

Werribee Catchment

The Werribee catchment lies west of Melbourne and covers an area of approximately 2700 square kilometres. Basalt plains dominate the region's geology and the landscape varies from steep sided hills and gorges to flat plains. Rainfall varies from about 1000mm per year to as low as 450mm in the southern plains.

The catchment includes all rivers and creeks to the west of the Maribyrnong River through to Little River, such as the Werribee and Lerderderg rivers and the Kororoit and Skeleton creeks.

Around 25% of the catchment retains natural vegetation, 67% is agricultural and 5% urban. Extensive grasslands were once a feature of the lowland plains, but now only scattered remnants remain. Forestry occurs in the upper areas of the catchment. Water storages include the Melton, Pykes Creek and Merrimu reservoirs.

Many of the major rivers and creeks flow through coastal wetlands listed under the international Ramsar convention, including Melbourne Water's Western Treatment Plant, Point Cook Marine Sanctuary, Avalon Airport and the Spit Wildlife Reserve. A feature of the catchment is the presence of several remnant grasslands that are of national or state significance for their flora values, such as the Derrimut Grasslands, William Angliss and the Altona Native Grass reserves.

Aboriginal people inhabited the rivers and creeks at least 30,000 years ago. The Werribee River is an important clan estate boundary forming the natural boundary between the Woiwurrung and Boonwurrung language groups. The high density of archaeological material, including fish traps, artefacts and burial sites, along their banks and escarpments demonstrate that both Kororoit Creek and the Werribee River had large campsites.

The condition of rivers and creeks is highly variable. Most rivers and creeks are generally moderate to poor. Water quality is degraded in some waterways within the basin, particularly Parwan, Skeleton, Kororoit and Laverton creeks. The catchment is located in a comparatively low rainfall area and stream flow is a major issue. Reduced stream flows have been exacerbated by the current drought.

Five-year program objective

Strategies and actions will be put in place to reduce flow stress on rivers and creeks, while protecting water supply values.

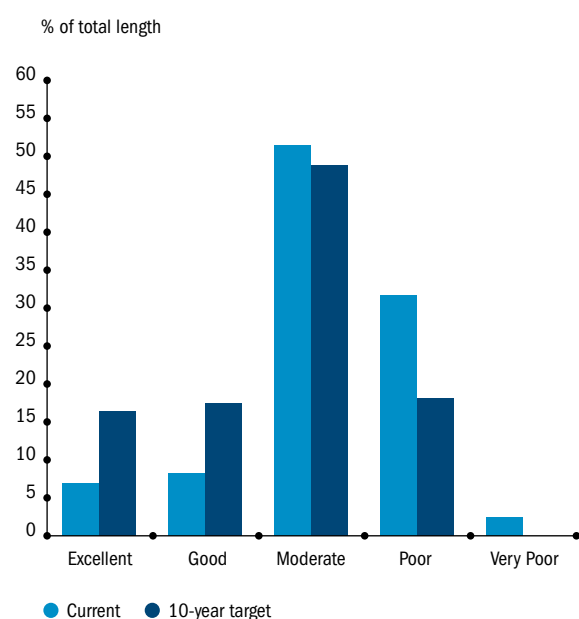
The Werribee River will remain a major focus for passive recreation, fishing and boating as the network of parks and linear trails expands to cater for predicted population growth. Actions undertaken as part of the heritage programs and improvements to river health will enhance Aboriginal values and access to rivers and creeks.

The State Government's *Central Region Sustainable Water Strategy* proposes to enhance the environmental flow regime with an additional 6 GL/yr.

The upper tributaries will be treated for erosion leading to an improvement in the physical form rating of the IRC in over 280 kilometres.

In five years, about 140 kilometres of streamside land will be revegetated and weeds controlled.

Figure 7.
Current and 10-year condition targets for rivers and creeks in the Werribee catchment



The Heritage River values of the Lerderderg River will be protected and enhanced and a clear planning framework will be established to provide direction. Water quality will be maintained in the lower sections of the catchment.

In 10 years, there will be 300 kilometres of rivers and creeks in good or excellent condition, of which 38 kilometres will be considered ecologically healthy.

A summary of the five-year river health program and 10-year target condition for rivers and creeks within the Werribee catchment are described on the following pages. The highlighted red section of the maps indicates the catchment area for the individual rivers and creeks.

A detailed description of all rivers and creeks, and the five-year program, as well as the long-term (20-year) programs are contained in the attached Resource CD.

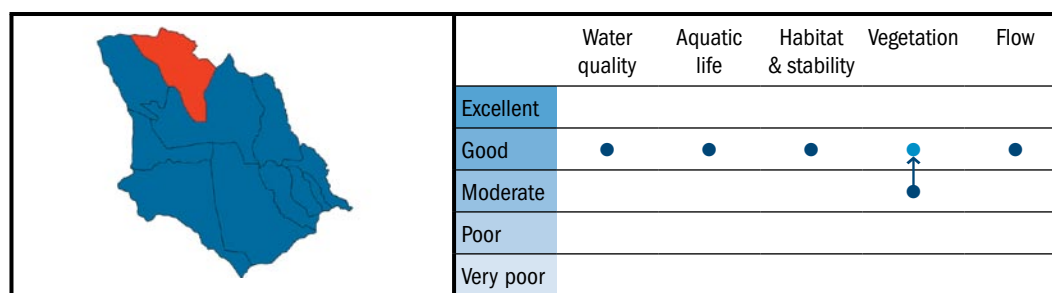
Lerderderg

Regional Importance: Very High

Management Objective: Maintain ecologically healthy rivers and enhance social values

Current Condition: Good

Target: Good



Current Social Value: High

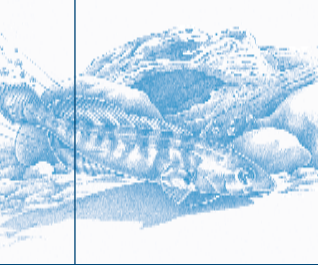
Target: High

This area includes the Lerderderg River and Goodmans Creek, which originate in the Wombat State Forest and travel through forested and agricultural land and Bacchus March before joining the Werribee River. The Lerderderg is an important environmental asset and is one of two Victorian Heritage Rivers and the only Representative River in the region. The rivers are in good condition and support a range of aquatic life, including six species of fish.

The rivers have high social value, being popular for passive recreation. The Lerderderg State Park offers a true bush experience for walkers. The park provides for a range of recreational activities including camping, swimming, rock-climbing, fishing and scenic driving.

Key risks to river health include changes in natural flow, barriers to fish migration and, in the lower section, poor quality streamside zone. Localised patches of bed and bank erosion pose a risk to river health in Goodmans Creek.

River Health Program: Appropriate environmental flows, activities to manage water quality and stream frontage management involving two kilometres of revegetation will be implemented. The program will also collect additional river health information, maintain social and heritage values and protect 31 kilometres of ecologically healthy rivers.



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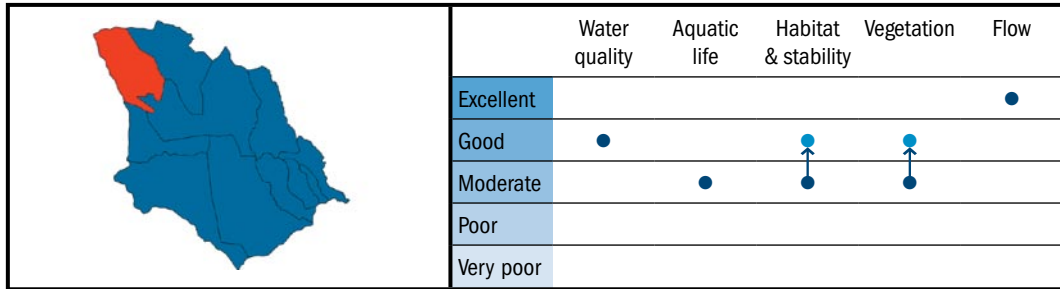
Upper Werribee River

Regional Importance: Very High

Management Objective: Improve condition and enhance social values

Current Condition: Moderate

Target: Good



Current Social Value: High

Target: High

The headwaters of the Werribee River lie in the Wombat State Forest and flow south east to the undulating plains of basalt soils north of Ballan. Korweinguboora and Dale creeks are included in this catchment. Overall condition is moderate. However, the upper Werribee River contains areas of relatively intact streamside vegetation and the occasional fishing spot. Korweinguboora and Dale creeks feed Pykes Creek Reservoir, which service Melton and Bacchus Marsh. Key risks to river health include barriers to fish migration, poor quality streamside zone, and stock access.

River Health Program: Priority actions will be implemented from the Werribee Catchment Nutrient Management Plan, stream frontage management, including weed control, will be undertaken and additional river health information will be collected. The long-term program will address other risks and include activities to improve streamside vegetation.

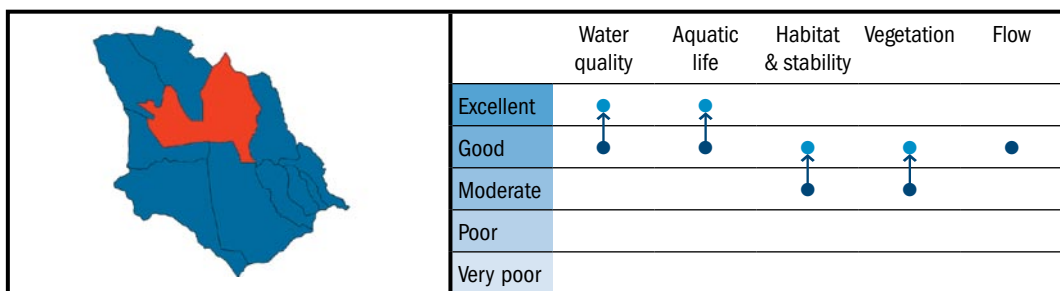
Middle Werribee River

Regional Importance: Very High

Management Objective: Improve condition

Current Condition: Moderate

Target: Good



Current Social Value: Moderate

Target: High

This section of the Werribee River rises near Ballan and runs towards Myrniong, Bacchus Marsh and Melton. It includes the Pykes and Melton reservoirs, which service Melton, Bacchus Marsh. Korkuperimmul and Myrniong creeks are included in this catchment. Much of this area is an Urban Water Supply Protection Area. The Werribee Gorge is notable because of its landscape values, geological significance, spectacular views and presence of relatively intact native vegetation. The 443 ha Werribee Gorge State Park provides opportunities for bushwalking and rock climbing. The park also contains good habitat for fish and other aquatic animals, such as platypus.

Key risks to the health of the Werribee River through this section include changes to the natural flow regime, a number of fish barriers including the major reservoirs, and presence of weeds. In the tributary rivers and creeks, erosion of the bed and banks is a key risk to river health.

River Health Program: Erosion control will be a focus at a number of sites and revegetation and weed control will occur in over 40 kilometres. Willows and other introduced trees and shrubs will also be removed. Environmental flows that will help to maintain a healthy river will be provided.

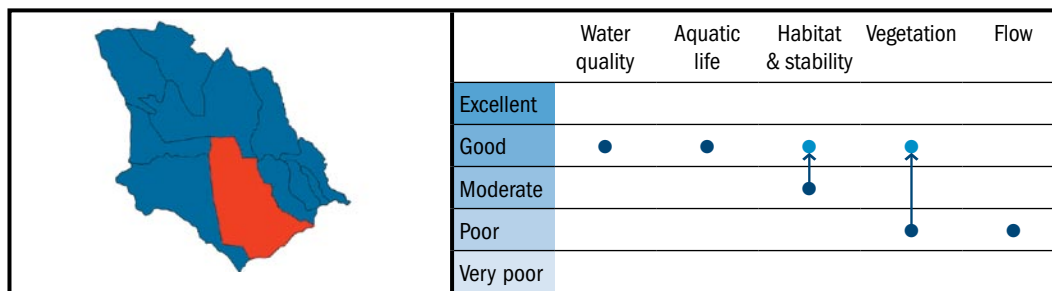
Lower Werribee River

Regional Importance: Very High

Management Objective: Improve condition to sustain downstream values and enhance social values

Current Condition: Poor

Target: Moderate



Current Social Value: High

Target: High

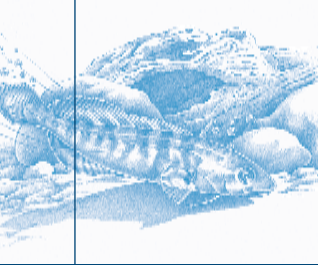
This area includes the lower Werribee River and Lollipop Creek. The lower Werribee runs through Werribee and the Western Treatment Plant before it flows into Port Phillip Bay. Through Werribee, the river is a significant recreational area for passive recreation and fishing and boating are popular in the estuarine sections. Through the Western Treatment Plant, the Werribee River is associated with important migratory wading bird habitat. The lower Werribee River is home to a range of fish species, platypus and lined with highly valued river red gums. Water is taken from the lower Werribee River to supply an intensive vegetable growing area at Werribee South.

Key risks to the lower Werribee River include changes to the natural flow regime, loss of streamside vegetation and weeds. The expanding urban area associated with Werribee is also a potential source for future water quality issues.

River Health Program: A new regional and recreational park will be created along the lower reaches of the Werribee River. Approximately 20 kilometres of revegetation and weed control activities are programmed for this section of the Werribee River. Other activities include investigations on the Werribee River to determine how much flow is required to meet environmental needs, providing environmental flows and planning guidelines to minimise the impact of urban development.



Lake Borrie, Western Treatment Plant – an important bird migratory bird habitat.



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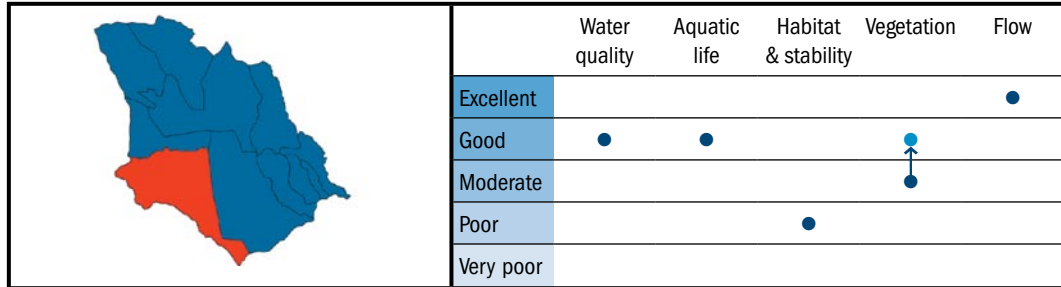
Little River

Regional Importance: Moderate

Management Objective: Improve condition and enhance social values

Current Condition: Moderate

Target: Moderate



Current Social Value: High

Target: High

Little River rises in the northern section of the Brisbane Ranges National Park and flows through the townships of Balliang and Little River before joining Port Phillip Bay at the Western Treatment Plant.

The Little River is ephemeral, meaning it stops flowing and dries up most summers. The estuary of the Little River is of high value as it runs through a Ramsar site and is valuable as migratory wading bird habitat. Little River runs through an important landscape, which includes significant native grassland and grassy woodland areas, associated with the remnant river red gums that line the river.

Changes to flow and stock access pose a major risk to the health of the Little River. Urban growth of Werribee and the Little River township is a potential risk.

River Health Program: The five-year program will focus on ensuring that development is managed to minimise the impacts on Little River. Strategies might include the use of planning overlays to protect significant values and the use of water sensitive urban design principles. Revegetation and weed control actions are also programmed for Little River as well as investigations to improve understanding of flow requirements.

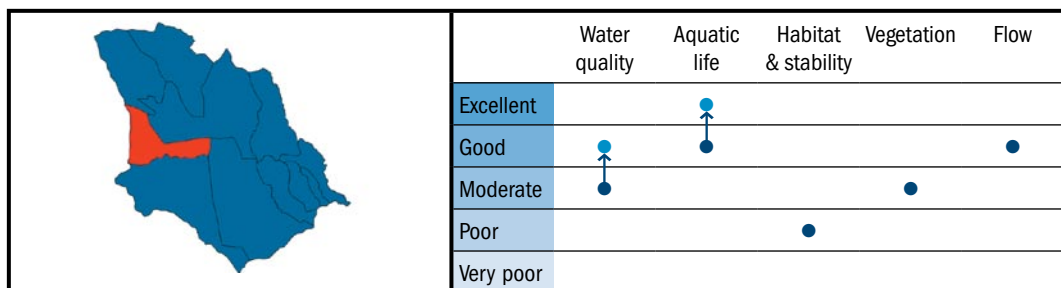
Parwan Creek

Regional Importance: Low

Management Objective: Improve condition

Current Condition: Moderate

Target: Good



Current Social Value: Low

Target: Low

Parwan Creek rises near Fiskville and runs in an easterly direction towards Rowsley before joining the Werribee River south of Bacchus Marsh. It is home to the growling grass frog, which has high conservation value. The catchment and creek are subject to major erosion and weed issues, which are a risk to river and creek health and water quality. Fish barriers have also been identified as a significant risk.

River Health Program: The focus of the first five years will be reducing the impact of catchment activities on the downstream water supply reservoirs on the Werribee River. The long-term program will address other risks and include development of a waterway plan, continued water quality activities as well as stream frontage management.

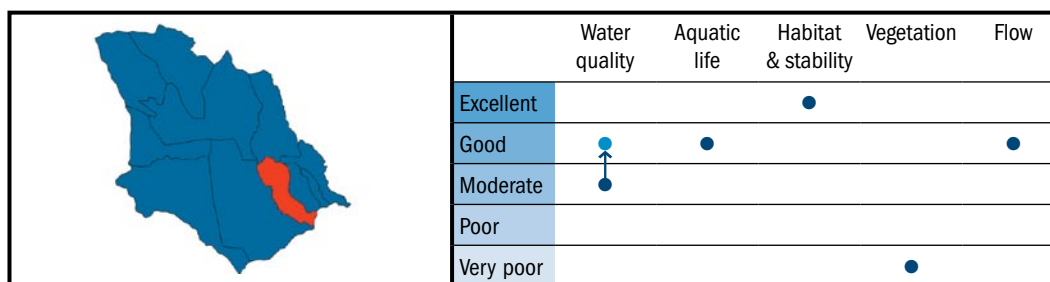
Skeleton Creek

Regional Importance: Low

Management Objective: Improve condition to sustain downstream values

Current Condition: Moderate

Target: Moderate



Current Social Value: Low

Target: Moderate

Skeleton Creek originates in a rural area near Mt Cottrell and passes through urban areas before discharging to Port Phillip Bay. The Cheetham Wetlands, a site of significance for migratory birds, is located in the catchment. The creek has important Aboriginal spiritual values and parts of the creek are popular sites for passive recreation. Skeleton Creek is in moderate condition, but it is becoming increasingly urbanised as new developments extend from Hoppers Crossing. This new development poses a major risk to the health of the river, if not managed in a sustainable manner. Other key risks include poor water quality and poor quality of streamside vegetation.

River Health Program: Improving protection of the Cheetham Wetlands and water quality entering the Bay will occur through implementing priority actions from the Melton and Wyndham Stormwater Management Plan. There is considerable urban development occurring near the creek, which may provide opportunities to undertake activities to improve river health and amenity. The long-term program will address other risks and include continued water quality activities as well as stream frontage management. Prospects for improving environmental conditions are low because the creek has been heavily modified, although improvements are expected in the long-term.

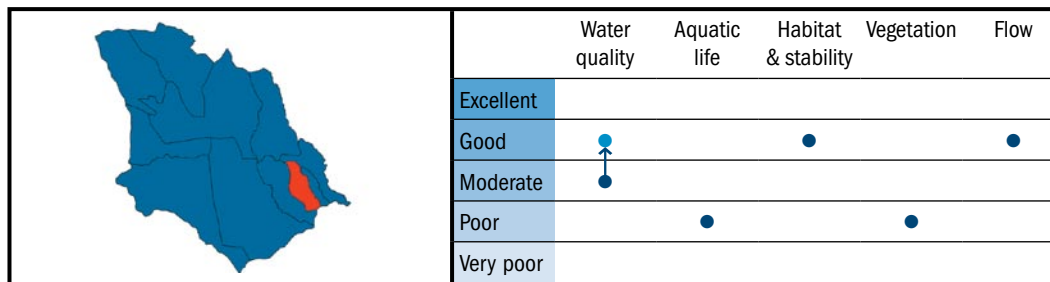
Laverton

Regional Importance: Low

Management Objective: Improve condition to sustain downstream values

Current Condition: Moderate

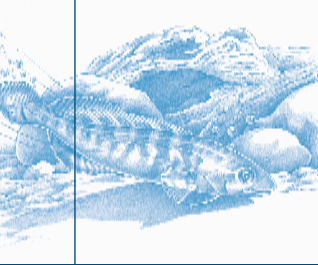
Target: Moderate



Current Social Value: Moderate

Target: Moderate

Laverton Creek originates in a semi rural area and passes through urban and industrial areas before discharging to Port Phillip Bay at Altona. The creek passes through the Truganina swamp, which is of state significance because of the presence of the threatened Altona skipper butterfly. Key risks for this creek include poor water quality, litter and poor quality streamside vegetation. Poor water quality also poses a risk to the health of Port Phillip Bay.



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River Health Program: Priority actions will be implemented from the Wyndham Stormwater Management Plan to address risks such as litter and contaminated runoff from industrial areas and to improve the quality of water entering Port Phillip Bay. The area is undergoing considerable development. As development occurs adjacent to waterways, there is an opportunity to work with the individual developer to present the waterway as an integral component of the development and achieve waterway protection or enhancement. Also as development is occurring it is sensible to undertake waterway improvement works at that time, as the opportunity for intensive improvement may be lost once development has occurred. The long-term program will address other risks and include activities to improve water quality as well as stream frontage management. Further improvements in condition are expected in the long-term.

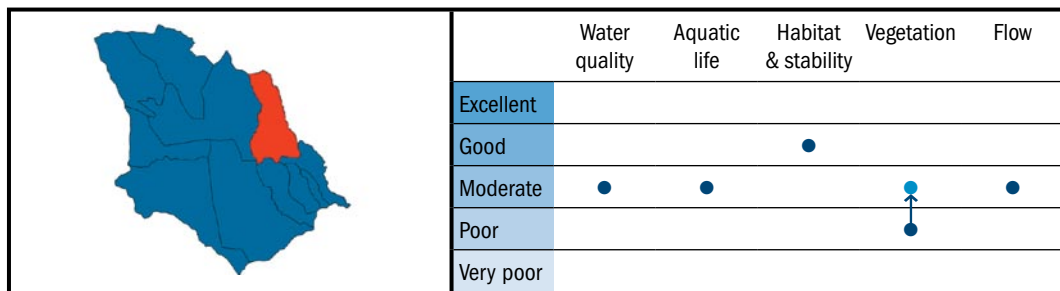
Upper Kororoit Creek

Regional Importance: Moderate

Management Objective: Improve condition to enhance social values

Current Condition: Poor

Target: Poor



Current Social Value: Low

Target: Moderate

Arising in the rural foothills of the Great Divide around Gisborne and Sunbury, Kororoit Creek comprises two main branches, Eastern and Western Kororoit, which join on the basalt plains above Melton. The relatively unaltered channel is framed by large gnarled river red gums, and in the dry season contracts to a series of deeper waterholes.

The Growling Grass Frog is present in these rural sections, and the native water rat is also common. There is evidence of historical Aboriginal use of the creek in a number of locations. The streamside vegetation has been lost or degraded in many areas with stock access to the stream banks and weeds posing a significant risk.

River Health Program: Over the next five years management will, partnership with landowners, focus on improving the streamside zone through revegetation, and excluding stock from stream banks.

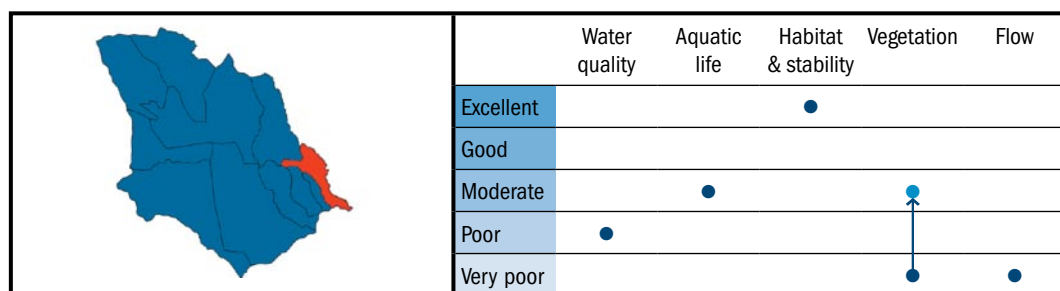
Lower Kororoit Creek

Regional Importance: High

Management Objective: Improve condition to sustain downstream values

Current Condition: Poor

Target: Moderate



Current Social Value: Moderate

Target: Moderate

Kororoit Creek enters the western urban areas of Melbourne at Caroline Springs and Deer Park. It then passes through substantial areas of industrial land use and other urban areas before meeting the Bay at Altona. The creek is a major waterway in Melbourne’s western region and has large areas of open space.

Remnant native grasslands are found around the creek, and these form habitat for the endangered Striped Legless Lizard. Native water rats are also found here in high numbers. In its lower reaches the creek carries significant remnant stands of saltmarsh and white mangroves. It is also home to a large number of waterbirds, including some rare and threatened species.

There is also considerable evidence that the creek was used extensively by Aboriginal people.

Key risks include degraded water quality by industrial pollution and urban runoff, and poor streamside vegetation. Flows have altered due to the extensive urbanisation and, while there are a number of native fish species present, exotic fish are abundant.

River Health Program: The five year program will investigate opportunities for improving native fish habitat. A program of weed control and revegetation will be implemented and a major regional waterway park will be developed in line with recommendations in the *Kororoit Creek Regional Strategy 2005 – 2030*. The creek is an important area for recreation and improving gaps in the trail around Kororoit Creek is also to be addressed. The program will also work to address poor water quality.


Cherry Creek

Regional Importance: Low

Management Objective: Prevent further damage

Current Condition: Poor

Target: Poor

		Water quality	Aquatic life	Habitat & stability	Vegetation	Flow
	Excellent					
	Good			●		
	Moderate					●
	Poor	●	●		●	
	Very poor					

Current Social Value: High

Target: High

Cherry Creek was once an ill-defined drainage line with a series of shallow wetlands and ponds on basalt plains populated by native grasses around Laverton and Altona. Today its form has been substantially modified to improve drainage and reduce flooding on nearby industrial land. A large coastal swamp in its lower reaches has been formed into a retarding basin and the very popular recreation area, Cherry Lake. The rare Altona skipper butterfly is found in sedgeland around the lake and waterbirds are common. The creek has been substantially altered from its original form and associated vegetation has been largely lost. Some native grassland reserves remain in the catchment.

River Health Program: The long-term plan for Cherry Creek is to improve the environmental condition of the waterway, particularly in its lower reaches and around Cherry Lake.

Significant plants and animal habitat will be protected and improved through the planting of indigenous vegetation that will also serve to enhance recreational values.