnerable or Near Threatened flora species under the Queensland *Nature Conservation Act 1992* (NC Act) and/or the EPBC Act. The proposed survey will target potential habitat for these species.

Representative samples of species will be taken for identification purposes. Voucher specimens will be submitted to the Queensland Herbarium for confirmation. These samples will be confined to diagnostic plant parts only (i.e. no whole plants will be collected): see Table 1.

#### *Fauna survey*

Habitat assessments/observations, incidental fauna sightings, fauna signs, spotlighting and remote techniques will be used to detect fauna presence. Habitat assessments will be undertaken across each habitat type within the study area to gain an understanding of the type and condition of habitat resources that are available to support fauna species, particularly threatened species. This will assist in assessing the level of utilisation of the study area for species detected during the fauna survey, as well as determining likelihood of occurrence for species not detected during the fauna survey. Habitat assessments will include recording general fauna habitat resources as well as specific resources for potentially occurring threatened species. This will provide information on both native and feral species (e.g. presence of pigs, foxes, wild dogs, wild horses etc.).

Non-capture fauna survey techniques will be used which will include:

- remote cameras and drones – automatic, motion-sensor cameras will be placed at key locations (dams, creeks, animal trackways)
- remote call detectors – ultrasonic call detectors will be placed in key locations (dams, creeks, potential flyways) for bat call detection
- active searches – litter and rocks will be turned (and replaced) to search for cryptic reptiles
- scats and signs – unknown scats will be collected for later identification; tracks, scratchings, diggings etc. will be recorded
- daytime observations – targeted and incidental observations of fauna
- spotlighting – suitable habitats will be spotlighted for arboreal and fossorial mammals and aquatic reptiles. Specific methods for each potentially occurring listed species are given in Table 1.

Table 1 Flora and fauna protected matters search results

| Species                             |                               | Common name                |   | Status | Site            |      |
|-------------------------------------|-------------------------------|----------------------------|---|--------|-----------------|------|
|                                     |                               |                            |   |        | SWBTA/<br>SWBEA | GVTA |
| <i>Botaurus poiciloptilus</i>       |                               | Australasian bittern       |   | E      | X               |      |
| <i>Calidris canutus</i>             |                               | red knot                   |   | E      | X               |      |
| <i>Calidris ferruginea</i>          |                               | curlew sandpiper           |   | CE     | X               | X    |
| <i>Calidris tenuirostris</i>        |                               | great knot                 |   | CE     | X               |      |
| <i>Charadrius leschenaultii</i>     |                               | greater sand plover        |   | V      | X               |      |
| <i>Charadrius mongolus</i>          |                               | lesser sand plover         |   | E      | X               |      |
| <i>Epthianura crocea macgregori</i> |                               | Capricorn yellow chat      |   | E      | X               |      |
| <i>Erthrotriorchis radiatus</i>     |                               | red goshawk                |   | V      | X               | X    |
| <i>Erythrura gouldiae</i>           | Gouldian finch                | E                          |   | X      |                 |      |
| <i>Falco hypoleucos</i>             |                               | grey falcon                |   | V      | X               | X    |
| <i>Fregetta grallaria grallaria</i> |                               | white-bellied storm petrel |   | V      | X               |      |
| <i>Geophaps scripta scripta</i>     | squatter pigeon               | V                          | X |        |                 |      |
| <i>Grantiella picta</i>             | painted honeyeater            | V                          | X |        |                 |      |
| <i>Hirundapus caudacutus</i>        | white-throated needletail     | V                          | X |        |                 |      |
| <i>Limosa lapponica baueri</i>      | Nunivak bar-tailed godwit     | V                          | X |        |                 |      |
| <i>Macronectes giganteus</i>        | southern giant-petrel         | E                          | X |        |                 |      |
| <i>Neochmia ruficauda ruficauda</i> | star finch (eastern)          | E                          | X | X      |                 |      |
| <i>Numenius madagascariensis</i>    | eastern curlew                | CE                         | X |        |                 |      |
| <i>Poephila cincta cincta</i>       | southern black-throated finch | E                          | X | X      |                 |      |
| <i>Pterodroma neglecta neglecta</i> | Kermadec petrel (western)     | V                          | X |        |                 |      |
| <i>Rostratula australis</i>         | Australian painted snipe      | E                          | X | X      |                 |      |
| <i>Rostratula benghalensis</i>      | painted snipe                 | E                          |   | X      |                 |      |
| <i>Thalassarche impavida</i>        | Campbell albatross            | V                          | X |        |                 |      |
| <i>Turnix melanogaster</i>          | black-breasted button-quail   | V                          | X |        |                 |      |

|  |                                |    |   |   |
|--|--------------------------------|----|---|---|
| <i>Tyto novaehollandiae kimberli</i>         | masked owl                     | V  |   | X |
| <i>Pseudomugil mellis</i>                    | honey blue eye                 | V  | X |   |
| <i>Balaenoptera musculus</i>                 | blue whale                     | E  | X |   |
| <i>Chalinolobus dwyeri</i>                   | large-eared pied bat           | V  | X |   |
| <i>Dasyurus hallucatus</i>                   | northern quoll                 | E  | X | X |
| <i>Hipposideros semoni</i>                   | Semon's leaf-nosed bat         | V  |   | X |
| <i>Macroderma gigas</i>                      | ghost bat                      | V  | X | X |
| <i>Megaptera novaeangliae</i>                | humpback whale                 | V  | X |   |
| <i>Mesembriomys gouldii rattoides</i>        | black-footed tree-rat          | V  |   | X |
| <i>Nyctophilus corbeni</i>                   | Corben's long-eared bat        | V  | X |   |
| <i>Petauroides volans</i>                    | greater glider                 | V  | X | X |
| <i>Phascolarctos cinereus</i>                | koala                          | V  | X | X |
| <i>Pteropus poliocephalus</i>                | grey-headed flying-fox         | V  | X |   |
| <i>Rhinolophus robertsi</i>                  | Large-eared horseshoe bat      | V  |   | X |
| <i>Saccolaimus saccolaimus nudicluniatus</i> | Bare-rumped sheath-tailed bat  | V  |   | X |
| <i>Xeromys myoides</i>                       | water mouse                    | V  | X |   |
| <i>Caretta caretta</i>                       | loggerhead turtle              | E  | X |   |
| <i>Chelonia mydas</i>                        | green turtle                   | V  | X |   |
| <i>Delma torquata</i>                        | collared delma                 | V  | X |   |
| <i>Denisonia maculata</i>                    | ornamental snake               | V  | X |   |
| <i>Dermochelys coriacea</i>                  | leatherback turtle             | E  | X |   |
| <i>Egernia rugosa</i>                        | yakka skink                    | V  | X | X |
| <i>Elseya albagula</i>                       | white-throated snapping turtle | CE | X |   |
| <i>Eretmochelys imbricata</i>                | hawksbill turtle               | V  | X |   |
| <i>Furina dunmalli</i>                       | Dunmall's snake                | V  | X |   |
| <i>Lepidochelys olivacea</i>                 | Olive Ridley turtle,           | E  | X |   |
| <i>Natator depressus</i>                     | flatback turtle                | V  | X |   |
| <i>Rheodytes leukops</i>                     | Fitzroy River turtle           | V  | X |   |
| <i>Carcharodon carcharias</i>                | great white shark              | V  | X |   |

|                                  |                       |   |   |   |
|----------------------------------|-----------------------|---|---|---|
| <i>Pristis zijsron</i>           | green sawfish         | V | X |   |
| <i>Rhincodon typus</i>           | whale shark           | V | X |   |
| <i>Acacia crombiei</i>           | pink gidgee           | V |   | X |
| <i>Bulbophyllum globuliforme</i> | miniature moss-orchid | V |   | X |
| <i>Capparis thozetiana</i>       |                       | V | X |   |
| <i>Comesperma oblongatum</i>     | Byfield matchstick    | V | X |   |
| <i>Corymbia xanthope</i>         | Glen Geddes bloodwood | V | X |   |
| <i>Cupaniopsis shirleyana</i>    | wedge-leaf tuckeroo   | V | X |   |
| <i>Cycas ophiolitica</i>         |                       | E | X |   |
| <i>Cycas platyphylla</i>         | a cycad               | V |   | X |
| <i>Dichanthium setosum</i>       | Bluegrass             | V | X | X |
| <i>Eucalyptus raveretiana</i>    | black ironbox         | V | X |   |
| <i>Hakea trineura</i>            | three-veined Hakea    | V | X |   |
| <i>Marsdenia brevifolia</i>      |                       | V | X |   |
| <i>Neoroepera buxifolia</i>      |                       | V | X |   |
| <i>Omphalea celata</i>           |                       | V | X |   |
| <i>Parsonsia larcomensis</i>     | Mt Larcom silk pod    | V | X |   |
| <i>Phaius australis</i>          | lesser swamp-orchid   | E | X |   |
| <i>Pimelea leptospermoides</i>   |                       | V | X |   |
| <i>Pultenaea setulosa</i>        |                       | V | X |   |
| <i>Samadera bidwillii</i>        | quassia               | V | X |   |
| <i>Tephrosia leveillei</i>       |                       | V |   | X |

CE – Critically Endangered, E – Endangered, V – Vulnerable, NT – Near Threatened

Yours sincerely,



Managing Director