






Legend

Ecological Vegetation Class

-  Heavier-soils Plains Grassland
-  Stony Rises Woodland
-  Habitat Zone






-  Proposed Turbines
-  Roads
-  Access Tracks
-  Habitat Zone Breaks
-  Turbine Number

Figure 8: Native Vegetation Affected by Development Footprint - E

Proposed Stockyard Hill Wind Farm

Client: Stockyard Hill Wind Farm Pty Ltd

Project No.: 7132



Date: 22/09/09

Created by: B. Lane / F. D'Elia



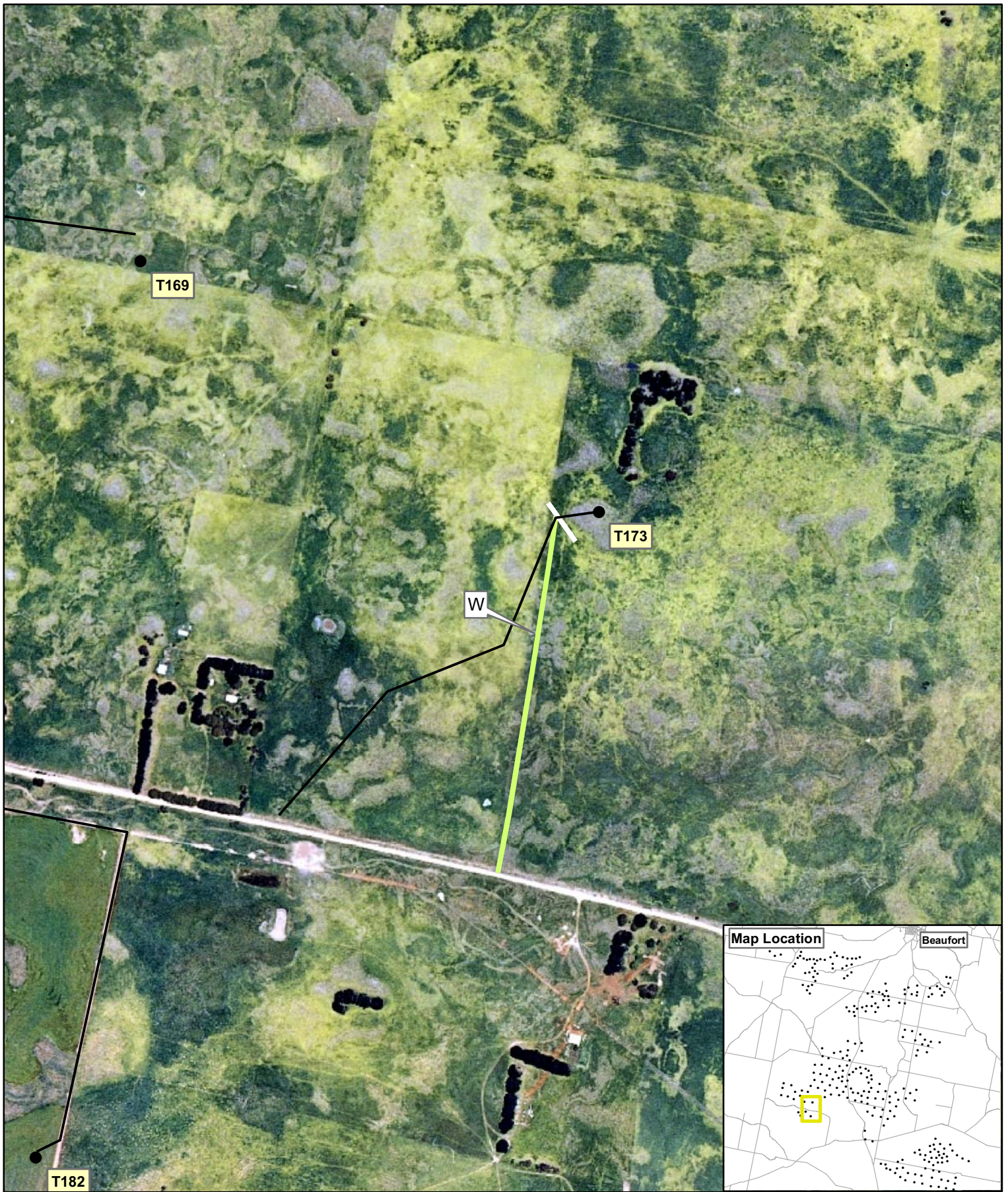
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Legend


Ecological Vegetation Class

 Heavier-soils Plains Grassland

 Habitat Zone

 Proposed Turbines

 Roads

 Access Tracks

 Habitat Zone Breaks

 T6 Turbine Number

Figure 9: Native Vegetation Affected by Development Footprint - F

Project: Proposed Stockyard Hill Wind Farm

Client: Stockyard Hill Wind Farm Pty Ltd

Project No.: 7132

Date: 22/09/09

Created by: B. Lane / Syahrudin

BL&A


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Commonwealth Threatened Communities

The EPBC Act-listed community NTGVVP occurred patchily within the study area so a targeted survey was done. The methods and results are presented in the section below.

2.3.2 Targeted Survey for Natural Temperate Grassland of the Victorian Volcanic Plain

2.3.2.1 Introduction

Two sites to be affected by the proposed Stockyard Hill Wind Farm project were previously identified to support remnant Plains Grassland EVC as defined by the Victorian Framework and therefore could support NTGVVP. These sites were:

- Part of the proposed footprint for Turbine 139; and
- The proposed access track between Stoneleigh Settlement Road and proposed Turbine 173.

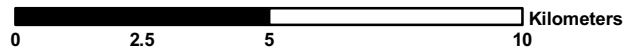
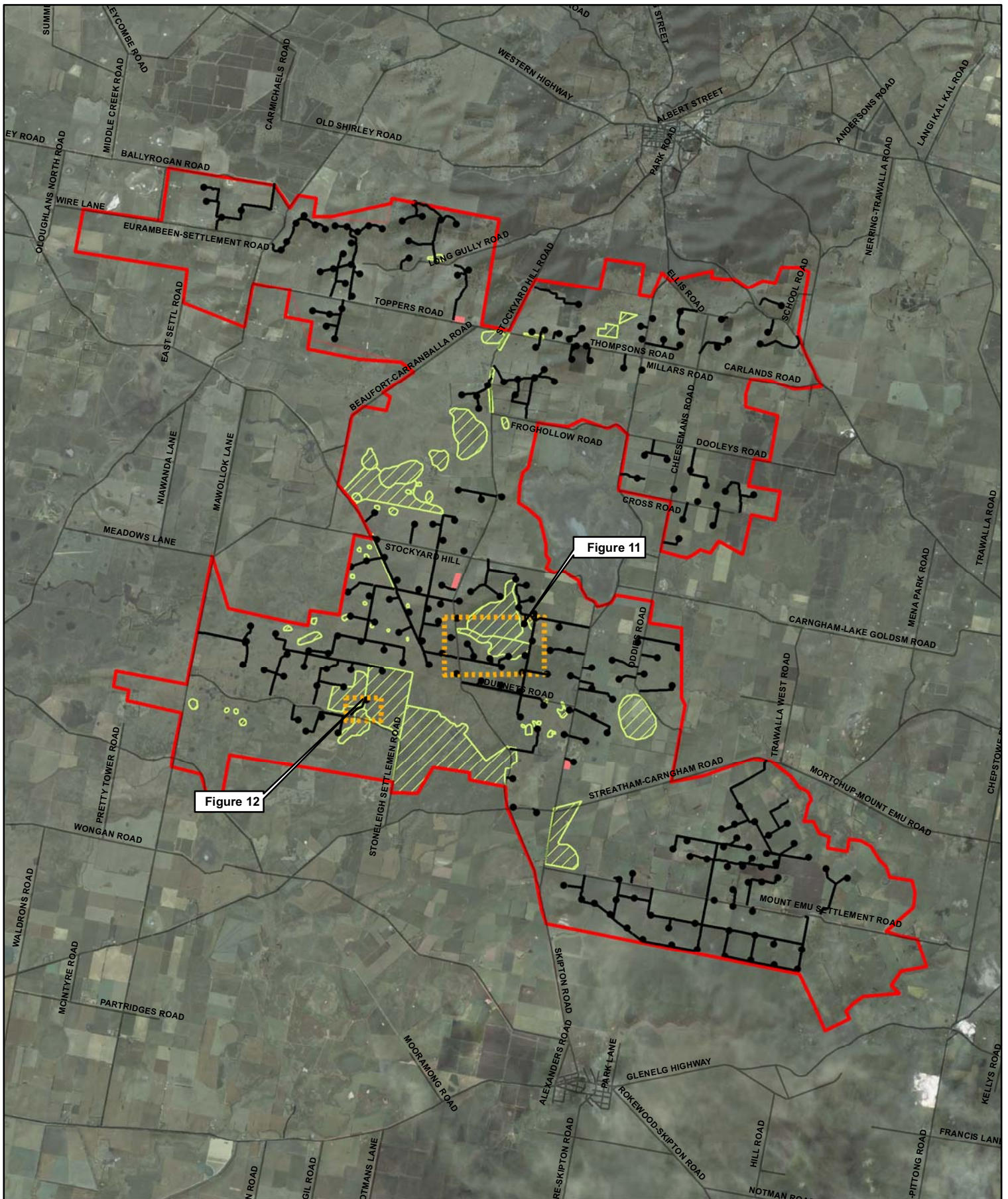
These areas were assessed further to ascertain whether they qualified as NTGVVP, an ecological community listed as critically endangered under the *EPBC Act*.

Criteria used to assess the presence of native grassland (i.e. Plains Grassland [EVC 132]) under the state Framework are different from those used to assess the presence of NTGVVP under the Commonwealth *EPBC Act*. The state Framework characterises native grassland as supporting only 25% foliage cover, excluding bare ground, of indigenous flora species correlating with the EVC 132 benchmark. Conversely, the Commonwealth EPBC Act characterises NTGVVP as supporting 50% indigenous species. We used state criterion to identify Plains Grassland and because this is the more conservative measure, we are confident any potential areas of NTGVVP (Figure 10) would be within these locations.

2.3.2.2 Vegetation Characteristics

The following key defining attributes for NTGVVP, as detailed in the Commonwealth Recovery Plan were used for the current survey:

- The grassland is mainly associated with Quaternary basalt soils within the VVP bioregion;
- At least one of the following grass genera is the dominant native species in the ground layer: *Themeda* (Kangaroo Grass), *Austrodanthonia* (Wallaby Grass), *Austrostipa* (Spear Grass) and/or *Poa* (Tussock-grass); and
- The minimum size of the grassland patch and the maximum cover of woody vegetation depend on the native vegetation remnant within which the grassland patch occurs. The small minimum sizes take into account that land use history has resulted in generally very small and fragmented patches but, despite this, small patches of intact grassland can remain effective for conservation purposes. It also takes into account that grassy woodlands may include naturally open gaps amongst trees; where gaps are greater than 0.5 hectares, they are considered to be NTGVVP.



Legend

- Study area
- Grassland boundaries from overview assessment
- Staging / batching areas
- Insets
- Roads
- Access Tracks
- Turbines

Figure 10 : Location of Targeted NTGVVP Grassland Survey

Project: Proposed Stockyard Hill Wind Farm		
Client: Stockyard Hill Wind Farm Pty. Ltd.		
Project No.: 7132	Date: 23/09/2009	Created by: Inga Kulik / Syahrudin
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The NTGVVP community comprises patches that meet the key diagnostic characteristics above, *and* at least one of the condition thresholds below.

- The total perennial tussock cover represented by the native grass genera *Themeda*, *Austrodanthonia*, *Austrostipa* or *Poa* is at least 50%;
- If the total perennial tussock cover represented by the above four native grass genera is less than 50%, the ground cover of native forbs (wildflowers) is at least 50% of total vegetation cover during spring-summer (September to February); or
- The cover of non-grass weeds is less than 30% of total vegetation cover at any time of the year.

2.3.2.3 Methods

The two above-mentioned sites and any adjacent previously identified native grassland were surveyed to determine whether or not they fulfilled the criteria for, and were therefore classified as, NTGVVP. Areas of grassland with obviously different general floristic composition, structure and quality were separated into different patches for the purpose of this survey. Between three and seven evenly spaced 1 m² quadrates were surveyed in each mapped patch of grassland. The number of quadrats surveyed was dependent on the size of vegetation patch. At least three evenly spaced one by one metre quadrats were assessed within each mapped patch of grassland (see Figures 11 to 12).

The following indicators were measured to assess whether each of the mapped patches were NTGVVP:

- Combined cover of native grasses belonging to the genera *Themeda*, *Austrodanthonia*, *Austrostipa* and *Poa*;
- Total native forb cover;
- Non-grass weed cover;
- Total vegetation cover; and
- Notes on the size of areas meeting the criteria for NTGVVP.

Survey results were then checked against the abovementioned criteria for NTGVVP.

2.3.2.4 Results

Figure 10 shows where grassland vegetation (25% projective foliage cover or greater) currently occurs in the study area. This map also shows where detailed maps have been prepared to show where grassland is affected by the project (*i.e.* Figure 11 and 12).

Figure 11 shows where a small area of grassland will be removed for Turbine 139. An area of NTGVVP was identified nearby (see Patch 2 – Figure 11), but the balance of grassland, including in the affected area, did not qualify as NTGVVP.

Figure 12 shows where grassland will be removed for an access track to Turbine 173, north of Stoneleigh Settlement Road. The quadrat surveys showed that this vegetation did not qualify as NTGVVP, although it qualified as remnant vegetation at the state threshold. The proponent has subsequently micro-sited the access track to avoid the native grassland.

The results of the current targeted survey indicated that the proposed development footprint would not affect any vegetation that qualifies as NTGVVP and any residual offsite effects would be negligible.