

24 June 2025

**Re: VALHALLA GAS EXPLORATION AND APPRAISAL PROGRAM (EPBC 2024/10006) DCCEEW RFI
DESKTOP ASSESSMENT**

Please find below a memo summarising *ecologia* Environment's (*ecologia*) response to the Department of Climate Change, Energy, the Environment and Water (DCCEEW) comments requesting additional information for the northern blue-tongue skink (*Tiliqua scincoides intermedia*) on the Valhalla Exploration and Gas program.

Background

Bennett Resources Pty Ltd (BNR) is proposing to undertake the Valhalla Gas Exploration and Appraisal Program (the Project) located approximately 51 km northwest of the townsite of Fitzroy Crossing (Shire of Derby-West Kimberley) in WA. *ecologia* was commissioned by Bennett Resources in 2024 to undertake a targeted fauna survey of the Project Area to identify the presence of any Threatened or Priority fauna, with focus on assessment of the greater bilby, ghost bat and northern quoll. BNR have since referred the project under the EPBC Act utilising both the baseline Eco Logical Survey Report and the *ecologia* Targeted Survey (Greater bilby/Northern Quoll and ghost bat) (2024). The Department of Climate Change, Energy, the Environment and Water (DCCEEW) has determined the proposal to be a controlled action on Matter of National Environmental Significance (MNES) which will be assessed by preliminary documentation. This requires BNR to respond to a Request for Information (RFI) requested by DCCEEW.

Table 1: Responses to RFI in relation to the Northern Blue-tongue skink (*Tiliqua scincoides intermedia*).

Comment	Response
<p>7e-i) Information on the abundance, distribution, ecology and habitat preferences for each listed and migratory species</p>	<p>The northern blue-tongue is distributed across northern Australia, from Eighty Mile Beach in Western Australia, through the southern Kimberley, and Top-End Northern Territory, and north-western corner of Queensland (DCCEEW, 2023a; Shea, 1992).</p> <p>The species occurs in a wide variety of habitat types, including sandplains, Eucalypt woodland and spinifex (hummock) and tussock grasslands. The species has been recorded at considerable distances from known waterbodies; however, most records are within proximity to a permanent or seasonal water source (DCCEEW, 2023a; Shea, 1992).</p> <p>The <i>Conservation Advice for Tiliqua scincoides intermedia</i> (northern blue-tongue skink) (DCCEEW, 2023a) outlines critical habitat for the northern blue-tongue as any of the following:</p> <ul style="list-style-type: none"> • Rainforests and vine thickets. • Riparian forests. • Well-vegetated creeks, gorges, and drainage lines. • Well-vegetated swamps, soaks, and springs. • Dense thickets within floodplains, grasslands, shrublands, savannas and woodlands. • Shady thickets in rocky ranges and gorges. • Well-watered and well-vegetated gardens. <p>The abundance of the northern blue-tongue skink varies across its distribution; it is expected to occur in lower densities in areas populated with cane toads. Northern blue-tongues are estimated to have home ranges between 2-12 ha, and the species is presumed to be monogamous (DCCEEW, 2023a).</p> <p>The largest threat to the northern blue-tongue skink is predation by the cane toad. The species is also threatened by habitat</p>

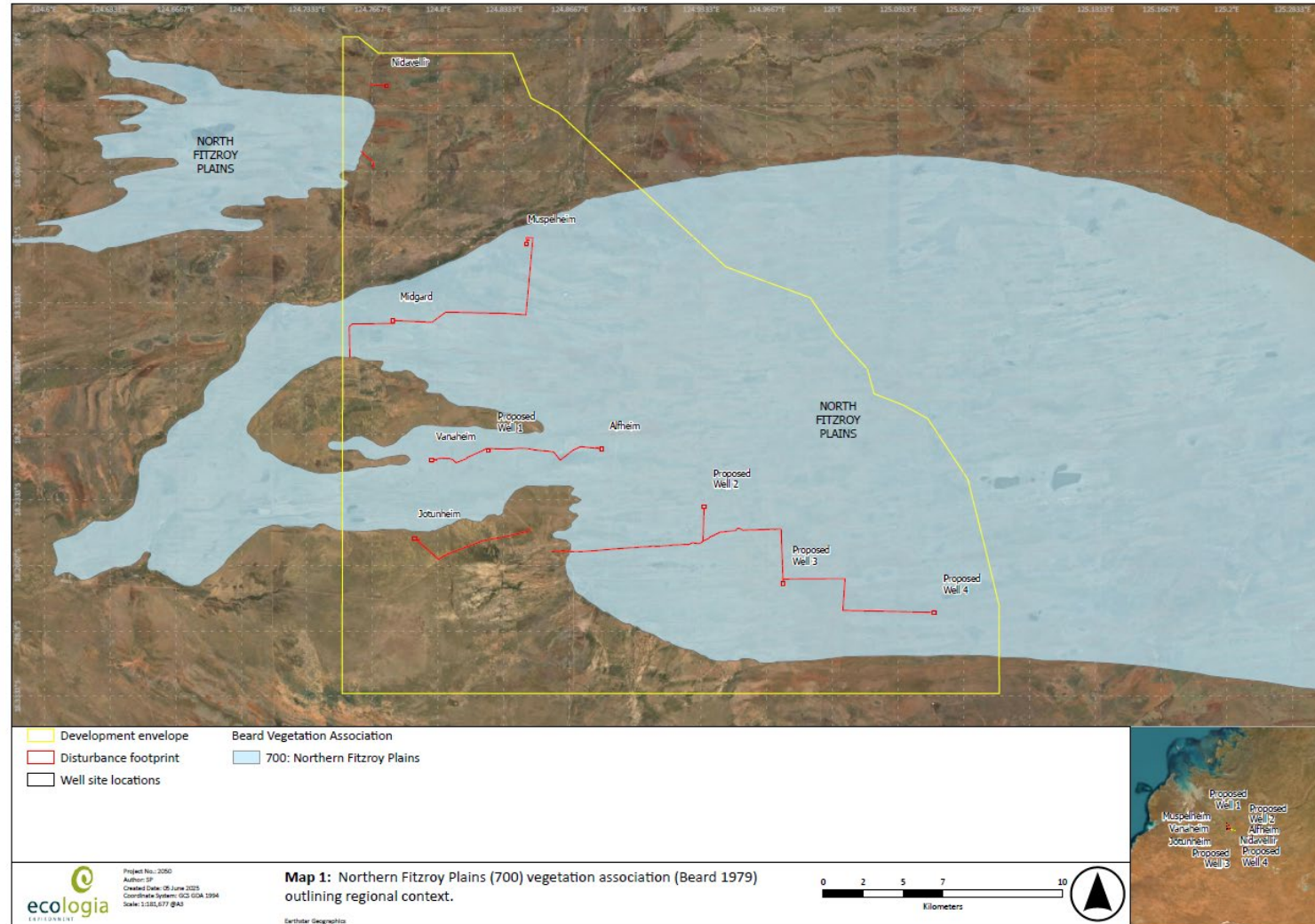
Comment	Response
	<p>modification, fragmentation, fire and competition with other introduced pest species (DCCEEW, 2023a).</p>
<p>7e-ii) Quantification of the extent of habitat and the number of individuals likely to be impacted, or historical patterns of use by those species, within the proposed action area and surrounds (including mapping identifying known and/or potential habitat)</p>	<p>Habitat assessments conducted by EcoLogical in March 2021, assessed the project area with the following three habitat types:</p> <ol style="list-style-type: none"> 1. Mixed open woodland over grassland on sandy clay flats and slopes; 2. Mixed open woodland over tussock grasses on dune slopes and crests; and 3. Eucalypt open woodland and mixed shrubland on closed depression and creekline. <p>In general, habitat types are open with a ground cover of tussock and hummock grasses with isolated pockets of thicker vegetation.</p> <p>The Conservation Advice for <i>Tiliqua scincoides intermedia</i> (northern blue-tongue skink) (DCCEEW, 2023a) includes ‘well-vegetated creeks and drainage lines’ and ‘dense thickets within floodplains, grasslands, shrublands, savannas and woodlands’ as critical habitat for the species.</p> <p>Of the fauna habitat types identified within the disturbance footprint, 17.3 ha of vegetation was identified as potentially representing ‘suitable habitat’ for the northern blue-tongue skink. While potentially suitable habitat exists, it is restricted to dense thickets of vegetation within the broader habitat types. Vegetation types and habitats identified are widespread on a local and regional scale and are not restricted within the disturbance footprint.</p> <p>According to the Conservation Advice definitions, the northern blue-tongue skink has the potential to be found across nearly all habitat types within its range.</p> <p>As the northern blue-tongue skink was listed as Priority 4 (DBCA) in 2025, there is limited DBCA database records for the species. A database search was conducted for the northern blue-tongue skink using the Atlas of Living Spatial Portal. Two records of the species</p>

Comment	Response
	<p>were recorded within 50 km of the survey area (latest record 2017). Based on these records and the potential for suitable habitat within the disturbance footprint, it is considered possible that the northern blue-tongue skink may occur.</p> <p>During the targeted survey, no individuals were recorded within the disturbance footprint and consequently it is considered unlikely that any individuals will be impacted by the proposed action.</p>
<p>7e-iii) Assessment of the quality and importance of known or potential habitat for the relevant listed species and migratory species, within the proposed action area and surrounds.</p>	<p>Vegetation quality was assessed by EcoLogical in March 2021 and the areas representing potentially suitable habitat ranged from ‘Very Good’ to ‘Excellent’ in condition.</p> <p>None of the following critical habitat types were identified within the disturbance footprint:</p> <ul style="list-style-type: none"> • Rainforests and vine thickets. • Riparian forests. • Well-vegetated creeks, gorges, and drainage lines • Well-vegetated swamps, soaks, and springs. • Shady thickets in rocky ranges and gorges. • Well-watered and well-vegetated gardens. <p>The modelled distribution for the northern blue-tongue skink outlined within the <i>Conservation Advice for Tiliqua scincoides intermedia (northern blue-tongue skink)</i> (DCCEEW, 2023a) identifies ‘habitat known or likely to occur’ within the development envelope and the surrounding region.</p> <p>Without broad habitat mapping across the wider landscape, to quantify the amount of habitat proposed to be impacted, we used pre-European vegetation association as outlined by Beard (1979) (Map 1). The vegetation association incorporating the disturbance footprint and surrounds is ‘Northern Fitzroy Plains’ (700) and described as ‘Acacia thicket with scattered low trees over spinifex <i>Acacia eriopoda</i>, <i>Corymbia dichromophloia</i>, <i>Triodia pungens</i>, <i>T. bitextura</i>.’ This vegetation association covers a continuous area of</p>

Comment	Response
	<p>175,086 ha in the immediate vicinity of the disturbance footprint. The proposed action intends to clear approximately 0.009% of this vegetation association within the ‘Northern Fitzroy Plains.’</p> <p>Within the broader region, the ‘Northern Fitzroy Plains’ covers an area of 309,786 ha.</p>
<p>7e-iv) Information detailing known populations or records of individuals within at least 2 km of the proposed action area and the size of these populations, if available.</p>	<p>As discussed in section 7e-ii, the northern blue-tongue skink was listed as Priority 4 (DBCA) in 2025, there is limited DBCA database records for the species.</p> <p>Atlas of Living database search results did not identify any records of the species within 2 km of the development envelope.</p> <p>No known populations were recorded within the proposed disturbance footprint.</p>
<p>7e-v) An assessment of the adequacy of any surveys undertaken (including survey effort and timing). In particular, the extent to which these surveys were appropriate for the listed species and migratory species, and undertaken in accordance with relevant Departmental survey guidelines.</p>	<p>There are currently no survey guidelines for the northern blue-tongue skink. Two fauna surveys have been conducted in the disturbance footprint, including the following most recent:</p> <ul style="list-style-type: none"> • Valhalla Gas Exploration and Appraisal Program Targeted Significant Fauna Survey (July) – <i>ecologia</i> (2024); and • Flora and Fauna Survey (March and May) – EcoLogical (2021). <p>According to weather data recorded from Fitzroy Crossing Aero (Station No. 3093) (BOM, 2025), conditions in all surveys were considered suitable for detection of reptiles. Maximum daily temperatures recorded for all surveys were between 29.9°C and 38.5°C.</p> <p>Additionally, during the targeted surveys (<i>ecologia</i>, 2024), the entire disturbance footprint was traversed on foot at 20 m intervals, and vegetation was inspected throughout. Experienced zoologists conducted the targeted surveys and had it been present within the disturbance footprint at the time of the surveys, the northern blue-tongue skink would have been positively identified and recorded.</p>

Comment	Response
<p>7e-vi) Where the relevant guideline is not followed, provide reasoning of the sufficiency of survey work that was undertaken to adequately determine the presence of these species.</p>	<p>There are no current survey guidelines for the northern blue-tongue skink. Survey effort for this species is addressed in section 7e-v.</p>
<p>9a) The Department notes no surveys have been undertaken for the Northern blue-tongue skink. The species was listed as Critically Endangered on 21 December 2023. Please provide evidence of consideration of the Conservation Advice for <i>Tiliqua scincoides intermedia</i> (northern blue-tongue skink). (Provide a desktop assessment of suitable habitat for the blue-tongue skink, is the habitat being impacted critical to the survival)</p>	<p>As outlined in section 7e-ii, the northern blue-tongue skink was listed as Priority 4 (DBCA) in 2025, so there are limited DBCA database records available for the species. A database search was conducted for the northern blue-tongue skink using the Atlas of Living Spatial Portal. Two records of the species were recorded within 50 km of the development envelope (latest record 2017). Based on these records and the potential for suitable habitat within the disturbance footprint, it is considered 'possible' for the northern blue-tongue skink to occur.</p> <p>Additionally, as further outlined in section 7e-ii, the Valhalla project area contains potentially suitable habitat for the northern blue-tongue skink.</p>
<p>9a-i) Please ensure surveys undertaken across the impact area (i.e. habitat as well as habitat critical to survival) are conducted at a time of year and during seasonal and daily conditions when the northern bluetongue skink is most detectable. (In your desk top analysis of habitat critical to northern blue-tongue skink</p>	<p>According to climate data recorded from Fitzroy Crossing Aero (Station No. 3093) (BOM, 2025), conditions for all surveys were considered suitable for detection of reptiles. Maximum daily temperatures recorded during the surveys were between 29.9°C and 38.5°C.</p> <p>If present, the northern blue tongue skink would have been observed and recorded within the disturbance footprint during the targeted surveys (<i>ecologia</i>, 2024).</p>

Comment	Response
would your survey timing fall into the correct seasonal and daily conditions?)	
<p>22) The Department considers the proposed action may result in, but not be limited to, the following impacts: a) Vegetation clearance of critical habitats for listed species. (Does Eco Logical consider there to be habitat critical to the survival of any species? Provide justification)</p>	<p>As discussed in section 7e-ii, the project area contains potentially suitable habitat (clumps of dense vegetation) for the northern blue tongue skink; however, no dense, well vegetated areas were recorded. Vegetation quality was assessed by EcoLogical in March 2021 and areas representing suitable habitat ranged from ‘Very Good’ to ‘Excellent’ in condition.</p> <p>Habitats within the disturbance footprint are generally open and potentially suitable habitat for this species would be restricted to hummock grasses and clumps of low shrubs.</p>
23-a) For each listed species, identify the quantum and quality of habitat or vegetation likely to be impacted.	As addressed in in section 7e-ii and section 2, the potential habitat for the northern blue-tongue skink within the disturbance footprint is 17.3 ha.
23-b) Identify the number of affected individuals and/or habitat features (e.g. potential breeding habitat, roosting trees, potential foraging habitat, movement pathways, etc.) relevant to each listed species	<p>It is considered unlikely that individuals will be impacted due to the proposed action.</p> <p>As outlined in section 7e-ii, the project area may contain suitable habitat for the northern blue-tongue skink. These areas may contain habitat comprising ‘dense thickets within grasslands, shrublands, savannas and woodlands’, defined as ‘suitable habitat’ as per the <i>Conservation Advice for Tiliqua scincoides intermedia</i> (northern blue-tongue skink) (DCCEEW, 2023a). However, as discussed previously, no individuals were observed from the project area during targeted surveys conducted in July 2024 (ecologia, 2024).</p>



Map 1: Northern Fitzroy Plains (700) vegetation association (Beard 1979) outlining regional context.

References

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