Vegetation Types of Mitchell Shire

The variable landscapes of Mitchell Shire are reflected by several Victorian Bioregions that occur within the Shire, as illustrated in Figure 1. Bioregions are a landscape-scale approach to classifying the environment using a range of attributes such as climate, geomorphology, geology, soils and vegetation.

There are 28 bioregions identified within Victoria (DEPI 2014a) with 6 located in Mitchell Shire. These are;

- Victorian Riverina
- Goldfields
- Central Victorian Uplands
- Highlands Northern Fall
- Highlands Southern Fall
- Victorian Volcanic Plain.

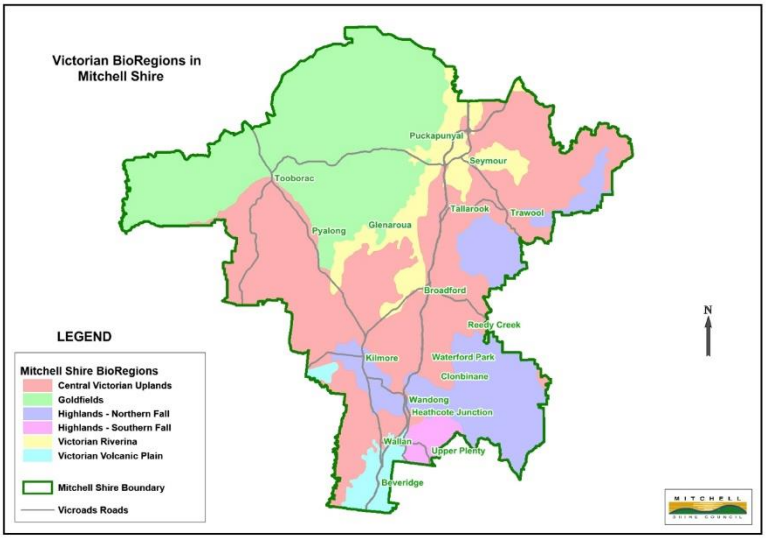

Figure 1. Mitchell Shire Bioregions

Ecological Vegetation Classes (EVC)

Within each bioregion there are an array of recognisably different vegetation communities. This variation reflects the differences in geology, soil, climate, rainfall, elevation, drainage and aspect of where these communities are growing. Groups of plants suited to similar conditions are commonly associated with each other, and these associations are referred to as Ecological Vegetation Classes (EVC).

Victorian Riverina

Located as a narrow strip through the center of the Mitchell Shire, this bioregion is more common in northern Victoria. Characterised by flat to gently undulating land on old stream channels and wide floodplains of the Goulburn River, this bioregion has been highly modified for agriculture with fertile red brown loamy soils. The average rainfall varies from 600-700mm.

Most of the remnant vegetation is confined to river banks, linear strips along roadsides and occasional isolated pockets.

The plains were once covered by the vegetation type 'Plains Grassy Woodland' representing an open overstorey of Grey Box and River Red Gum with the occasional Buloke or Yellow Box. The shrub layer is open and sparse with a range of wattles, peas and Bursaria, and the ground layer has a rich diversity of herbs, grasses, lilies and orchids.

Figure 2. The Goulburn River Walking Trail, Seymour. Victorian Riverina bioregion and Floodplain Riparian Woodland EVC

Goldfields Bioregion

Figure 3. Moulds Road, Tooborac Goldfields Bioregion and Heathy Dry Forest EVC

Located north-west within the Mitchell Shire, this bioregion is distinguished by low, gravelly, sedimentary hills. Large areas of remnant vegetation occur on the drier stony hills which are less suitable for agriculture, although much was cleared in the earlier gold rush days. Rainfall is uncertain varying from 400 to 700 mm per annum.

Common vegetation types found within the Goldfields bioregion are 'Box Ironbark Forest', 'Heathy Dry Forest' and 'Grassy Dry Forest' found on dry hills and dominated with a range of Box and Stringybark eucalypts with the occasional patch of Ironbark eucalypts. The understorey is a low shrub layer of wattles, heaths and peas with a ground layer of grasses, herbs and forbs. 'Valley Grassy Forest', 'Creekline Grassy Woodland' and 'Alluvial Terraces Herb-rich Woodland' vegetation types are found along valleys and creeklines with deeper fertile soils and taller forests dominated with Yellow Box, River Red Gum and Long-leaf Box. The understorey has an open tall to mid layer of shrubs over a diverse rich ground layer of lilies and grasses, with sedges and rushes found in wetter areas.

Figure 4. Monument Hill Reserve, Kilmore, Central Victorian Uplands Bioregion and Grassy Dry Forest EVC

Central Victorian Uplands

Located across the Mitchell Shire this bioregion varies in terrain from low hills to foothills and from granitic to sedimentary soils, with ranging rainfall between 500-800mm depending on altitude. There is a diversity of vegetation types within this bioregion with 'Herb-rich Foothill Forest' occurring at higher altitudes represented by Peppermints and Messmate with Blue Gums occurring in the sheltered gullies. The understorey is a mix of taller shrubs over a ground layer of grasses, herbs and bracken.

The less fertile dry hills support the vegetation types of 'Grassy Dry Forest' and 'Heathy Dry Forest' displaying a mix of Box eucalypts, low shrub layer of wattles, heaths and peas over a diverse grassy ground layer with lilies and herbs. Widespread occurring over the low hills and valleys of this bioregion is 'Grassy Woodland' and 'Valley Grassy Forest'. Overstorey ranges from Candlebarks, Long-leaf Box, Yellow Box, Drooping Sheoak and Red Stringybark over an open tall shrub layer and diverse rich ground layer of grasses, herbs and lilies.

Highlands Northern Fall

Figure 5. Monument Hill Reserve, Kilmore. Central Victorian Upland Bioregion. Herb-rich Foothill Forest EVC.

Located north of the Great Dividing Range this bioregion is found at higher altitudes along the eastern boundary of the Mitchell Shire. Annual rainfall varies upwards from 900mm, with snow fall common at above 900m. This bioregion includes mountain ranges and associated foothills. Common vegetation types include 'Grassy Dry Forest' on the dry slopes, typically dominated with Red Stringybark, Red Box, Long-leaf Box and Broad-leaf Peppermints over a sparse shrub layer and grassy ground layer. 'Valley Grassy Forest' generally occurs on the gentle slopes and valleys, typically dominated with Yellow Box and Candlebark over an open shrub layer and rich ground layer of herbs. Located on upper slopes of the ranges is 'Herb-rich Foothill Forest' dominated by Narrow-leaf Peppermints, Messmate and Blue Gum over a tall open shrub layer and herb-rich ground layer. Found along protected southerly and eastern slopes are the moister forest types of 'Damp Forest' and 'Wet Forest' typically closed canopy of trees with a tall to mid shrub layer over a dense layer of ferns.

Figure 6. Clarkes Rd, Upper Plenty. Highlands Southern Fall Bioregion and Herb-rich Foothill Forest EVC.

Highlands Southern Fall

Located south of the Great Dividing Range this bioregion is found at higher altitudes along the southern boundary of the Mitchell Shire. Annual rainfall is 900mm and higher, with snow fall common above 900m. This bioregion includes mountain ranges, high plateaus and alluvial flats along the main valleys. Common vegetation types are 'Herb-rich Foothill Forest', on the drier slopes dominated with Narrow-leaf Peppermint, Messmate and Mountain Grey-Gum with a tall to medium shrub layer, and grassy herbaceous ground layer. Located on the upper wetter slopes is 'Damp Forest', a tall forest of Mountain Grey-Gum, Messmate and Blue Gum with a tall to medium shrub layer, occasional

tree ferns and a ground layer of ferns, grasses and lichens. Along the sheltered gullies and creeklines is 'Riparian Forest' a tall forest dominated with Messmate and Manna Gums with a tall to medium shrub layer, tree ferns and mixed ground la yer of tussock grasses, ground ferns, herbs and lichens.

Victorian Volcanic Plains

Located south of the Great Dividing Range on volcanic deposits this bioregion is distinguished by flat to undulating basaltic plains with stony rises, old lava flows, numerous volcanic cones and old eruption points. Soils are generally shallow reddish-brown to black loams and clays, fertile and high in available phosphorous. This bioregion has been highly modified for agriculture with only small isolated remnants remaining. The plains were once covered by the vegetation type 'Plains Grassy Woodland' with an open overstorey of River Red Gums, and treeless areas of 'Plains Grassland'. Both vegetation types once had a sparse shrub layer and species rich ground layer with a diversity of herbs, grasses, lilies and orchids. Dotted across this bioregion are many low-lying areas once representing 'Plains Grassy Wetland' dominated with water-loving grasses, small sedges and herbs with many species dying back seasonally when areas dry out.

Figure7. Old Sydney Rd, Wallan. Views over the Victorian Volcanic Plains between Wallan and Beveridge.