Cardinia Shire Council

Cardinia Western Port Green Wedge

What is the Western Port Green Wedge?

The Western Port Green Wedge covers the southern, mainly rural areas of Cardinia Shire and the City of Casey. This area is set aside as non-urban land through the Cardinia Planning Scheme; however, it is still continually subject to intense pressure for change.



The Western Port Green Wedge boundaries abut the Western Port coast, the low lying former Koo Wee Rup and Dalmore swamps (which together formed the largest swamp in Victoria), as well as pockets of more elevated land to the north. The inland Koo Wee Rup Swamp was dominated by permanently inundated reeds and rushes and the coastal Dalmore Swamp featured dense scrub and swamp paper bark. These swamps created a natural barrier between Melbourne and West Gippsland.

The Cardinia Western Port Green Wedge has some of the best agricultural and horticultural soil in Melbourne, has high biodiversity values, provides for natural resources, open, rural and scenic landscapes, and provides for infrastructure such as sewage treatment plants and airports.

History

Indigenous cultural heritage

The Western Port area is a part of the traditional country of the Mayone buluk and Yallock balug clans of the Bun Wurrung people and the Bulug willam clan of the Woi Wurrung.[1] The Boon Wurrung and the Woi Wurrung people are part of the broader alliance of the Kulin Nation which also includes the Watha Wurrung, the Djaja Wurrung and the Taung Wurrung peoples who all shared a common language.

Their movements were seasonal. During summer months they travelled along major streams, fishing for eels, and hunting and snaring game such as kangaroos, wallabies, possums, wombats and emus. They gathered plant foods, ate swamp-dwelling plants like the roots of rushes, and collected wild honey. In the cooler months, the Boon Wurrung people moved inland seeking shelter and gathered pith of tree ferns and fished Cardinia Creek.

The land was well watered and was managed to provide plentiful food resources and shelter for its numerous inhabitants for over 40 millennia. In common with the practice of many of Australia's Indigenous people, they skilfully used fire to clear forest areas into patchwork patterns to foster new plant growth; particularly grasses to attract game and to promote the growth of herbs, tubers, native fruits and nuts to balance their diet and to forestall bushfires.

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[1] Canning, S. & Thiele, F. *Indigenous Cultural Heritage and History within the Metropolitan Melbourne Investigation Area, Australian Cultural Heritage Management, report for to the Victorian Environmental Assessment Council,* 2010.

The Kulin people had a rich spiritual life which centred on connections with Bunjil, the spirit who created the land, their custodianship and protection of it and with the rhythms of the seasons. They created sites that contain important evidence of a distant past and to which they attribute spiritual meaning.

Much of the Western Port Green Wedge has not been surveyed in any detail to establish the Aboriginal archaeological values which remain there. The largest and most significant sites found to date have been on elevated land on the swamp periphery, south of Pakenham. Further research is required to clearly identify Aboriginal heritage values in the study area.

European settlement

European settlement of the area quickly led to the end of the traditional lifestyle of the Aboriginal peoples as they lost access to traditional lands and waterways, hunting grounds were reduced and traditional food sources disappeared. Hunger, conflict with Europeans, as well as the introduction of new diseases (to which the Indigenous peoples had no immunity) led to rapid population decline and loss of territory. It also meant that the relationship between the natural environment in the Western Port area and human activity changed from one of harmony to one of seemingly constant struggle as Europeans sought to tame the land by removing vegetation, draining it and opening it up for agricultural production and passage through to East Gippsland.

Permanent European settlement of the area occurred progressively from the 1830s. Typical early uses included fishing, grazing and farming on fertile soil. However, intensive farming was hindered by dense vegetation, the threat of flooding and the extensive swamps.[2]

In the 1870s the Lands Department decided to drain the Koo Wee Rup Swamp so that it could be farmed and the Koo Wee Rup Drainage Committee was formed to oversee the process. The main channel connecting the Cardinia Creek and a number of smaller drains were excavated from 1876 using shovels and wheelbarrows, but these initial efforts proved unsuccessful and major floods still occurred. The drainage system was extended from 1889 with the construction of the Bunyip Main Drain to channel the Bunyip River through to the Western Port coast.

Drainage works were completed by 1897. The new drainage system and drought then led to the soil shrinking and compacting and, as a consequence, the land surface dropped. A major flood in 1900 caused damage to crops and livestock and a new round of widening and extension of the drainage system took place as a result. Nevertheless, the area was proving to be fertile land for horticulture and in the early 1900s the area became the potato capital of Victoria.[3]



[2] Canning, S and Thiele, F), *Indigenous Cultural Heritage and History within the Metropolitan Melbourne Investigation Area, Australian Cultural Heritage Management, report for to the Victorian Environmental Assessment Council 2010.*

[3] Graeme Butler and associates*), Cardinia Shire (Emerald and Cranbourne Districts) Heritage Study, 1998.*.

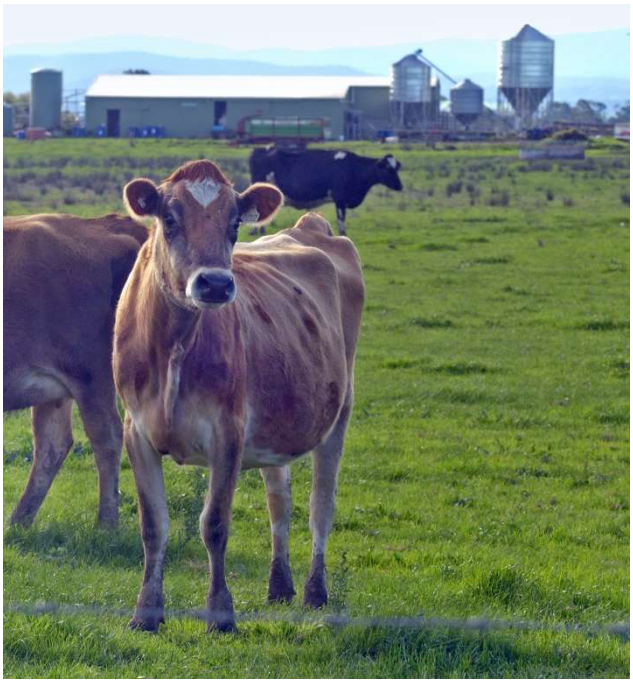
Around this time, the hills to the north of the Koo Wee Rup Swamp were extensively cleared. This in turn led to erosion of the drains because of increased runoff, and sedimentation in the lower parts of the system. In 1917, the Koo Wee Rup Flood Protection District was proclaimed to oversee an improved drainage system for the whole area (this resulted from severe flooding again in 1911). The needs of World War I promoted vegetable growing in the area, and also led to land subdivision for the creation of small-holdings for returned soldiers known as soldier settlements.[4]

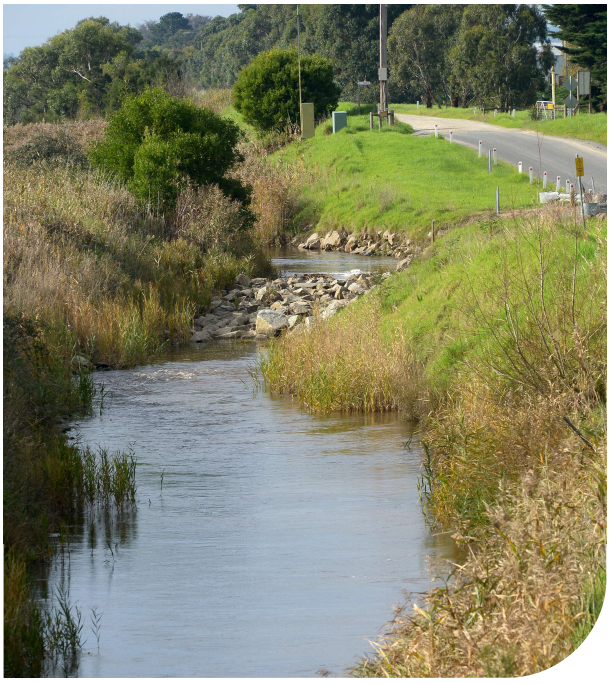
Major floods in 1923 and 1924 and the super flood of 1934 caused significant damage and the latter made more than 1,000 people homeless. The 1936, a Royal Commission was set up to produce an improved scheme with new levees, the removal of sediment, and a further extension of the system.

By the time of World War II, potato growing in the area had ceased due to market fluctuations, and the area became the prime supplier of Melbourne's milk and vegetables. Through the 1950s and 1960s this trend was accelerated by an influx of growers who were forced out of Melbourne's traditional market gardens in Dingley and Oakleigh by urban expansion. Potatoes again took over as the dominant land use, replacing dairying, which moved further out to Gippsland. New sources of water were needed to provide for this expansion and a permit system was introduced in the 1950s to allow farmers to pump water directly from the main drain. Only minor flooding occurred after this time and the construction of the Tarago Reservoir in 1969 also enabled better downstream flood control.[5]

Groundwater was also being extracted from the aquifers from 1922 for stock and domestic requirements. This process went unchecked until water levels in the aquifers had dropped by 15 metres and in the 1967–68 drought they fell below pumping levels and no water could be extracted. The area was declared a groundwater conservation area in 1971, which controlled the rate and volume of water that could be extracted and prohibited new bores in some areas.[6]

Today, thanks to the engineering feats of the 1800s, the majority of the Cardinia Western Port Green Wedge area is used for agricultural purposes. The region produces livestock, vegetables, cut flowers and orchard fruits, but particularly high in vegetable production; almost 90 per cent of Victoria's asparagus is produced in and around Koo Wee Rup while celery (50%) and leeks (71%) account for significant proportions of the state's output.





[4] Rhodes, D. & Bell, J, *Shire of Cardinia Urban Growth Corridor Aboriginal Heritage Study*, report to the Shire of Cardinia, 2004.
[5] Graeme Butler & Associates. (1998*), Cardinia Shire (Emerald & Cranbourne Districts) Heritage Study*.
[6] Rhodes, D. & Bell, J,*Shire of Cardinia Urban Growth Corridor Aboriginal Heritage Study*, report to the Shire of Cardinia, 2004.

Timeline

This timeline shows a summary of the key points of the development of the Western Port Green Wedge area from the 1830s until the 1970s.

1830s	Permanent European settlement – vegetation removal, land drainage, agricultural production.
1870s	Koo Wee Rup Swamp drained for farming. Koo Wee Rup Drainage Committee formed. Main channel and smaller drains excavated. Major floods still occurred.
1880s	Main drainage system extended in 1889. Bunyip Main Drain constructed to channel Bunyip River to Western Port Coast.
1890s	Main drain widened and deepened. This plus drought caused soil shrinkage and drop in land surface.
1900s	Major flood in 1900 – damage to crops and livestock led to further widening and extension of drainage system. Fertile land – became potato capital of Victoria
1920s	Major floods in 1923 and 1924 – significant damage. Groundwater extracted from aquifers, unchecked until levels dropped by 15m.
1930s	Super flood in 1934 causes significant damage – 1,000 people homeless. Royal Commission established to provide improved scheme – new levies, removal of sediment and further extension of the system
1940s	Potato growing ceased due to market fluctuations. Area becomes major supplier of Melbourne's milk and vegetables.
1950s	Milk and vegetable production continues as growers forced out of Dingley and Oakleigh by urban expansion. Dairy farming moves to Gippsland. New water sources needed – permit system introduced to allow farms to pump from main drain.
1960s	Vegetable growing continues. Drought in 1967–68 – aquifer water levels fall below pumping levels and no water can be extracted.
1970s	Declared a groundwater conservation area in 1971. Rate and volume of water extraction is controlled and bores prohibited in some areas.

