Character Type 5
The Wimmera Plains

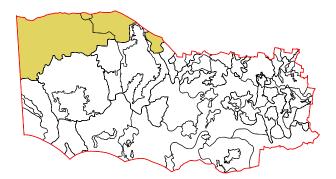
# 5 THE WIMMERA PLAINS

Ancient sand dunes separated by long, wide swales have formed the basis of the undulating landscape of the Wimmera Plains, which lie between Horsham and the South Australian border.

The landscape is characterised by open, agricultural fields scattered with remnant trees and an extensive network of wetlands and shallow lakes that have formed in the low lying land.

Four distinctive Character Areas have been determined and will be discussed in more detail within the Character Area Papers.

- 5.1 Lakes & Wetlands
- 5.2 Cleared Wimmera Catchment
- 5.3 Lake Lonsdale & Surrounds
- 5.4 Mount Arapiles



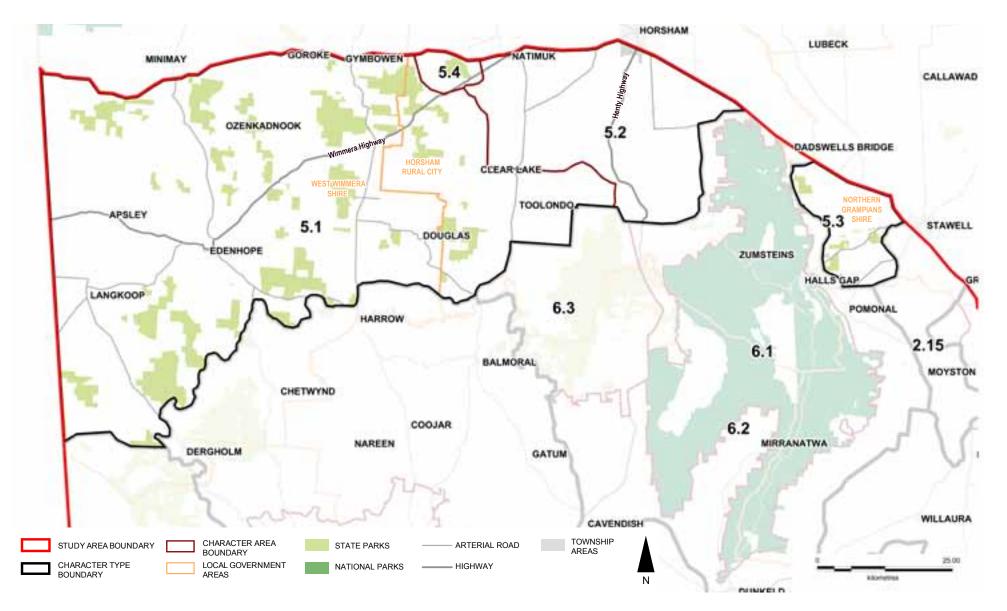


Lake on Tooan-Mitre Road, with the formation of Arapiles on the horizon



Lunette formed on the lee side of a seasonal wetland on the Goroke-Edenhope Road

### Figure 1 The Wimmera Plains Location



# **Key Features**

- Flat to gently undulating cleared agricultural plains
- Numerous state parks and bushland conservation reserves
- Large number of lakes and wetlands
- Remnant vegetation within roadsides and scattered throughout paddocks
- Mount Arapiles formation
- Distant backdrop of Grampians and Black Ranges

# Landscape Characteristics

### Landform

This is a landscape of flat to slightly undulating alluvial clay plains created by sweeping aeolian (wind-blown) sand dunes and ridges, with shallow swales forming between. Crescent-shaped lunettes are common along the northern and north eastern edges of low lying lakes and wetland areas. Mount Arapiles is a prominent topographic feature, rising 369 metres above sea level.

### Waterform

This region is exceptional for the number and diversity of lakes, swamps and wetlands dotted throughout the terrain between Horsham and Edenhope. These vary from chains of small, shallow depressions to larger lakes such as such as Tooloondo Reservoir, White Lake, and Lake Wallace at Edenhope. The formation of these lakes and wetlands is primarily due to a lack of channelled drainage and there are very few creeks or rivers where they exist as a result. Drainage lines from the Grampians and Pyrenees ranges can be found south of Hamilton and to the east of Natimuk-Hamilton Road. These include the Mackenzie River and Wimmera Rivers (and tributaries) which flow towards the Wimmera Basin, a catchment area that covers 15% of the state to the north of the Study Area.

The Wimmera-Mallee Pipeline is a significant infrastructure project in this region. By enabling a more efficient use of water in farming and irrigation, the pipeline may reduce the need to graze wetlands and use them as a water source.

### Vegetation

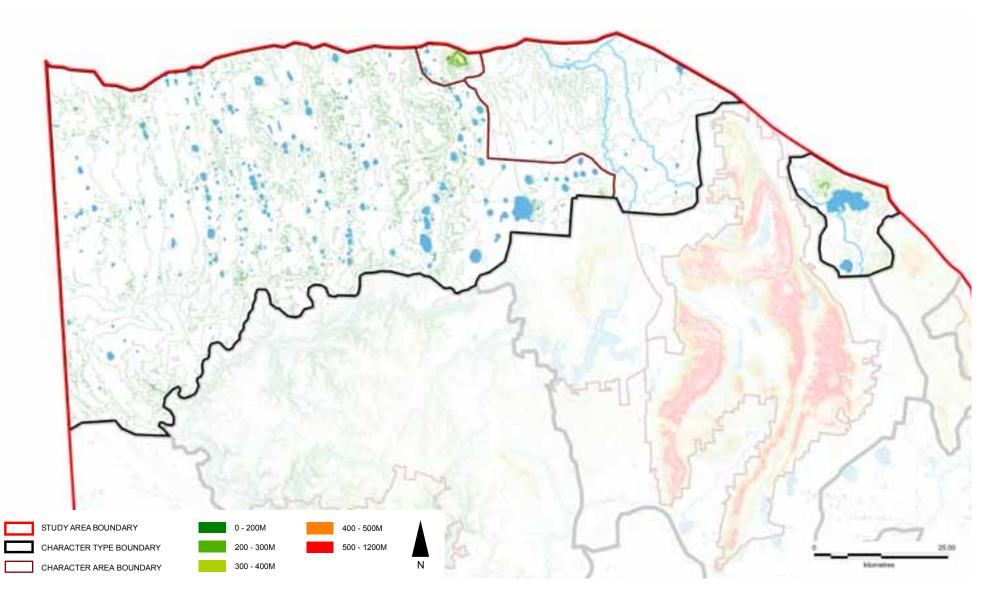
Though the landscape has been heavily cleared for agricultural production, numerous stands of vegetation remain scattered throughout paddocks, within the roadside reserves and conservation areas, and along rivers, creek lines and property boundaries. Of these, remnant River Red Gums (in the southern areas) and Buloke trees (in the northern area) are the most prolific species. There is a large number of state parks and bushland reserves, particularly in the western region. These are often concentrated around wetlands and other waterbodies, and in reserves of vegetation along the ridgelines. Very little exotic vegetation is evident, with occasional shelterbelts or Cypress planting along driveways.

### Land Use & Built Form

Broadacre cereal cropping, pasture production and grazing of sheep and cattle are the predominant agricultural activities. There are occasional plantations Large scale farming infrastructure including long sheds and small to medium size silos are common. Farm houses are set back 50-100m from the road and often sheltered by vegetation. Cattle yards, hay sheds and sheep sheds are all common close to the roadside.

Large Centre Pivot irrigators are a feature of the landscape in the Minimay to Apsley area.





# **PATTERN OF VIEWING**

Views are predominantly available over undulating pastoral land, which opens up at rises in the topography and is filtered through roadside vegetation. Most areas have a substantial amount of vegetation, and viewlines are often terminated by the cumulative effect of trees scattered throughout the paddocks. These open up to much more distant horizons in heavily cleared areas, with skylines being punctuated by occasional stands of vegetation or farm buildings.

The Grampians Ranges, Black Ranges and the distinctive formation of Mount Arapiles provide skyline silhouettes from many vantage points and road corridors. Numerous lakes and wetlands create scenic moments in the pastoral landscape.



Cropping land with remnant Buloke, north of Edenhope



Loss of paddock trees is occurring with little opportunity for regeneration



Passage of fire in the Meereek State Forest, south-west of Edenhope



Large scale cropping infrastructure

# LANDSCAPE VALUES

Landscape values include aesthetic (visual and nonvisual), historic, environmental, scientific, social and other values. It is acknowledged that many of the values overlap (i.e. a place or item may have historic and social value), but they are generally only listed once. A range of sources have been used to identify the landscape values of the The Wimmera Plains, such as the field survey, existing studies and documentation and community consultation.

#### Historic

- Evidence of Aboriginal land use including scarred trees & camp sites
- Mount Arapiles (Djurite), listed by National Trust as state significant

### Environmental/Scientific

- Dergholm State Park, a protected area on the IUCN list, Category II (National Parks) & protected by National Parks Act 1975
- Many reserves which are protected areas on the IUCN list
- Mount Arapiles-Tooan State Park, which includes the significant landscape features of Mount Arapiles & nearby Mitre Rock, also an international rock climbing destination
- Nationally important wetlands
  - Bitter Swamp
  - Hately's Lake (Swamp)
  - Heards Lake
  - White Lake
  - Saint Marys Lake
- Lake Fyans & Lake Lonsdale

 Red-Tailed Black Cockatoo, found in the north west of the Character Type, an endangered species

### Social

Agriculture, also valued for economic reasons



Wimmera River, crossing under Horsham-Noradjuha Road outside Horsham



Plaque commemorating Tooan State Primary School 1875 - 1969



Seasonal lake bed visible across pastoral land on Tooan-Mitre Road (looking West)



Majestic River Red Gums remain scattered throughout paddocks

# **CHANGE IN THE LANDSCAPE**

# Landscape Morphology

The underlying geology of the Wimmera Plains has its roots in the ancient sea bed that once covered large parts of south-eastern Australia. As the sea level dropped the fine to coarse grain Parilla Sands were deposited, forming beach ridgelines and dunes across the landscape on a north-south axis. Continual deposits of aeolian (windblown) sands reinforced these ridge lines, leaving heavier clay deposits in the swales between them.

The gradient of the ridges and swales system was not steep enough to channel collected water into streams or rivers. Rather, water collected on the clay surface of the swales to form a series of lakes and wetlands.

The most prolific vegetation communities were Grassy Woodlands complexes. The clay soils of the swales supported eucalypt communities dominated by River Red Gums, Grey Box, Yellow Box, Black Box and Yellow Gum in southern area with a higher rainfall, and Buloke in the drier parts to the north. The understory contained perennial grasses such as Wallaby Grass, Kangaroo Grass and Spear Grass, with annual orchids, herb and lilies.

Prior to European Settlement a number of Aboriginal clans lived in this Character Type, including the Wergaia, Jardwadjali, Wotjobaluk, Jaadwa and Jupagalk people. Land management techniques practiced by Aboriginal people throughout south western Victoria have left their trace on the landscape, including burning of forest undergrowth to aid hunting and the building of weirs and channel systems designed to catch eels. Lake Tooloondo retains a number of examples of these. The surveyor-general of New South Wales, Major Thomas Mitchell, made his journey through the region in 1836, bringing back descriptions of excellent pastoral land. European occupation rapidly followed, with squatters bringing their flocks of sheep and cattle with them. The landscape was divided into pastoral properties and cleared for agricultural production.

Pastoralists preferred the clay soils of the swales to the sandy ridgelines, therefore clearing occurred more heavily along these. The rich soils that supported the Buloke Woodlands were most favoured, with only 3% of these remaining today. Vegetation that was never cleared for farming in the sandy soils is now contained within the large number of state parks and conservation reserves.

While much clearing of land occurred, large trees including old River Red Gums and Bulokes remain scattered throughout paddocks and form a dominant part of the landscape character. The exception to this is land south of Horsham which has been almost extensively cleared.

Drought in more recent times has seen cropping replace grazing on wetlands and low lying areas that were previously too wet.

# Sensitivity to Change

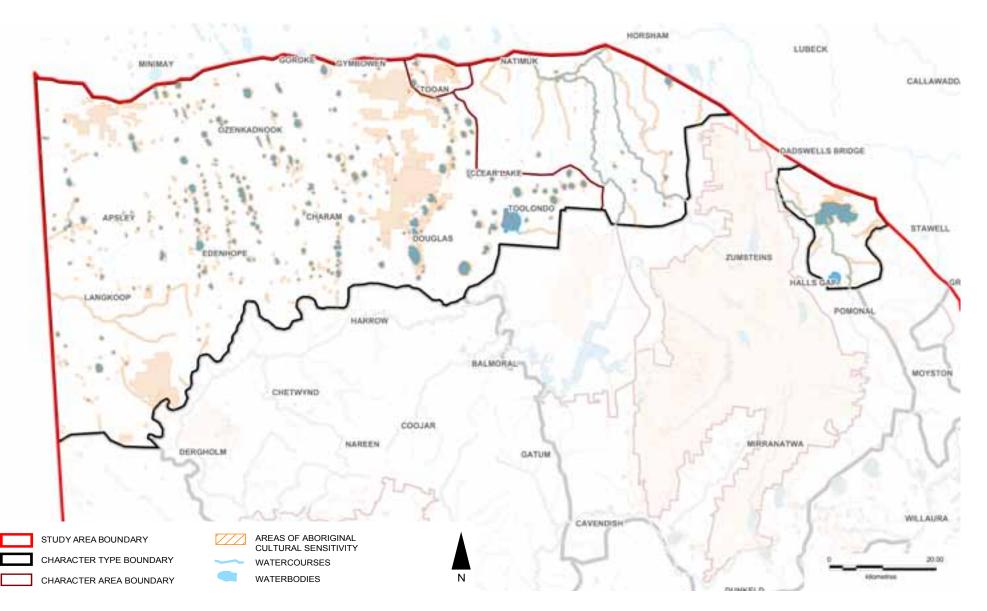
The Wimmera Plains are moderately sensitive to change. Gentle undulations and a substantial quantity of vegetation within paddocks and along roadsides will assist with the absorption of development into the landscape. However, big skies and broad vistas are still available through breaks in the vegetation, leaving these areas more vulnerable to visual intrusion from development. This is escalated in areas that have been heavily cleared.

The lakes and wetlands, particularly those on private land, remain vulnerable. Periods of drought have brought a change in farming practices where land that was once persistently wet has become available for more intensive use. This has the capacity to change the look and overall function of these areas.

# Anticipated Landscape Change

- Completion of the Wimmera-Mallee Pipeline has provided opportunity for increase in the scale and diversity of agricultural production
- Farms will continue to get bigger
- More cropping at the expense of grazing
- Bigger paddock size
- Precision agriculture (using GPS) to become more mainstream which may impact on single paddock trees
- More on farm storage of grain meaning more visible silos





# **FUTURE LANDSCAPE CHARACTER DIRECTIONS**

The Wimmera Plains will remain an highly productive agricultural landscape, which will occur while strengthening conservation and rehabilitation practices on public and private land.

The health of the region's unique lakes and wetlands systems and forested nature reserves will be a priority for future landscape management. Habitat corridors will be encouraged through the retention of remnant vegetation within roadsides and along property boundaries.

Built form will be kept low scale and where possible sited within vegetation. This will prevent structures dominating this flat landscape and will aid in the retention of views to landscape features such as Mount Arapiles, the silhouettes of the Grampians and Black Ranges and lakes systems.

# Opportunities

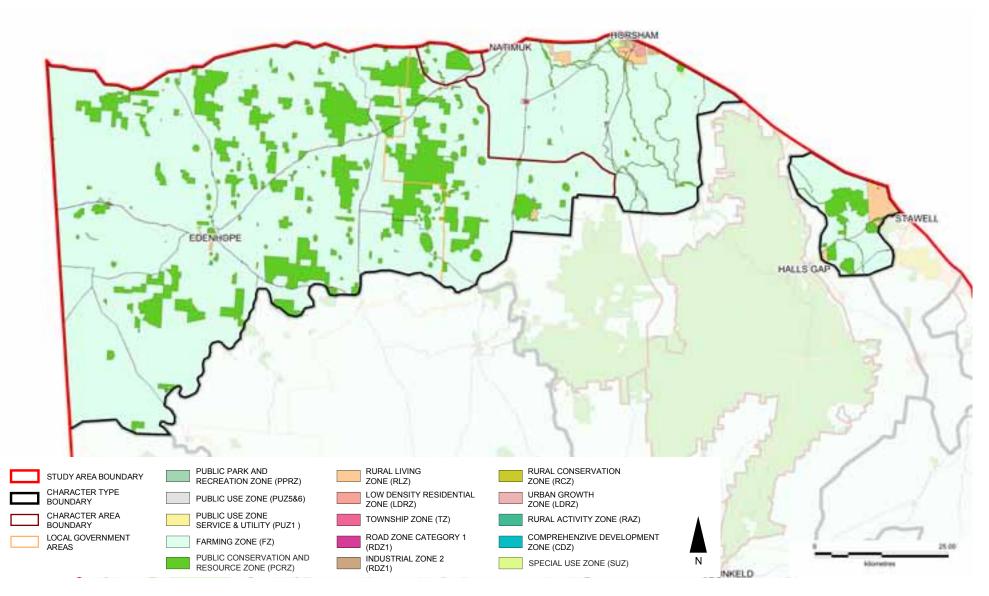
- Wetlands are important for local recreation provide tourism opportunities (they support activities such as camping, waterskiing, bird watching, fishing and yabbying)
- Habitat retention and development of biodiversity corridors within large number of state parks, reference area and conservation areas
- Community re-vegetation initiatives and restoration projects, increasing available habitat and assisting in the mitigation of dryland salinity
- Wimmera-Mallee pipeline has delivered water to restore wetlands
- Active local Landcare groups

## Threats

- Cropping and grazing on wetlands contained within private property
- Contamination of wetlands due to agricultural production, leading to algal blooms
- Rising salinity in agricultural areas
- Fragile soils prone to water and wind erosion
- Soil erosion affecting the health of wetlands and watercourses
- Uncontrolled stock access to rivers and waterways, causing degradation of banks
- Loss of trees within paddocks and little recruitment of new trees, particularly due to stock grazing to the base of trees, and intensification of agricultural practices including the introduction of precision (GISbased) agricultural technology
- Invasive plant and animal species
- Introduction of non-agricultural land use, such as mining or urban development
- Loss of dams on private property due to completion of Wimmera-Mallee Pipeline Project
- Draining of man-made lakes now used for recreation
- Drainage or diversion of wetlands
- Tourism and recreation impacting on the conservation value of some areas
- Further expansion of cropping in this area with larger cropping machinery
- GPS technology not totally compatible with vegetation, may lead to some tree loss
- Mining is proposed to commence at Drung (south of the Western Highway). The mine site and large separation plant will impact on the vista to and from the Grampians

- Channel modification (reference to rivers, estuaries and floodplains)
- Degradation of riparian vegetation
- Sedimentation
- Habitat fragmentation/reduced connectivity
- Significant disturbance events (fire, flood, storms)

#### Figure 4 The Wimmera Plains Zones



# LANDSCAPE PROTECTION & MANAGEMENT

# Planning Scheme Policies & Controls

The Wimmera Plains are subject to the Horsham, Northern Grampians and West Wimmera Planning Schemes.

# **Key Zones**

- Farming Zone (FZ)
- Public Conservation & Recreation Zone (PCRZ)
- Rural Living Zone (RLZ)

# Key Overlays

- Significance Landscape Overlay (SLO)
- Environmental Significance Overlay (ESO)
- Heritage Overlay (HO)
- Development Plan Overlay (DPO)
- Wildfire / Bushfire Management Overlay (WMO / BMO)
- Land Subject to Inundation Overlay (LSIO)
- Design & Development Overlay (DDO)

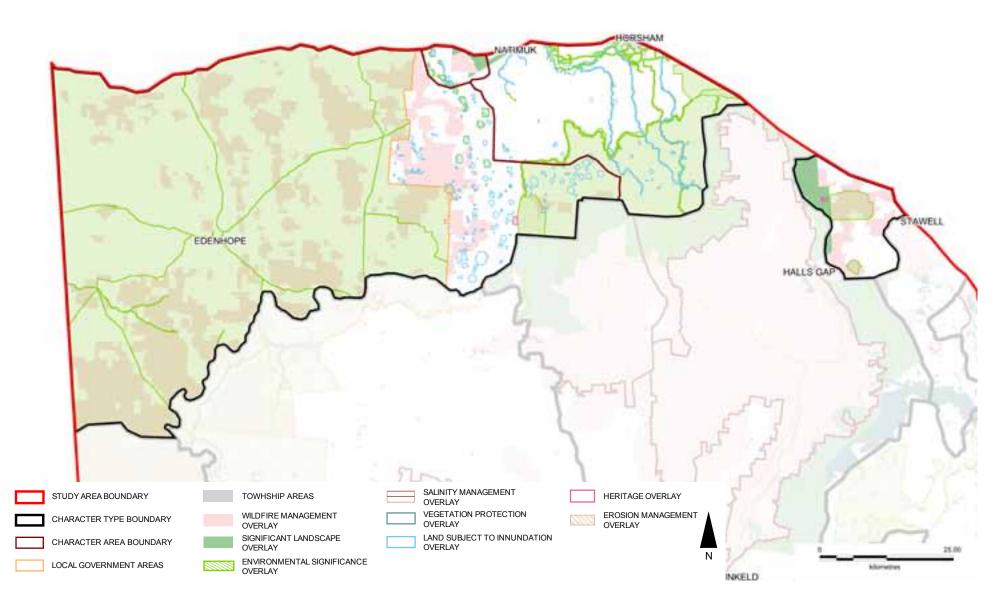
# Landscape Management Objectives

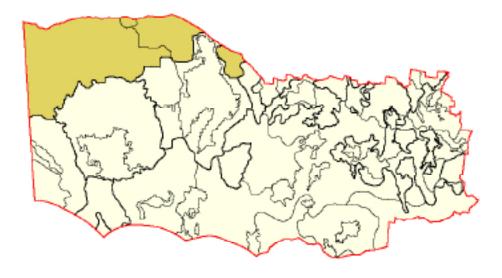
To achieve the future landscape character directions for the Wimmera Plain, the following landscape management objectives are recommended:

- To protect the landscape features of the Wimmera Plains, including the extensive network of wetlands and shallow lakes, from destructive or dominating development or practices.
- To maintain the positive contribution that productive agricultural land makes to the character of the Wimmera Plains landscape.
- To conserve and enhance remnant vegetation communities, especially remnant River Red Gums and Buloke trees.
- To increase indigenous planting in the Wimmera Plains landscape and to further emphasise natural features such as creeks and rivers.
- To encourage natural regeneration of paddock trees and create linked corridors of indigenous vegetation.
- To encourage the appropriate siting and design of plantations that protect the character and viewing of the Wimmera Plains landscape.
- To retain views to landscape features such as Mount Arapiles, the silhouettes of the Grampians and Black Ranges, or lakes systems, particularly from identified significant viewing locations and road corridors.
- To ensure that built form is sited and designed in a way that the landscape features of the precinct are revealed, wherever possible.
- To minimise the visual impact of buildings and structures on large areas of the Wimmera Plains landscape.

- To retain an overall sense of spaciousness within the landscape.
- To ensure that buildings and structures demonstrate a high standard of design and are visually integrated with the Wimmera Plains landscape.
- To incorporate best practice environmental sustainability principles in building siting and design.
- To minimise the visual impact of signage and infrastructure throughout the Wimmera Plains landscape, particularly when viewed from identified significant viewing corridors and viewing locations.
- To protect and respect the cultural heritage values of the Wimmera Plains landscape.
- To contain existing settlements and prevent their unchecked expansion into the surrounding landscape.

### Figure 5 The Wimmera Plains Overlays







Landscape Management Guidelines
The Wimmera Plains

Landscape Element	Objective	Design Response	Avoid
LANDSCAPE MANAGEMENT & FEATURES	To protect the landscape features of the Wimmera Plains, including the extensive network of wetlands and shallow lakes, from destructive or dominating	Protect landscape features such as wetlands and lakes in any new development.	Cropping and grazing on wetlands contained within private property.
	development or practices.	Site buildings and structures away from landscape features such as lakes and wetlands wherever possible.	Contamination of wetlands.
	To maintain the positive contribution that productive agricultural land makes to the character of the Wimmera Plains	Encourage the contribution of sustainable land management practices and productive agricultural activities	Development on or immediately adjacent to water bodies.
	landscape.	that have a positive impact on the landscape.	Unkempt and poorly managed agricultural lands.
			Uses, development and management practices that reduce the productivity of agricultural lands.
			Uses and development that interfere with the ongoing management of agricultural lands.

# Landscape Management Guidelines

Landscape Element	Objective	Design Response	Avoid
Lanoscape EtementObjectiveINDIGENOUS VEGETATIONTo conserve and enhance remnant vegetation communities, especially remnant River Red Gums and Buloke trees.To increase indigenous planting in the Wimmera Plains landscape and to further emphasise natural features such as creeks and rivers.To encourage natural regeneration of paddock trees, and create linked corridors of indigenous vegetation.	<ul> <li>Where practical, protect and rehabilitate significant stands of remnant indigenous vegetation, particularly at roadsides, throughout paddocks , and along river and creek corridors, subject to considerations such as farming requirements, fire protection and safety.</li> <li>Encourage farmers to protect and manage remnant vegetation by fencing around old trees, trimming diseased or shattered branches, leaving dead trees standing for wildlife habitat (where practical), and planting new trees, particularly in bare paddocks.</li> <li>Minimise indigenous vegetation removal in new development.</li> <li>Where vegetation loss cannot be avoided, balance the loss of vegetation with rehabilitation on the site or nearby areas, and replace any native or indigenous trees lost with</li> </ul>	Loss of significant stands of vegetation, particularly River Red Gums and Buloke trees. Ad hoc clearing and removal of vegetation. Development which requires permanent clearing of vegetation. Lack of landscaping and substantial vegetation in new development. Landscaping that provides little connection to the surrounding natural environment and existing landscape character. Hard surfaces and hard edges in	
		indigenous trees that will grow to a similar size. Screen buildings, structures and large areas of hard surfaces with appropriately scaled indigenous and/or native vegetation that is appropriate to the landscape character of the area. Consider the existing landscape character of the area as a guide to the selection of vegetation and the layout of private gardens. Reinforce vegetative linkages to natural features such as	landscaping. Continuous spreading / planting of environmental weeds.
		existing river and creek environs. Encourage the removal of environmental weeds and their replacement with local indigenous species.	
		Encourage the planting of indigenous shelterbelts, as opposed to exotic, adjacent to identified significant viewing corridors.	

Landscape Element	Objective	Design Response	Avoid
PLANTATION FORESTRY	To encourage the appropriate siting and design of plantations that protects the character and viewing of the Wimmera Plains landscape.	<ul> <li>Encourage agro forestry (integration of forestry trees with grazing stock or other crops) as an alternative to tree plantations in areas of identified landscape significance.</li> <li>Strongly discourage plantations in the foreground of views to Mount Arapiles along identified significant viewing corridors.</li> <li>Soften the boundaries of plantations using sympathetic boundary lines (i.e. not incongruous to the surrounding landscape), gradual changes in density or age class, or with use of a species of different form, colour and texture.</li> <li>Where possible, ensure that plantation design follows existing landscape lines, and avoids lines that are incongruous to the surrounding landscape e.g. property or fence lines that are geometric in nature rather than free flowing.</li> <li>Minimise the visual impact of plantations by:</li> <li>Creating small, curvilinear coupes that blend with the landscape.</li> <li>Avoiding geometrically shaped harvest areas that contrast with the natural forms and lines of the landscape.</li> <li>Maintaining visual permeability through an open or clumped planting density, or non-uniform thinning technique.</li> <li>Ensure that proposed timber plantations are accurately depicted and executed through a 'Timber Management Plan' as required within the Code of Practice for Timber Production.</li> </ul>	<ul> <li>Plantation forestry that is solid at the roadside and blocks outviews, particularly those from identified significant viewing corridors.</li> <li>Plantations in prominent locations that will create visual scars with periodic harvesting.</li> <li>Loss of scenic outviews from roads and lookouts.</li> <li>Plantation design that is incongruous to the surrounding landscape.</li> </ul>

Landscape Element	Objective	Design Response	Avoid
VIEWS & VISTAS	To retain views to landscape features such as Mount Arapiles, the silhouettes of the Grampians and Black Ranges, or lakes systems, particularly from identified significant viewing locations and road corridors. To ensure that built form is sited and designed in a way that the landscape features of the precinct are revealed, wherever possible.	Development should be avoided in the foreground (up to 500 metres from the viewing location) of identified significant views, or designed and sited to retain the character and scenic qualities of the views from that location. If not an agricultural building or structure that is traditionally sited close to the road, built form and other development should be set back from identified viewing corridors, and designed and sited to minimise visual intrusion (e.g. low building heights, minimal building footprints, appropriate colours and materials to the setting, and integration with vegetation). Consider the cumulative impact of developments visible from identified significant viewing corridors, other roads and key viewing locations, on the character and views of the surrounding landscapes. Design vegetation planting and regeneration works to retain views towards Mount Arapiles where possible.	Unsympathetic / intrusive buildings and structures that obscure prominent views. Conspicuous or incongruous (out of place) buildings, structures or infrastructure visible in the foreground of views to notable landscape features such as Mount Arapiles.

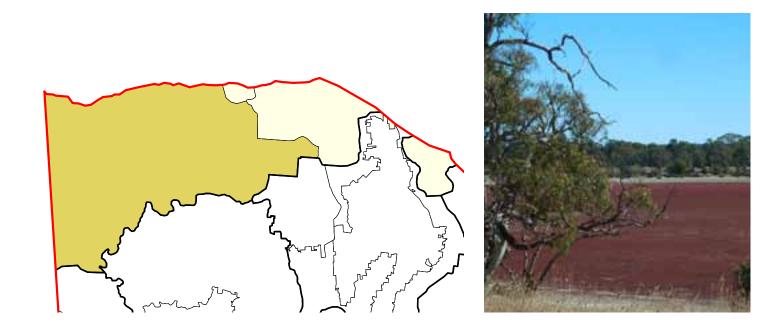
Landscape Element	Objective	Design Response	Avoid
BUILDINGS & STRUCTURES: SITING	To minimise the visual impact of buildings and structures on large areas of the Wimmera Plains landscape. To retain an overall sense of spaciousness within the landscape	<ul> <li>Ensure that buildings, structures and other infrastructure are sited:</li> <li>Within existing clusters of buildings where possible.</li> <li>Away from landscape features such as lakes, wetlands, creeks and river corridors.</li> <li>Among established vegetation and/or screened with substantial landscaping of locally appropriate species.</li> <li>Away from landscape features such as Mount Arapiles.</li> <li>To minimise visibility from identified significant viewing corridors and other main roads.</li> <li>In open rural areas, ensure that buildings and structures are set back sufficient distances from roads to ensure minimal visual intrusion, unless they are the type of building to be traditionally sited at the roadside.</li> <li>Prevent ribbon development along identified significant viewing corridors and other main roads, including the outskirts of settlements.</li> <li>Minimise the number and floor area of storage areas, outbuildings and ancillary structures, wherever possible.</li> </ul>	Buildings and structures that are visually dominant or located in prominent locations. Development of residences and other buildings not traditionally sited adjacent to the road, located at the roadside. Buildings and structures that impact on the character and environmental quality of watercourses. Buildings and structures that do not have sufficient vegetative screening. Numerous storage areas / outbuildings on a site. Scattering of buildings and structures across a site. Visual clutter. Buildings and structures that protrude above the dominant tree height of the vegetated (or proposed vegetated) backdrop.

Landscape Element	Objective	Design Response	Avoid
BUILDINGS & STRUCTURES: DESIGN	To ensure that buildings and structures demonstrate a high standard of design and are visually integrated with the Wimmera Plains landscape. To incorporate best practice environmental sustainability principles in building siting and design.	<ul> <li>Ensure that the design and external appearance of buildings and structures complement the surrounding landscape by:</li> <li>Using simple, pared-back building forms and design detailing, with consideration of the Australian rural architectural vernacular.</li> <li>Utilising colours and finishes that best immerse the building within the landscape and minimise contrast with the surrounds (such as muted colours and matte finishes, or corrugated iron or timber that will weather over time).</li> <li>Making use of building materials with minimal environmental impact and encouraging the use of recycled materials where possible.</li> <li>Utilising materials and finishes that reduce distant visibility (e.g. darker colours on hill slopes, and lighter colours on sky lines.)</li> <li>Ensure that development does not visually overwhelm the landscape setting by:</li> <li>Designing building and structures of a scale that does not dominate the surroundings.</li> <li>Achieving a minimal building footprint, and ensuring that adequate space is available on the site for the retention of existing vegetation and/or new landscaping.</li> <li>Using building forms and heights that sit beneath the existing or future tree canopy height.</li> <li>Utilise open style fencing that is not visually obtrusive and is traditionally used in rural areas, such as post and wire or post and rail fencing.</li> <li>Incorporate best practice environmental sustainability principles into the design and construction of all new buildings.</li> </ul>	<ul> <li>Buildings or structures that do not harmonise with the character of the surrounding natural / rural environment.</li> <li>Ad hoc or large scale urban development outside of settlements.</li> <li>Large, bulky building masses / footprints that are conspicuous elements within the spacious landscape setting.</li> <li>Sheer, visually dominant elevations.</li> <li>Mock historical style buildings with excessive use of 'reproduction' or decorative detailing.</li> <li>Highly colourful materials and finishes.</li> <li>Building design that has little or no regard to environmentally sustainable design practices, such as residential buildings with excessive western or southern orientation.</li> <li>High, solid or non-permeable fencing.</li> </ul>

Landscape Element	Objective	Design Response	Avoid
SIGNAGE &	To minimise the visual impact of signage	Group signage, including tourism signage, at particular	Signage clutter in the landscape.
INFRASTRUCTURE and infrastructure throughout the Wimmera Plains landscape, particularly when viewed from identified significant viewing corridors and viewing locations.	locations to minimise visual impact, avoid signage clutter, and to maintain scenic outlooks. Infrastructure should be sited to avoid highly scenic locations, particularly identified significant views, and in the case of powerlines and other utility services, be underground wherever possible. Locate powerlines, access tracks and other infrastructure in areas of low visibility, preferably in previously cleared locations.	Visually obtrusive and/or colourful signage in natural landscape settings. Highly visible infrastructure. Infrastructure that dominates views, particularly from identified significant viewing corridors or locations. Landscape scarring as a result of vegetation removal.	
		Use materials and colours that minimise contrast with the surrounding landscape and distant visibility, and use vegetation to screen infrastructure from identified significant viewing corridors, viewing locations and other main roads. All new infrastructure development should be accompanied by a landscape plan utilising appropriate indigenous plant species and demonstrating how the affected area will be	No consideration of siting, design, vegetation or remediation in association with the development of infrastructure.
	To protect and respect the sultural	screened and remediated after development.	Loss of sultural baritage values
CULTURAL HERITAGE VALUES	To protect and respect the cultural heritage values of the Wimmera Plains landscape.	Identify and preserve landscape conditions and settings of places of Aboriginal cultural heritage value. Respect the Aboriginal cultural heritage values of significant places by setting back, avoiding or carefully designing buildings, structures and other landscape alterations to avoid impacts on places, objects or landscapes that have Aboriginal heritage value.	Loss of cultural heritage values associated with the landscape. No regard for the cultural heritage values of the landscape in new development.

Landscape Element	Objective	Design Response	Avoid
SETTLEMENT EDGES	IENT EDGES         To contain existing settlements and prevent their unchecked expansion into	Ensure that settlements maintain their individual character and physical distance from each other.	Development 'clutter' at the edges to settlements.
	the surrounding landscape.	Ensure settlements have a definite visual edge, delineating the boundary between urban development and the natural / rural landscape beyond. Carefully site buildings and structures at settlement edges to integrate with existing topography and vegetation.	The expansion of rural living development into the landscape. Ribbon development between settlements. Suburban style residential development, with large areas of hard paving, in the rural environment. Lack of vegetation in rural living areas.

DPCD South West Victoria Landscape Assessment Study | LANDSCAPE MANAGEMENT GUIDELINES



Character Area 5.1 Lakes & Wetlands

# 5.1 LAKES & WETLANDS

The lakes and wetlands of the Wimmera Region create a series of highly unique and distinctive landscape features. The Wimmera CMA identified 2676 wetlands within their region in 2004, and this Character Area contains 75% of these, with over 2000 individual wetlands.

One of the most unique aspects of this wetland system is the variety of typologies displayed. These include:

- Deep freshwater marshes н.
- Freshwater meadows .
- Permanent open freshwater н.
- Permanent saline н.
- Semi-permanent saline and .
- Shallow freshwater marshes н.

Of note is a chain of saline or brackish lakes and wetlands over 70km long known as the Natimuk Douglas Saline Wetlands System that runs north-south through the Character Area.

Raised crescents of earth known as lunettes have formed on some of the larger dry lake beds.

# **Key Features**

- Aeolian dunes that run along a north-south axis across the landscape
- Chains of lakes, swamps and wetlands scattered . along the swales of the dunes and in low-lying areas throughout the region
- Large number of state forests, bushland reserves and н. conservation areas

# Settlements

- Edenhope .
- Apsley
- Goroke н.







Dry, salty surface of Ti Tree Lake

*Lake Wallace creates a picturesque setting for the town of Edenhope* 

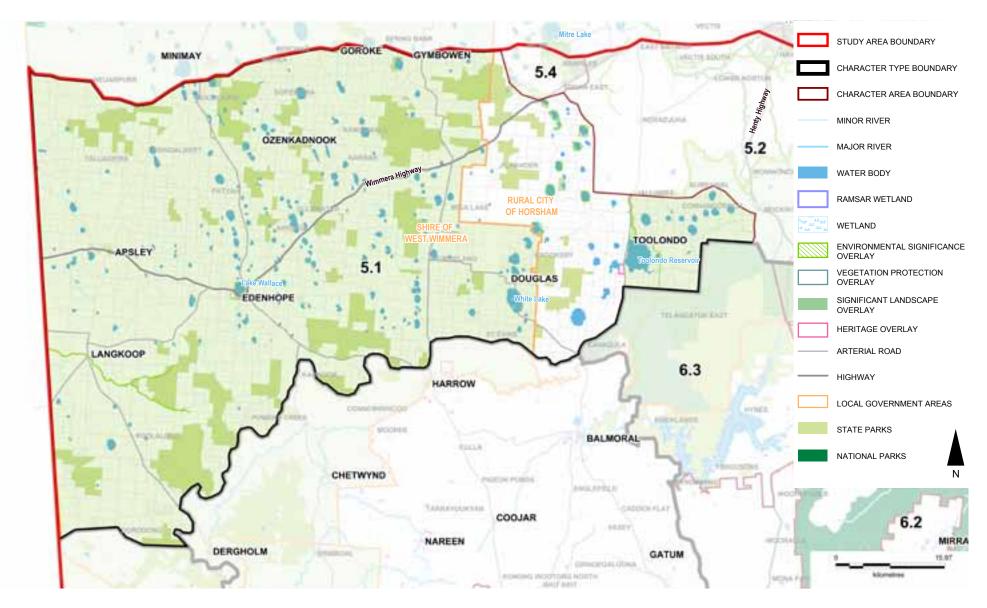


Distinctive red soils of Saint Marys Lake

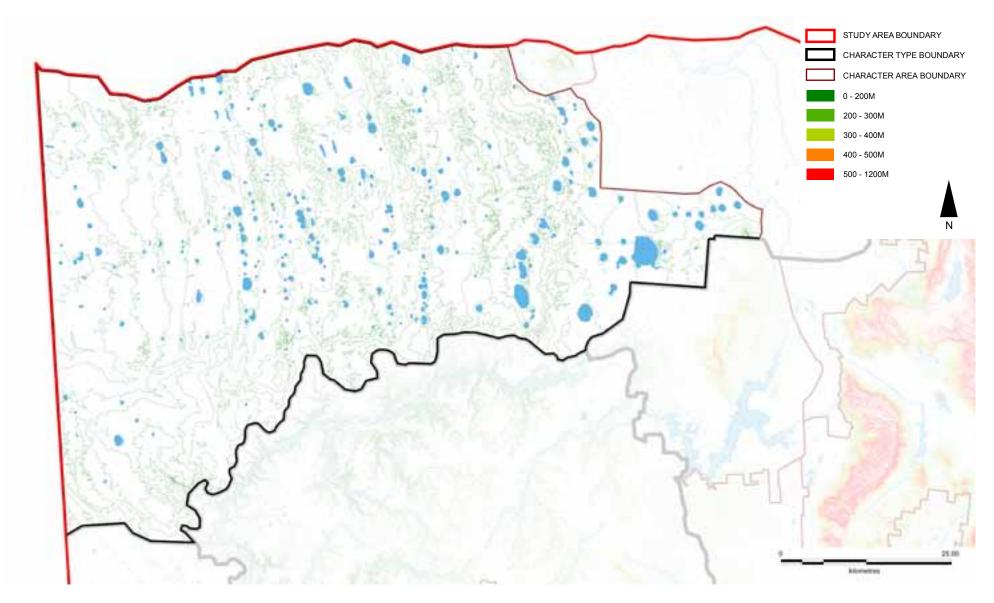


Toolondo Reservoir is one of the larger lakes in the region

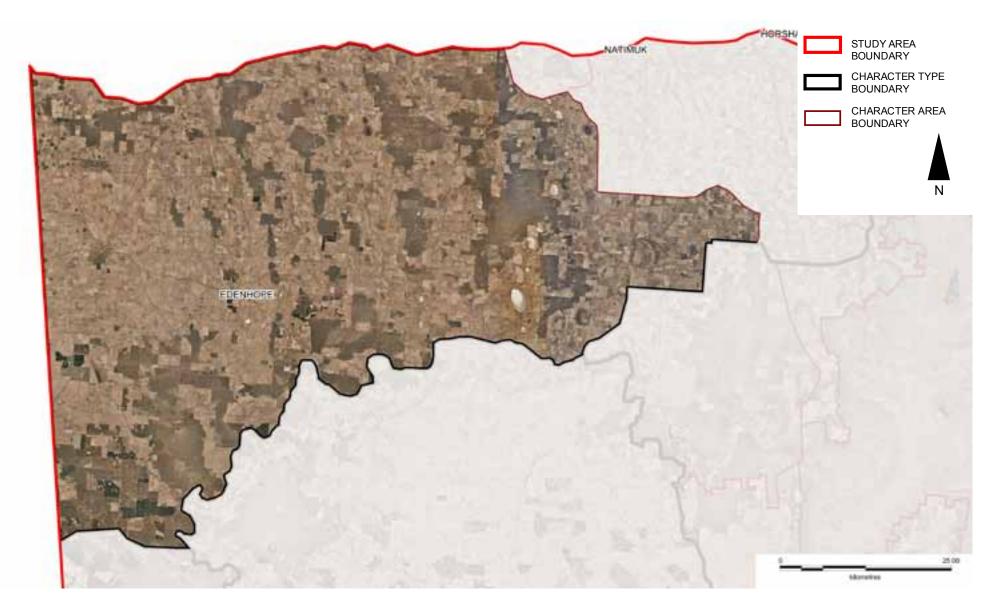
### Figure 1 Lakes & Wetlands Overview



## Figure 2 Lakes & Wetlands Landform



## Figure 3 Lakes & Wetlands Aerial



# **PATTERN OF VIEWING**

The pattern and proliferation of the lakes and wetlands in this Character Area is obvious when looking at aerial photography, however the viewing experience is much more subtle on the ground. Often they are glimpsed as a vague depression in the landscape, maybe with the white, glary surface of a salt pan standing out or a blue water with sun glinting off it. Often they are not obvious at all, until a corner is turned or the road bends and a vast waterbody is revealed. Despite the subtlety of these waterbodies, the diversity of lakes and wetlands in type and scale creates an interesting and often exciting viewing experience.

The gentle undulations of the landscape occasionally give a elevated perspective over the lakes and wetlands, though they are predominantly filtered through roadside vegetation. The highest elevation from which views across the lakes and wetlands can be accessed is from Mount Arapiles, which will be discussed in Character Area 5.4. The chain of white crusted salt lakes within the Douglas Depression is particularly visible from here.

Many of the lakes and wetlands are contained on private property, though there is a number of larger lakes on public land which provide great opportunity for recreational use and picturesque settings for towns such as Natimuk and Edenhope.



Seasonal wetlands often appear as little more than shallow depressions in the paddocks



Marsh area near Meereek State Forest

# LANDSCAPE VALUES

#### Historic

- Evidence of Aboriginal land use
  - in West Wimmera Shire including scarred trees, stone arrangements, mounds, rock shelters, stone engraving sites, middens, rock paintings, surface scatters, fish traps, burial places, stone house sites, quarries and axe grinding places
  - channel complex connecting 2 swamps over 3km to manage eels at Tooloondo
- Locally significant Mount Talbot Homestead, protected by West Wimmera HO21
- Regionally significant 300 year old River Red Gum in farm paddock, Apsley Road, Edenhope listed by the National Trust
- State significant 400 year old River Red Gum in farm paddock, South Bringalbert Road, Apsley listed by the National Trust
- First Australian cricket team to tour England in 1868 was an Aboriginal team recruited in the Apsley area

#### Environmental/Scientific

- Red-Tailed Black Cockatoo, found throughout the Area, endangered species on EPBC Act list, habitats protected by West Wimmera ESO2
- Many protected areas on the IUCN list including:
  - Meereek Flora Reserve, Lake Dewabbin, Mullinger Swamp, Ti Tree Swamp & Woolshed Swamp Wildlife Reserves & Jilpanger & Tallageira Nature Conservation Reserves, Category IA (Strict Nature Reserve)
  - Apsley, Charam, Mageppa, Meereek, Morea I4 & Wombelano I24 Bushland Reserves, Category IV (Habitat/Species Management Area)
  - Bitter Swamp, Greens Swamp, Harrow, Lake
     Coyrahilla (Copper Colour), Lake Jaie Jaie, Lake
     Kanagulk, Lake Karnak, Lake Kemi Kemi, Lake
     Mullancoree, Lampard Swamp, Leah Swamp,
     Lignum Swamp, Little Donkey Woman Swamp,
     Mahney Swamp, McGlashin Swamp, North,
     Centre & other Lakes, Pot Brook, O'Keefe Swamp,
     Reillys Creek, Sheepwash, Silver Lake & White
     Lake Wildlife Reserves (Hunting), Category VI
     (Protected area with sustainable use of natural
     resources)
- Dergholm State Park
  - protected area on the IUCN list, Category II (National Parks)
  - protected by National Parks Act 1975, Schedule 2B
- Nationally important wetlands
  - Bitter Swamp
  - Heards Lake
  - White Lake

- Natimuk Douglas Wetlands, protected by Horsham ESO2, nominated as a wetland of international significance, consists of more than 30 saline & freshwater lakes which are seasonally visited by substantial numbers of migratory water birds
- Locally significant wetlands & waterways, protected by West Wimmera ESO2

### Social

 Wimmera Mallee Water channel & reservoirs & Wimmera System Proclaimed Catchment which supply domestic & stock water to the region, protected by Horsham ESO4 & ESO5

# LANDSCAPE PROTECTION & MANAGEMENT

# **Planning Scheme Policies & Controls**

This Character Area is subject to the Horsham and West Wimmera Planning Schemes.

### **Key Zones**

- FZ
- PCRZ
- RLZ at Edenhope & Toolondo

### **Key Overlays**

- Horsham ESO2: Natimuk Douglas Wetlands
- Horsham ESO4: Water Catchment Protection
- Horsham ESO5: Channel & Reservoir Protection
- West Wimmera ESO1: Significant Wetlands & Waterways
- West Wimmera ESO2: Red-tailed Black Cockatoo Habitat Areas
- West Wimmera HO21: Mount Talbot Homestead
- Horsham & West Wimmera WMO / BMO
- Horsham LSIO