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appendix 1

legislative and planning framework

legislative and planning framework

acts

The legislative framework, which includes the *Planning and Environment Act 1987*, The *Aboriginal Heritage Act 2006* and the *Environment Protection and Biodiversity Conservation Act 1999* among others, inform and guide land use and development in Victoria. They are discussed below under corresponding headings.

planning and environment act 1987

The purpose of the *Planning and Environment Act 1987* (P&E Act) is to 'to establish a framework for planning the use, development and protection of land in Victoria in the present and long-term interests of all Victorians'.

In terms of the WPNGWMP, the most relevant section of the Act is Part 3AA Metropolitan Green Wedge Protection. The Act also established parameters for Parliament to amend green wedges within the planning scheme and related matters, which requires approval of both Houses of Parliament.

The P&E Act provides for the conservation of rare and threatened species and plant communities in Victoria. An important mechanism for this is Section 15.09 of the State Planning Policy Framework Provision that makes specific reference to the Victorian Native Vegetation Framework (DNRE 2002). The Framework states its primary goal is to achieve: 'a reversal, across the entire landscape, of the long-term decline in the extent and quality of native vegetation, leading to a Net Gain' (DNRE 2002). In regard to the Framework the following should be noted:

The three-step approach (to avoid, minimise and offset the loss of native vegetation) (i.e., the Net Gain policy) is a prime consideration for planning-scheme amendments, with emphasis placed on the first two steps of avoidance and minimisation.

Advisory Lists of Victorian flora and fauna (maintained by the DSE) are used in a wide range of planning processes. These advisory lists are not statutory although species in an advisory list are afforded protection through the P&E Act's regard of the Framework. Within the Green Wedge there are 19 flora species, and 29 fauna species that are advisory listed. Of these, six flora and 17 fauna species are also statutory listed.

The Framework also affords protection through regard for the Ecological Vegetation Community (EVC) regional conservation status. Of the 14 remnant EVCs recorded in the Green Wedge, eight are regarded as endangered (the highest conservation significance), and three as vulnerable (the second highest).

victorian heritage act 1995

Historical sites in Victoria are primarily protected under the terms of the *Victorian Heritage Act 1995*. Any person proposing works that will impact upon a site listed on the Victorian Heritage Inventory or the Victorian Heritage Register must apply to Heritage Victoria for consent to do so prior to works proceeding.

The Victorian Heritage Act was passed in 1995 and replaced the *Historic Buildings Act 1981*, the *Historic Shipwrecks Act 1981* and part of the *Archaeological and Aboriginal Relics Preservation Act 1972*. The main purposes of the Act are:

- *To provide for the protection and conservation of places and objects of cultural heritage significance and the registration of such places and objects;*

- *To establish a Heritage Council charged with the responsibility to protect and enhance the cultural heritage of the State; and*
- *To establish a Victorian Heritage Register.*

The Act defines an archaeological relic as:

- *Any archaeological deposit; or*
- *Any artefact, remains or material evidence associated with an archaeological deposit which:*
- *Relates to the non-Aboriginal settlement or visitation of the area or any part of the area which now comprises Victoria; and*
- *Is more than 50 years old (Heritage Act 1995 Part 1 Section 3).*

Further, the Act defines an archaeological site as '...an area in which archaeological relics are situated' and the term 'building includes structure, work and fixture and any part of a building, structure, work or fixture.' (Heritage Act 1995 Part 1 Section 3).

There are two categories of listing under the *Victorian Heritage Act 1995*; the Heritage Register and the Heritage Inventory. The Heritage Register is established under Section 18 of the Act and the Heritage Inventory under Section 120. The Heritage Register (HR) is a register of all heritage places, relics, buildings, objects or shipwrecks deemed to be of outstanding cultural significance within the State of Victoria. The Register includes any places in Victoria on the World Heritage List and all places previously registered on the register of historic buildings under the Historic Buildings Act 1981. Places listed on the HR are afforded legal protection under the Heritage Act 1995. A permit must be granted by Heritage Victoria prior to changes or alterations being made to places on the HR. Places listed on the HR are recorded on the Victorian Heritage Register database - the Heritage Inventory. In addition to places on the HR, this database includes places that are:

- *Classified by the National Trust;*
- *Included in the Victorian War Heritage Inventory; or*
- *Are covered by a local government Heritage Overlay.*

Places listed on the Heritage Inventory are not automatically afforded heritage protection.

The Heritage Inventory (HI) under Section 121 of the *Victorian Heritage Act 1995* provides a record of:

- a) all places or objects identified as historic archaeological sites;*
- b) all known areas where archaeological relics are located;*
- c) all known occurrences of archaeological relics; and*
- d) all persons known to be holding private collections of artefacts or unique specimens that include archaeological relics.*

Some sites on the Heritage Inventory are assigned a 'D' classification (generally referred to as D listed). These are sites that have been recorded but have negligible archaeological significance. There is no requirement to obtain a Consent from Heritage Victoria to allow for the removal or disturbance of these sites. However some 'D' listed sites may still hold local historical value and may be afforded some protection under local planning scheme regulations.

Heritage Overlay (HO) is a planning scheme control under Victoria Planning Provisions (VPP) under the *Planning and Environment Act 1987*. It applies to areas (or precincts), or individual buildings, land, gardens, trees or other items that have been determined to be of cultural heritage significance. Sites and places listed solely on the Heritage Overlay are generally of local rather than State or National significance. The schedule to the Heritage Overlay contains the list of places covered and any particular controls applying to them. Works undertaken that will affect sites or places listed need to progress through a planning permit process in consultation with the local government authority.

The Register of the National Estate (RNE), previously maintained by the Australian Heritage Council, provides a listing of sites and places, considered to be of national or greater significance under the *Australian Heritage Council Act 2003* and the *Environment Protection and Biodiversity Conservation Act 1999*. The Register of the National Estate was considered to overlap with heritage listings at state, territory and local government level and therefore from 19 February 2007 places could no longer be added to or removed from the RNE. From 19 February 2012 all references to the RNE were removed from the *Australian Heritage Council Act 2003* and the *Environment Protection and Biodiversity Conservation Act 1999*. The RNE is maintained on a non-statutory basis as a publicly available archive and educational resource. Places on the RNE may be protected under appropriate state, territory or local government heritage legislation.

aboriginal heritage act 2006

The *Aboriginal Heritage Act 2006* provides blanket protection for Aboriginal cultural heritage in Victoria. This means that Aboriginal cultural heritage is protected from harm and it is illegal to carry out an activity that can disturb Aboriginal places without the appropriate authorities under the Act (and its associated Aboriginal Heritage Regulations 2007). There are two principal mechanisms under the Act that remove the risk of illegal harm to Aboriginal cultural heritage, namely:

- Cultural Heritage Management Plan.
- Cultural Heritage Permit.

Cultural Heritage Management Plan (CHMP) is a report recommending measures to be taken to protect Aboriginal cultural heritage affected by a development or use of land. It must include recommendations for measures to be taken before, during and after a relevant activity. The underlying philosophy of the CHMP is to minimise harm to Aboriginal places, however it is the document through which provisions can be made to legally harm Aboriginal places. A CHMP must be approved by a Registered Aboriginal Party or where no party exists for the area, the Secretary of the Department of Planning and Community Development, before the activity may commence.

A CHMP usually involves a staged investigation of the risk posed by a proposed activity to Aboriginal cultural heritage. The Act and associated Regulations set out the requirements for different levels of investigation:

- Desktop Assessment
- Standard Assessment (Field Survey)
- Complex Assessment (Subsurface Testing, Controlled Excavation)

Section 46 of the Act specifies the circumstances in which preparation of a CHMP is mandatory:

- *When required by the Regulations;*

- *When the Minister directs a CHMP to be prepared for an activity; or*
- *When an EES is required for an activity.*

Clause 6 of the Regulations states that a CHMP is required when:

- *All or part of the activity is a high impact activity; and*
- *All or part of the activity area is in an area of cultural heritage sensitivity - which has not been subject to significant ground disturbance.*

'High impact activities' and 'areas of cultural heritage sensitivity' are defined in the Regulations. For activities which trigger a CHMP, a statutory authorisation cannot be granted for the activity without an approved CHMP.

A CHMP may be prepared voluntarily even when not required by the Act (s45).

A Cultural Heritage Permit (CHP) is issued by the Secretary of the Department of Planning and Community Development to "carry out activity likely to harm [Aboriginal] cultural heritage". A CHP application is made to the Secretary of the Department of Planning and Community Development and, where a Registered Aboriginal Party exists for the area, must be supported by that organisation before it can be issued.

A CHP is sought for those instances where there is a known Aboriginal place that will be impacted on by an activity. The permit outlines the measures that must be taken in order to disturb that place lawfully. Archaeological investigations are often required to inform a CHP application.

Other key features of the *Aboriginal Heritage Act 2006* are:

- The creation of the Victorian Aboriginal Heritage Council to provide a state-wide voice for Aboriginal people and to advise the Minister for Aboriginal Affairs on issues relating to the management of Aboriginal cultural heritage.
- A system of Registered Aboriginal Parties – approved by the Victorian Aboriginal Heritage Council – to be involved in cultural heritage decision making processes, and in particular CHMPs.
- Aboriginal Cultural Heritage Agreements to support the development of partnerships around the protection and management of Aboriginal cultural heritage.
- Provisions relating to enforcement including: cultural heritage audits, protection declarations and stop orders, inspection arrangements and penalties. Maximum penalties for breaching the Act are more than \$180,000 for an individual or more than \$1 million for a company.

commonwealth aboriginal and torres strait islander heritage protection act 1984

The *Aboriginal and Torres Strait Islander Heritage Protection Act 1984* is intended to provide additional protection from injury or desecration of artefacts and areas which are of particular significance to Aboriginal peoples and traditions. The Act provides for emergency declarations to be made for the protection of significant Aboriginal areas or objects which are under 'serious or immediate threat of injury or desecration'. The Act protects 'significant Aboriginal areas' and 'significant Aboriginal objects'. A 'significant' area or object is one of particular significance to Aboriginal people in accordance with Aboriginal or Torres Strait Islander tradition.

An application for protection of a specified area or object under threat can be made orally or in writing by an Aboriginal or Torres Strait Islander person.

The Minister for Families, Housing, Community Services and Indigenous Affairs can make declarations to protect areas and objects if the area or object is under threat of injury or desecration (used, treated or affected in a manner inconsistent with Aboriginal tradition) and State law does not effectively protect the area.

The Minister may make emergency declarations or long-term declarations. Emergency declarations last for thirty days, but may be extended for a further thirty days. The Minister may not make a declaration in relation to an area or object located in a State, the Northern Territory or Norfolk Island unless he or she has consulted with the appropriate Minister of that State or Territory. These declarations may "contain provisions for and in relation to the protection and preservation of the area from injury or desecration".

Officers authorised by the Minister under the Act may also make emergency declarations, lasting up to 48 hours in relation to Indigenous heritage areas and objects.

commonwealth environment protection and biodiversity conservation act 1999

The Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) is the key piece of environmental legislation that enables the Australian, State and Territory governments to provide national environment and heritage protection and biodiversity conservation. Under the Act, an action (i.e. project, development, undertaking, activity, or series of activities) that is likely to have a significant impact on matters of National Environmental Significance (or on Commonwealth land or by a Commonwealth agency) requires approval from the Commonwealth Environment Minister. In regards to the Green Wedge biodiversity assets, it should be noted that:

- There are five records of fauna (one locally extinct), and two species of flora listed under the Act. Where these species possibly occur, any significant changes to land use, could trigger referral to the Commonwealth Environment Minister.
- Three plant communities are likely to qualify for referral and protection under the EPBC Act where an action may significantly impact on Grassy Eucalypt Woodland of the Victorian Volcanic Plain (Critically Endangered), Grey Box (Eucalyptus microcarpa) Grassy Woodlands and Derived Native Grasslands of South-eastern Australia (Endangered) and Natural Temperate Grassland of the Victorian Volcanic Plain (Critically Endangered). Further study is required to determine the extent of native vegetation that qualifies for EPBC listing within the Green Wedge.
- The Regent Honeyeater, recorded in the Green Wedge, is listed as Endangered as well as being listed as a migratory species under the EPBC Act.

The Environment Protection and Biodiversity Conservation Act 1999 also provides protection for the following types of heritage places and items:

- World Heritage;
- National Heritage; and
- Commonwealth Heritage.

The World Heritage List is a list of places of outstanding cultural and natural heritage that are considered to have importance for all humankind. Only the Australian Government can nominate Australian places for entry on this list. There are no World Heritage listed sites in the Green Wedge.

The National Heritage List is a register of places of outstanding Indigenous, historic and/or natural heritage values. The Commonwealth List is a register of important

Commonwealth owned places. Values of places on the Commonwealth Heritage List might be protected under more than one provision of the Act. For example, a Commonwealth Heritage Place might also be on the National Heritage List or the World Heritage List. Places listed on the National Heritage List and the Commonwealth List are protected under the EPBC.

Any action that is likely to have a significant impact on heritage properties and places must be referred to the relevant Minister and undergo an environmental assessment and approval process.

There are provisions for emergency listing of the national heritage values of a place if the Minister believes that those heritage values are under threat. The Minister can list the place before referring it to the Heritage Council and must take reasonable steps to advise any owners or occupiers of the place. Any person may request that a place be included on the National Heritage List under the emergency listing provision, and, if the Minister does not list the place within ten business days after receiving the request, the Minister must:

- Publish notice of that on the internet; and
- Provide to the person who made the nomination and anyone else who requests them, reasons why the Minister has not listed the place.

Note that the Environment and Heritage Legislation Amendment Act (No. 1) 2006 amends the *Australian Heritage Council Act 2003* and the *Environment Protection and Biodiversity Conservation Act 1999*.

flora and fauna guarantee act 1988

The key legislation for the protection of flora and fauna in Victoria is the Flora and Fauna Guarantee Act 1988 (FFG Act). The objectives of the FFG Act are to ensure native flora and fauna survive, flourish and maintain in situ evolutionary potential; manage threatening processes; encourage the conservation of flora and fauna through cooperative community endeavours; and establish a regulatory structure for the conservation of flora and fauna in Victoria. The FFG Act provides for the protection of native species including, but not limited to, threatened species and/or communities of flora and fauna, and the preparation of Action Statements to protect the long-term viability of these values. Also noted is the following:

- A permit or license (under the FFG Act) is required to undertake works or other activities on public land that may kill, injure or disturb protected taxa.
- Five plant species, 17 animal species, and one plant community within the WPNGWMP have been identified.
- A number of taxa groupings (for example "wattles") are protected by the FFG Act that exists within the WPNGWMP on public land.
- Specific recommendations for prepared Action Statements apply, and should be considered by council in regards to changes to public land management, including road reserves.
- Schedules listed in planning Zones should seek to protect identified values.

water act 1989

This Act has the following purposes:

- *to re-state, with amendments, the law relating to water in Victoria;*
- *to provide for the integrated management of all elements of the terrestrial phase of the water cycle;*
- *to promote the orderly, equitable and efficient use of water resources;*
- *to make sure that water resources are conserved and properly managed for sustainable use for the benefit of present and future Victorians;*
- *to maximise community involvement in the making and implementation of arrangements relating to the use, conservation or management of water resources;*
- *to eliminate inconsistencies in the treatment of surface and groundwater resources and waterways;*
- *to provide better definition of private water entitlements and the entitlements of Authorities;*
- *to foster the provision of responsible and efficient water services suited to various needs and various consumers;*
- *to provide recourse for persons affected by administrative decisions;*
- *to provide formal means for the protection and enhancement of the environmental qualities of waterways and their in-stream uses;*
- *to provide for the protection of catchment conditions;*
- *to replace many forms of detailed administrative supervision of Authorities with general supervision by the Minister, through approved corporate plans and express directions;*
- *to continue in existence and to protect all public and private rights to water existing before the commencement of the relevant provisions of this Act.*

Of particular relevance to the study area when considering the *Water Act 1989* are the following:

- The Act refers to several water managers' need to improve and protect the environmental values and health of water ecosystems, including their biodiversity, ecological functions, quality of water and other uses that depend on environmental condition. It also refers to the need to provide and maintain facilities for the recreational use of water storages and surrounding areas.
- If the area is covered by a Sustainable Water Strategy (now or in the future), any reference to the water needs for biodiversity, or required by the *Catchment and Land Protection Act 1994*, the *Flora and Fauna Guarantee Act 1988*, the *Heritage Rivers Act 1992*, the *Planning and Environment Act 1987* or the *Environment Protection Act 1970* may require consideration.
- There are requirements to protect designated waterways and drainage from obstruction /development.
- The Act has wide reaching consideration for the development of Melbourne outside the scope of this study but pertinent to the planning of a green wedge.

catchment and land protection act 1994 , (Vic.)

The CALP provides a framework for the integrated management and protection of land unit based consideration of hydrological catchments in Victoria. The Act encourages community participation in the management of land and water resources particularly through the Catchment Management Authorities (CMAs); and, provides a system of controls on noxious weeds and pest animals.

The Act established ten Catchment and Land Protection Boards, nine of which have since expanded their roles to become Catchment Management Authorities. The Catchment and Land Protection Act (1994) provides for the development of Regional Catchment Strategies which, among other things, must assess the nature, causes, extent and severity of land degradation of the catchments in the region and identify areas for priority attention. Local Planning schemes must have regard for the Regional Catchment Strategies.

zoning and overlay controls

green wedge zone (GWZ)

The purpose of the Green Wedge Zone is:

- *To recognise, protect and conserve green wedge land for its agricultural, environmental, historic, landscape, recreational and tourism opportunities, and mineral and stone resources;*
- *To encourage use and development that is consistent with sustainable land management practices;*
- *To encourage sustainable farming activities and provide opportunity for a variety of productive agricultural uses;*
- *To protect, conserve and enhance the cultural heritage significance and the character of open rural and scenic non-urban landscapes; and*
- *To protect and enhance the biodiversity of the area.*

Within the City of Melton, the Green Wedge Zone has been modified into three subdivision areas. Area A must comprise one primary lot, the second lot must be at least 1ha and no larger than 5ha and an agreement under Section 173 of the Act must be entered into with the owner of each lot created which ensures that the land may not be further subdivided. Area B must have a minimum subdivision of 12 hectares and there are no specific requirements for Area C. The Green Wedge Zone applies to the majority of land within the study area.

green wedge a zone (GWAZ)

The purpose of the Green Wedge A Zone is:

- *To protect, conserve and enhance the biodiversity, natural resources, scenic landscapes and heritage values of the area;*
- *To ensure that use and development promotes sustainable land management practices and infrastructure provision;*
- *To protect, conserve and enhance the cultural heritage significance and the character of rural and scenic non-urban landscapes; and*
- *To recognise and protect the amenity of existing rural living areas.*

Within the study area, the Green Wedge A Zone is applied only in one area – the south west corner between the urban area of the City of Melton and the municipal boundary, below the alignment of Minns Road (see Figure 7). Within the Melton Planning Scheme, the schedule to the Green Wedge A Zone has been modified to apply a minimum subdivision size of 5ha to land within 300m of the Djerriwarrh Creek and to land within a Public Conservation and Resource Zone or Public Use Zone. All other land within this area has a minimum subdivision size of 2ha, noting that the 'default' under this zone is 8ha.

rural conservation zone (RCZ)

The purpose of the Rural Conservation Zone is:

- *To conserve the values specified in the schedule to the zone;*
- *To protect and enhance the natural environment and natural processes for their historic, archaeological and scientific interest, landscape, faunal habitat and cultural values.*

- *To protect and enhance natural resources and the biodiversity of the area;*
- *To encourage development and use of land which is consistent with sustainable land management and land capability practices, and which takes into account the conservation values and environmental sensitivity of the locality;*
- *To provide for agricultural use consistent with the conservation of environmental and landscape values of the area; and*
- *To conserve and enhance the cultural significance and character of open rural and scenic non-urban landscapes.*

The main area of Rural Conservation Zone land in the study area is located towards the north-west corner of the study area above the Digger Rest – Coimadai Road. There is also an area of Rural Conservation Zone land extending along the Djerriwarrh Creek.

low density residential zone (LDRZ)

The purpose of the Low Density Residential Zone is:

- *To provide for low-density residential development on lots which, in the absence of reticulated sewerage, can treat and retain all wastewater.*

The Low Density Residential Zone applies to land in the Toolern Vale township. While it is technically outside the study area due to its inclusion in the Urban Growth Boundary, nonetheless the zoning of this land remains relevant given the immediate interface with the study area.

public park and recreation zone (PPRZ)

The purpose of the Public Park and Recreation Zone is:

- *To recognise areas for public recreation and open space;*
- *To protect and conserve areas of significance where appropriate; and*
- *To provide for commercial uses where appropriate.*

Within the study area, the Public Park and Recreation Zone applies to MacPherson Park Recreation Reserve, Kororoit Creek Streamside Reserve, and Toolern Creek Reserve

public conservations and resource zone (PCRZ)

The purpose of the Public Conservation and Resource Zone is:

- *To protect and conserve the natural environment and natural processes for their historic, scientific, landscape, habitat or cultural values.*
- *To provide facilities which assist in public education and interpretation of the natural environment with minimal degradation of the natural environment or natural processes.*
- *To provide for appropriate resource based uses.*

The Public Conservation and Resource Zone is applied within the study area in the north-west corner over the Pyrete Range section of the Lerderderg State Park and a small area in the south-west where the Long Forest Reserve is located.

public use zone (PUZ)

The purpose of the Public Use Zone is:

- *To recognise public land use for public utility and community services and facilities; and*

- *To provide for associated uses that are consistent with the intent of the public land reservation or purpose.*

The Public Use Zone is present in the study area in a number of discrete areas. These are to the north-west around the Djerriwarrh Reserve (under PUZ1 – Service and Utility), to the south-west where the zone is applied to the land identified for the future regional cemetery (under PUZ5 – Cemetery / Crematorium) and two smaller parcels in the north-west and the south-east which are used by utility provider (under PUZ1 – Service and Utility). A small area of PUZ6 - Local Government is also located within this area.

special use zone (SUZ)

The purpose of the Special Use Zone is:

- *To recognise or provide for the use and development of land for specific purposes as identified in a schedule in the zone.*

Within the study area, there are three separate areas where the SUZ applies. Two of these areas are quarries (the Hanson Diggers Rest Quarry on Black Hill Road and the Metro Quarries and Laboratory on the Melton Highway) and are affected by Schedule 1 to the SUZ - Earth and Energy and Resource Centres. The third area is in the south-east corner of the study area, where the Sydenham Terminal Station is affected by Schedule 3 to the SUZ – Terminal Stations.

road zone category 1 (RZ1)

The purpose of Road Zone Category 1 is:

- *To identify significant existing roads; and*
- *To identify land which has been acquired for a significant proposed road.*

The following Road Zone Category 1 roads are located within or at the interface of the study area: Calder Freeway, a north-west / south-east freeway connecting Mildura, Bendigo and Melbourne; Melton Highway, an east-west freeway connecting Ballarat and Melbourne; Diggers Rest-Coimadai Road, an east-west collector road and the Gisborne-Melton Road, a north-south collector road

development plan overlay (DPO)

The purpose of the Development Plan Overlay is:

- *To identify areas which require the form and conditions of future use and development to be shown on a development plan before a permit can be granted to use or develop the land; and*
- *To exempt an application from notice and review if it is generally in accordance with a development plan.*

Development Plan Overlays are generally applied where there are multiple landowners and the need to ensure appropriate and co-ordinated outcomes.

The Development Plan Overlay – Schedule 3 is applied within the study area to the Harkness Road rural living area (essentially, land zoned GWAZ). This DPO was introduced when the new planning schemes came into Victoria and is currently under review due to the lack of specific guidance provided within the schedule. It is anticipated that an updated DPO schedule with more specific guidance (and the removal of the reference to outdated assessment tools) will be prepared in the future.

environmental significance overlay (ESO)

The purpose of the Environmental Significance Overlay is:

- *To identify areas where the development of land may be affected by environmental constraints; and*
- *To ensure that development is compatible with identified environmental values.*

Environmental Significance Overlay is an overlay to identify where there are specific environmental matters that need to be considered and therefore permit triggers or development requirements over and above those identified by the underlying zone.

Within the study area, the ESO1 - Remnant Woodland, Open Forests and Grasslands is applied extensively in the northern areas, but also along roadsides, the Djerriwarrh Creek and other pockets of land. This triggers a permit which requires consideration of the significance of a number of specified areas. ESO3 - Wetlands, Waterways and Riparian Strips has been applied along all the main creeklines within the study area. As with the other overlay, this triggers consideration of any identified areas of significance.

heritage overlay (HO)

The Heritage Overlay Schedule of each local government planning scheme lists sites of local and state significance (Victorian Heritage Register) and is used to protect sites that have heritage value, meaning that individual buildings or whole precincts may be covered. The protection afforded by a Heritage Overlay varies in each instance. The presence of a Heritage Overlay does not mean that development cannot occur but that the impact on the heritage asset must be considered.

The purpose of the Heritage Overlay is:

- *To conserve and enhance heritage places of natural or cultural significance;*
- *To conserve and enhance those elements which contribute to the significance of heritage places;*
- *To ensure that development does not adversely affect the significance of heritage places; and*
- *To conserve specifically identified heritage places by allowing a use that would otherwise be prohibited if this will demonstrably assist with the conservation of the significance of the heritage place.*

There are no precinct based heritage overlays within the study area, however there are a number of individual heritage overlays including homesteads, stone / blue stone cottages, outbuildings, dams, bridges, parks, farming stations and dry stone walls, particularly within the northern sections of the study area.

melbourne airport environs overlay (MAE)

The purpose of the Melbourne Airport Environs Overlay is:

- *To ensure that land use and development are compatible with the operation of Melbourne Airport in accordance with the relevant airport strategy or master plan and with safe air navigation for aircraft approaching and departing the airfield;*
- *To assist in shielding people from the impact of aircraft noise by requiring appropriate noise attenuation measures in dwellings and other noise sensitive buildings; and*
- *To provide for appropriate levels of noise attenuation depending on the level of forecasted noise exposure.*

Within the study area, the Melbourne Airport Environs Overlay 2 has been applied. The purpose Schedule 2 is to identify areas that are or will be subject to moderate levels of aircraft noise based on contours and to limit use and development to that which is appropriate to that level of exposure.

public acquisition overlay (PAO)

The purpose of the Public Acquisition Overlay is:

- *To identify land which is proposed to be acquired by an authority; and*
- *To reserve land for a public purpose and to ensure that changes to the use or development of the land do not prejudice the purpose for which the land is to be acquired.*

Within the study area, the PAO Schedule 1 has been applied to land which is required for Future freeway – road works and access purpose. This applies to same land immediately to the north of the Western Freeway at the junction with Harkness Road. PAO3 to the east of the study area is related to the proposed Outer Metropolitan Ring Road. In addition, PAO8 has been applied to the land north of Hillside adjacent to the rail line intended for the Calder Park Train Stabling and Maintenance Yards.

significant landscape overlay (SLO)

Significant Landscape Overlays typically contain guidelines and permit triggers relating to built form, land form modification and vegetation, and seek to preserve and enhance the particular attributes associated with an area of significant landscape quality.

The purpose of the Significant Landscape Overlay is:

- *To identify significant landscapes; and*
- *To conserve and enhance the character of significant landscapes.*

Within the study area, Significant Landscape Overlay Schedule 1 (Volcanic Hills and Cones) applies to Mount Kororoit. Schedule 1 triggers a permit when an applicant seeks to construct a building, or construct or carry out works, on visible slopes generally above the 100 metre contour but below some specified figures. Any application is required to demonstrate how appropriate siting and landscaping treatment can be achieved.

wildfire/ bushfire management overlay (WMO)

The purpose of the Wildfire / Bushfire Management Overlay is:

- *To assist to strengthen community resilience to bushfire;*
- *To identify areas where the bushfire hazard requires specified bushfire protection measures for subdivision and buildings and works to be implemented;*
- *To ensure that the location, design and construction of development considers the need to implement bushfire protection measures; and*
- *To ensure development does not proceed unless the risk to life and property from bushfire can be reduced to an acceptable level.*

The Wildfire / Bushfire Management Overlay is applied on the basis of extensive mapping undertaken by DPCD following the Black Saturday Bushfire and applies in the western and northern parts of the study area, primarily on the forested slopes but also along the Djerriwarrh Creek and in other pockets of forested land.

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appendix 2
literature review table

western plains north west green wedge management plan : literature review

#	document name	summary of contents	implications for western plains north green wedge management plan
Statutory / Strategic Planning			
1	West Growth Corridor Plan (GAA 2012)	<p>The West Growth Corridor Plan (WGCP) provides a framework for managing Western Melbourne's growth. It forms a chapter of the Growth Corridor Plans, which identifies the detailed principles underlying the growth corridor plans. It provides specific plans for Melbourne's West, Melbourne's North, Melbourne's South East and Sunbury/Diggers Rest. The WGCP is separated into the following key areas: context; vision; landscape, environment and open space; creating communities; employment; and transport. It identified the following key issues and opportunities:</p> <ul style="list-style-type: none"> ▪ Melbourne's Western Growth Corridor (MWGC) will eventually accommodate a population of more than 290,000 with a capacity to accommodate at least 130,000 jobs. ▪ The region has a strong manufacturing and logistics base. ▪ Future development in the area will be influenced and shaped by the Regional Rail Link (RRL), the proposed Outer Metropolitan Ring Road, Melton rail line corridor Road and the potential Western Intermodal Freight Terminal. ▪ MWGC is characterised by its grasslands biodiversity and the major waterways that connect it to inner Melbourne and Port Phillip Bay, as well as by a range of cultural heritage significance. ▪ MWGC does not generate sufficient employment to provide for the job needs of its rapidly growing population, subsequently there is a strong reliance on the CBD and inner west for jobs and services. ▪ Toolern Employment Precinct – around 390 (gross) hectares of industrial land is located within the precinct, as well as 130 (gross) hectares of mixed use employment activities, located around the Melton harness racing facility. ▪ Melton Highway Industrial Precinct – a new 600 (gross) hectare industrial precinct was identified along the northern part of the OMR, with two interchanges onto the OMR at Melton Highway and Taylors Road. ▪ Urban development in Melbourne's west is to be supported by new rail services: development along the Melton rail corridor as discussed above; proposed extension of the existing metropolitan line from Werribee to Wyndhamvale; construction of the RRL (as discussed above), and new stations at Toolern, Paynes Road, Tarneit, Truganina, Davis Road, Sayers Road and Wyndhamvale South. ▪ Enhancing the existing freight network focusing on Western Freeway, Princess Freeway, OMR transport corridor, Boundary Road, Middle Road and Palmers Road. 	<ul style="list-style-type: none"> ▪ Pressure to develop land (Green Wedge Zone) north of Melton Highway for urban purposes. This is likely to have an adverse impact on the agricultural, environmental and/or historic value of the land. ▪ It is proposed to have the Outer Metropolitan Ring Road (OMR) run through the Green Wedge Zone between Plumpton Road and Leakes Road. The OMR would form an integral part of Melbourne's western freight network. This is likely to result in high volumes of truck and private vehicle traffic within the green wedge, which could adversely impact the environs. The south-eastern part of the Green Wedge would also be isolated. ▪ Potential to capitalise on the proposed Melton Tourism Precinct. ▪ Need to acknowledge the Growling Grass Frog Investigation Corridor.

western plains north west green wedge management plan : literature review

#	document name	summary of contents	implications for western plains north green wedge management plan
2	Sunbury/Diggers Rest Growth Corridor Plan (GAA 2012)	<p>The Sunbury/Diggers Rest Growth Corridor Plan (SDRGCP) provides a framework for managing Sunbury' and Diggers Rest's growth. It forms a chapter of the Growth Corridor Plans, which is discussed in the summary of contents for document 1. The SDRGCP identified the following key issues and opportunities:</p> <ul style="list-style-type: none"> ▪ The SDRGC will eventually accommodate a population of at least 71,000 people and some 10,000 jobs. ▪ Residents value the 'country town' feel. ▪ The landscape of Sunbury is one of its most significant features. Sunbury includes and is surrounded by a number of volcanic cones rising out of the extensive volcanic plain. ▪ The SDRGC includes areas of significant biodiversity values, particularly along Jacksons and Emu Creek, both of which provide important corridors for flora and fauna, including the Growling Grass Frog. ▪ There is relatively limited local employment within Sunbury and Diggers Rest. ▪ The SDRGCP comprises areas which are important for a range of biodiversity, drainage, flood mitigation, landscape and cultural heritage values. ▪ The new communities in Sunbury/Diggers Rest will need to be designed to feed off the existing Sunbury Town Centre, and improved road, public transport and cycling and pedestrian links to the town centre will need to be provided. ▪ The employment provision rate in Sunbury is currently relatively low when compared to metropolitan Melbourne - the township has 0.37 jobs per resident worker. ▪ Sunbury/Diggers Rest Growth Corridor Plan has the capacity to provide between 10,000 and 15,000 new jobs, when fully developed. ▪ The Sunbury wastewater treatment plant currently produces Class B recycled water for agricultural use, but will need to be upgraded to serve the new Growth corridor. ▪ Western Water is investigating the potential to produce Class A recycled water in future. 	<ul style="list-style-type: none"> ▪ Potential access to Class A water would increase potential agricultural opportunities in the Green Wedge. ▪ Limited local employment opportunities could be supplemented by opportunities the Green Wedge ▪ Larger population may increase pressure for urban activities or reinforce the importance of the rural related activities which could be accessed within the Green Wedge.
4	Melton Township Strategy Plan 2007	<p>The Melton Township Strategy Plan represents Council's vision for the long-term development of the Melton Township to 2050-60. The plan provides for the future growth of the Township to a total population of around 140,000-150,000 from its 2007 population base of 38,000 residents.</p> <p>The plan identified the following key issues and opportunities:</p> <ul style="list-style-type: none"> ▪ The Melton Township boundary has not been reviewed since 1975. ▪ The Melton Township dates from the 1850s and functioned as a rural service centre for the surrounding districts until the 1970s, when the town was identified as a centre for Melbourne's 	<ul style="list-style-type: none"> ▪ Need to protect waterways, escarpments, and river red gums within the GWZ. ▪ Need to protect significant native grasslands within the GWZ. ▪ Need to acknowledge the Aboriginal and pastoralist history of the study area. ▪ Need to be aware of projected population growth and the subsequent pressure for urban development north of Minns Road and west of Gisborne Melton Road. ▪ Need to recognise context which has changed since the preparation of this Strategy.

western plains north west green wedge management plan : literature review

#	document name	summary of contents	implications for western plains north green wedge management plan
		<p>population growth in the west.</p> <ul style="list-style-type: none"> ▪ In the established areas the population is relatively stable with a number of maturing families, many of which have lived in the township for 10 years or more (Melton, Melton South). ▪ In the developing part of the township the population is younger (Melton West) with a high proportion of persons with dependent children. ▪ A number of key waterways are located within and surrounding the Melton Township including Djerrirwarrah Creek, Toolern Creek, Melton Reservoir, Kororoit Creek, Arnolds Creek – east & west branch, Little Blind Creek, Ryan’s Creek and Werribee River. ▪ Melton contains various grasslands of national, regional and local significance. ▪ The rural areas surrounding Melton have typically acted as a buffer against the urban sprawl of Melbourne. Retention of the rural buffer also helps maintain the ‘country town’ feel of Melton and preserve high quality view lines to Mt. Kororoit to the east, Mt. Cottrell to the south and the Toolern Hills to the north. ▪ Aboriginal occupation of the Shire of Melton dates back 40,000 years. ▪ The Shire of Melton was the boundary between two of the major tribes in the Kulin nation: the Woiworong tribe and the Wathaurung tribe. ▪ During the mid-1800s, Melton Shire was the domain of the pastoralists who established large sheep stations that were later divided into smaller holdings. ▪ These pastoralists, Simon Staughton, W.J. Clark and William Taylor among others, built grand homesteads - some of these homesteads include Eynesbury, Exford and Brooklyn/Nerowie. ▪ In total the township has approximately 12 separate residential developments at various stages of construction. ▪ At present Melton Township essentially acts as a dormitory suburb, given that approximately 80% of the working population in the Township are employed outside the area. ▪ 3 development scenarios; Scenario A: UGB boundary, population capacity - 60,000 persons; Scenario B: MSS boundary, population capacity 80,000 persons; Scenario C: revised boundary, population capacity - 150,000 persons. ▪ Key conservation features to be preserved as part of the development of the Township include waterways, river red gums, escarpments, native grasslands. 	
	Melton Shire Council Plans and Strategies		
5	Melton Shire Council Plan 2009 - 2013	The Melton Shire Council Plan identifies Council's priorities between 2009 and 2013 and defines key strategic response. The plan also contains a Strategic Resource Plan to demonstrate responsible fiscal management over the life of the plan.	<ul style="list-style-type: none"> ▪ Acknowledge the need to protect and enhance the land within the GWZ in accordance with the purpose of the zone.

western plains north west green wedge management plan : literature review

#	document name	summary of contents	implications for western plains north green wedge management plan
		<p>The plan identifies a vision; 'our community, our future'.</p> <p>The plans identifies the following strategic objectives:</p> <ul style="list-style-type: none"> Improving health and wellbeing for our diverse community. Protecting and enhancing our environment. Increasing business and employment opportunities. Ensuring our fast growth is well planned and managed, and infrastructure is well maintained. Leading the organisation and the community through accountability, transparency and advocacy. Fostering a well-connected and engaged community <p>The plan then provides strategies and performance indicators for each of the strategic objectives.</p> <p>The goals of the plan are to:</p> <ul style="list-style-type: none"> Generate ongoing surplus from annual operations. Maintain a balanced, or cash flow positive, annual cash budget. Target a minimum of \$17.0m and above in cash and investment reserves. Maintain a minimum working capital of \$1.5- \$2.5 million. Maintain growth in net assets. 	
6	Municipal Public Health Plan 2008 - 2012	<p>The Municipal Health Plan builds on the previous Municipal Public Health Plan and provides an overview of priority community health and well-being issues. The Plan, outlines key community health and wellbeing priorities and identifies an Action Plan for short and long term improvement. The plan identified the following key issues and opportunities:</p> <ul style="list-style-type: none"> Five key guiding principles – access, consultation, governance, advocacy and sustainability. Between 2001 and 2006, the number of children aged between 0 and 17 increased by 7,076, while the number of young adults (25 to) increased by 10,952, or by more than 50%. Overall, 40.8% of the population was aged between 25 and 49, and 8.6% was aged 60 years and over, compared with 37.6% and 17.0% respectively, for the Melbourne Statistical Division. Almost 4,000 people from other countries arrived in the Shire between 2001 and 2006. <p>An Action Plan was developed to address health and well-being issues which identified key strategies including:</p> <ul style="list-style-type: none"> Foster community connectedness and capacity building through information and resource-sharing and consultation. Identify gaps in health and community service provision at the local level and advocate for an 	<ul style="list-style-type: none"> Acknowledge the need to value, protect and enhance the land within the GWZ and to use it in an efficient and sustainable manner.

western plains north west green wedge management plan : literature review

#	document name	summary of contents	implications for western plains north green wedge management plan
		<p>improved level of service provision for the community.</p> <ul style="list-style-type: none"> ▪ Undertake measures to assist in reducing family violence in the Shire. ▪ Minimise the spread of communicable disease. ▪ Raise community awareness of the benefits of healthy lifestyles. ▪ Promote awareness and understanding of the importance of mental health. ▪ Enhance food security within the Shire. ▪ Promote social inclusion through engagement across all community sectors. ▪ Diversify and expand local employment opportunities and sustainable economic growth. ▪ Protect, value and enhance the Shire's rural integrity and promote efficient use of natural resources. 	
7	Economic Development Strategy 2010	<p>The Economic Development Strategy comprises two documents – 'Background Materials and Strategic Documents' and 'Action Plans', where the former informs the latter.</p> <p><u>'Background Materials and Strategic Documents'</u></p> <p>The focus of the document is on driving economic development for the purpose of attaining and supporting community outcomes and objectives.</p> <p>Council views economic activity as an important precondition and opportunity to enhance community service delivery in partnership with industry.</p> <p>The document identifies key economic development planning principles for the Shire including:</p> <ul style="list-style-type: none"> ▪ Capitalize on Melton's existing strengths and capabilities. ▪ Facilitate and harness private sector leadership and participation. ▪ Strengthen governance with a focus on lowering the cost of doing business and improving service delivery. ▪ Strengthen linkages with the CBD. ▪ Adopt environmentally sustainable urban form. ▪ Promote and improve the quality of life and lifestyle. ▪ Support actions that engender economic growth with equity. <p><u>'Action Plans'</u></p> <p>The plan identifies a vision, 'a robust and diverse local economy with a strong foundation of sustainability and a focus beyond local boundaries'.</p> <p>The key economic development objectives which support the vision include the following:</p>	<p>The 'Background Materials and Strategic Documents' and 'Action Plans' do not provide for any specific matters that directly relate to informing and/or enhancing the WPNGWMP, beside a promotion of the tourism opportunities associated with the rural landscapes.</p>

western plains north west green wedge management plan : literature review

#	document name	summary of contents	implications for western plains north green wedge management plan
		<ul style="list-style-type: none"> Population growth will be supported by enhanced local job prospects to address self-containment challenges with a greater focus on the provision of high quality jobs in the Shire's existing export sectors. The local economy will develop its export potential through growing the proportion of jobs in advanced business services and building on the strong manufacturing base in the Shire. The Shire's sustainability credentials will be enhanced by the provision of a 'Green City' in the Shire and the creation of employment opportunities from climate change adaptation. Local business development will be enhanced by a new approach to economic development planning by the Shire through the Business Growth and Sustainability Unit and a rigorous approach to the sale/disposal of Council owned industrial land. Local competitive advantages will be consolidated through the creation of new clusters, marketing initiatives, and a new focus on local and major event opportunities. The spatial pattern of the economy will be based around two strong town centres in Melton Township and Caroline Springs, a range of local population serving small towns with niche retail and tourism opportunities, and the Shire's abundant rural economy. <p>The plan identifies a key action plan, which includes the following:</p> <ul style="list-style-type: none"> Improving Economic Enablers – infrastructure provision and maintenance; local workforce development; governance and local leadership; and sustainability. Improving Sectoral Competitiveness – knowledge intensive and creative industries; manufacturing; transport and distribution; tourism and arts; events; branding and marketing. Improving Spatial Efficiency – major townships; small towns; rural areas; cluster formation; and strategic projects. 	
8	Green House Action Plan 2011-2015	<p>During 2010, Council's Environmental Services team commenced the task of preparing Melton Shire Council's first Greenhouse Action Plan (GAP).</p> <p>The Green House Action Plan was prepared in consultation with a broad cross section of Council staff and sets the foundation for Council to take a leadership role in tackling climate change. The plan identified the following key issues and opportunities:</p> <ul style="list-style-type: none"> The GAP sets a target of a 10% reduction in Council's corporate 2010 greenhouse gas emissions by 2015. The plan also sets the foundation for Council to achieve zero net emissions from its operations by 2025. Over the past 50 years we've seen an increase in average temperature of between 0.7°C – 2°C (varying between regions) and a decrease in rainfall across southern and eastern Australia. 	The Green House Action Plan does not provide for any specific matters that directly relate to informing and/or enhancing the WPNGWMP.

western plains north west green wedge management plan : literature review

#	document name	summary of contents	implications for western plains north green wedge management plan
		<ul style="list-style-type: none"> Over the past 100 years we've seen sea level rise averaging 1.7mm a year. Cost savings generated from the implementation of energy efficiency actions, will save Council approximately \$900,000 between 2011 and 2015. Taking a longer term view, savings are likely to be \$11.5 million between 2011 and 2030. The total cost of this action plan over the 5 years is estimated at \$5 million, based on 2010 estimates. 	
9	Housing Strategy and Action Plan (Draft) 2009	<ul style="list-style-type: none"> The Housing Strategy and Action Plan guides future decision-making and will assist in working collaboratively with key partners to facilitate the development of appropriate housing for existing and future communities. The strategy identified the following key issues and opportunities: With the implementation of Melbourne 2030 and the UGB, Melton Township assumed a new role as part of a growth corridor. Melton Township remains principally a first and second home-buyers' market. The 2006 ABS Census reported 27,916 dwellings within the Shire; this was an increase of 10,400 since the 2001 Census. This represents an annual growth rate of 9.8%. High levels of growth are anticipated to continue in the Shire of Melton, with an increase of almost 49,000 households projected by 2021. There is a high proportion of 'separate house' dwellings within the Shire of Melton; 86% compared to the metropolitan average of 66%. The number of medium density housing (semi-detached, row or terrace house, townhouse) within the Shire more than doubled between 2001 and 2006, however still represents only 7% of occupied dwellings. Less than 1% of the Shire's dwellings are of a high density (flat, unit or apartment). 56% of homes are 'being purchased' in the Shire, which represents almost 15,000 households In 2007, the median purchase price of a house in the Shire of Melton was \$255,000. <p>The key objectives of the strategy including the following:</p> <ul style="list-style-type: none"> Facilitate the increased provision of housing types currently under represented in the Shire. Facilitate the provision of increased dwelling density in proximity to existing and planned community infrastructure. Increase the level of ESD in housing stock and urban design. Provide a high level of accessibility, in terms of both urban design and built form. Increase the availability of social housing and affordable housing options for shire residents. 	<ul style="list-style-type: none"> The Housing Strategy and Action Plan (draft) does not provide for any specific matters that directly relate to informing and/or enhancing the WPNGWMP.

western plains north west green wedge management plan : literature review

#	document name	summary of contents	implications for western plains north green wedge management plan
10	Leisure and Open Space Strategy – Volume 1: The Strategy Plan 2005	<p>The Leisure and Open Space Strategy Plan has been development in seven volumes. This literature review focuses on Volume 1, 4, 5 and 6 – the latter 3 area assessed below.</p> <p>Council's vision for the Shire is a 'vibrant, growing and healthy community offering lifestyle choices'.</p> <p>Volume 1's key findings are:</p> <ul style="list-style-type: none"> ▪ Council recognises that building recreation and sporting infrastructure is not merely for the purpose of achieving sporting outcomes, but rather it is an opportunity for addressing community engagement and health and wellbeing needs ▪ The enhancement of natural environments, and providing access opportunities to these areas, achieves a range of environmental and health and wellbeing benefits. ▪ The vast number of open space assets, the complexity of associated issues, and the number of agencies and individuals that have a role to play, makes the planning and management of open space in the region an intricate process. <p>The key challenges facing Council in relation to open space include:</p> <ul style="list-style-type: none"> ▪ Developing infrastructure that is socially and financially sustainable in the short and long term. ▪ Managing community expectations. ▪ Having the necessary level of financial and staff resources to sustain the implementation of the various volumes of the Strategy. ▪ Identifying strong and effective partnerships for both infrastructure provision and service development and enhancement. ▪ Encouraging and managing community and agency partnerships in the development and maintenance of leisure and open space areas. ▪ Ensuring that various Departments both within and external to the Shire work in an integrated and coordinated way to manage and develop open space. 	<p>Explore the possibility/opportunity of enhancing and / or providing public access to key natural environment sites within the GWZ including:</p> <ul style="list-style-type: none"> ▪ The Djerriwarrh Bridge picnic area – north and south of the Western Highway. ▪ The Envirofund land – east of Harkness Road and north east of the proposed cemetery. ▪ The monument commemorating Australia's first powered flight by Harry Houdini on 18 March 1910 – north of Holden Road and east of Plumpton Road. ▪ Wider and more general access to broader natural environment.
11	Leisure and Open Space Strategy – Volume 4: The Hike and Bike Strategy 2005	<p>The Hike and Bike Strategy identifies considerable opportunities within the Shire of Melton for establishing an off road pedestrian and bicycle network, which will provide key connections to local community destinations, recreational experiences centred on the waterways within the Shire and commuter linkages.</p> <p>The strategy identifies the following key issues and opportunities:</p> <ul style="list-style-type: none"> ▪ The proposed network will consists of a matrix of paths within the Melton township, a system centred around north south spines in Melton East and regional connections along Kororoit Creek and Werribee River to the City of Brimbank and the City of Wyndham. ▪ Linear connections along Arnolds Creek, Toolern Creek and Blind Creek will extend through 	<p>Acknowledge the proposed regional trails in the following locations:</p> <ul style="list-style-type: none"> ▪ The area adjacent to the Werribee River/Djerriwarrh Creek; ▪ The area north of Arnolds Creek between Bulamns Road and Harkness Road; ▪ The area west of Toolern Creek; and ▪ The area north of Melton Highway between Leakes Road and Mount Cottrell Road along the North Kororoit Creek.

western plains north west green wedge management plan : literature review

#	document name	summary of contents	implications for western plains north green wedge management plan
		<p>the Melton township, with east west links through urban areas along road reserves.</p> <ul style="list-style-type: none"> ▪ These east west pathways connect into existing schools, shopping centres and other facilities to provide safe access to local destinations for communities within the township. ▪ The pathway along Arnolds Creek will extend to the Melton Reservoir, providing a strong link to this under-utilised attraction, while the Toolern Creek trail will run to the Werribee River. ▪ The Melton East network will be centred on three north south trail spines along Caroline Springs Boulevard /Gourlay Road, Westwood Drive / Calder Park Drive and a tributary of Kororoit Creek. Wide footpaths along east west roads will connect communities to these spines and to destinations within the City of Brimbank. ▪ The network consists of over 110 kilometres of shared pathways and is expected to cost \$17.6 million. ▪ \$ 6.2 million will be funded by developers, VicRoads and Council through grant funding. Other partnerships and the ordinary capital works expenditure will fund \$11.4 million. ▪ The network will be implemented in four phases (0-2 years: \$1.3 million, 3 – 5 years: \$2.3 million, 6-10 years: \$6 million and 11 + years: \$8 million). 	
12	Leisure and Open Space Strategy – Volume 5: Macpherson Park Development Plan 2004	<p>MacPherson Park Development plan identifies MacPherson Park as the primary location for active recreation in the Shire of Melton.</p> <p>The plan's vision is to 'make MacPherson Park a high quality public asset that is a socially, economically and environmentally sustainable park for the pursuit of active recreation and sport. The Park will be the primary space in Melton for the all levels of active recreation and open to all levels of community activity'.</p> <p>The plan identifies the following key issues and opportunities:</p> <ul style="list-style-type: none"> ▪ The Park has developed to date on an ad-hoc basis with little strategic guidance. ▪ Better site amenity through increased planting and earthworks. This will reduce the effects of wind and improve the quality of runoff water. ▪ Improved traffic and parking management through well designed fencing, road ways and parking arrangements. ▪ Better water management to allow the establishment of high quality sports field irrigation that is less affected by drought. ▪ A sustainable development of structures and supporting infrastructure to allow the residents and visitors to Melton to gain maximum benefit from the Park. ▪ Development of the Park is seen to be an incremental change, with the total cost of the new facilities and features being approximately \$13 million dollars. 	<p>The MacPherson Park Development Plan does not provide for any specific matters that directly relate to informing and/or enhancing the WPNGWMP.</p> <p>However, the implementation of this plan may improve usage of the park which may increase off-site impacts.</p>

western plains north west green wedge management plan : literature review

#	document name	summary of contents	implications for western plains north green wedge management plan
13	Leisure and Open Space Strategy – Volume 6: Macpherson Park Equestrian Ground Feasibility Strategy (draft) 2004	<p>The MacPherson Park Equestrian Ground Feasibility Strategy was commissioned by the Shire of Melton to determine the future needs of the equestrian groups that operate from the MacPherson Park Equestrian Ground in Bulmans Road, Melton.</p> <p>As a result of significant consultation and planning for broader equine facility provision, the project has been required to deal with a number of conflicting issues, which were unresolved.</p> <p>Given the uncertainties, the strategy identifies two options. Option 1 – development of the equestrian facilities only and Option 2 – integrated development of the equestrian and greyhound club facilities. The strategy recommend Option 1 on the basis that:</p> <ul style="list-style-type: none"> ▪ It will allow time to further monitor trends in participation in equestrian club activities. ▪ It will provide a significantly upgraded facility for existing equestrian clubs. ▪ It will allow time to review opportunities and timeframes in relation to any integrated/collocated equine industry and community equestrian facility development; ▪ It involves a capital investment that is more in keeping with the number of current; and projected participants in organised equestrian activities on the site. <p>The strategy also provides a range of recommendations including for open space trails; equine industry development; co-location of equestrian facilities; promotion and marketing; festivals and events; sustainability, signage; and private facilities.</p>	MacPherson Park Equestrian Ground Feasibility Strategy does not provide for any specific matters that directly relate to informing and/or enhancing the WPNGWMP.
14	Kororoit Regional Strategy	<p>This documents the characteristics of the Kororoit Creek system and, after analysis of existing conditions, outlines plans for a regional link along this corridor from Alton in the south to Holden Road in the north. This takes in part of the WPNGW.</p> <p>Between the Holden Road bridge and Melton Highway is an area identified as 'Melton rural'. This section highlights the historic remnants within the area including old homesteads, walls and regional significant red gums and potential habitat for endangered species.</p> <p>Some of the issues identified include:</p> <ul style="list-style-type: none"> ▪ Freehold nature of the land and grazing of stock. ▪ Impacts on water quality through actions in relation to surrounding land. ▪ Invasion of weeds and pest species such as rabbits. <p>In assessing the character the lack of housing and infrastructure and the relationship of this to long range views available is highlighted. The Strategy identifies the following opportunities:</p> <ul style="list-style-type: none"> ▪ Delivery of tracks on either or both sides of the creek. ▪ Potential links further north to Diggers Rest, and to other areas through local trails. ▪ Opportunities to provide access to Mount Kororoit for views to the city skyline. ▪ Flags the potential to develop a recreation area around the Holden Street bridge to enable 	<p>The WPNGW should investigate opportunities to integrate the trails and recreation nodes within a wider consideration of the Strategy.</p> <p>In particular how access to the creek corridor may be available in the longer term s and any actions to support the delivery of further consideration of the identified recreation nodes.</p> <p>The MWNGW should also consider future point beyond the extent of the existing Strategy to connect the Diggers Rest growth area.</p>

western plains north west green wedge management plan : literature review

#	document name	summary of contents	implications for western plains north green wedge management plan
		<p>enjoyment of environment.</p> <ul style="list-style-type: none"> ▪ Potential for another future area of open space at the Melton Highway intersection of the Kororoit Creek. <p>The Strategy does note that this area is not currently subject to significant demand.</p>	
15	Delivering Melbourne's Newest Sustainable Communities – Melbourne West Investigation Area (Melton – Caroline Springs Growth Area)	<p>This report is the culmination of focussed work by the DPCD, DOT, DSE, GAA and VicRoads. It takes an integrated long term approach to land use and transport planning to ensure infrastructure and essential services will be ready as communities grow.</p> <p>The review has responded to the directions of Melbourne @ 5 million to accommodate an additional 600,000 new dwellings in Melbourne with 284,000 of these needing to be located in the growth areas.</p> <p>The report identified the following key issues and opportunities:</p> <ul style="list-style-type: none"> ▪ The Melton-Caroline Springs Growth Area has experienced considerable residential growth over the last ten years. ▪ There are some locations in this part of the West Investigation Area with high biodiversity value including the Natural Temperate Grasslands of the Victorian Volcanic Plain. ▪ There are two sites listed on the Register of the National Estate – Strathtulloh Homestead in Melton South and the Deanside Group in Rockbank. ▪ The investigation area is vegetated with areas of grazing, cropping and native grasslands, and some small pockets of trees. ▪ There are established vineyards in the Plumpton area that are taking advantage of recycled water, and smaller enterprises such as an olive farm and dispersed poultry enterprises investigation area. ▪ The investigation area contains a very major extractive industry and landfill operation in the south-east that is understood to have a very long term life span. It is a major regional asset as a source of building material and a landfill accepting a range of waste products. <p>The study puts forward the following recommendations:</p> <ul style="list-style-type: none"> ▪ The UGB in Melton be based on; the Melton Highway; a three kilometre settlement catchment south of the railway line; and the eastern boundary of the Outer Metropolitan Ring / E6 Transport Corridor where it abuts the proposed grasslands reserve in Truganina. ▪ Two publicly owned grassland reserves be created outside the UGB (in proximity to the Melbourne West Investigation Area) to safeguard the long term preservation of endangered native vegetation and fauna in the region. ▪ Where possible, offsets, relating to the removal of native vegetation within the UGB be directed towards the two proposed reserves in this locality, consistent with the Native 	<ul style="list-style-type: none"> ▪ Need to acknowledge and protect the significant native grasslands located along McCorkells Road and Missens Road. ▪ Need to acknowledge and protect the volcanic plains and cones within the WPNGW. ▪ Need to acknowledge the grazing, cropping and river/creek areas with substantial and/or significant trees. ▪ Need to acknowledge the established vineyards in the Plumpton area. ▪ Need to acknowledge the dry stone walls along Blackhill Road (as well as others). ▪ Explore various options to deter illegal land fill and dumping of rubbish within the WPNGW. ▪ Need to consider future operations of quarries and / or need for landfill site/s.

western plains north west green wedge management plan : literature review

#	document name	summary of contents	implications for western plains north green wedge management plan
		<p>Vegetation Management Framework.</p> <ul style="list-style-type: none"> ▪ Landscape and cultural heritage features be embodied in Growth Area Framework Plans and Precinct Structure Plans including the environs of Kororoit Creek, volcanic cones, views from railways, freeways and arterial roads, windbreak plantings, dry stone walls, heritage buildings and the geometry of 19th Century subdivision patterns. 	
16	Werribee Plains – Urban Water: Reducing Potable Water Use (ACF 2010)	<p>The Urban Water - Reducing Potable Water Use Report contributes to the development of a regional sustainability framework for the Werribee Plains by focussing on the sustainability of urban water infrastructure.</p> <p>The key finding of the report include the following:</p> <ul style="list-style-type: none"> ▪ The Werribee Plains has had relatively lower annual rainfall than other parts of Melbourne - 457mm average from 1997-2007. As an area of rapid urban growth at long distance from traditional water supplies, there is clear rationale for saving water in the region. ▪ As an area of rapid urban growth at long distance from traditional water supplies, there is clear rationale for saving water in the region. ▪ Best practice water saving in the Werribee Plains Region could be a source of community pride and an example to other Australian cities and towns of how to prepare for climate change. ▪ Even when the Kilcunda desalination plant is connected to Melbourne's water grid, there will continue to be an environmental incentive to save water. The energy intensity needed to treat and pump water from the desalination plant to the Werribee Plains will be high. And the potential for locating a new desalination plant closer to the Werribee Plains is restricted by the need to dispose of salty brine from the treatment process, outside the Port Phillip Bay region. ▪ Recent research shows the water saving potential of the Werribee Plains region is substantial. Some 44% of potable water can be saved in existing suburbs across the region by installing rainwater tanks. In new suburbs the expected water savings are as high as 57%, and 72% if water recycling is deployed in addition to rainwater tanks. ▪ Water savings from rainwater tanks and water efficiency could be delivered at a levelised cost of \$2.36 per kilolitre, which is below the expected cost of the desalination plant at Kilcunda. ▪ Both new and existing homes could achieve the target of 155 litres per person per day - without water restrictions. This could be delivered through structural water conservation including rainwater tanks, stormwater harvesting and recycling. ▪ The Werribee Plains region is already achieving a high level of water conservation and recycling however existing targets and indicators need to be updated to encourage and track progress towards sustainability. 	<ul style="list-style-type: none"> ▪ Acknowledge that the WPNGW is located in area with relatively low annual rainfall. ▪ Explore if/how the land within the WPNGW could contribute to saving water within the region.
17	Werribee Plains – Energy Research Study: Towards	<p>The Energy Research Study – Towards Zero Net Emissions takes into account the greenhouse emissions in 2006 and 2020 for the Werribee Plains Study Area plus emission reduction solutions.</p>	<ul style="list-style-type: none"> ▪ Explore the opportunity/possibility of locating renewable energy sources, solar power and wind power, within the GWZ in appropriate locations that do not detract from the useability of the land or adversely impacting key view

western plains north west green wedge management plan : literature review

#	document name	summary of contents	implications for western plains north green wedge management plan
	Zero Net Emissions (ACF 2010)	<p>The Study Area is defined as the LGAs of Brimbank, Hobsons Bay, Maribyrnong, Melton, Moonee Valley, Moorabool, Wyndham and the Statistical Local Area of Greater Geelong Part C.</p> <p>The key findings of the study include the following:</p> <ul style="list-style-type: none"> ▪ Governments at various levels have begun to consider solutions to reduce Australia's greenhouse gas emissions. ▪ In 2006, the Study Area produced 15.0 million tonnes of CO₂ – e. Almost half (48.1%) was produced by Industry. Freight contributed another 12.3% (1.8 million tonnes of CO₂ – e), residential buildings (16.6%) and residential travel (12.5%) contributed another 4.4 million tonnes of CO₂ – e. Non-residential buildings contributed 8.1% of emissions (1.2 million tonnes of CO₂ – e) and waste and agriculture made up the remainder of the emissions. ▪ Under a business as usual (BAU) scenario, emissions in the Study Area will increase by 2.4 million tonnes of CO₂ – e by 2020. The main driver of this increase is from the growth in residential buildings and residential travel, which is due to an additional 260,000 people locating in the area by 2020. ▪ The implementation of the following strategies will assist with reducing emissions; energy efficiency; fuel switching; renewable energy; waste to energy technology; transport improvements; industrial and freight strategies; and other bridging the gap solutions. ▪ The successful implementation of these key strategies will see 2020 business as usual emissions reduced by 41%. Renewable energy can be used to offset the remaining 59% still required to reach Zero Net Emissions. ▪ A range of other bridging the gap solutions can be used to reduce the emissions in the Study Area. Some of these are related to industrial ecology, industrial cogeneration and reduced emissions from improved freight efficiency. ▪ The Study Area has clear potential for the installation of large scale renewable energy both solar power and wind. 	lines.
18	Werribee Plains – Reducing Car Dependency: Transport and Urban Design Solutions (ACF 2010)	<p>The purpose of the Reducing Car Dependency - Transport and Urban Design Solutions study is to examine how effective urban planning is at reducing car dependency in Werribee Plains. The study evaluates 2 case studies, Toolern and Point Cook North (PCN) to understand how planning processes have worked toward reducing car dependency.</p> <p>PSP documentation used in Toolern performs better than the earlier Point Cook Concept Plan with regard to reducing car dependence for micro trips. Notwithstanding this, there are areas for improvement in the PSP guidelines and it is recommended that the following improvements affecting 'micro' car dependence be included in the PSP guidelines:</p> <ul style="list-style-type: none"> ▪ Increase bus route coverage to encourage at least 95% of residents to be within a walking distance (400m) to a bus route. ▪ Increase density around train stations to encourage more walk-and-ride rather than park-and- 	The Werribee Plains – Reducing Car Dependency: Transport and Urban Design Solutions report does not provide for any specific matters that directly relate to informing and/or enhancing the WPNGWMP, although there are clear opportunities to improve the cycling network.

western plains north west green wedge management plan : literature review

#	document name	summary of contents	implications for western plains north green wedge management plan
		<p>ride trips.</p> <ul style="list-style-type: none"> ▪ Increase the provision of pedestrian shelter in Activity Centres. ▪ Ensure walking networks are well-lit. ▪ Plan for bike parking at key origins and destinations. <p>Key findings from the comparative cases study are as follows:</p> <ul style="list-style-type: none"> ▪ Bus – only 56% of PCN's residents are within walking distance of a bus catchment, compared with 84% of Toolern's residents. ▪ Train – 0% and 6% of residents are within 800m of a train station for PCN and Toolern respectively. ▪ Employment – 82% and 66% of residents are within 2km of an employment zone in PCN and Toolern respectively. ▪ Open Space – 62% and 97% of residents are within 600m of open space in PCN and Toolern respectively. ▪ Walkability – PCN ranked 14% and Toolern ranked 64% for walkability. ▪ Cyclability – PCN ranked 0% and Toolern ranked 50% on the cyclability ranking developed for this project. The ranking is based on planned aspects of cycling including provision of off-road bike paths and bike parking. 	
Environment and Sustainability			
19	Planning Provisions for Melbourne's Green Wedges (DSE 2003)	<p>This advisory note provides information and advice about:</p> <ul style="list-style-type: none"> ▪ The Planning and Environment (Metropolitan Green Wedge Protection) Act 2003 ▪ Core Planning Provisions for Metropolitan Green Wedge Land the application of zones to green wedge land. <p>It includes information related to Core Planning Provisions (CPPs) that control some land uses. The use controls are set out in Clause 57.01 of the Act.</p> <p>It summarises two planning zones introduced into the Victoria Planning Provisions in Amendment VC22:</p> <p>The Green Wedge Zone aims to recognise and protect non-urban land outside the UGB in the metropolitan area for its agricultural, environmental, historic, landscape or recreational values, or mineral and stone resources. The zone provides opportunity for most agricultural uses and limits non-rural uses to those that either support agriculture or tourism, or that are essential for urban</p>	<p>Implications:</p> <ul style="list-style-type: none"> ▪ Avoid placing schools and residential care facilities within the WPNGW where fire or flooding may expose vulnerable populations to increased risks. ▪ Avoid these developments adjoining identified biodiversity assets such as existing native vegetation. <p>The State government considers the application of both the Green Wedge Zone and the Rural Conservation Zone to the Green Wedge appropriate.</p> <p>Key considerations for application of the Green Wedge Zone:</p> <ul style="list-style-type: none"> ▪ A dwelling requires a permit and is restricted to one dwelling per lot. ▪ The zone provides a minimum lot size of 40 hectares unless an alternative is specified in a schedule to the zone. The creation of smaller lots is prohibited unless the subdivision is the re-subdivision of existing lots or the creation of a small lot for a utility installation.

western plains north west green wedge management plan : literature review

#	document name	summary of contents	implications for western plains north green wedge management plan
		<p>development but cannot locate in urban areas for amenity and other reasons</p> <p>The Rural Conservation Zone which can be applied to conserve, maintain and enhance the environment. The zone recognises the opportunity for agricultural production while seeking to also protect and conserve the natural environment and natural processes for their historic, scientific, landscape, habitat or cultural values.</p>	<p>Implications:</p> <ul style="list-style-type: none"> Subdivision of larger land parcels may have serious implications for maintaining biodiversity in the landscape, direct loss of native vegetation in paddocks and on roadsides, increased human effluent and pollutants being discharge into waterways, and loss of agricultural land and productivity, increased run-off from sealed roads. Any further subdivision of land needs to be carefully considered. Lot subdivision for utility installations should be subject to a risk analysis of fire and flood protection. <p>Regarding the Rural Conservation Zone:</p> <ul style="list-style-type: none"> The zone could also be applied to rural areas degraded by environmental factors such as salinity or erosion. Tight restrictions apply to development and the range of discretionary uses is limited. A schedule to the zone requires specific environmental values of the land to be listed. <p>Implications:</p> <ul style="list-style-type: none"> Careful consideration to the schedule of this zone has the potential to provide significant biodiversity outcomes.
20	Practice Note: Preparing a Green Wedge Management Plan (DSE 2005)	This Practice Note provides a guide for the preparation of Green Wedge Management Plans and sets out the general requirements that should be met. The Practice Note covers the policy context and basis for the plans, their content and status.	<ul style="list-style-type: none"> The document should be considered in conjunction with item 20 of this Table. Council is advised to undertake a Green Wedge Management Plan consistent with the approach outlined in the document.
21	Principles, issues and guidelines for the preparation of Green Wedge Management Plans (DSE 2005)	<p>This document is designed to provide a basis for an appropriate level of consistency in the preparation of a Green Wedge Management Plan and in particular to ensure that the processes used in the preparation of such plans are transparent, inclusive and provide for wide ownership of such plans and their implementation.</p> <ul style="list-style-type: none"> It provides Guidelines on the process to be pursued by each Council or group of Councils in relation to GWMP consultation with all relevant stakeholders and the landowners in the area. It is important that the general community, as well as the groups and organisations with a particular interest in GWMP, know that the process to be used in the preparation of the Plan is fundamental to the development and successful implementation of these Plans. 	<p>In preparing a GWMP, the document is important as it provides:</p> <ul style="list-style-type: none"> A generic brief for consistency in relation to the key elements that are addressed. This brief can be used by council to engage consultants. Identify the full range of issues and opportunities relating to the management of land and resources in the Green Wedge.
22	Planning and Environment (Metropolitan Green Wedge Protection) Act 2003	<ul style="list-style-type: none"> Sets precedent for defining a metropolitan fringe planning scheme, an urban growth boundary, and green wedge land. Defines the ministerial and parliamentary responsibilities to prepare and approve amendments to Planning Schemes. Defines the role of the planning authority in this regard. 	<ul style="list-style-type: none"> Defines Melton Council as a metropolitan fringe planning scheme and therefore subject to this Act (see item 20 of this table).
23	Flora and Fauna Guarantee Act 1988	The key legislation for the protection of flora and fauna in Victoria is the Flora and Fauna Guarantee Act 1988 (FFG Act). The objectives of the FFG Act are to ensure native flora and fauna survive, flourish and maintain in situ evolutionary potential; manage threatening processes; encourage the conservation of flora and fauna through cooperative community endeavours; and	<ul style="list-style-type: none"> A permit or license (under the FFG Act) is required to undertake works or other activities on public land that may kill, injure or disturb protected taxa. Five plant, 17 animal species, and one plant community within the WPNGW have been identified.

western plains north west green wedge management plan : literature review

#	document name	summary of contents	implications for western plains north green wedge management plan
		<p>establish a regulatory structure for the conservation of flora and fauna in Victoria. The FFG Act provides for the protection of native species including, but not limited to, threatened species and/or communities of flora and fauna, and the preparation of Action Statements to protect the long-term viability of these values.</p>	<ul style="list-style-type: none"> ▪ A number of taxa groupings (for example "wattles") are protected by the FFG Act that exists within the WPNGW on public land. ▪ Specific recommendations for prepared Action Statements apply, and should be considered by council in regards to changes to public land management, including road reserves. ▪ Schedules listed in planning Zones should seek to protect identified values.
24	Water Act 1989	<p>This Act has the following purposes:</p> <ul style="list-style-type: none"> ▪ to re-state, with amendments, the law relating to water in Victoria; ▪ to provide for the integrated management of all elements of the terrestrial phase of the water cycle; ▪ to promote the orderly, equitable and efficient use of water resources; ▪ to make sure that water resources are conserved and properly managed for sustainable use for the benefit of present and future Victorians; ▪ to maximise community involvement in the making and implementation of arrangements relating to the use, conservation or management of water resources; ▪ to eliminate inconsistencies in the treatment of surface and groundwater resources and waterways; ▪ to provide better definition of private water entitlements and the entitlements of Authorities; ▪ to foster the provision of responsible and efficient water services suited to various needs and various consumers; ▪ to provide recourse for persons affected by administrative decisions; ▪ to provide formal means for the protection and enhancement of the environmental qualities of waterways and their in-stream uses; ▪ to provide for the protection of catchment conditions; ▪ to replace many forms of detailed administrative supervision of Authorities with general supervision by the Minister, through approved corporate plans and express directions; ▪ to continue in existence and to protect all public and private rights to water existing before the commencement of the relevant provisions of this Act. 	<p>Implications that may need consideration include:</p> <ul style="list-style-type: none"> ▪ The Act refers to several water managers' need to improve and protect the environmental values and health of water ecosystems, including their biodiversity, ecological functions, quality of water and other uses that depend on environmental condition. It also refers to the need to provide and maintain facilities for the recreational use of water storages and surrounding areas. ▪ If the area is covered by a Sustainable Water Strategy (now or in the future), any reference to the water needs for biodiversity, or required by the Catchment and Land Protection Act 1994, the Flora and Fauna Guarantee Act 1988, the Heritage Rivers Act 1992, the Planning and Environment Act 1987 or the Environment Protection Act 1970; or the Environment Protection Act 1970 may require consideration. ▪ There are requirements to protect designated waterways and drainage from obstruction /development. ▪ The Act has wide reaching consideration for the development of Melbourne outside the scope of this study but pertinent to the planning of a Green Wedge.
25	Victoria's Native Vegetation Management: A Framework for Action (DSE 2002)	<p>Section 15.09 of the State Planning Policy Framework Provision makes specific reference to the Victorian Native Vegetation Framework (DNRE 2002). The Framework states that the primary goal is to achieve: 'a reversal, across the entire landscape, of the long-term decline in the extent and quality of native vegetation, leading to a Net Gain' (DNRE 2002). The Framework has defined a three-step approach for applying Net Gain to protection and clearance decisions:</p> <p>(a) To avoid adverse impacts, particularly through vegetation clearance.</p>	<ul style="list-style-type: none"> ▪ The three-step approach to Net Gain is the first consideration for all planning-permit applications and planning-scheme amendments, with emphasis placed on the first two steps of avoidance and minimisation. Only after these two steps have been undertaken should offsets (i.e. actions undertaken to achieve commensurate gains) be considered (DNRE 2002). ▪ The steps of avoidance and minimisation should be applied at a strategic planning level to protect and enhance

western plains north west green wedge management plan : literature review

#	document name	summary of contents	implications for western plains north green wedge management plan
		<p>(b) If impacts cannot be avoided, to minimise impacts through appropriate consideration in planning processes and expert input to project design or management.</p> <p>(c) Identify appropriate offset options.</p>	<p>native vegetation by increasing the conservation estate within the Green Wedge.</p> <ul style="list-style-type: none"> There is considerable merit in a coordinated approach to native vegetation offset investment and management within the Green Wedge. Early identification and protection of offset areas within the planning overlays and a council program for providing offsets are initiatives could be considered.
26	Invasive Plants and Animals Policy Framework (DPI 2013)	<p>The Invasive Plants and Animals Policy Framework (IPAPF) presents the overarching Victorian Government approach to the management of existing and potential invasive species within the context of the Whole of Government Biosecurity Strategy for Victoria.</p> <p>The IPAPF incorporates a biosecurity approach and ensures that Victoria maintains a comprehensive planning framework to guide future policy, planning and community activity specific to invasive species.</p> <p>This document sets out a vision for what invasive species management can achieve for Victoria and a framework for working towards that vision. More specific actions for particular groups of invasive species are then provided in a number of modules attached.</p> <p>The vision can be simply stated as: Victoria's wealth, wellbeing and biodiversity will be protected and enhanced by reducing the impact of invasive species.</p>	<p>Due to the particular concerns of the area and its future development, council should consider its participation in implementing a partnership approach that includes state and local governments, CMAs, industry and the community in developing a location specific invasive species management plan for the WPNWGW. There are particular concerns typical of the peri-urban fringe identified by this report:</p> <ul style="list-style-type: none"> The spread of highly invasive weeds, particularly stipoid exotic grasses and exotic shrubs in the agricultural landscape. Illegal dumping of garden wastes on public land. An expected exponential rise in fox/rabbit numbers as a result of urbanisation next to the Green Wedge. Spread of weeds along roadsides and into public reserves as a result of roadside management. Need to manage aquatic invaders, including the Mosquitofish (<i>Gambusia affinis</i>).
27	Victorian Pest Management – A Framework for Action (DSE 2002)	<p>The previous policy framework for invasive species, Victorian Pest Management – A Framework for Action (VPMF), completed in 2002, was successful in providing structure for pest management from policy down to project and on-the-ground, incorporating community and stakeholders into pest management.</p>	<ul style="list-style-type: none"> New approaches for managing the threats from invasive species have been developed and evidence has supported the cost-effectiveness of prevention and early intervention. Most of the specific actions listed in the VPMF have been completed. The VPMF did not identify specific actions for invasive species other than plants and animals.
28	Port Phillip and Westernport Regional Catchment Strategy 2004-2009 (PPWPCMA 2004)	<p>The Regional Catchment Strategy (RCS) describes Port Phillip and Westernport (PPW) Regional Catchment assets and how they are interrelated. It indicates what needs to be done to manage and use the assets in a sustainable and integrated way, and outlines goals and priorities for the future. It focuses on improving environmental and catchment management while recognising that, by helping resources to be managed more sustainably, it will contribute to society's present and future options for social and economic development.</p> <p>The report identifies that:</p> <ul style="list-style-type: none"> The WPNGW forms the boundary between severe and widespread weed infestation (serrated tussock) and areas to the north that are currently relatively controlled. Melton Shire will as a result of land use change and urbanisation poses a considerable risk to waterway health and water quality. Local water storage facilities, creeks and the Bay are exposed to algal blooms as a result of nutrient runoff. Sedimentation of local water ways and storage areas is of concern. The area has a generally low risk of land salinisation. 	<p>The targets of the Regional Catchment Strategy (RCS) have wide implications for the strategic design of the Green Wedge:</p> <ul style="list-style-type: none"> Protect and restore water ways and water quality, through allowing for open space around waterways, and providing planning provisions that limit water nutrient loading of streams and water storages. Increase the conservation estate within the green wedge so as to help achieve an overall increase in the extent and quality of native vegetation within the catchment, particularly where rare and threatened species habitat is identified. Connect existing reserves through initiatives to establish habitat links for species. This might include land purchases, offset initiatives to secure native vegetation on private land, and the revegetation. Controls for invasive species, especially where they risk biodiversity and production assets.

western plains north west green wedge management plan : literature review

#	document name	summary of contents	implications for western plains north green wedge management plan
		<ul style="list-style-type: none"> The area is prone to rabbit infestations. <p>The long term goal for the catchment to have 'healthy and enduring ecosystems with a diversity of habitats and native species' and the biodiversity objectives in this document, are to:</p> <ul style="list-style-type: none"> Achieve a net gain in the quantity and quality of indigenous vegetation. Maintain the diversity of indigenous habitats and species in terrestrial, aquatic and marine environments. Achieve sustainable populations of indigenous flora and fauna species. Improve the connectivity and long-term security of indigenous habitats and species. Encourage intelligent use of introduced flora and fauna species with minimal impacts on indigenous habitats and species. 	
29	Port Phillip and Westernport Regional River Health Strategy (Melbourne Water 2007)	<p>The Port Phillip and Westernport Regional River Health Strategy (RRHS) is an overarching strategy that had Ministerial endorsement in November 2006. The RRHS incorporates a range of waterway issues including riparian management, aquatic habitat, channel form, water quality, stream flows, recreation, heritage and floodplain management. On a catchment-by-catchment basis it identifies environmental, social and economic values of waterways and threats to those values.</p> <ul style="list-style-type: none"> General principles underpinning the RRHS strategy include: <ul style="list-style-type: none"> Protection of waterways with existing high values or those that are in good condition. Restoration of waterways where there is the greatest potential for environmental and community gain for the resources invested. Restoration of waterways where there is a high level of community interest. <p>A fundamental element of the RRHS is Melbourne Water's Waterway Objective that by 2025, all natural rivers and creeks will be in good or better condition, with fifty percent in good or better condition by 2015.</p>	<p>The issues pertinent for the Green Wedge are identification of planning scheme changes that support action by water authorities to implement:</p> <ul style="list-style-type: none"> Bank erosion controls. Removal of fish barriers. Protection of River Red Gum communities. Target riparian zone management to areas of remnant vegetation and/or creation of habitat links (including fish habitat).
30	Healthy Rivers, Healthy Communities & Regional Growth. Victorian River Health Strategy (DNRE 2002)	<p>The Victorian River Health Strategy (VRHS) provides the framework in which the Government in partnership with the community will make these decisions on the management and restoration of Victoria's rivers. It provides:</p> <ul style="list-style-type: none"> A common vision for the management of rivers in Victoria; Statewide targets for river restoration; A planning framework which: <ul style="list-style-type: none"> is based on community decision-making within an integrated catchment management (ICM) context, balances environmental, economic and social needs, 	<p>Identify stream values as important wildlife corridors linking major vegetation areas:</p> <ul style="list-style-type: none"> As breeding areas (estuaries, floodplains); As a drought refuge for a number of species. <p>Highlights the concept of enhancing floodplain-river linkages through the planning framework/floodplain management strategies.</p> <p>Recommends that catchment and river management outcomes are included in the local government planning system through:</p> <ul style="list-style-type: none"> Developing and making better use of tools which facilitate greater integration of regional catchment management.

western plains north west green wedge management plan : literature review

#	document name	summary of contents	implications for western plains north green wedge management plan
		<ul style="list-style-type: none"> - integrates the management of all activities impacting on rivers, and - is based on the best available scientific understanding of river functioning and is responsive to new knowledge; <ul style="list-style-type: none"> ▪ Criteria for priority setting for investment in river protection and restoration; ▪ An overview of government policy relating to the management of activities affecting river health, including environmental flows and water allocation; and the institutional arrangements for the management of river health in Victoria. <p>The objective for the Victorian River Health Strategy is to achieve: healthy rivers, streams and floodplains which meet the environmental, economic, recreational and cultural needs of current and future generations.</p>	<ul style="list-style-type: none"> ▪ River management requirements into the planning systems of local government; and ▪ Identification and encouragement of more effective cooperation between CMAs and local government. <p>The Victorian Catchment Management Council in partnership with the Municipal Association of Victoria was to finalise a planning model framework to identify these planning tools for local government (c. Dec 2002).</p>
31	Werribee River Biolink Action Plan (LeadWest 2012)	<p>The Werribee River Biolink Action Plan provides a list of prioritised actions, including recommending priority areas to target biodiversity works, tools to encourage appropriate land management practices and longer term strategic land use planning. The Werribee River Biolink Action Plan places an emphasis on protecting existing habitat of native plant and animal patches and future actions to further build upon natural corridors in the landscape such as waterways and remnant vegetation. The goal is to enable and improve movement of plants and animals between these patches and greatly contribute to the long-term health and survival of native species.</p>	<ul style="list-style-type: none"> ▪ Not within the Green Wedge, but serves as an exemplar for similar projects required in the Green Wedge to connect habitat, and improve in-stream and floodplain condition and biodiversity outcomes for the area.
32	Melton Environmental Atlas 2007	<p>The Melton Environmental Atlas presents key information relating to the environment, natural resources and agricultural development opportunities in the rural areas in the Shire of Melton. The aim of the Atlas is to provide information to the Shire that will underpin strategic planning and decision making across the rural areas within the Green Wedge Zone and other rural zones, outside of the Urban Growth Boundary (UGB) of Metropolitan Melbourne.</p> <p>The Atlas contains data, in both map and digital Geographic Information System (GIS) format, of the distribution of Melton's environmental resources, as well as research into the capability of rural areas to support sustainable land uses. The Atlas includes a detailed survey of the soil and landform characteristics, information on the biophysical environment (soil, water, climate), environmental assets (native vegetation, aesthetic values), infrastructure (recycled water, transport accessibility), current land use and environmental risks, as well as an assessment of land suitability analysis for current and potential agricultural commodity growth.</p>	<ul style="list-style-type: none"> ▪ Mapping identifies the hilly north-west area of the study area and upper tributaries subject to high erosion risk, with most creek lines in the Green Wedge subject to tunnel erosion. ▪ Streams are in moderate to poor condition in the study area. ▪ It is noted this document was never adopted by Council.
33	The Environment Protection and Biodiversity Conservation Act 1999	<p>The Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) is the key piece of environmental legislation that enables the Australian, State and Territory governments to provide national environment and heritage protection and biodiversity conservation. Under the Act, an action (i.e. project, development, undertaking, activity, or series of activities) that is likely to have a significant impact on matters of National Environmental Significance (or on Commonwealth land or by a Commonwealth agency) requires approval from the Commonwealth Environment Minister.</p>	<ul style="list-style-type: none"> ▪ Within the Green Wedge there are five records of fauna (one locally extinct), and two species of flora listed under the Act. Significant and formal changes to land use planning, individual planning applications, or other actions should trigger referral to the Commonwealth Environment Minister where these species possibly occur in the study area. ▪ As many of these species have broad landscape usage or are present within areas of the landscape likely to be affected by increased sub-division (even at 40 hectare lots), referral to the Minister is likely to be required. ▪ Current and future arrangements between the Victorian and Australian Governments regarding the referral

western plains north west green wedge management plan : literature review

#	document name	summary of contents	implications for western plains north green wedge management plan
			process for Melbourne's growth need to be considered in commencing a referral process.
34	Werribee Plains - Biodiversity Connectivity: Resilience of Natural Assets and Systems to Climate Change and Fragmentation by Urbanisation (ACF 2010)	<p>The Australian Conservation Foundation has undertaken a three-year project to develop a regional sustainability framework for the Werribee Plains region funded through the Department of Sustainability and Environment. The project forms part of the Victorian government's Vision for Werribee Plains program, which has a commitment to achieve sustainable management of the region's natural resources, including water, energy and ecosystems.</p>	<p>Among the many aspirational recommendations, the document identifies:</p> <ul style="list-style-type: none"> ▪ The need for Planning Scheme protection for riparian vegetation along waterways, and secondly, the need for planning scheme changes to allow for connected corridors. Recommends excluding stock from water ways (fencing), revegetating water ways. ▪ Planning Scheme and Vegetation Framework to include specifications about grassland revegetation (presumably meaning targets for quality and identification of areas, etc). <p>Protect and maintain high quality remnant roadside native vegetation.</p>
35	Victoria's Biodiversity Strategy 1997	<p>The Strategy forms a key step in the Flora and Fauna Guarantee program. It shows how to achieve the Flora and Fauna Guarantee Act's objectives of conserving native species, communities and gene pools, preventing threats and encouraging community involvement.</p> <p>The Strategy will bring about better conservation in Victoria by:</p> <ul style="list-style-type: none"> ▪ Increasing the awareness of the need to conserve biodiversity; ▪ Co-ordinated response within the bioregional networks; ▪ Continuing the development of partnerships between the community, industry and government in the custodianship of our biodiversity; ▪ Indicating the existing and proposed mechanisms for achieving the objectives of flora and fauna conservation and management in the context of ecological sustainability; ▪ Detailing strategic frameworks to prevent further loss of habitat, and a focus for better management of existing habitats and the continuation of natural ecological processes; and ▪ Highlighting the habitats, major threatening processes and environments that require urgent attention. <p>The Strategy identifies key approaches and directions in urban and urban fringe areas for management of biodiversity in Victoria. The key management directions are:</p> <ul style="list-style-type: none"> ▪ Ease the provision of accessible strategic advice, such as the new format planning schemes being developed under the Victorian Planning Provisions (VPP), to local government planning processes to promote development in the least sensitive areas and to protect and promote corridor areas such as the Metropolitan green wedges. ▪ Enhance current information management systems so that information about biodiversity values for any particular area can be easily accessed early in the planning cycle by local government, developers, and conservation groups. ▪ In the urban fringe encourage landholder involvement in schemes such as Landcare, FarmSmart, Land for Wildlife. 	<p>Since 1997, many actions of the Strategy have been, or are being implemented. For the Green Wedge the Strategy highlights the importance of:</p> <ul style="list-style-type: none"> ▪ The requirement to protect Victoria's biodiversity through planning frameworks. ▪ Identifying all sites of biological significance in the Green Wedge at an appropriate scale for land use planning (this scale of land conservation information is not available from desktop products that have been produced for the State). ▪ The need to protect grasslands and rocky habitat (again, this information needs to be field based investigation to obtain site specific recommendations for the Green Wedge. ▪ There is a focused need for revegetation and rehabilitation efforts on the riparian environments in the Green Wedge. ▪ Protect and enhance remnant vegetation on public land, including rail, water frontage (including wetlands) and road reserves. ▪ Community involvement and government support through incentives are integral to the success of the Strategy. ▪ Supports the establishment of biolinks.

western plains north west green wedge management plan : literature review

#	document name	summary of contents	implications for western plains north green wedge management plan
		<ul style="list-style-type: none"> ▪ Promote community group projects that assist in restoring and rehabilitating flora and fauna habitats, e.g. Botanic Guardians. <p>Together with the directions in urban and urban fringe areas, the Strategy identifies priorities for each bioregion.</p> <p>For the Victorian Volcanic Plain:</p> <ul style="list-style-type: none"> ▪ Implement a grasslands conservation program, with particular emphasis on a reserve system supplemented by off-reserve components (landholders and property management, road and rail sides) and management of environmental weeds. Emphasis should be placed on long-term viability, thus there should be concentration on larger sites away from urban areas. ▪ Finalise management plans for significant wetlands, including all Ramsar wetlands. ▪ Identify all sites of biological significance in the rural landscape in conjunction with local government and encourage appropriate use of this information in local planning schemes. ▪ Target Land for Wildlife and property management planning extension to properties with native grasslands and wetlands, particularly those likely to support threatened species. ▪ Focus revegetation and rehabilitation efforts on the riparian environments. ▪ Maintain appropriate water regimes for freshwater wetlands. ▪ Focus efforts on threatened species that are endemic or for which the volcanic plains are important (e.g. Eastern Barred Bandicoot, Corangamite Water Skink) and encourage habitat protection (e.g. prevention of rock removal at Striped Legless Lizard sites) and rehabilitation. ▪ Protect forest areas (e.g. Stony Rises) from fragmentation. <p>For the Central Victorian Uplands:</p> <ul style="list-style-type: none"> ▪ Complete and implement the Midlands and North East Forest Management Plans, and the North East and West Regional Forest Agreements. ▪ Finalise the bulk water entitlement process so that adequate and timely environmental flows are established for the rivers and wetlands. ▪ Identify all sites of biological significance in the rural landscape in conjunction with local government and landholders and encourage appropriate use of this information in local planning schemes. ▪ Protect and enhance remnant vegetation on public land, including rail, water frontage and road reserves. <p>Encourage private landholders to protect remnant vegetation on their land, using a range of incentives and programs, such as Land for Wildlife, targeting biolink zones, riparian vegetation, depleted BVTs such as Plains Grassy Woodland Complexes, and habitat for threatened species such as the Bush Stone-curlew.</p>	

western plains north west green wedge management plan : literature review

#	document name	summary of contents	implications for western plains north green wedge management plan
36	Port Philip and Westernport vegetation management plan	<p>The purposes of this plan are to:</p> <ul style="list-style-type: none"> Set out a coordinated and strategic approach to managing the region's native vegetation, consistent with Victoria's Native Vegetation Management: A Framework For Action. Establish regional priorities and targets for retaining, protecting, enhancing and restoring native vegetation. Provide direction to authorities who consider permit applications to clear native vegetation. Guide investments in native vegetation planning and management. Increase community awareness of the need for a net gain in the region's native vegetation, and community involvement in managing the region's native vegetation. Provide detailed information about the region's native vegetation, which can be used in. Other regional strategic plans and local landscape scale plans, such as integrated catchment plans, community group (such as Landcare) plans and Biodiversity Action Plans, and identify gaps in knowledge about, and research requirements for, managing the region's native vegetation. 	<ul style="list-style-type: none"> Identifies the importance of scattered trees in the rural landscape in maintaining biodiversity value. Appropriate planning provision tools applied by all councils in the region are required to protect threatened native vegetation and achieve net gain. <p>Identified planning tools include:</p> <ul style="list-style-type: none"> Municipal strategic statements Local provisions Zones and planning scheme overlays Schedules to overlays (which can set environmental objectives and guidelines to protect native vegetation, and protect the habitat of threatened species) Incorporated Plan Overlays, and Development Plan Overlays. Advice is also available for municipal planners in the form of planning practice notes such as the Biodiversity Planning Practice Note and the Practice Note for Vegetation Protection in Urban Areas. <p>The planning scheme overlays that local governments can use to protect native vegetation include:</p> <ul style="list-style-type: none"> Vegetation Protection Overlays (to protect individual trees, stands of trees or areas of significant vegetation) Environmental Significance Overlays (to protect vegetation as part of protecting the environmental significance of an area) Significant Landscape Overlays (to identify and conserve the character of a significant landscape) Erosion Management Overlays (to protect areas prone to erosion, land slip or other types of land degradation) Salinity Management Overlays (to ensure any development is compatible with site capability and the retention of vegetation and complies with the objectives of any salinity management plan for the area and to encourage revegetation of areas which contribute to salinity), and Floodway and Land Subject to Inundation Overlays (restriction of development). <p>The document includes detailed information on strategic biodiversity assets in the Catchment, and conservation initiatives and policy guidelines that would need to be considered in the preparatory stages of any biodiversity planning initiatives.</p>
37	Action Statement. No 195. Flora and Fauna Guarantee Act 1988. Rocky Chenopod Open-scrub	<p>Provides detailed actions for the conservation of this community listed under the FFG Act. The major conservation objective is to guarantee that the extent of Rocky Chenopod Open-scrub is maintained and that its condition is enhanced in the long-term.</p> <p>Objectives of this Action Statement:</p> <ul style="list-style-type: none"> Prevent further loss or modification of intact remnants of the community. Protect the existing stands of this community at Long Forest, by managing the identified threatening processes, and restoring degraded areas where possible. 	<ul style="list-style-type: none"> Identifies Long Forest as the most important remnant of this endangered plan community. High quality stands occur in the road reserves along Long Forest Road and are subject to clearing or modification. Other stands exist of private land and need to be identified for protection. <p>The statement identifies that the WPNGW should:</p> <ul style="list-style-type: none"> Incorporate actions to protect the Rocky Chenopod Open-scrub into management plans for key sites, including the Long Forest Nature Conservation Reserve and Lake Merrimu.

western plains north west green wedge management plan : literature review

#	document name	summary of contents	implications for western plains north green wedge management plan
		<ul style="list-style-type: none">▪ Increase the area of the reserve by identifying and acquiring key areas on private land that are of high flora and fauna habitat value, support populations of significant species, and/or can be used to consolidate blocks that are already reserved▪ Document the present extent and distribution of the community elsewhere, with a view to conserving any identified high quality examples▪ Increase the existing knowledge of species composition and ecological relationships in the community, including responses to grazing and fire.	<ul style="list-style-type: none">▪ Incorporate information regarding the location and management of Rocky Chenopod Open scrub sites into local planning schemes, including Environmental Significance Overlays, and apply the Victorian Planning Provisions so as to protect these sites. <p>The status of these actions are not known at this stage.</p>

The background features several thin, light gray lines that intersect to form a series of triangles and quadrilaterals. A prominent, thicker gray line runs diagonally from the bottom left towards the top right. Another thick gray line runs vertically on the right side of the page. A third thick gray line runs horizontally across the middle of the page, slightly above the center.

appendix 3

additional heritage information

additional heritage information

full listing of heritage in study area

List of VAHR Aboriginal Places within the Study Area

VAHR No	Aboriginal Place Name	Place Type
7822-0184	Tarameade 1	Earth Feature
7822-0185	Mt Kororoit	Artefact Scatter
7822-0186	Mt Kororoit Station	Artefact Scatter
7822-0221	Benson Rd	Artefact Scatter
7822-0222	Lot 47 Gisborne Rd	Artefact Scatter
7822-0227	Tarameade 2	Earth Feature
7822-0256	Tarameade 1	Artefact Scatter
7822-0257	Tarameade 2	Artefact Scatter
7822-0258	Tarameade 3	Artefact Scatter
7822-0485	G-Dr 5	Artefact Scatter
7822-0659	Rockbank Quarry 1	Artefact Scatter
7822-0664	West Kororoit Chopper	Artefact Scatter
7822-0665	West Kororoit Ochre	Artefact Scatter
7822-0665	West Kororoit Ochre	Quarry
7822-0666	West Kororoit Mound	Earth Feature
7822-0667	West Kororoit 1	Artefact Scatter
7822-0667	West Kororoit 1	Earth Feature
7822-0668	West Kororoit 2	Artefact Scatter
7822-0668	West Kororoit 2	Earth Feature
7822-0669	West Kororoit 3	Artefact Scatter
7822-0670	West Kororoit 4	Artefact Scatter
7822-0671	West Kororoit 5	Artefact Scatter
7822-0672	West Kororoit 6	Artefact Scatter
7822-0673	West Kororoit 7	Artefact Scatter
7822-0673	West Kororoit 7	Earth Feature
7822-0674	West Kororoit 8	Artefact Scatter
7822-0674	West Kororoit 8	Earth Feature
7822-0675	West Kororoit 9	Artefact Scatter
7822-0675	West Kororoit 9	Earth Feature
7822-0676	West Kororoit 10	Artefact Scatter
7822-0753	Djerriwarh Ck 12	Artefact Scatter
7822-0754	Djerriwarh Ck 13	Artefact Scatter
7822-0755	Djerriwarh Ck 14	Artefact Scatter
7822-0864	She Oak Hill 1	Artefact Scatter
7822-0865	She Oak Hill 2	Artefact Scatter
7822-0866	She Oak Hill 3	Artefact Scatter

7822-1056	Mount Tophet 1	Aboriginal Historical Place
7822-1056	Mount Tophet 1	Artefact Scatter
7822-1081	Leakes Rd Quarry	Artefact Scatter
7822-1310	Diggers Rest South 1	Artefact Scatter
7822-1677	Long Forest 8	Artefact Scatter
7822-1678	Long Forest 9	Artefact Scatter
7822-1679	Long Forest 10	Artefact Scatter
7822-1681	Long Forest 12	Artefact Scatter
7822-1683	Long Forest 14	Artefact Scatter
7822-1684	Long Forest 15	Artefact Scatter
7822-1685	Long Forest 16	Artefact Scatter
7822-1873	Vineyard Road 5	Artefact Scatter
7822-1874	Vineyard Road 6	Artefact Scatter
7822-1875	Vineyard Road 7	Artefact Scatter
7822-1876	Vineyard Road 8	Artefact Scatter
7822-1877	Vineyard Road 9	Artefact Scatter
7822-1878	Vineyard Road 10	Artefact Scatter
7822-1879	Vineyard Road 11	Artefact Scatter
7822-1880	Vineyard Road 12	Artefact Scatter
7822-1881	Vineyard Road 13	Artefact Scatter
7822-1882	Vineyard Road 14	Artefact Scatter
7822-2303	Diggers Rest Coimadai Road Widening 1	Artefact Scatter
7822-2304	Diggers Rest Coimadai Rd Widening 2	Artefact Scatter
7822-2410	Diggers Rest Rail Reserve 1	Artefact Scatter
7822-2410	Diggers Rest Rail Reserve 1	Object Collection
7822-2426	Diggers Rest Rail Reserve 3	Artefact Scatter
7822-2427	Diggers Rest Rail Reserve 4	Artefact Scatter
7822-2428	Diggers Rest Rail Reserve 5	Artefact Scatter
7822-2429	Diggers Rest Rail Reserve 6	Artefact Scatter
7822-2430	Diggers Rest Rail Reserve 7	Artefact Scatter
7822-2503	Hillside - Melton 1	Artefact Scatter
7822-2642	Sunbury Electrification 05	Artefact Scatter
7822-2646	Sunbury Electrification 08	Artefact Scatter
7822-2647	Sunbury Electrification 06	Artefact Scatter
7822-2665	Sunbury Electrification 07	Artefact Scatter
7822-2666	Sunbury Electrification 09	Artefact Scatter
7822-2683	Sunbury Electrification 70	Artefact Scatter
7822-3225	Kororoit Creek Diggers Rest AS1	Artefact Scatter
7822-3226	Kororoit Creek Diggers Rest IA 1	Artefact Scatter
7822-3316	Holden Road, Plumpton 1	Artefact Scatter
7822-3317	Holden Road, Plumpton 2	Artefact Scatter

7822-3318	Holden Road, Plumpton 3	Artefact Scatter
7822-3319	Holden Road, Plumpton 4	Artefact Scatter

Dry Stone Walls Listed in the Study Area

ID NO.	Address	Description	Nearest HO Place
R243	1281 Holden Rd	Rd boundary	
R244	1001 Holden Rd	Rd boundary	
R245	544-618 Diggers Rest Coimadai Rd	Rd boundary	HO50
R246	847-1071 Blackhill Rd	Internal paddock	HO39, HO40
R247	988-992 Blackhill Rd	Rd boundary	
R248	847-1071 Blackhill Rd	Rd boundary	HO37
R193	783-829 Blackhill Rd	Internal paddock	HO15
R194	518-610 Blackhill Rd	Rd boundary	
R195	639-645 Blackhill Rd	Property boundary	
R196	127-181 Ryans Lane	Rd boundary	
R197	195-197 Blackhill Rd	Rd boundary	HO38
R198	195-197 Blackhill Rd	Internal paddock	HO38
P200	625-833 Plumpton Rd	Rd boundary	HO64
P201	625-833 Plumpton Rd	Internal paddock	HO64
P202	625-833 Plumpton Rd	Internal paddock	HO64
P203	627-703 Plumpton Rd	Rd boundary	HO64
P204	627-703 Holden Rd	Rd boundary	
P205	627-703 Holden Rd	Property boundary	
P206	627-703 Holden Rd	Property boundary	
P207	1 Holden Rd	Retaining Wall	
P208	3 Holden Rd	Rd boundary	
P209	249-313 Plumpton Rd	Rd boundary	HO48
P210	625-833 Holden Rd	Internal paddock	HO53
P211	598-700 Holden Rd	Rd boundary	
Q251	974-1048 Melton Highway	Rd boundary	HO55
T291	695-803 Benson Rd	Retaining Wall	
T283	779-859 McPhersons Rd	Rd boundary	HO35
T284	779-859 McPhersons Rd	Internal paddock	HO35
T285	53-103 McPhersons Rd	Internal paddock	HO35
T286	53-103 McPhersons Rd	Internal paddock	HO35
T287	687-777 Gisborne Melton Rd	Internal paddock	HO28
T288	687-777 Gisborne Melton Rd	House Wall	HO28

T289	779-859	Gisborne Melton Rd	Building	HO30
T290	779-859	Gisborne Melton Rd	Internal paddock	HO30
			Property	
S282	1714-1790	Diggers Rest Coimadai Rd	Boundary	HO21
R2	327	Diggers Rest Coimadai Rd		
R3	351	Diggers Rest Coimadai Rd		
			Property	
A263	304-324	Leakes Rd	boundary	
R6		Blackhill Rd		
R37		Blackhill Rd	Internal paddock	
			Property	
R48	166	Townships Rd	boundary	HO65
			Property	
R114	211	Townships Rd	boundary	HO65
			Property	
R292	140	Townships Rd	boundary	HO65
R293	131	Townships Rd	Dam	HO65
			Property	
R294	201	Townships Rd	boundary	HO65
			Property	
R295	142	Townships Rd	boundary	HO65
A260	2	Leakes Rd	Internal Paddock	HO61, HO62
			Property	
A261	2	Leakes Rd	Boundary	HO61, HO62
			Property	
A270	326-358	Leakes Rd	Boundary	HO61, HO62
			Property	
A269	376-400	Leakes Rd	Boundary	HO61, HO62
			Property	
A267	1964-1988	Keilor Melton Highway	Boundary	
A259	63-89	Leakes Rd	Rd Boundary	
			Property	
A266	123-153	Finchs Rd	Boundary	
A265	2-176	Finchs Rd	Internal Paddock	
			Property	
A264	2	Leakes Rd	Boundary	
			Property	
A275	2	Mt Kororoit Rd	Boundary	
				Internal stock yard
A276	2	Mt Kororoit Rd		HO61, HO62
A274	2	Mt Kororoit Rd		Property Boundary
A273	2	Mt Kororoit Rd		Internal Paddock
A272	2	Mt Kororoit Rd		Internal Paddock
A271	2	Mt Kororoit Rd		Internal Paddock
A278	2	Leakes Rd		Rd boundary
A277	2	Mt Kororoit Rd		Internal Paddock

A279	1127-1239	Ryans Rd		Rd boundary
A280	1127-1239	Mt Kororoit Rd		Rd boundary
R192	1063-1177	Diggers Rest Coimadai Rd		Property boundary
R191	738-1034	Diggers Rest Coimadai Rd		Rd boundary
R189	1036-1092	Diggers Rest Coimadai Rd		Internal paddock
R190	1036-1092	Diggers Rest Coimadai Rd		Internal paddock
S188	1714-1790	Diggers Rest Coimadai Rd		Rd Boundary
S187	1714-1790	Coburns Rd		Rd Boundary
S281	1714-1790	Diggers Rest Coimadai Rd		Internal paddock
P298	209-247	Plumpton Rd		
P298	209-247	Plumpton Rd		Dam
P301	544-618	Diggers Rest-Coimadai Rd		Dam
P302	765-789	Holden Rd		Dam
P303	412-518	Plumpton Rd		Dam
R300	518-610	Blackhill Rd		
R296	738-1034	Diggers Rest-Coimadai Rd		Post Box
R199	178-180	Blackhill Rd		Homestead/front wall
R242	1127-1239	Holden Rd		Rd boundary
				Diggers Rest-
R13	327-349			Coimadai Rd HO49
				Diggers Rest-
R10	327-349			Coimadai Rd HO49
R12	327-349	Diggers Rest-Coimadai Rd		boundary
R11	327-349	Diggers Rest-Coimadai Rd		boundary
				Diggers Rest-
R14	327-349			Coimadai Rd HO49
R16	327-349	Diggers Rest-Coimadai Rd		internal
				Diggers Rest-
R17	315			Coimadai Rd
R301	647-705	Blackhill Rd		
R302	707-775	Blackhill Rd		
R304	783-829	Blackhill Rd		
R305	783-829	Blackhill Rd		
R306	78-140	Townships Rd		
R307	783-829	Blackhill Rd		
R308	783-829	Blackhill Rd		

Sites within the Study Area on the Victorian War Heritage Inventory

	ID No.	Description	Address
Victorian War Heritage Inventory	HO49	Former Army Radio Station Diggers Rest (Second World War)	107 - 207 Diggers Rest-Coimadai Road Diggers Rest

Sites within the Study Area on Heritage Overlay Schedule

Overlay No	Details	Address	Locality
HO13	HO13 'Lynullig' Homestead	477-569 Bensons Road	Toolern Vale
HO14	HO14 'Glencoe'	518-610 Blackhill Road	Toolern Vale
HO15	HO15 House 'Angus Downs'	546-570 Blackhill Road	Toolern Vale
HO16	HO16 House	2-200 Porteous Road	Toolern Vale
HO17	HO17 'Melton Park'	691-801 Bulmans Road	Toolern Vale
HO18	HO18 Paine's Cottage	152-176 Chapmans Road	Toolern Vale
HO19	HO19 Cornwall Park Stud	2389-2485 Diggers Rest Coimadai Rd	Diggers Rest
HO20	HO20 Former Condons Dairy	1397 Diggers Rest Coimadai Rd	Toolern Vale
HO21	HO21 'Toolern Park'	1558-1672 Diggers Rest-Coimadai Rd	Toolern Vale
HO22	HO22 House 'Kuloomba'	2203 Diggers Rest Coimadai Rd	Toolern Vale
HO23	HO23 War Memorial	In Reserve off Diggers Rest Coimadai Rd	Toolern Vale
HO24	HO24 Farm Complex	1229-1279 Gisborne Melton Road	Toolern Vale
HO25	HO25 House	1374 - 1404 Gisborne Melton Road	Toolern Vale
HO26	HO26 House 'Creighton'	1618 Gisborne Melton Road	Toolern Vale
HO27	HO27 House & Outbuilding	310 - 360 Gisborne Melton Road	Toolern Vale
HO28	HO28 Ruin 'McIntosh Cottage'	687-777 Gisborne Melton Road	Toolern Vale
HO29	HO29 Former 'Yangardook' Cottage	575-685 Gisborne Melton Road	Toolern Vale
HO30	HO30 Ruin 'The Elms'	779-859 Gisborne Melton Road	Toolern Vale
HO31	HO31 'Glen Elgin'	766-858 Gisborne Melton Road	Toolern Vale
HO32	HO32 Hjorth's Farm	163 Hjorths Road	Toolern Vale
HO33	HO33 'Norwood'	78-132 Hogs Road	Toolern Vale
HO35	HO35 'Wattle Grove' House & Shed	117-125 McPhersons Road	Toolern Vale
HO36	HO36 'Greenhills'	1260-1398 Diggers Rest-Coimadai Road	Toolern Vale
HO37	HO37 'Pinewood' Homestead	783-829 Blackhill Road	Toolern Vale

HO38	HO38 Stone Cottage	189-193 Blackhill Road	Toolern Vale
HO39	HO39 House & Bullock Track	847-1071 Blackhill Road	Toolern Vale
HO40	HO40 Plumpton Hare Enclosure	847-1071 Blackhill Road	Toolern Vale
HO41	HO41 Aitken's Gap Pine Avenue	Calder Freeway, Diggers Rest	Diggers Rest
HO43	HO43 The Diggers Rest Hotel	1434-1466 Calder Highway	Diggers Rest
HO46	HO46 House	1376 - 1432 Calder Highway	Diggers Rest
HO48	HO48 Former Murphy Dam	209 - 247 Plumpton Road	Diggers Rest
HO49	HO49 Former Army Radio Station	107- 207 Diggers Rest-Coimadai Rd	Diggers Rest
HO50	HO50 Former Clarke Dam	544-618 Diggers Rest-Coimadai Rd	Diggers Rest
HO51	HO51 Arrunga	77-347 Holden Road	Plumpton
HO52	HO52 House	932-1036 Holden Road	Diggers Rest
HO53	HO53 Holden Road Dam	765-789 Holden Road	Plumpton
HO55	HO55 House	974-1048 Melton Highway	Plumpton
HO56	HO56 Gollars Court	1366-1496 Melton Highway	Plumpton
HO57	HO57 Norton Ruin	1912-1962 Melton Highway	Plumpton
HO59	HO59 Rocklands	211 Mt Aiken Road	Diggers Rest
HO60	HO60 Mt. Aiken Site & Ruin	740-794 Mt Aitken Road	Diggers Rest
HO61	HO61 Bluestone Cottage & Ruinous Timber dwelling	2-88 Mt Cottrell Road	Plumpton
HO62	HO62 Mt Kororoit Homestead	2-88 Leakes Rd	Plumpton
HO63	HO63 Plumpton Dam	412- 518 Plumpton Road	Diggers Rest
HO64	HO64 'Plumpton Park'	412- 518 Plumpton Road	Diggers Rest
HO65	HO65 Rocklands Dam	131-199 Townsings Rd	Diggers Rest
HO89	HO89 House 'Balmoral Farm'	2120 - 2224 Melton Highway	Melton
HO94	HO94 John Campbell Miles Farmhouse	Shamrock Place	Melton West
HO95	HO95 Former Robinsons House Tank	122-142 The Bullock Track	Melton West
HO124	HO124 Grave, Ruin & Archaeological Site Former 'Greenhills' Pastoral Station	36-49 O'Connell Avenue	Toolern Vale

Sites within the Study Area on the Victorian Heritage Inventory

HI No.	HO No.	Site Name
D7822-0124		The Gap - North-East Paddock Midden Calder Hwy
H7822-0125		The Gap - North-West Paddock Stockyard Remains
H7822-0126		The Gap - Inn Site 18-24 Raglan Street Diggers Rest
H7822-0127		The Gap - Police Barracks Teppo Court Diggers Rest

H7822-0129		The Gap - Raglan St Paddock Possible Farmhouse Site
D7822-0130	HO41	The Gap - Regent St Brick Culvert Remains Calder Hwy
H7822-0146	HO40	Plumpton Hare Enclosure Ruins 847-1071 Blackhill Rd
H7822-0147	HO50	Former Clarkes Dam 544-618 Diggers Rest Coimadai Rd
H7822-0837		Vineyard Road Site 62-144 Diggers Rest-Coimadai Rd
H7822-0839		Digger's Rest-Coimadai House Site
H7822-0978		Plumpton Road Diggers Rest House Site
H7822-2274		Former Toolern Park Homestead
H7822-2279		Toolern Creek Ruinous Bridge And Road Cutting
H7822-2280		Former Bald Hills Hotel Site 2-70 Mount Aitken Rd
H7822-2283		Holden Cobbled Stone Road Plumpton
H7822-2303		Diggers Rest-Coimadai Road Bridge
D7822-0223		She Oak Hill Stone Walls 988-992 Blackhill Road Toolern Vale
D7822-0838		Kororoit Creek East Branch Ford Diggers Rest-Coimadai Rd

previous cultural heritage assessments

Heritage and archaeological reports reviewed as part of this assessment are summarised below.

Outer Western Metro Reassessment Project: Melton and Wyndham (Gardiner 2010)

An assessment of historical sites in the outer western metro commissioned by Heritage Victoria was undertaken by Gardiner (2010). The spatial area covered by the outer western metro study area is not clearly defined in the report but appears to partially encompass the WPNGW and the surrounding region. The aim of the project was to review previously registered sites included on the Victorian Heritage Inventory (HI) and to identify new sites for potential inclusion on the HI within the study area. A total of 78 sites on the HI were identified for review in the study area, 49 of these occurred in the City of Melton. Of these 49 sites, 35 were re-examined as part of the project and 24 sites were determined to be destroyed or lacking in archaeological potential. The latter were subsequently removed (D listed) from the HI (Gardiner 2010:31-33).

The Gardiner (2010) assessment included eight historical sites within the WPNGW area. Of these H7822-222 was D listed, and H7822-0146, H7822-0835, H7822-0836, H7822-0937 and H7822-0839 were determined to retain their HI status. Two sites, H7822-0147 and H7822-0322 were unable to be accessed at the time of the survey, and were not reassessed.

As part of the project 64 potential archaeological sites in the City of Melton were identified with 27 selected for more detailed field assessment. Of the 27 sites only 13 could be examined and recorded during the field assessment. As a result of the field survey seven sites within the WPNGW were added to the Heritage Overlay (HO32, HO124, HO60) and Heritage Inventory (H7822-2274, H7822-2280, H7822-2279 & H7822-2283).

This study resulted in the assessment of a number of previously registered and newly identified historical archaeological sites in the WPNGW area. Due to field constraints not all locations identified as having archaeological potential were examined. These locations would need to be subject to a field assessment in order to determine whether they do indeed have archaeological values.

Shire of Melton Heritage Study Studies (Maloney 2002; Maloney, Rowe, Jellie & Peters 2007)

Maloney (2002) conducted a review of 475 sites identified as being of potential heritage significance in the then Shire of Melton. The then Shire of Melton encompasses the entire WPNGWMP area. These sites included extant built structures, remains of historical structures (homesteads, fords, bridges), remains of rural infrastructure (stone walls, dams), grave sites and trees. The study focused on providing brief details of these sites in table form, indicating sites of potential heritage significance and sites rejected, no longer extant or inaccessible to a field inspection at the time of the review.

Subsequent to the Stage One study, Maloney, Rowe, Jellie and Peters (2007) undertook a more comprehensive study of heritage sites in the Shire of Melton. The aims of the study were to assess and document sites of potential historical cultural significance identified in Stage One against the Australian Heritage Commission criteria, and provide recommendations for statutory registers. The aims also included providing recommendations for a heritage conservation program for the study area. A total of 191 sites, predominately built and ruinous structures, were identified and assessed with 113 of the sites recommended for inclusion onto the Heritage Overlay and seven sites recommended for inclusion on the Victorian Heritage Register.

A Melton Planning Scheme panel report was undertaken in 2009 to advise on implementing the recommendations of the Shire of Melton Heritage Study (Maloney, Rowe, Jellie & Peters 2007). As a result 113 heritage sites were included in the Schedule to the Heritage Overlay (HO) and three sites (HO11, HO12, HO34) were removed from the HO.

Eleven sites determined for inclusion on the HO occur in the WPNGW area. These are HO124, HO14, HO27, HO22, HO49, HO60, HO24, HO61, HO62, HO55 and HO43. Aside from an army radio station and a hotel, the sites are residential/rural homesteads and dwellings. They vary in condition with some containing few surface expressions of the previous structures, while others continue to be occupied as residential dwellings.

As the study appears to have been quite thorough in its assessment of built heritage it is unlikely that any highly significant built structures will be identified in future in the WPNGW area. However, it is unclear whether some of the initial 475 sites identified, but not subject to field assessment or subsequent studies, have archaeological potential. These sites would need to be subject to further investigation, including a field assessment in order to determine whether they do indeed have archaeological values.

An Archaeological Survey of the Northern and Eastern Slopes of She Oak Hill, near Diggers Rest, Victoria (Lane 1996)

An archaeological survey (Lane 1996) undertaken near Diggers Rest at the location of a proposed quarry resulted in the recording of two historical sites, H7822-0222 and H7822-0223. These sites comprise deteriorated basalt stone walls forming part of a prior paddock fencing system. The sites occur in the WPNGW area and have been D listed.

The results of the study highlight the common presence of basalt stone walls in the region.

Archaeological Survey of Telecom Optical Fibre Cable Route: Sunbury to Toolern Vale (Clark 1993)

Clark (2002) conducted an archaeological survey at Toolern Vale. The survey resulted in the recording of H7822-0146, a hare coursing run located within the current study area. This site occurs on the Heritage Inventory and the Heritage Overlay [HO40]. Dry stone walls were recorded in the vicinity of the alignment but were not recorded at the time of the field survey as these were outside the project survey area.

The study highlights the common presence of stone walls in the region and indicates that other structures relating to rural European land use practices occur in the region.

Built to last. A Historical and Archaeological Survey of Dry Stone Walls in Melbourne's Western Region (Vines 1990)

Vines (1990) undertook a survey of dry stone walls in Melbourne's Western Region. The archaeological survey resulted in the recording of seven dry stone walls in the then Shire of Melton located at: Faulkners Road; Mt Cottrell, Boundary Road; Leakes Road, and Beattys Road, Deanside Dam and Taylors Road situated at Rockbank. Some of the stone walls identified by Vines (1990) occur within the WPNGW area and are listed on the previous table.

regional archaeological assessments

The Western Region Study (Du Cros 1989)

Du Cros (1989) examined the Western Region of Melbourne in a wide-ranging survey which focussed on randomly and non-randomly selected sample areas. The majority of the sample units were non-random, to minimise the effects of poor ground surface visibility. On the results of the study the region was divided into landscape units that were subject to sample field survey by transects with two or more people walking in parallel lines (du Cros 1989:32-33). The results for 'Volcanic Plains' and 'Major Rivers and Creeks' are discussed in more detail here as they provide valuable comparative information on Aboriginal places in similar environments (i.e. watercourses and basalt plains).

Twenty Aboriginal places, including scarred trees and stone artefact scatters were recorded within the Volcanic Plains. An Aboriginal place density of 1 per 15 ha was predicted but a density of 1 per 30 ha was recorded for this landform. It was determined that places occur on extinct volcano eruption points, which are also the highest points in the landscape, and in association with swamps and small localised springs. No in situ Aboriginal places were identified.

Forty-one Aboriginal places were recorded in the Major Rivers and Creeks unit comprising predominately stone artefact scatters with grinding grooves, freshwater shell middens and scarred trees present also present. The study determined that Aboriginal places most frequently occur within 50-200 m of watercourses. An Aboriginal place density of 1 per 3 ha was predicted for this landscape unit although a place density of 1 per 9 ha was recorded during the survey. This discrepancy was attributed to low ground surface exposure.

On the basis of the survey, du Cros (1989) made the following predictive statements:

- Burials, stone artefact scatters, isolated stone artefacts and scarred trees will occur within 100 m of major watercourses;
- Stone artefact scatters will occur on the highest points of the volcanic plain, such as eruption points;

- Stone artefact scatters, isolated stone artefacts and scarred trees will occur close to permanent swamps, springs and lakes on the volcanic plain;
- Shell middens and other sub-surface deposits will occur in terraces and alluvial deposits along major rivers;
- Post-contact places will occur in association with old homesteads in the region.

Du Cros (1989:63) concluded that the Western Region is an area of high archaeological potential. Specific areas of archaeological sensitivity were identified by du Cros (1989:75) as follows for the major rivers/creeks:

Kororoit Creek – 200 m either side in undisturbed areas with basalt boulders back from the break of slope;

- Kororoit Creek across to swamps at Rockbank and Clarke Rd;
- Werribee River and river flats in areas not under housing;
- Toolern Creek through to upper reaches, particularly the areas back from the break of slope;
- Djerriwarrh Creek, banks and terraces.

For the Volcanic Plains, du Cros (1989:76-77) identified the following areas of archaeological sensitivity:

- Summit and slopes of Mount Cottrell and Mount Atkinson;
- Paynes Road swamps;
- Exford Road swamps.

Implications for the WPNGW include the identification of Djerriwarrh, Toolern and Kororoit Creeks as highly sensitive for Aboriginal cultural heritage, particularly the break of slope, banks and terraces and on high points across volcanic plain.

North Western Wurundjeri Area (Murphy 1995; Murphy and Du Cros 1996)

Murphy (1995) and Murphy and du Cros (1996) undertook a two-staged study of a large regional area (1,260,000 ha), broadly extending between Craigieburn, Broadford, Daylesford and Bacchus Marsh, encompassing the current study area. The study area was divided into three landscape units: volcanic plains; hills; and, mountain ranges (1995). In the second study Murphy and du Cros (1996) redefined the landscape units into two broader environmental units: 'volcanic plains and low hills', and 'high hills and mountain ranges'. These environmental units were further subdivided into landscape units such as 'rivers and creeks' and 'plains' (Murphy and du Cros 1996: 16).

The aim of the Stage 1 field survey was to gain an overview of the area and to establish a more detailed survey method for the Stage 2 study. As such, the field survey was limited to random sample areas selected on the basis of high surface visibility (80-100%), during a 'drive' through the study area over a 5 day period. All landscape units were sample surveyed (1995: 20-21). While survey coverage of the study area was stated as <1% (or 12,600), given its duration it is likely to be significantly less than 1% (1995, 21). During the Stage 2 study, Murphy and du Cros sample surveyed both environmental units, although a much higher emphasis was placed on examining the mountain ranges (Murphy and du Cros 1996: 19).

A total of 35 Aboriginal places were located during the Stage 1 and Stage 2 survey. An analysis of the distribution of the Aboriginal places determined that the majority (n=20) were located within 'hilly terrain with numerous waterways' in the mountain ranges. Nine

places were located on flat swampy land within the volcanic plains, while the remaining three were located in mountain ranges away from water sources. The majority of Aboriginal places recorded were isolated occurrences of stone artefacts, with stone artefact scatters and scarred trees also documented (Murphy and du Cros 1996: 21).

Murphy and du Cros (1996: 22) identified that gradient was a factor in the location of Aboriginal places. In particular they identified that:

- In mountain ranges gradient appeared a more significant factor than water in the location of Aboriginal places.
- Aboriginal places in mountain ranges tended to be located on ridges with a gentle gradient (34%) – which was interpreted as representing travel routes chosen by Aboriginal people to follow the physically easiest route.
- Lower slopes with gentle gradients adjacent to water were a common location (51%) for Aboriginal places.
- Middle slopes (11%) and areas of >10° (0%) were not commonly associated with Aboriginal places.

Water appeared to be an important factor in the location of many Aboriginal places with 62% situated within 100 m of water source. The remaining Aboriginal places were located 100-200 m (11%), 200-300 m (11%) and >300 m (14%) from a water source.

Diggers Rest-Coimadai Road woodland; Proximity to water may not have been important in some areas such as hills and mountains which were primarily utilised for hunting and travelling, and could reflect Aboriginal people's ability to transport their own supply of water (i.e. in animal skins/bladders) (Murphy and du Cros 1996: 23).

A total of 214 stone artefacts were recorded during the field survey, with 170 of these identified at surface scatters. Murphy and du Cros (1996, 26) presents some of the lithic data separately for isolated stone artefacts from surface scatters. Formal tools comprised 5% of the surface scatter assemblage, with the remainder of the assemblage comprising flakes (11%), flaked pieces (81%) and cores (3%). Artefacts with retouch/edge damage comprised (6%) of the assemblage. The tools included seven blades (microliths) and a scraper (Murphy and du Cros 1996: 26-27).

Isolated stone artefacts contained formal tools (6%), flakes (4%), flaked pieces (61%) and cores (10%). Artefacts with retouch/edge damage comprised (17%) of the assemblage. The tools included two backed blades (microliths) and a scraper (Murphy and du Cros 1996: 27).

Silcrete dominated the total lithic assemblage (81%), with quartz (8%), greenstone (10%), glass (<1%) and basalt (<1%) also represented. The closest silcrete quarries were noted as occurring near Sunbury, although silcrete outcrops with no sign of Aboriginal quarrying activity also occurred in the study area. The large numbers of greenstone artefacts, all flaked stone artefacts, were considered likely to be associated with the Mt William stone axe quarry. The glass artefact was noted as being of uncertain origin and may not in fact be associated with Aboriginal activities (Murphy and du Cros 1996: 24-25).

Murphy and du Cros (1996:26-28) interpreted this data:

- The high proportion of waste flakes and low proportion of flakes was interpreted as meaning the lithic scatters are highly disturbed and/or were not intensively utilised.
- Low core numbers indicated raw material sources were some distance away.
- High number of tools lost or abandoned at isolated stone artefact locations.

- Aboriginal places were occupied briefly and activities included the manufacture, repairing and discarding of tools.
- Wood working and/or skin processing activities are indicated by the presence of scrapers.

The study demonstrates the association of Aboriginal stone artefact scatters, isolated stone artefacts and scarred trees with water courses, as well as ridge lines and slopes with gentle gradients. The study did not investigate the potential for Aboriginal cultural heritage to occur in subsurface deposits.

localised archaeological assessments

Archaeological Survey of Telecom OFC Route - Sunbury to Toolern Vale (Clark 1993)

Clark (1993:6-8) conducted an archaeological survey for a proposed 38 km optical fibre cable route between Toolern Vale and Sunbury, extending through the eastern section of the current study area. The route crossed the two upper branches of Kororoit Creek, however only the western branch was considered to have archaeological potential due to the deeply incised banks creating shelter, and the presence of a spring fed watercourse.

Eight Aboriginal places (VAHR 7822-0665-0672) were identified along the escarpment overlooking the west branch of Kororoit Creek during the field survey. These were:

- VAHR 7822-0669 to -0672 occurred within a ploughed paddock adjacent to the western branch of Kororoit Creek. These places comprised between 1-3 stone artefacts made on silcrete and quartz, and included nine cores and one waste flake (Clark 1993:16-19).
- VAHR 7822-0667 and -0666 comprised two large artefact scatters containing 12 and 40+ silcrete cores respectively. These artefact scatters were located within a ploughed paddock overlooking Kororoit Creek. Clark noted that the sole presence of cores was unusual and may represent historical collection bias.
- VAHR 7822-0666 comprised a mound containing charcoal fragments and stone artefacts located on the eastern side of Kororoit Creek.
- VAHR 7822-0667 was recorded as an ochre outcrop and possible grinding stone located along the creek bank (Clark 1993:16-19).

Clark (1993:18) determined that this section of the Kororoit Creek, although seasonal, would have been the focus of Aboriginal occupation in the area. The incised creek valley would have provided shelter, and that the creek was spring fed and located close to an ochre deposit. Clark also hypothesised that surrounding creeks such as Toolern Creek would not have been suitable for Aboriginal occupation due to their exposed location.

The results of this field assessment would indicate that sheltered (incised) water resources and the proximity to other resources such as ochre or silcrete outcrops would have been a focus of Aboriginal occupation in the WPNGW area.

The Djerriwarrh Survey Western Fwy Melton to Bacchus Marsh Section (Vines 1994)

Vines (1994) undertook an archaeological survey for the realignment of a section of the Western Freeway between Melton and Bacchus Marsh, located within the south western section of the current study area. Vines (1994:9-11) identified three main landforms within the study area: volcanic plain, deeply incised river valleys and river bank and floodplain. The Djerriwarrh and Coimadai Creeks occur within the study area, with the Werribee River extending to the south.

Vines (1994:20) made the following predictive statements for Aboriginal cultural heritage within the region:

- Burials, artefact scatters, isolated artefacts and scarred trees will be found on river and creek flats, terraces, slopes and the top of valley escarpments within 100m of a major watercourse, i.e. where permanent water is found;
- Artefact scatters and isolated artefacts will be found on high ground which commands extensive view of the surrounding plains;
- Freshwater shell middens are likely along the terraces of the major rivers, where no ploughing or disturbance has occurred;
- Places with extensive sub-surface archaeological deposits are more likely in depositional rather than erosion environments, e.g. undisturbed river terraces, under rocky outcrops;
- Places on the volcanic plain are most likely to occur near large swamps, lakes and small creeks; and
- Contact sites are most likely to occur within about 500 m of early homesteads and settlement sites.

Vines predicted that Aboriginal places might occur within 100 m of Djerriwarrh and Coimadai Creeks, with the possibility of burials within sandy/loam floodplain deposits, or ceremonial places on high points (Vines 1994:20).

A total of 24 Aboriginal places were identified during the field assessment (VAHR 7822-0742 to -0759 and VAHR 7722-0202 to -0207), which included isolated artefacts (n=4), stone artefact scatters (n=14), quarries/ochre sources (n=4) (including those with associated artefact scatters) and a scarred tree (n=2). Stone artefact scatters and quarry places occurred predominantly on the escarpment overlooking the creek valleys and up to 600 m away from water resources. These places contained a high proportion of tools, which may suggest that these camp sites were used for hunting and/or tool production. Stone artefact scatters also occurred on the floodplain. Vines (1994:55-56) noted that Aboriginal places on the floodplain/bottom of the valley contained higher densities of stone artefact deposits with a wide range of tool types, indicating more concentrated use of the area with a greater range of activities performed these localities. Vines (1994:55) also indicated that subsurface deposits containing Aboriginal cultural heritage might occur in areas with active alluvial deposition, or erosion pressures.

The results of this assessment have implications for the WPNGMP area. It indicates that Aboriginal places in the form of stone artefact scatters and quarries will most likely occur on escarpments overlooking Djerriwarrh and Coimadai Creeks. The study did not include subsurface testing, however Vines indicated that Aboriginal cultural heritage might occur in a subsurface context in areas that contain alluvial or erosion deposits.

An Archaeological Survey Of A Proposed Quarry Site At Leakes Road, Rockbank Victoria (Du Cros 1993; Cekalovic 1999)

Du Cros (1993) conducted an archaeological assessment for a proposed quarry at Leakes Road, Rockbank, located in the centre of the WPNGW area. The field assessment identified one Aboriginal place (VAHR 7822-0659) located on the break of slope overlooking a minor watercourse. The length of the watercourse was considered to be sensitive for Aboriginal places as the incised banks would have provided shelter and a semi-permanent water resource for Aboriginal populations travelling to Kororoit Creek (Du Cros 1993: 7-9).

Subsequent to the field survey, Cekalovic (1999:1-4) monitored works to extend the quarry and identified one additional stone artefact scatter (VAHR 7822-1081) containing quartz, quartzite and silcrete waste flakes and angular fragments. The artefact scatter

was located on an escarpment to the west of the minor watercourse. Ploughing had previously displaced this place.

The results of these assessments indicate that incised creek valleys with semi/permanent water resources would have been the focus of Aboriginal occupation within the study area, allowing for the movement of Aboriginal people across the landscape. Aboriginal cultural heritage within these areas are characterised by isolated and low density surface scatters that have often been displaced by agricultural activity.

An Archaeological Survey Of The Northern And Eastern Slopes Of She Oak Hill Near Diggers Rest, Victoria (Lane 1996; Debney And Cekalovic 1999; Tulloch 2000)

Lane (1996) conducted an archaeological survey for a proposed quarry on She Oak Hill, at Diggers Rest, located within the WPNGW area. Three Aboriginal places (VAHR 7822-0864 to -0866) were identified during the field assessment. These places comprised a surface stone artefact scatter and two isolated stone artefacts respectively, located on the ploughed slope of She Oak Hill (Lane 1996:7-11). VAHR 7822-0864 contained five artefacts including two cores, a side scraper and an angular fragment all made on silcrete. VAHR 7822-0865 and -0866 contained a silcrete side scraper and silcrete angular fragment respectively. The artefacts were considered to represent the erosion of artefacts down slope from an artefact deposit located on the top of She Oak Hill. Lane (1996:10-11) indicated that given the presence of silcrete cores, stone working was most likely taking place on site with locally available silcrete.

Lane (1996) considered that the lower and mid slopes of She Oak Hill were sensitive for further Aboriginal places, which may have been obscured by long grass during the field survey.

Debney and Cekalovic (1999:1-16) subsequently monitored construction works for a bund wall on She Oak Hill. An additional 25 stone artefacts were recorded at VAHR 7822-0864 and 20 stone artefacts were recorded at VAHR 7822-0866. The presence of geometric microliths within the assemblage broadly dates the artefacts to the last 4,000 years.

Debney And Cekalovic (1999:16-19) concluded that all stone artefacts were extensively disturbed by repeated ploughing and cultivation, erosion and quarrying activity, and had been displaced from their original context. They hypothesised that She Oak Hill would have provided Aboriginal populations with a vantage point over the surrounding landscape, with stone artefacts most likely occurring at the apex of the hill and displaced down slope by agricultural activity and erosion.

Tulloch (2000:10-16) monitored additional works to the bund wall in 2000, during which an additional 10 stone artefacts were recorded within VAHR 7822-0864 and four artefacts within VAHR 7822-0866. Artefacts included flakes, cores, debitage, a blade and microlith blank made predominantly on silcrete and quartz.

The results of this assessment would indicate that Aboriginal cultural heritage occurs on high vantage points in the WPNGW area in the form of low to moderate density surface stone artefact scatters, located on the apex and slope of hills. To-date these places have been extensively disturbed by land clearance, agriculture and quarrying and do not to occur as in situ deposits. It is unlikely that intact subsurface deposits of Aboriginal cultural heritage occur, however in the absence of any subsurface testing, their presence cannot be ruled out.

Diggers Rest – Coimadai Road, Roadworks and Bridge Widening, Toolern Vale CHMP 10581 (Feldman 2009)

Feldman (2009) prepared a CHMP for various road works in Toolern Vale, within the north western section of the WPNGW area extending 400 m on either side of the Djerriwarrh Creek (Feldman 2009:9-11). No Aboriginal cultural heritage was identified during the field survey component of the assessment (Feldman 2009:19-21). A total of 55 shovel test pits and four 1 x 1 m tests pits were excavated during the Complex Assessment, resulting in the identification of 49 stone artefacts recorded as four Aboriginal places (VAHR 7822-2304, -2305, -2306 and -2309). The Aboriginal places comprised low to moderate density stone artefact scatters identified in surface and subsurface deposits between 0-250 mm within brown friable clay silt. The places were located on rises overlooking the creek, on plain adjacent to the creek, and on the hill slope. All stone artefacts were made on silcrete and comprised predominantly flakes, with lesser densities of tools and cores (Feldman 2009:24-44).

The results of CHMP demonstrate that the escarpment overlooking the Djerriwarrh Creek is sensitive for Aboriginal cultural heritage in the form of surface and subsurface stone artefact scatters (to a depth of c. 250 mm). It is likely that similar Aboriginal cultural heritage will occur elsewhere along Djerriwarrh Creek within the WPNGW area.

Hillside-Melton Fibre Optic Cable CHMP 11228 (Barker and Barker 2010)

Barker and Barker (2010) prepared a CHMP for the installation of a fibre optic cable within road reserve between Hillside and Melton along the Melton Hwy. The activity area had been subject to extensive ground disturbance via the installation of services. The field assessment identified one disturbed surface stone artefact scatter (VAHR 7822-2503) on the southern floodplain of Kororoit Creek, most likely displaced by the installation of a water pipeline. The remainder of the activity area was determined to be heavily disturbed and of low archaeological significance (Barker and Barker 2010:36-37).

Barker and Barker (2010:46-50) conducted a program of subsurface testing in proximity to VAHR 7822-2503 on the southern side of Kororoit Creek. No additional cultural material was identified. The excavation pits revealed a soil profile of brown compact loam onto compact clay at 200 mm below the ground surface. The absence of Aboriginal cultural heritage within subsurface deposits was attributed to disturbance caused by construction of the water pipeline.

The study demonstrates the association of Aboriginal stone artefact scatters with watercourses such as Kororoit Creek. While no subsurface deposits were associated with this particular Aboriginal place, a result attributed to the installation of previous services, it is likely that in less disturbed locations subsurface Aboriginal cultural heritage will be present.

Sunbury Rail Electrification Project, Watergardens Station to Sunbury Station CHMP 10759 (Clark and Noble 2010)

Clark and Noble (2010) undertook a CHMP for a 15 km section of railway line between Watergardens and Sunbury train stations, within the eastern section of the WPNGW area. The study area was located in an existing railway reserve along the Melbourne-Bendigo line, and contained six previously registered Aboriginal places (VAHR 7822-0377, -0481, -1396, -1656, -1776 and -1824). These Aboriginal places comprise surface stone artefact scatters predominantly made on silcrete and one silcrete quarry (Clark and Noble 2010:1-24).

A total of five new Aboriginal places (VAHR 7822-2423, -2409, -2424, -2425 and -2431) and three previously recorded Aboriginal places VAHR 7822-1396, -1656 and -1776)

were recorded during the field survey. All five newly recorded Aboriginal places comprised low density (1-4 artefacts) stone artefact scatters made on silcrete and located on vehicle tracks or the railway embankment. None of these places were considered to be in situ, having been disturbed by construction of vehicle tracks or introduced within fill for the track embankment (Clark and Noble 2010:27-32).

A program of subsurface testing was undertaken: at the locations of surface stone artefacts; areas considered to be sensitive for Aboriginal cultural heritage (i.e. water courses); and, areas of major works. A total of 112 shovel test pits (0.5x 0.5 m and 0.3x0.3 m) and five excavation pits (1x1m, 0.5x1 m, and 0.5x0.5 m) were excavated along the alignment. A total of ten Aboriginal places were identified during the study: seven Aboriginal places (VAHR 7822-2410, -2411, -2426, -2427, -2428, -2429, and -2430) were isolated surface stone artefacts of quartz and silcrete; and, three Aboriginal places (VAHR 7822-1363, -1656 and -2423) were stone artefacts found in subsurface deposits during subsurface testing (all these places occur to the east and outside of the WPNGW area) (Clark and Noble 2010:33-43).

VAHR 7822-1363 contained 35 stone artefacts in shallow alluvial deposits and was considered to be associated with VAHR 7822-1656. VAHR 7822-1656 contained a dense occurrence of stone artefacts (n=677) of predominantly silcrete flakes and flaking debris located up to 500 mm below the ground surface in Holocene alluvial silts on a terrace overlooking a tributary of Jackson's Creek (immediately to the east of the WPNGW area). Artefacts are associated with the preparation of raw material from the adjacent silcrete quarry (VAHR 7822-1908), comprising large proportions of cortical flakes, and flaking debris, and only small instances of formal tools and smaller debitage associated with tool production. Railway ballast was identified up to 500 mm below the ground surface, indicating that these deposits have been impacted by surrounding construction (Clark and Noble 2010:40-52).

The following implications can be inferred for the WPNGW area based on the results of this CHMP; that naturally occurring silcrete outcrops are likely to contain evidence of Aboriginal quarrying in the form of dense surface and subsurface stone artefact deposits. These deposits occur on ridgelines and hill slopes particularly in proximity to water resources. Subsurface stone artefacts can occur in alluvium up to 500 mm deep, and broadly date to the late Holocene. Low density surface stone artefacts also occur broadly across the study area, on ridgelines and terraces overlooking water resources.

Western Freeway Realignment, Anthony's Cutting, East of Bacchus Marsh. CHMP 10378 (Clark, Howes and Phillips 2009)

Clark, Howes, and Phillips (2009) undertook a CHMP for a proposed 12 km realignment of the existing Western Freeway between Melton and Bacchus Marsh, forming the southern boundary of the WPNGW area. The area consists of predominantly agricultural land, and crosses three major watercourses Djerriwarrh Creek, Coimadai Creek, and the Lerderberg River (Clark, Howes, and Phillips 2009:1-15).

The field survey identified four previously registered Aboriginal places (VAHR 7822-0751, 7822-0758, 7722-0202 and 7722-0203), and seven new Aboriginal places (VAHR 7822-2238, -2239, -2265, -2266, -2398 and -2399) including the amalgamation of VAHR 7722-0202, 7722-0203, 7722-0204 and 7722-0205 as VAHR 7722-0661. The places comprised low to moderate density stone artefact scatters and one worked silcrete outcrop (VAHR 7822-2266) all in proximity to water resources (Pyrites Creek, Djerriwarrh Creek and a minor drainage line).

The subsurface investigation involved the excavation of 286 test holes and mechanical auger holes on each landform and within proximity to surface stone artefacts. Subsurface stone artefacts were identified at two locations VAHR 7722-0661 and 7822-2266, neither of which are located within the current study area. VAHR 7722-0661

contained 170 surface stone artefacts and three subsurface stone artefacts identified at a maximum depth of 200 mm in silty topsoil. Artefacts were largely made of silcrete and contained a high proportion of flakes, cores and retouched flakes (Clark, Howes, and Phillips 2009:54-61).

VAHR 7822-2266 comprised a total of 268 stone artefacts identified below a silcrete outcrop on the mid slope overlooking Djerriwarrh Creek. Stone artefacts were identified up to 200 mm below the ground surface in dark brown silt, which was considered to potentially be formed through to land slippage. Artefacts were almost exclusively made of silcrete, with some quartz and quartzite, and comprised debitage with 2% of artefacts formal tools. Three places, VAHR 7822-0748, -0749, were located within 100 m of Djerriwarrh Creek. Subsurface deposits throughout the activity area were not considered to be in situ due to widespread disturbance, erosion and land slippage (Clark, Howes, and Phillips 2009:60-80).

The report concluded that Aboriginal places within the study area were located on high ground overlooking river valleys up to 500 m from these resources, with the eastern side of these river valleys providing more shelter from the prevailing winds. Lower density and isolated surface stone artefacts places occur on the basalt plains between Djerriwarrh and Coimadai Creeks, which may reflect the movement of Aboriginal people between these two resources (Clark, Howes, and Phillips 2009:82).

The results of this CHMP has implications for the WPNGW area, highlighting the association of Aboriginal places with high points overlooking the Djerriwarrh and Coimadai Creek valleys. It indicates that any silcrete outcrops that occur in the WPNGW area may have been quarried by Aboriginal people as sources of stone for tool making. The report also demonstrated that stone artefacts occur in subsurface deposits along Djerriwarrh Creek, however these deposits are unlikely to be in situ due to widespread soil disturbance.

Calder Park Stabling and Maintenance Yards CHMP 12123 (Howell-Meurs, Mathews and Albrecht 2012)

Howell-Meurs, Mathews, and Albrecht 2012 prepared a CHMP for an area alongside the existing railway line at Calder Park, located within the south eastern corner of the WPNGW area. The area comprised a flat volcanic plain cleared of vegetation and used for agriculture. A minor drainage line extended through the centre.

One previously registered Aboriginal place (VAHR 7822-1824) was identified to occur within the activity area, comprising a low density (two quartz artefacts) surface stone artefact scatter located on the crest of a plateau c.20 m from Taylors Creek (Howell-Meurs, Mathews and Albrecht 2012:21-23).

The field survey identified eight Aboriginal stone surface artefacts occurring in areas of good ground surface visibility on gently inclined land and land in proximity to a shallow incised channel (an ephemeral tributary of Taylors Creek). All artefacts were flakes made of chert (n=3), quartzite (n=3), quartz and silcrete. The field assessment also determined that the entire study area had been subject to varying levels of ground disturbance (Howell-Meurs, Mathews and Albrecht 2012:33-42).

The subsurface testing program focused on areas containing surface stone artefacts and sensitive landforms (incised channel; inclined land). A total of 26 artefacts were identified across the activity area, recorded as four Aboriginal places (VAHR 7822-3316, -3317, -3318 and -3319). As a result of the program artefacts were identified in a uniform silt overlying dark brown clay occurring between 100-200mm. Stone artefacts occurred up to 300 mm below the ground surface, and were dominated by flakes with lesser densities of tools (n=6, or 23.1%), and angular fragments. Aboriginal places were

located along the channel and on inclined land in the north western section of the study area (Howell-Meurs, Mathews and Albrecht 2012:60-82).

All tools were identified in VAHR 7822-3319, and included a microlith, retouched blade, retouched flake and thumbnail scraper, some of which are forms associated with the Australian Small Tool Tradition (ASTT) dating to the late Holocene. Silcrete represented 80.8% of the subsurface assemblage, while only 19.2% of artefacts were made on quartz. VAHR 7822-3319 contained only silcrete artefacts. Howell-Meurs, Mathews and Albrecht (2012:75-77) concluded that this the lack of cores and larger artefacts would indicate that retouching of prepared tool blanks was taking place on site, with core reduction undertaken elsewhere.

The results of the CHMP indicate that Aboriginal cultural heritage in the form of stone artefacts occur on inclined land adjacent to ephemeral water resources. The artefacts occur as surface expressions and in shallow subsurface deposits. These low to moderate density stone artefacts have the potential to occur elsewhere in the WPNGW area close to water resources. However, it is unlikely that these deposits will occur in situ given the level of ground disturbance and the shallow nature of soil horizons.

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appendix 4

cultural values recording

Western Plains North Green Wedge Management Plan

Cultural Values Recording

Wurundjeri Tribe Land &
Compensation Cultural Heritage
Council Inc.

August 2013

This document presents the results of a cultural values recording for the Western Plains North Green Wedge Management Plan, prepared for Ochre Imprints by the Wurundjeri Tribe Land & Compensation Cultural Heritage Council Inc. Access to these cultural values must be obtained by written approval from the Wurundjeri Council.

Contents

Introduction	2
Aboriginal Cultural Significance	2
Wurundjeri Cultural Significance of the Western Volcanic Plains	3
Summary	11
Incorporation of Cultural Vales into the Green Wedge Management Plan	12
References	13

Introduction

Ochre Imprints were commissioned by Hanson Partnership P/L to undertake a desktop review of cultural heritage issues associated with the Western Plains North Green Wedge Management Plan (WPNGWMP). The WPNGW occurs in the Melton City Council local government area.

A meeting was held with Ochre Imprints and Wurundjeri Council to discuss cultural heritage, cultural values and how Wurundjeri would like to be involved in management decisions by council. Wurundjeri identified the need for undertaking a cultural values recording onsite with three Wurundjeri Elders, to allow for more detailed information to be documented regarding their cultural values and aspirations in relation to the area.

This report outlines the cultural values and contemporary association of the Wurundjeri Council to the Western Volcanic Plains area and the surrounding region, which was assessed during a full day site inspection on Friday 26th July, 2013. Present at the cultural values recording were:

- David Wandin (Wurundjeri Elder, representing the Wandin family)
- Alice Kolasa (Wurundjeri Elder representing the Terrick Family)
- Robbie Jones (Wurundjeri Elder representing the Nevin family)
- Kirsty Lewis (Wurundjeri staff Archaeologist)
- Fiona McConachie (Wurundjeri staff Ecologist and Cultural Mapping)
- Petra Schell (Director, Ochre Imprints)
- Fjorn Butler (Administration, Ochre Imprints),
- Luke Shannon (Melton City Council General Manager, Planning and Development)
- Bob Baggio (Melton City Council Manager, Planning)
- Laura-Jo Mellan (Melton City Council Co-ordinator Strategic Planning)
- Matthew Lloyd (Melton City Council Social and Community Planning Officer)
- Sophie Thompson (Melton City Council Strategic Planner)

Aboriginal Cultural Significance

The process for establishing cultural heritage significance is outlined in the Australia ICOMOS Charter for the Conservation of Places of Cultural Significance, otherwise known as 'The Burra Charter' (Marquis-Kyle & Walker 1992). The Burra Charter is based on preceding international charters formulated by ICOMOS (the International Council on Monuments and Sites).

The recently revised Burra Charter defines cultural heritage significance as the aesthetic, historic, scientific, social or spiritual value for past, present or future generations. Social value embraces the qualities for which a Place has become a focus of spiritual, political, national or other cultural sentiment to a majority or minority group (Australia ICMOS 2000: 11). This cultural sentiment therefore comes from the Aboriginal peoples themselves in relation to the Aboriginal Place(s) that is being assessed.

Therefore in addition to the archaeological (scientific) significance of a Place, in order to arrive at an overall statement of significance, an assessment must incorporate the aesthetic, historic, social and/or spiritual value of that Place. These types of intangible values have rarely been incorporated in the significance assessment of Aboriginal Places in Victoria; however this is common practice in

other parts of Australia. These intangible values should be incorporated as part of the cultural significance of an Aboriginal Place to Aboriginal peoples.

When considering the overall Aboriginal cultural heritage significance of Aboriginal Places in Victoria a more holistic approach, which includes all of the above categories, would be more appropriate to determine cultural heritage significance. As stated in the Guidelines to the Burra Charter regarding Cultural Significance (Australia ICOMOS 2000: 13): “Whatever may be considered the principal significance of a place, all other aspects of significance should be given consideration.”

It is these principles that are reflected in the *Victorian Aboriginal Heritage Act 2006*, which states (Section 4) that the definition of cultural heritage significance includes archaeological, anthropological, contemporary, historical, scientific, social or spiritual significance and significance in accordance with Aboriginal tradition. It should be noted that Aboriginal tradition is not static and unchanging from a distant “authentic” past. Tradition is also the handing down of beliefs and stories from one generation to the next, but does not mean that “significance in accordance with Aboriginal tradition” requires an immutable value from “time immemorial.” For example, a scatter of discarded waste flakes from a one-off utilitarian task may acquire “significance in accordance with Aboriginal tradition” with the passage of time and change. Indeed, as has been noted by other heritage advisors in other states of Australia, the act of handling stone artefacts through the archaeological excavation and sieving process by Aboriginal peoples reconnects those peoples with their past and therefore creates a new cultural significance with those artefacts.

It is part of the process of determining overall cultural heritage significance that cultural heritage advisors endeavour to record all these stories, both traditional and contemporary, and include all the intangible values in the significance assessment of all Aboriginal Places in Victoria. Comment on the cultural values and significance of these Places can only be made by the Wurundjeri community. Specific details about cultural significance must be dealt with on a case-by-case basis with the Wurundjeri community.

For the Wurundjeri community the natural world is a cultural world; therefore the Wurundjeri people have a special interest in preserving not just their cultural objects, but the natural landscapes of cultural importance. The acknowledgement of broader attributes of the landscape as cultural values that require protection (encompassing, among other things, a variety of landforms, ecological niches and habitats as well as continuing cultural practices) is essential to the identity and wellbeing of the Wurundjeri people. Statements regarding the specific cultural values of the Western Volcanic Plains and surrounding region are included in the section below.


Wurundjeri Cultural Significance of the Western Volcanic Plains

Members of the Wurundjeri Council are descendents from the Nevin, Terrick and Wandin families. They share a history of the Coranderrk Aboriginal Reserve, which was established in Healesville in 1863 by Woi wurrung, Taungurung and Bun wurrung people under the leadership of William Barak and Simon Wonga. After the closure of the reserve in 1924, the Wandin family stayed in Healesville whilst the Nevins moved as far north as Cummeragunja reserve on the NSW side of the Murray River, and then to the western and north-eastern suburbs of Melbourne. It was members of these family groups who participated in this assessment by walking across a landscape and recording the cultural values representative of the wider region.

The archaeological material located throughout the region is indicative of the Western Plains being a focal point of Aboriginal occupation and land use prior to non-Indigenous settlement. It is also a

space of contemporary cultural practise as the Wurundjeri community still invest culturally in the landscape through an active process of identity, cultural beliefs, community and association to Country.

The following information was provided as a result of this inspection:

Theme	
<p>Social - navigating through country</p>	<p>Looking at the view of the Western Volcanic Plains from Sally and Brendan’s property David remarked:</p> <p><i>I can see my people being here. The tops of the mountains are important places for my people. The highpoints made it possible to see where the rest of your people are. We used fires and the smoke to communicate with people and this gave a sense of what people were doing. It was the young initiates’ job to see who was coming into and leaving country. This created a sense of knowing where other families are supposed to be</i> (David Wandin, Wurundjeri Elder).</p> <p>Surrounding country was monitored due to the strict social protocols surrounding the ability for a neighbouring or ‘foreign’ group to have access to another’s country. Permission is formalised through the smoking and <i>Tanderrum</i> ceremonies, still practised by the Wurundjeri community today. The natural landscape and its features including the wide open plains and the volcanic rises would have facilitated interaction with neighbouring groups such as the <i>Wauthurong</i> who were known to have occupied the area to the west of the study area.</p> <p><i>We aren’t far from Wauthurong country here but the other groups would need permission to come on to our country. We sent runners to see where other people were. We used to send women across to see who it was and send messages through to the other tribes. The smoke tells you how far away people were</i> (David Wandin, Wurundjeri Elder).</p> <div data-bbox="443 1379 1369 1682" style="display: flex; justify-content: space-around;">  </div> <p style="text-align: center;">Plate 1 View of the landscape from Sally and Brendan’s property</p>
<p>Land use and management - use of native resources</p>	<p>The environment and natural resources contained in the Western Plains supported and maintained <i>Woi wurrung</i> livelihood.</p> <p><i>We used marker trees to direct people to food resources. Food resources and medicine plants were utilised throughout the landscape. Anything with a tuber was important to us in terms of food resources. It was up to the women to</i></p>

collect plants and tubers – myrrnong or yam daisy (microseris lanceolata) and chocolate lillies (arthropodium strictum) and other tubers that the body needs. When the women would see the kids getting lethargic, they would send men out but this was governed by women. The women would also harvest pods and tubers like the vanilla tuber (arthropodium) and source a variety of proteins and wattle (David Wandin, Wurundjeri Elder).

Aboriginal people sustainably managed the land and its resources. Burning was one way to ensure large tracts of land were regenerated for seasonal use.

We also burnt areas as we left. It took us approximately three years to walk Wurundjeri country. We wouldn't exhaust the whole area. We would follow the seasons. We have been practicing this for 40,000 years. I am sure the Europeans learned to adopt this cycle off the tribes they met in Victoria. We also used quarries. I can see my people knapping axes. The ones from Mt William have been found as far away as far North Queensland (David Wandin, Wurundjeri Elder).

Stands of native trees and native vegetation are of particular importance to the Wurundjeri community as these areas contain small pockets of land representative of what the area would have looked like prior to the extensive clearing of the landscape by pastoralists and more recently by urban development.

At the Ryan's Lane roadside reserve (yellow box grassy woodland), a tree with a large knot in it prompted a discussion about the use of native trees in the production of items of material culture. David Wandin and Alice Kolasa discussed how the locally available trees were used to make *tarnuks* (a type of bowl or water carrier):

We still make tarnuks today. We cut the knots off the tree. We burn it or carve it out with silcrete. The bowls were used by women to carry bulbs, fruits and seeds and water. Men only carried spear throwers and spears. Women carried everything. The knots are cut off the tree with a hand axe like the greenstone axes found at Mt William. The knot is chopped completely off the tree. I have made some greenstone axes. They work as good as contemporary axes. In the early journals it says aboriginal people were much fitter tall and muscular back then so it wouldn't take that long to chop a knot like this off. Someone young could get this off in a couple of hours and it would take a few days to carve it out. We used the coals to burn it into a rough shape. The knot has nothing to do with the regeneration of the tree. It's an insect that causes the knots. We used the wattle sap to seal it up so we could carry water in it. Greenstone axes are found in South Australia, Western Australia and Far North Queensland

The distribution of such axes demonstrates the extensive trading routes between the Wurundjeri and other groups throughout Australia.



Plate 2 Native tree with knot – used to make tarnuks

Along the banks of the Djerriwarrh Creek there was a further discussion about the importance of the use of native trees and natural resources in the manufacture of Aboriginal material culture:

You can see the native mistletoe here. It was a native parasite. You can eat the flowers or use them to sweeten drinks. The flowers give you a short burst of energy. We made fighting sticks (boondi) out of this. See the knobbly bit. You could use small artefacts or debitage and stick it in the bulb with wattlesap or gumtree sap and poke in the debitage. These would break off when you hit someone and get stuck in the wounds which would then result in infection and people would die. The leaf of the mistletoe is rubbery. My father left me one of his fighting sticks (David Wandin, Wurundjeri Elder).



Plate 3 Native Mistletoe

Kangaroo Apple, used medicinally as fertility control, and Ruby Saltbush (*Enchylaena tomentose*) were also identified in the area.

In addition to terrestrial based material culture, aquaculture technology was also important. Aquaculture technology was developed to harvest the plants and animals from waterways, such as eel traps. Clay pots, rock traps and woven *lomandra* nets were placed at the bottom of freshwater waterways during the annual eel migration in summer. These would trap the eels after the water receded.

At the Djerriwarrh Creek Streamside Reserve David Wandin stated '*I feel a sense of place here. I feel it straight away*'. Alice Kolasa shared a similar

sentiment 'I used to play under trees like this. It feels like I have come home today'.


This would have been an ideal camping spot in summer. It's easy to protect the group and observe people coming in. There would have been good food resources in the creek. You could set up eel traps made out of reeds where the creeks merge at the confluence. There was a stone eel trap found out at the Yarra at Warrandyte. People made the traps out of reeds which were made into funnels or out of rocks. Apparently eels can't go from fresh to salt water. There is a higher salinity level in some areas and that's where we put the traps. You may find artefacts here. I can see us camping here. You might also find blackfish in the deeper pools although I have caught them in shallow water. You would definitely get eels here. You just need to find the confluence. I always do my eeling on the smaller creek. They taste better. You can actually dig for eels. They travel across land when water sources are low. If you go to the nearest dam i.e. yarra billabongs you can go out and dig for eels. They will burrow straight down. It's a practice I learnt from my uncles. This demonstrates ongoing culture. In this spot I have a strong sense of place. Knowledge is handed down from generation to generation. Some of these trees are around 200 years old. There are probably artefacts around here. In the higher part of the escarpment (on the other side of the river). You sometimes find sites on the rockiest parts (David Wandin, Wurundjeri Elder).

Waterways such as Djerrivarrah and Kororoit Creeks connected *Woi wurrung* people to surrounding country. Waterways functioned as important travelling routes and inter-group meeting places to carry out trade, ceremonies such as initiations and marriages, and to resolve inter-group conflict. This social and cultural activity was observed by Port Phillip Aboriginal Protector, William Thomas (Thomas, 1854).



Plate 4 Wurundjeri Elder David Wandin talking about cultural heritage values at Djerriwarrah creek streamside reserve

In terms of regenerating undergrowth David Wandin remarked: *grasslands provided large quantities of food resources for our people. The mid story is important to attract fauna. You need to start from the bottom and bring in higher stories of vegetation. We spend a lot of time in natural resource management starting with the revegetation of undergrowth. This attracts the fauna to an area (David Wandin, Wurundjeri Elder).*

<p>History - Interactions with settlers</p>	<p>Historical records provide an insight into the post contact Aboriginal occupation of the landscape. There are a number of important sites throughout the study area and the broader region that demonstrates how Aboriginal people continued to use the landscape and its resources after the European settlers had arrived. For example, Aboriginal people are known to have lived and died on the Exford station, Mount Kororoit, and John Aitken’s station was the scene of a number of conflicts with Aboriginal people (Shire of Melton Heritage Study 2006, p. 12).</p> <p><i>In a sense, however, the whole landscape - the open plains, hills, streams and forests - is a link to the Shire’s pre-European inhabitants. This was recognised by the early surveyors and government officials who gave Aboriginal names to prominent features such as Mt Kororoit, and Djerriwarrh and Toolam Toolern Creeks....These names are amongst the most enduring evidence of the pre-European, and ‘contact’ eras’ (Shire of Melton Heritage Study 2006, p. 12).</i></p> <p>The Millet family who used to own the Mt Tophen (Mt Tophet) property located in the north east of the study area were told that the north side of Mt Tophen was important to Aboriginal people in historic times as it is where they used to gather for ceremonies. Carmel Schaffer, a descendant of G. Millet, said there were hearths (fire places) on Mt Tophen (Mt Tophet) and believes that the hillside would have provided adequate shelter from the wind and the basalt caves on Kororoit Creek to the west would have provided shelters which were ideally suited for camping. The area is also said to contain three unmarked Aboriginal graves (cnr of Napier and Regent Street near Raglan Street) although the exact location of the graves is unknown.</p> <p><i>Mount Tophet would have been a gathering place for ceremonies. One would surely find remnants of huts and basalt cores at the nearby Kororoit Creek (David Wandin, Wurundjeri Elder).</i></p>  <p>Plate 5 Mt Tophet</p>
<p>Archaeology and landform</p>	<p>Wurundjeri’s traditional and contemporary connection to the Western Volcanic Plains is demonstrated by their RAP (Registered Aboriginal Party) boundary as determined by the Victorian Aboriginal Heritage Council for the purposes of the <i>Aboriginal Heritage Act 2006</i>. Wurundjeri’s RAP area extends over the north western section of the Melton City Council Local Government Area. The Wurundjeri Council also have an existing RAP application over the remainder of</p>

the Melton City Council Local Government Area.

In addition to its rich and diverse social and cultural history, the Western Plains also contains numerous previously recorded archaeological sites, particularly around the Djerriwarrh, Toolern and Kororoit Creeks.

The Western Volcanic Plains landform is dominated by flat open plains and mountains or basalt rises formed by volcanic eruptions. These rises or eruption points are of particular interest to archaeologists and researchers alike. These landforms are known to hold particular significance to Aboriginal people as they were important meeting places where ceremonies and gatherings were known to be conducted.

According to site prediction models formulated through archaeological research the following statements can be made regarding the potential location of Aboriginal archaeological sites:

- Artefact scatters will occur on the highest points of the volcanic plain such as eruption points;
- Post contact sites will occur with old homesteads in the region;
- Specific areas of archaeological sensitivity include the Toolern Creek, Kororoit creek (200m either side especially in undisturbed areas with basalt boulders back from the break in slope);
- Djerriwarrh creek banks and terraces;
- The summit and slopes of Mt Cottrell (source: Du Cros 1989 pp, 63, 75, 76, 77).

Mt Kororoit was an area of Aboriginal occupation in the pre-contact era and continued as such in the contact era, encouraged by the Moylan family (Shire of Melton Heritage Study 2006, p.p. 13& 14).



Plate 6 Mt Kororoit

The archaeological cultural material located at the Melton Gilgai Woodlands Nature Conservation Reserve during the cultural values recording demonstrates the important interrelationship between stands of native remnant vegetation (grassy woodland) and the preservation of archaeological sites. Generally speaking, archaeological sites are often found undisturbed in such contexts, which in turn increases their scientific, cultural and social significance to the Wurundjeri community. Given the presence of small tools such as thumbnail scrapers and small un-worked stone flakes at the site, it is reasonable to suggest

that the artefact scatter dates to within the last few thousand years.

The stone artefact scatter provided the Wurundjeri Elders an opportunity to reconnect with their ancestors and past. David Wandin, Wurundjeri Elder, used the site to explain how his ancestors used the resources available to them to fashion stone tools for use in food preparation such as skinning kangaroos and other available fauna, and for woodworking including the manufacture of wooden implements such as adzes, spears, *woomeras* (spear throwers), shields and *nullas* (fighting sticks).

David Wandin, Wurundjeri Elder remarked:

To catch kangaroos in an area like this where there are lots of trees but lots of space in between, you would have to act like one: hiding behind trees, peeking out, and hiding amongst the high grass, popping your head up to observe. These actions make you look like a kangaroo, so they wouldn't run away, makes it easier to hunt them. In an area like this you could use a gerrick, the Woiwurrung term for woomera or throwing stick to catch them. You use shorter spears in denser areas, longer ones in open areas (David Wandin, Wurundjeri Elder).



Plate 7 left: Gilgai Woodlands Nature Conservation Reserve and right: David Wandin, Wurundjeri Elder explaining stone tool manufacture at Gilgai Woodlands Nature Conservation Reserve

There was a discussion about how important grassy woodlands were in terms of the resources they provided and how they are being rapidly developed in the study area. This was concerning for Robbie Jones and Alice Kolasa. Robbie Jones, Wurundjeri Elder, talked about working on development sites in the area and that handling stone artefacts enabled him to connect with his culture.

With regards to rockshelters along the local creeks and waterways David Wandin commented:

There are a lot of shelters along Kororoit Creek. You can still see evidence of fires etc. I am not sure if that's a shelter up there. People expect large caves but simple outcrops or rocky overhangs is where people camped. An area maybe a hallowed out section for storing belongings It's difficult to get to the shelters along the Werribbee River. There is much more diversity along an ephemeral creek. The geological formations teach kids about how the landscape was formed. Rock shelters aren't necessarily easy to access. The water level was a lot higher back then. The landscape has changed. The formation of the Maribyrnong happend in stages. You can see the terraces that have formed

through time. At Brimbank Park the shelters are at different terraces and easy to access (David Wandin, Wurundjeri Elder).



Plate 8 Streamside Reserve, Djeriwarrah Creek



Plate 9 David Wandin talking about the Aboriginal use of natural resources, Djerriwarrah Creek Streamside Reserve

Spiritual

The participants demonstrated that being on country reignites and serves to maintain spiritual connections to country and the broader landscape. Robbie Jones reminisced about working on development sites and how this enhanced his connection to the area through handling material culture that connected him to his ancestors. Alice Kolasa remarked that when she is on country that it's like coming home.

David Wandin remarked that he is able to feel a sense of place when he works on country and that his work in natural resource management provided him with the ability to connect to country and the natural resources that sustained the livelihoods of his ancestors.

Summary

The Western Volcanic Plains and the surrounding region is a significant landscape for the present day Wurundjeri community due to its past and present social history. The Wurundjeri participants in the cultural values assessment imbued onto the area values that relate to their cultural connection to country, via an understanding of traditional and contemporary practises of living within a socio-

dialectical delineated area. The discussion on the day focused on family history and cultural activities which they perceived as validation that it was, and continues to be, Wurundjeri country. Discussion moved from everyday life prior to settler colonialism, to traditional practises such as procuring natural resources for implements and eel fishing, to the influence on Aboriginal livelihoods of government policies, in particular the movement of people such as Robbie's family between reserves in Healesville to NSW and then to suburban Melbourne. These are historical points following non-Indigenous settlement, when many cultural practises became repressed following dispossession of land and social disenfranchisement. Landscapes such as the Western Plains, therefore, holds value as a cultural landscape which maintains both a tangible and a conceptual link between past, present and future society and through its facilitation of cultural renewal during a period of historical discontinuity. The landscape becomes their dialogue which allows Wurundjeri representation back into a former *Woi wurrung* homeland.

For Robbie Jones, David Wandin and Alice Kolasa, the Western Plains is a place of enduring connection. Such associations, or a sense of place, are commonly held in the living systems that sustain a place. Whilst family history and traditional practises are recollected and renewed, the ultimate focus of the Wurundjeri participants is maintenance of the natural environment.

Incorporation of Cultural Vales into the Green Wedge Management Plan

The primary aim of the cultural values recording was to develop a cultural understanding of the Western Plains and facilitate discussion with Wurundjeri Elders as to cultural values in regard to the locations within the Green Wedge Management Plan.

Incorporation of cultural values into the area can be developed through a collaborative approach between Wurundjeri Council and land managers to manage the landscape and known heritage places in culturally sensitive ways. This could include incorporating Wurundjeri land management practises into any retained natural open spaces, for example, traditional burning, weed control or native revegetation. Where possible, the inclusion of interpretive signage and *Woi wurrung* naming of places or plant and animal species along publically accessible waterways would educate the wider public of Wurundjeri history and of the cultural importance of the waterways and surrounding landscape. All *Woi wurrung* language, phrases and words used in naming, interpretations etc. must be approved by the Wurundjeri Council. These strategies would actively involve the Wurundjeri community in any management practices directed at restoring and maintaining the cultural importance of the Western Plains.

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appendix 5
bibliography

bibliography

environment

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