

# Yarra Catchment

The Yarra catchment lies north and east of Melbourne, beginning on the southern slopes of the Great Dividing Range in the forested Yarra Ranges National Park. Around two million people, over one-third of Victoria's population, live in the catchment, which has an area of approximately 4000 square kilometres.

The upper reaches of the Yarra River and its major tributaries flow through forested, mountainous areas, which have been reserved for water supply purposes for more than 100 years. Around 70% of Melbourne's drinking water comes from these pristine upper reaches. Most of the land along rivers and creeks in the middle and lower sections has been cleared for agriculture or urban development.

There are numerous major water storages and farm dams and the taking of water from the rivers and creeks for agriculture is prevalent. This means that flows in the Yarra River and many of its tributaries have been changed significantly since the time of European settlement.

Over one-third of Victoria's native plant and animal species occur in the catchment. The Yarra River between Warburton and Warrandyte has been identified as a Victorian Heritage River and the O'Shannassy River catchment identified as an Essentially Natural Catchment. The catchment also has 40 rivers and creeks that are of high or very high significance and 24 ecologically healthy rivers including the upper reaches of the Plenty River, the main stem of the Yarra River and Little Yarra River.

The rivers and creeks also have significant Aboriginal cultural value. While some features of the Yarra River that were integral to Aboriginal culture no longer exist (e.g. the waterfall at the end of William Street, Melbourne), a strong association with the Yarra River remains. This is demonstrated by the many historic places, including the William Street Falls, Yarra Flats dreaming, the Heide Scar tree and Bolin Bolin Billabong.

While the forested upper catchment tends to have excellent river and creek health, the condition of rural and urban rivers and creeks downstream deteriorates as a result of erosion, poor water quality, weeds, land use change and changes to river flows. Urbanisation and change in flows pose a major risk.

In recent years, loss of habitat has been slowed and, in some cases, the range of some species such as platypus has been extended through revegetation, enhancement of habitat and removal of barriers to migration.

Water quality in the Yarra River is much better today than it was in the 1970s, and it has remained relatively stable over the last ten years despite increased pressure from continued urbanisation and population growth. In January 2006, the Victorian Government released the *Yarra River Action Plan* containing around \$600 million of initiatives to improve the health of the river over the long-term (see case study).

Watts River at  
Maroondah Reservoir.



## Case Study

### Yarra River Action Plan

The *Yarra River Action Plan*, released in January 2006, features a package of projects totalling around \$600 million to secure a healthier Yarra River

The action plan aims to improve the quality of stormwater runoff and has allocated \$20 million to tackle stormwater pollution. This project will concentrate on projects such as wetlands, rain gardens and other water sensitive urban design features that slow and filter stormwater before it enters the river. Half of the \$20 million allocated for stormwater is for the lower reaches of the Yarra

New sewers will be built, and the capacity of existing sewers improved, to reduce spills and overflows that can occur during heavy rain. A sewerage backlog program will replace many septic tanks in rural areas and outer suburbs with reticulated sewerage as part of Yarra Valley Water's backlog program upgrades.

A three-year investigation has begun at 52 locations to find and clean up likely sources of faecal pollution, and monitoring and research is increasing to improve understanding of the impact of pollution on aquatic life and any restrictions on the suitability of fish for human consumption. In addition, improved access to clear and accurate information on water quality will be provided to the community.

The action plan also contains priority projects to manage litter and rural runoff. Approximately \$4 million will be spend over the next three years to further engage the community in river health programs.

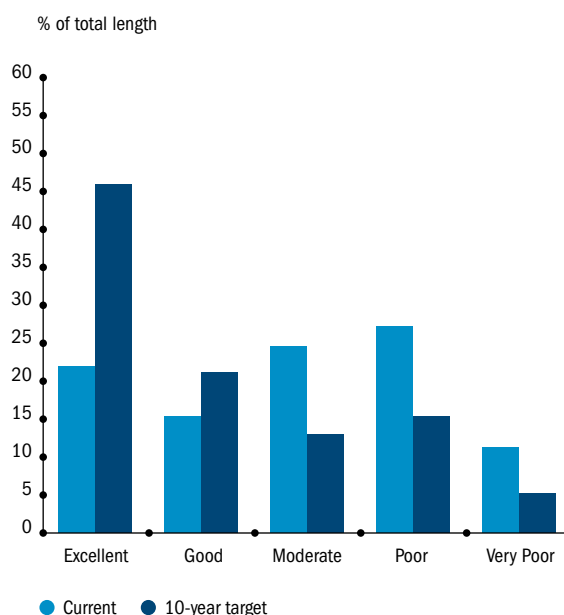
### Five-year program objective

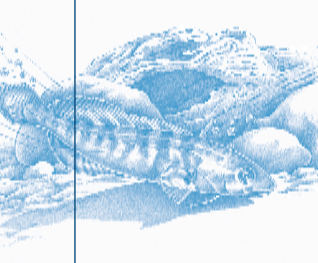
The river health programs are extensive and aim to protect existing high value rivers and creeks and improve the condition of rivers and creeks throughout the urban environment. The river health program also aims to ensure planning for the allocation of water resources will provide for the long-term needs of both water users and the environment.

Formalised entitlements for the urban water supply, along with clear water sharing rules for agricultural water supply, will ensure that environmental flows are provided and sustainable in five rivers and creeks within the catchment. The State Government's *Central Region Sustainable Water Strategy* proposes to enhance the environmental flow regime with an additional 20 GL/yr. Stream flow management plans will be developed in priority rivers and creeks such as the Plenty River and Hoddles Creek.

In five years, about 400 kilometres of rivers and creeks will be revegetated and subject to weed control. In 10 years, these actions will have led to an improvement of one rating in the IRC streamside zone rating along 1900 kilometres.

**Figure 9.**  
Current and 10-year condition targets for rivers and creeks in the Yarra catchment





## Yarra Catchment

Over 2000 kilometres of rivers and creeks will be in good or excellent condition within 10 years, and over 1000 kilometres will be considered ecologically healthy.

Fish barriers will be removed from four sites, opening up 1000 kilometres of rivers and creeks to native fish migration and re-colonisation by threatened species including the Australian grayling and populations of the endangered Macquarie perch.

The management of stormwater will continue throughout the lower to middle Yarra catchment resulting in improvements in water quality. The rich Aboriginal heritage values will be protected and interpreted to allow others to understand the significant cultural connections between Aboriginal communities and the rivers and creeks.

A summary of the five-year river health program and 10-year target condition for rivers and creeks within the Yarra catchment are described on the following pages. The highlighted red section of the maps indicates the catchment area for the individual rivers and creeks. In those areas shaded both brown and red, brown indicates the full extent of the catchment area, whilst red serves to indicate the particular area of focus within that catchment area. A detailed description of all rivers and creeks and the five-year program as well as the long-term programs are contained in the attached Resource CD.

### Case Study

#### How the Yarra River was formed as told by Barak

One day two boys were playing in the bush, throwing their toy spears at whatever bird they saw. After a while they tired of this game and, sighting an old wattle tree, went up to it in the hope of finding some wattle gum, of which they were very fond. They saw some gum on a bough fairly high up, and one of the boys climbed the tree and reached it. He began to throw the gum down to the other boy, who was waiting for it underneath the tree. But when the lumps of gum reached the ground they disappeared, and the boy who had remained below could not find them. At last he noticed a hole, and thinking that the gum may have rolled down, he poked the end of his little spear in it.

As soon as he did this, a deep growling voice was heard and the ground seemed to shake. An old man, who had been sleeping underground with his mouth open, suddenly made his appearance. He picked up the frightened boy and shuffled off, dragging his feet, because he was old and the boy was heavy to carry.

As the old man huddled along he made a furrow, which deepened into a gutter, then into a creek, and lastly became the Yarra River. All this time the little boy was crying with fright. At last Bunjil heard him. He put sharp stones in the path of the old man over which he fell, and cut himself into pieces. The boy ran off to his home.

Just before the old man died, Bunjil appeared, and said to him "Let this be a lesson to all old men. They must be good to little children."

## Upper Yarra River

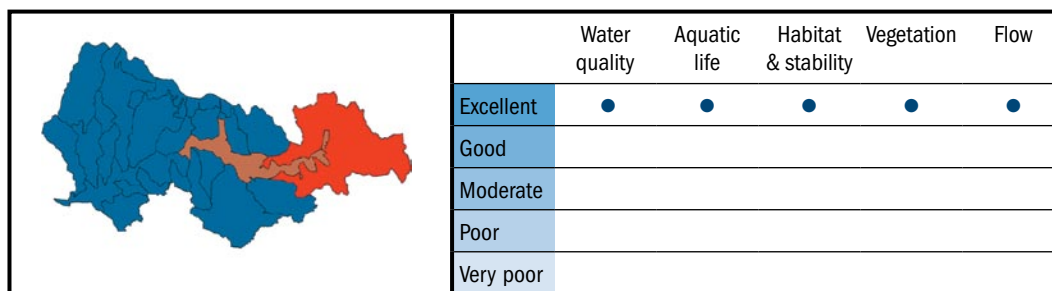
### Source

**Regional Importance:** Very High

**Management Objective:** Protect environmental condition

**Current Condition:** Excellent

**Target:** Excellent



**Current Social Value:** Moderate

**Target:** Moderate

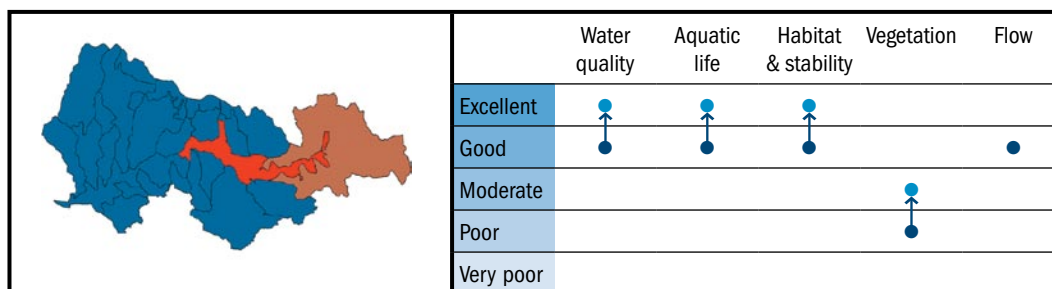
### Rural Sections

**Regional Importance:** Very High

**Management Objective:** Improve condition and enhance social values

**Current Condition:** Moderate

**Target:** Good



**Current Social Value:** High

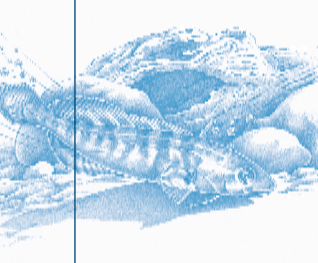
**Target:** Very High

The Upper Yarra River contains the section of Yarra River upstream of Warrandyte, including major tributaries such as the Don River. The headwaters of many tributaries arise in protected forests and are of excellent environmental condition, provide high quality drinking water for Melbourne and sustain a diversity of flora and fauna including the Mt Donna Buang stonefly. This section of the river also supports a population of the rare Macquarie Perch. The Yarra River between Warburton and Warrandyte is a Victorian Heritage River. In addition to its environmental value, this section of the river also has high social values. The protected catchments are highly valued by the people of Melbourne and the river attracts many visitors.

The Yarra River retains many environmental values but a number of risks persist including poor water quality, poor quality of streamside zone vegetation and stock access, and change in flow from natural.

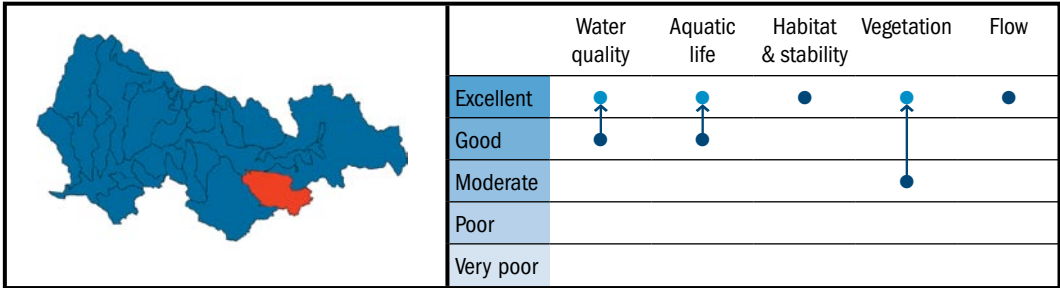
**River Health Program:** A waterway plan for the middle Yarra will be developed. Activities for the next five years will also involve finalising the Yarra Bulk Entitlement and managing associated flows, reviewing the Heritage River Management Plan, improving instream habitat and improving water quality.





Little Yarra River and Hoddles Creek

Regional Importance: Very High  
Management Objective: Improve condition  
Current Condition: Good Target: Excellent



Current Social Value: Moderate Target: Moderate

The Little Yarra River catchment contains the Little Yarra River and Hoddles Creek. The headwaters of these rivers and creeks arise from protected forest slopes but quickly shift to rural dominated landscapes in their middle and lower reaches. Environmental values of the upper reaches are high. These reaches support a variety of significant flora and fauna species, good water quality and a diversity of streamside and instream habitats. Recent introduction of old tree trunks into the Little Yarra has improved habitat. The condition of lower reaches reflects pressures arising from land use including the loss of habitat through sand deposition, stock access and poor quality streamside vegetation. In Hoddles Creek, changes in flow from natural pose a risk to river health.

**River Health Program:** Activities for the next five years will involve managing water quality, collecting additional stream health information, developing a waterway management plan for Hoddles Creek, investigating and constructing fish passage, implementing stream frontage management, and protecting and maintaining heritage and social values.

Hoddles Creek in Launching Place.



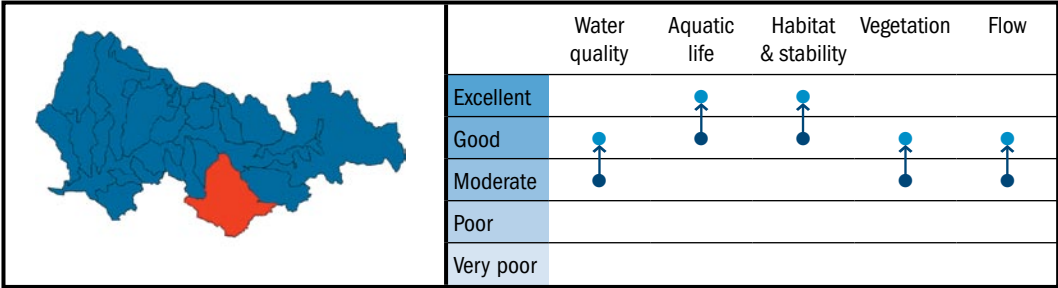
# Woori Yallock Creek

Regional Importance: Very High

Management Objective: Improve condition

Current condition: Moderate

Target: Good



Current Social Value: Moderate

Target: Moderate

The Woori Yallock catchment is a major tributary of the Yarra River and has tributaries such as Cockatoo, Shepherd, McCrae and Wandin Yallock creeks. The catchment is mostly rural with minor urban centres and some forested headwaters. The Woori Yallock Creek supports a range of threatened flora and fauna, platypus and several native fish and frog species and sections of Cockatoo Creek are ecologically healthy. The Yellingbo State Nature Reserve, which extends along several kilometres of the rivers and creeks support the largest remaining population of the critically endangered helmeted honeyeater. Parts of the Woori Yallock are valued for fishing and contain European heritage values. Risks include a lack of streamside vegetation, stock access, change in natural flow, poor water quality and barriers to the migration of fish and other aquatic life.

**River Health Program:** The streamside zone will be improved from poor to good condition by fencing to manage stock access, revegetating 54 kilometres, and weed control. A Woori Yallock Stream Flow Management Plan will be developed and water quality improved. Barriers to fish migration will be removed and additional stream health information will be collected. Public open space values will also be protected.

## Watts River

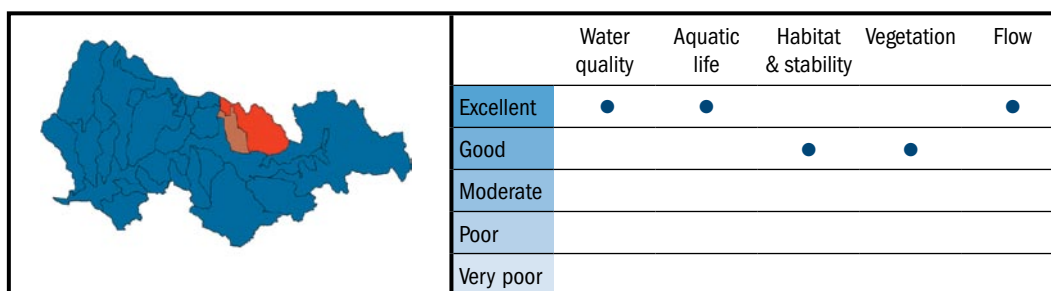
### Source

**Regional Importance:** Very High

**Management Objective:** Protect environmental condition and enhance social values

**Current Condition:** Excellent

**Target:** Excellent



**Current Social Value:** Very High

**Target:** Very High

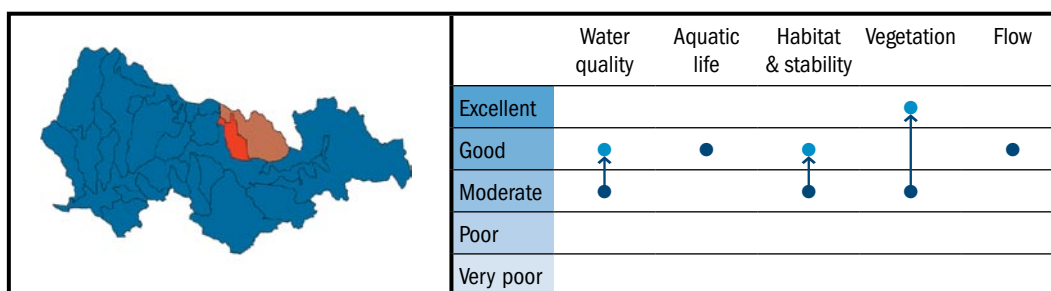
### Rural Section

**Regional Importance:** High

**Management Objective:** Improve condition and enhance social values

**Current Condition:** Moderate

**Target:** Good



**Current Social Value:** High

**Target:** High

The Watts River is largely contained within the forested Maroondah Reservoir water supply catchment. The reservoir was completed in 1927 and has a capacity of 22,000 million litres. The reaches upstream of the reservoir are considered ecologically healthy. While the dam wall prevents fish migration, spotted galaxias are found in the upper reaches. Tributaries of Watts River include Donnelly's and New Chum creeks. Donnelly's Creek has a high social value and contains a heritage-listed weir. Most of Donnelly's Creek and the upper parts of New Chum Creek have very high environmental values due to undisturbed forested catchments. Downstream of Maroondah reservoir, the loss of vegetation, reduced flows, erosion and degraded water quality pose significant risks to the Watts River.

The headwaters of Graceburn and Corranderrk creeks are also in forested water supply catchments where environmental values are high and the reaches have been defined as ecologically healthy. High Aboriginal values are associated with Corranderrk Creek because of the history connected with the Corranderrk Aboriginal mission. The Aboriginal community now manages this area. European heritage is also high due to a historical weir on Corranderrk Creek.

While being of high social value, this weir poses a significant risk to native fish, preventing migration upstream and downstream. Downstream of the forested areas the condition declines due to cleared streamside vegetation, reduced flows and poor water quality.

**River Health Program:** In the forested reaches of these rivers and creeks, the actions over the next five years will include protecting heritage values and collecting information on water quality, fish and platypus. Fishways will be investigated and constructed where possible on both Graceburn and Corranderrk creeks. In the rural reaches, bulk entitlements will be finalised, heritage values will be protected and, in partnership with landowners and the Aboriginal communities, streamside vegetation will be improved.

## Steels and Pauls Creeks

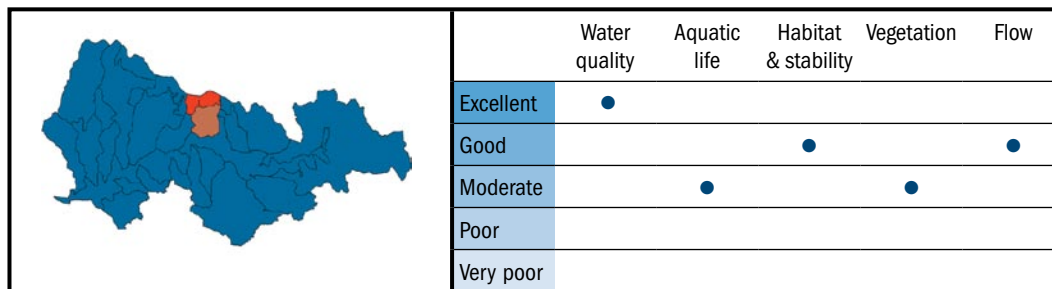
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**Regional Importance:** Very High

**Management Objective:** Prevent further damage

**Current Condition:** Good

**Target:** Good



**Current Social Value:** Low

**Target:** Low

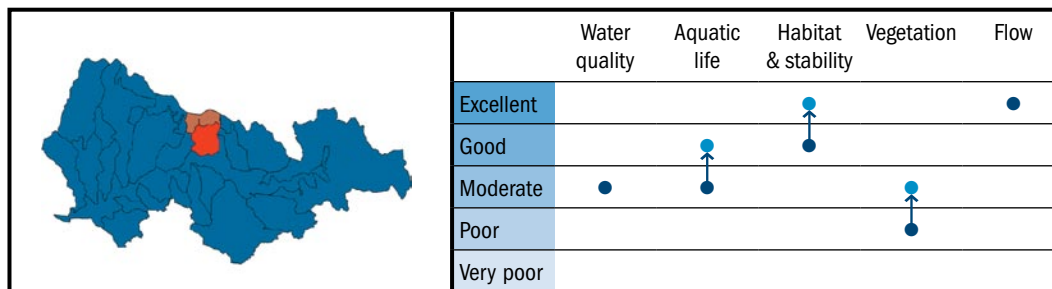
### Rural Sections

**Regional Importance:** Low

**Management Objective:** Prevent further damage

**Current Condition:** Poor

**Target:** Moderate



**Current Social Value:** Low

**Target:** Low

Steels and Pauls creeks enter the Yarra River from the north, near Yarra Glen. Much of the streamside vegetation was removed when the catchments were cleared for farming which led to instability. The condition of the rural reaches is poor. Small areas of the headwaters lie in the forested Kinglake National Park and remain ecologically healthy. Key risks to both creeks in the rural areas include degraded streamside vegetation, changes in flow from natural and erosion. In some forested reaches, poor water quality poses a risk to river health.

**River Health Program:** Activities in the next five years in the rural reaches include streamside management to improve vegetation and stabilise banks. The development of a stream flow management plan will help to manage water allocation between private use and the environment. In the forested areas, activities to improve water quality will be implemented ensuring that best practice road management is achieved.



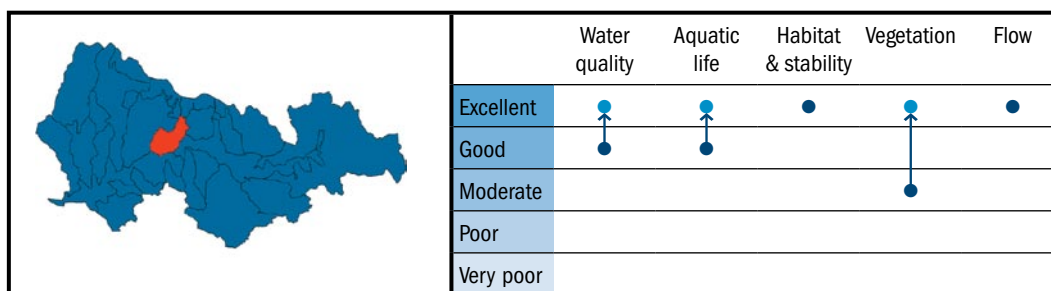
## Watsons Creek

**Regional Importance:** Very High

**Management Objective:** Improve condition

**Current Condition:** Good

**Target:** Excellent



**Current Social Value:** Low

**Target:** Low

Watsons Creek enters the Yarra River from the north near Wonga Park. The creek originates in the forested Kinglake National Park and quickly passes into cleared land at Christmas Hills and Kangaroo Ground. Watsons Creek has excellent channel form, good streamside vegetation and its headwater reaches have been defined as ecologically healthy. Weeds pose a risk to both the headwater and rural sections.

**River Health Program:** Activities in the next five years include improving streamside vegetation through continuing to support the Stream Frontage Management Program and undertaking water quality and fish investigations.

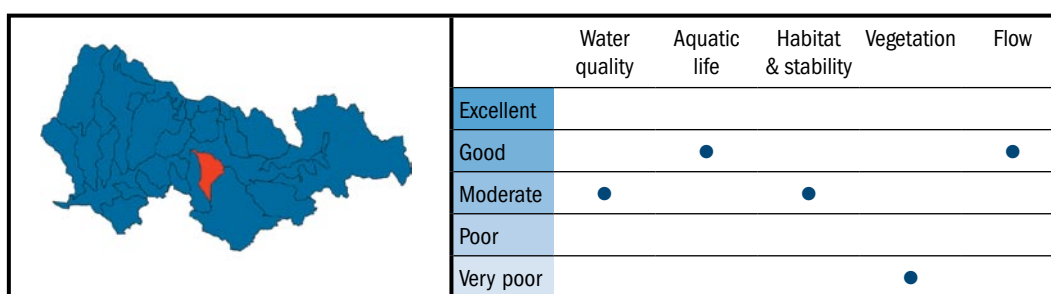
## Stringybark Creek

**Regional Importance:** Low

**Management Objective:** Prevent further damage

**Current Condition:** Poor

**Target:** Poor



**Current Social Value:** Moderate

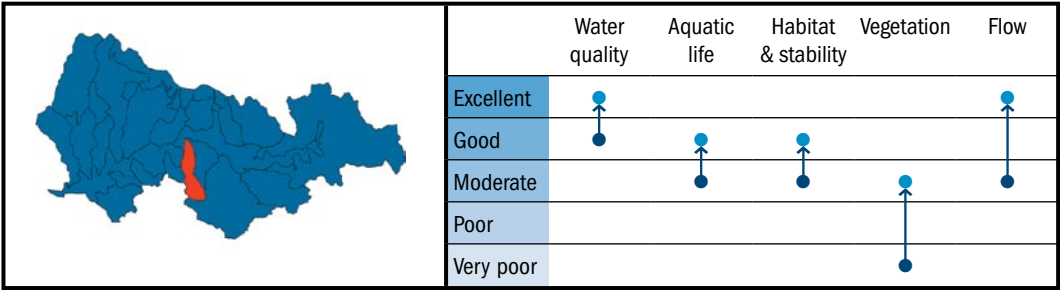
**Target:** Moderate

Stringybark Creek originates at Mount Evelyn and is surrounded by semi-rural and rural landscapes. The land use is reflected in the environmental values, which are relatively low. Risks include degraded streamside zones and stock access. European heritage values are high, and the creek landscape values have been recognised in the planning scheme. Prospects for improving the condition of the creek are moderate to low.

**River Health Program:** The development of a stream flow management plan will help to manage water allocation between private use and the needs of the environment. Activities over the next five years will focus on protecting and maintaining heritage values. The long-term program will address other risks and include activities to improve water quality, as well as stream frontage management. An improvement in condition is expected in the long-term.

# Olinda Creek

**Regional Importance:** Very High  
**Management Objective:** Improve condition and enhance social values  
**Current Condition:** Moderate      **Target:** Good



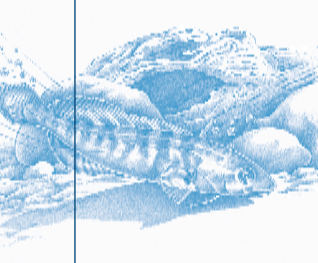
**Current Social Value:** Very High      **Target:** Very High

Olinda Creek originates in the forested slopes of the Dandenong Ranges and its middle and lower sections traverse rural and urbanised landscapes. The creek retains high environmental values in its upper reaches, which is reflected by the existence of a number of flora and fauna species of conservation significance including powerful owls, high water quality and a diversity of instream and streamside habitats. The middle and lower reaches have reduced environmental condition. The creek is also an important source of water for agriculture and contains both Aboriginal and European heritage values. Risks include the degradation of streamside zones, the existence of barriers to fish migration and stream flow stress as a result of extractions.

**River Health Program:** Activities for the next five years will involve developing and implementing water quality activities, collecting additional stream health information, stream frontage management to address weeds and stock access, and revegetation, and protecting and improving social values.



Olinda Creek at Mt Evelyn.



## Yarra Catchment

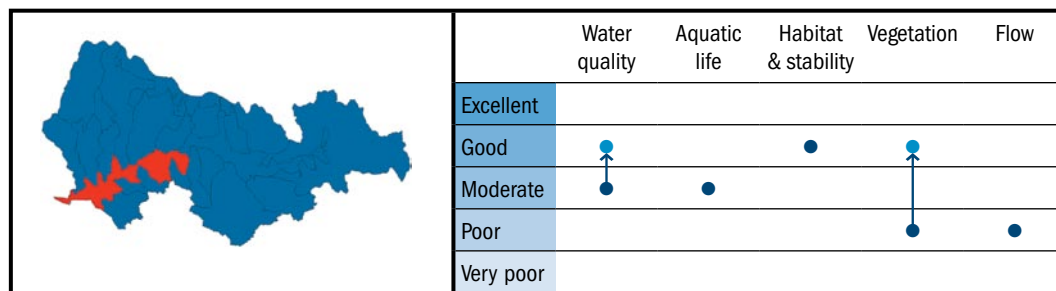
### Middle and Lower Yarra River

**Regional Importance: Very High**

**Management Objective: Improve condition and enhance social values**

**Current Condition: Moderate**

**Target: Moderate**



**Current Social Value: Very High**

**Target: Very High**

The middle and lower Yarra River catchment represents the section of the Yarra below Warrandyte, including minor tributaries such as Anderson, Jumping, Ruffeys, Salt and Banyule creeks. The Yarra River through its lower section retains a number of environmental values such as significant flora and fauna species including the threatened Australian grayling and Australian mudfish. The social value of the lower Yarra is very high. It provides excellent facilities such as trails and receive numerous visitors. The river is also a popular spot for tourists and hosts a number of important events including the Moomba festival. Tributaries within the section are typically highly dominated by urban influences. As a result, their environmental values are reduced. However, many still retain important attributes such as recreational facilities. High Aboriginal values are associated with the area where Merri Creek joins the Yarra River because of its history as a meeting place prior to European settlement, and as an Aboriginal mission post settlement. The wetlands in the Banyule area also possess significant Aboriginal heritage values. European heritage is also high due to Dights Falls and the historical flour mill.

Key risks to the lower and middle Yarra River relate to changes in hydrology, reduced water quality (as a result of stormwater), partial barriers to fish migration and the prevalence of exotic weeds and pests.

**River Health Program:** Activities for the next five years include the development of a waterway management plan for the middle Yarra. The Yarra Bulk Entitlement will be finalised, the Dights Falls fishway modified, water quality improved through stormwater management activities and stream frontage management will address weeds, stock access and revegetation. In addition, heritage and social values will be maintained.

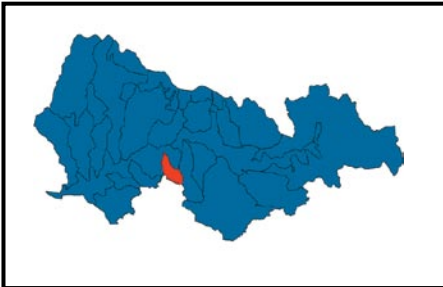
Activities in the next three years involve implementing The Lower Yarra Program. This is priority within the *Yarra River Action Plan* and involves a comprehensive program over three years to reduce pollution. This will be achieved by supporting local government to build water sensitive urban design features and develop local government officers' skills in water sensitive urban design. In addition, Melbourne Water will work in partnership with community groups, schools and various other public space managers to trial and implement stormwater quality improvement projects. An example of such a project is the construction of a rain garden at Richmond Primary School.

Litter continues to be a major challenge in the Yarra and is being tackled by another key *Yarra River Action Plan* initiative, the Lower Yarra Litter Strategy. This litter strategy aims to reduce litter loads in the lower Yarra River and to develop ongoing strategies to improve the overall water quality in the Yarra catchment



# Brushy Creek

Regional Importance: Low  
Management Objectives: 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: Low Target: Low

Brushy Creek is a small tributary that rises in urban Mooroolbark and passes through rural land on the urban fringe, before meeting the Yarra in the floodplains above Warrandyte. The creek has some species of native fish, including the freshwater catfish and Macquarie perch. It also has some listed species of water birds. The surrounding banks and floodplain have higher potential for containing Aboriginal features and sites.

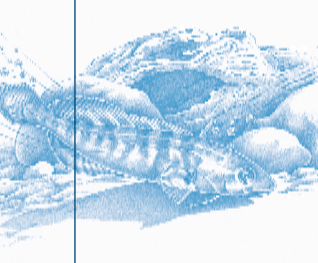
Key risks include urban stormwater run-off, bed and bank erosion, loss of native vegetation and aquatic habitat, barriers to fish and fauna passage and weed infestations. Increasing urban growth is significant threat for the creek and its catchment.

**River Health Program:** Activities in the next five years include revegetation of five kilometres of river and weed control. The long-term program for improving stream health continue to focus on improving water quality through management of urban stormwater, both for existing urban areas and through management of urban growth.



Students from Spensley Street Primary School participate in Waterwatch activities at Dights Falls on the Yarra River.





## Yarra Catchment

### Diamond Creek

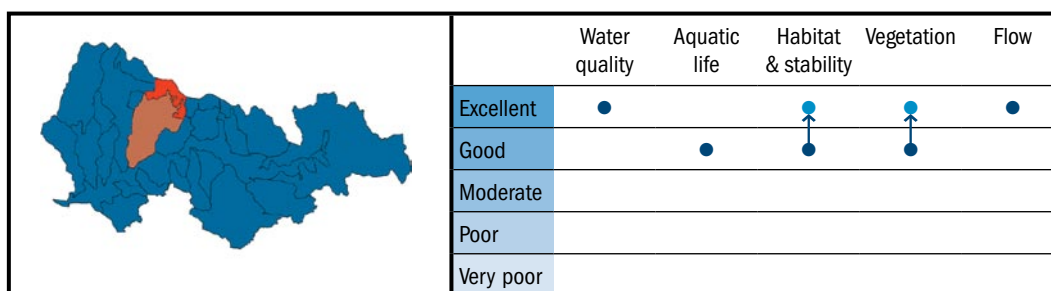
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**Regional Importance:** Very High

**Management Objective:** Maintain ecologically healthy rivers

**Current Condition:** Good

**Target:** Good



**Current Social Value:** Low

**Target:** Low

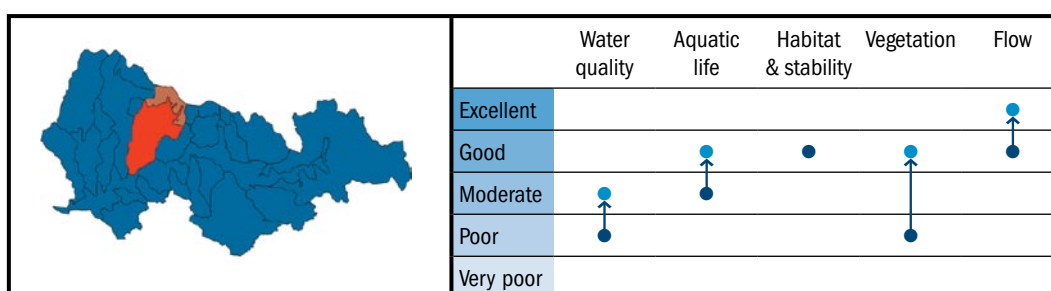
### Rural Sections

**Regional Importance:** High

**Management Objective:** Improve condition

**Current Condition:** Moderate

**Target:** Good



**Current Social Value:** Moderate

**Target:** Moderate

This section includes the Diamond and Arthurs creeks. Both creeks rise in the Kinglake National Park and flow through rural landscapes for most of their length. Diamond Creek also passes through semi-rural areas before flowing into the urban area of Eltham.

The upper reaches of these creeks are in good condition and some are ecologically healthy. The presence and potential spread of weeds is the only major risk to these headwater reaches. Outside the Kinglake National Park, condition deteriorates to moderate reflecting a change in land use. The creeks still support important environmental values, including freshwater blackfish, mountain galaxias, and a breeding population of platypus. The continuity of streamside vegetation is one of the creeks' environmental assets. However, weeds and stock access pose a risk. Some areas of the creeks are popular for passive recreation and fishing.

**River Health Program:** Activities in the next five years in the rural reaches include continuing to improve the streamside vegetation, addressing localised bed and bank erosion, and implementing stream flow and stormwater management plans. Weed control will be the main activity in the headwater reaches.

## Plenty River

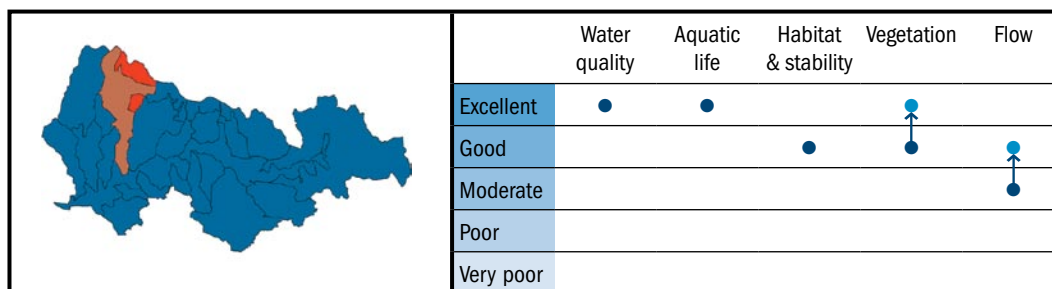
### Source

**Regional Importance:** Very High

**Management Objective:** Maintain ecologically healthy rivers

**Current Condition:** Good

**Target:** Good



**Current Social Value:** Low

**Target:** Low

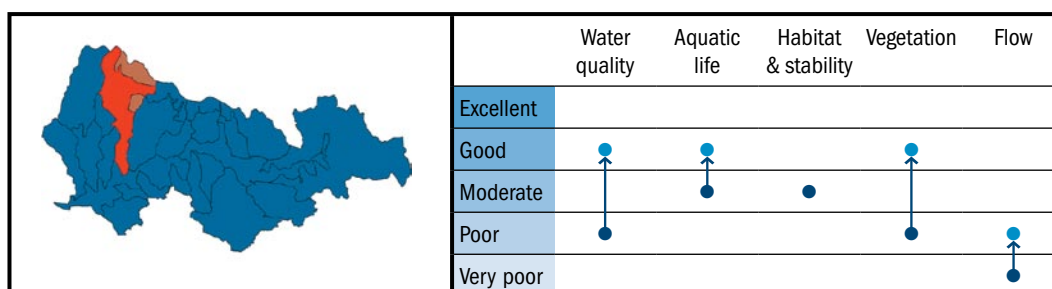
### Rural and Lower Sections

**Regional Importance:** Very High

**Management Objective:** Improve condition and enhance social values

**Current Condition:** Very Poor

**Target:** Moderate



**Current Social Value:** High

**Target:** High

The Plenty River and its tributaries flow from the headwaters around Whittlesea to where it joins the Yarra near Viewbank. Major tributaries include Barbers, Bruces, Scrubby and Jacks creeks. Two major domestic water storages (Yan Yean and Toorourrong) are found within the catchment. The river has a largely rural catchment with two major towns at Mernda and Whittlesea. The catchment becomes fully urban downstream of South Morang.

In the upper forested reaches, rivers are ecologically healthy. As a whole, the river supports a range of rare and threatened flora and fauna species. Recent surveys have found spotted galaxias and short-headed lamprey. The Plenty Gorge is a major feature of the river and has Aboriginal heritage values. The lower sections are popular for passive recreation.

Change in stream flow is a serious issue while other risks include poor water quality, lack of streamside vegetation and barriers to the migration of aquatic life. The prospects for improving this river are good.

**River Health Program:** Activities in the next five years include finalising the Plenty River Stream Flow Management Plan and Yarra Bulk Entitlement, stream frontage management on 42 kilometres of rivers, management of water quality, implementing stormwater management plans and stabilising the beds and banks of Barbers and Bruces creeks.

## Darebin Creek

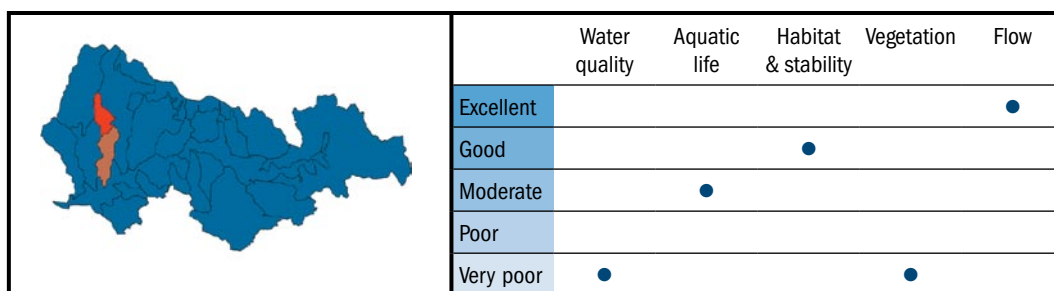
### Rural Sections

**Regional Importance:** Low

**Management Objective:** Prevent further damage

**Current Condition:** Very Poor

**Target:** Very Poor



**Current Social Value:** Low

**Target:** Moderate

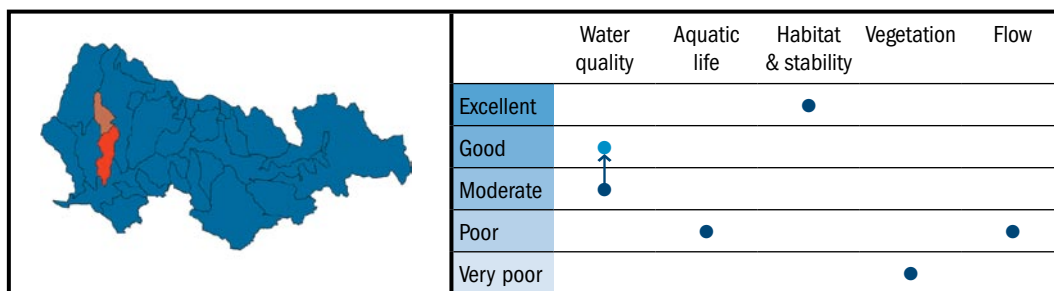
### Urban Sections

**Regional Importance:** High

**Management Objective:** Improve condition and enhance social values

**Current Condition:** Poor

**Target:** Poor



**Current Social Value:** Very High

**Target:** Very High

Darebin Creek rises on Melbourne's northern outskirts and travels through rural landscapes before entering urban and industrial areas as the creek flows towards Melbourne.

The creek has been heavily modified and environmental values are low. However, some threatened flora and fauna species such as growling grass frog are present and the recent building of fishways on several barriers have improved the ability of native fish, such as common galaxias and short-finned eel to move through the creek. The extensive network of bike paths, parks and reserves, as well as Aboriginal and European heritage, contribute to a high social value. Risks include poor water quality, poor quality streamside zone, flow stress and the presence of exotic fish.

**River Health Program:** Prospects for improving environmental condition are low because the creek has been heavily modified. Activities for the next five years will focus on protecting and maintaining heritage values, managing stormwater in the urban reaches to prevent further deterioration, revegetation of five kilometres of river, and weed control. The long-term program will address other risks and include activities to improve water quality as well as stream frontage management. An improvement in condition is expected in the long-term.

## Merri Creek

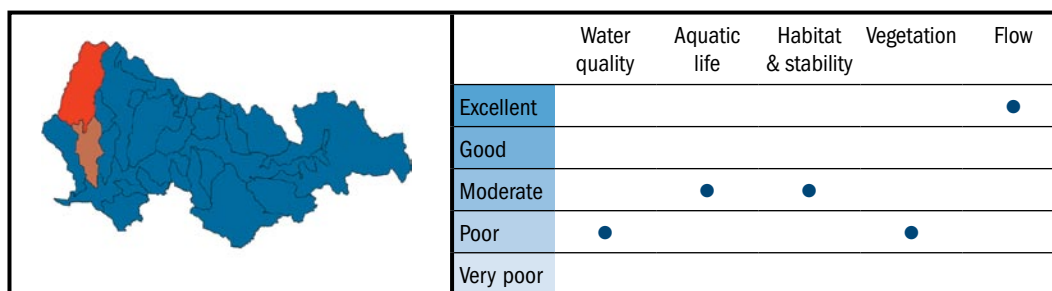
### Rural and Forested Sections

**Regional Importance:** Low

**Management Objective:** Prevent further damage

**Current Condition:** Poor

**Target:** Poor



**Current Social Value:** Low

**Target:** Low

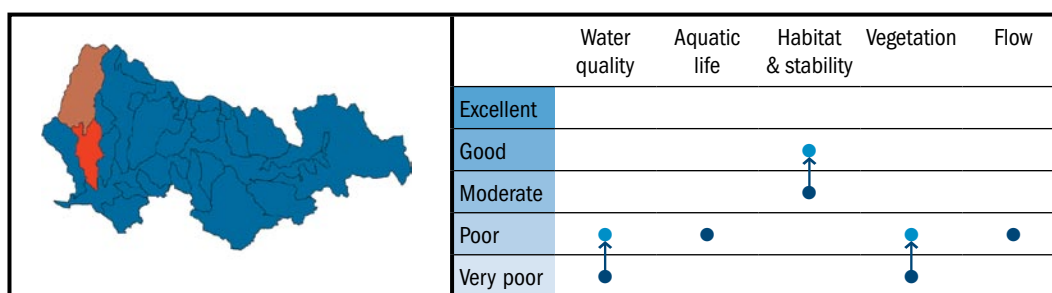
### Urban Sections

**Regional Importance:** High

**Management Objective:** Improve condition and enhance social values

**Current Condition:** Very Poor

**Target:** Poor



**Current Social Value:** Very High

**Target:** Very High

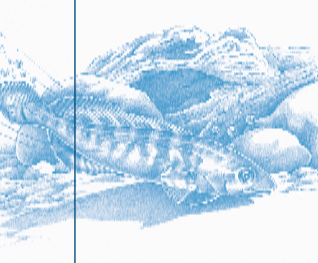
Merri Creek flows from the foothills of the Great Dividing Range north of Wallan on the Hume Highway. It is a major tributary of the Yarra River flowing over basalt plains to meet the Yarra at Fairfield. Tributaries include Edgars and Central creeks. Merri Creek has high Aboriginal heritage value, as the creek and surrounding lands were important for food, shelter and travel. The Merri Creek catchment includes remnants of former vegetation communities characteristic of the basalt plains north of Melbourne. In particular are remnant river red gum woodlands, stony knolls and grasslands.

Despite a history of land clearing and agricultural development, the rural reaches have retained some natural stream form and related landscape values and feature a number of sites of state/national conservation significance. The state significant endangered growling grass frog is found in several locations. Risks to the rural reaches of the Merri Creek include poor water quality, streamside vegetation and fish barriers.

While only few environmental values remain in the urban reaches, the creek has very high social value because of passive recreation and European and Aboriginal heritage. The confluence of the Merri Creek and the Yarra River has high Aboriginal heritage values and was once an important meeting place. Risks to the lower reaches of Merri Creek include the quality and quantity of stormwater, poor quality streamside vegetation and fish barriers.

**River Health Program:** Prospects for improving environmental condition are low because the creek has been heavily modified. Activities in the next five years will focus on the urban reaches where water quality improvements will be made through implementing stormwater management plans, heritage values will be protected and streamside vegetation will be improved. In the rural reaches, grants will help to improve and protect streamside vegetation. The long-term program will address other risks and include activities to improve water quality as well as stream frontage management. An improvement in condition is expected in the long-term.

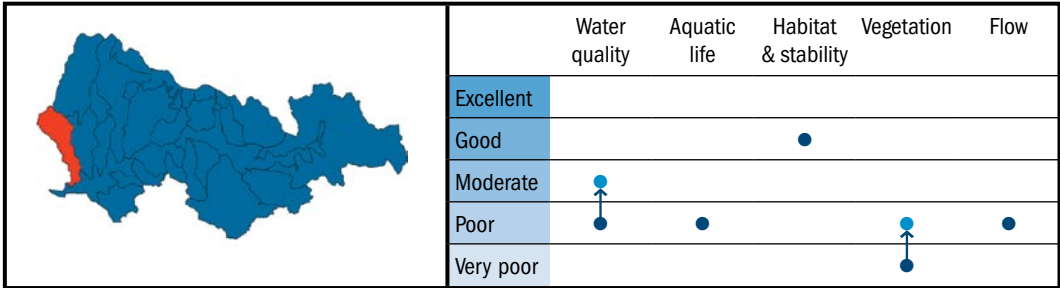




# Yarra Catchment

## Moonee Ponds Creek

**Regional Importance:** Moderate  
**Management Objective:** Improve condition and enhance social values  
**Current Condition:** Very Poor **Target:** Poor



**Current Social Value:** High **Target:** High

Moonee Ponds Creek flows from Greenvale down through Tullamarine and joins the Yarra River in West Melbourne. Tributaries include Yuroke Creek, which enters Moonee Ponds from the north in Westmeadows, and Attwood Creek, which rises just to the west of Mickleham Road in Greenvale. The catchment is largely urbanised except for the very upper rural reaches.

Works undertaken in the 1950s to increase flood protection resulted in the removal of bank vegetation and instream debris in conjunction with concrete lining of much of the lower reaches of the creek. Although the overall condition of Moonee Ponds Creek is very poor, there are small areas in better condition. For example, the creek through Woodlands Historic Park has the best examples of a comparatively natural waterway within the catchment. The creek has a high social value and is popular for passive recreation. Risks to the creek include poor streamside vegetation and stormwater runoff.

**River Health Program:** Prospects for improving environmental condition are low because the creek has been heavily modified. Activities in the next five years will focus on the lower reaches improving water quality, protecting heritage values, revegetation and weed control and improving the creek environment for passive recreation. In the rural reaches, grants will help to improve and protect streamside vegetation. The long-term program will address other risks and may include a program of removing concrete lining in some areas. An improvement in condition is expected in the long-term.

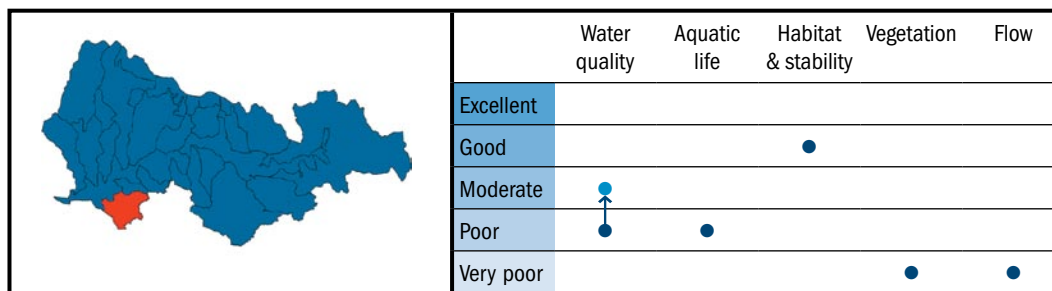
## Gardiners Creek

**Regional Importance: High**

**Management Objective: Prevent further damage and enhance social values**

**Current Condition: Very Poor**

**Target: Poor**



**Current Social Value: Very High**

**Target: Very High**

Gardiners Creek, including Scotchmans and Damper creeks, has a predominantly urban catchment. Although the system tends to rate poorly from an environmental perspective, the creeks support important species of native fish (e.g. common galaxias and climbing galaxias), water rats and the growling grass frog. Gardiners Creek is highly valued for its extensive network of bike paths, trails, recreation reserves and parks. Key risks include stormwater, weeds, localised bank erosion and barriers to the migration of aquatic life.

**River Health Program:** Activities in the next five years include identifying and addressing instances of localised bank erosion, weed management, and protecting heritage values. The long-term program will address other risks and an improvement in condition is expected in that timeframe.

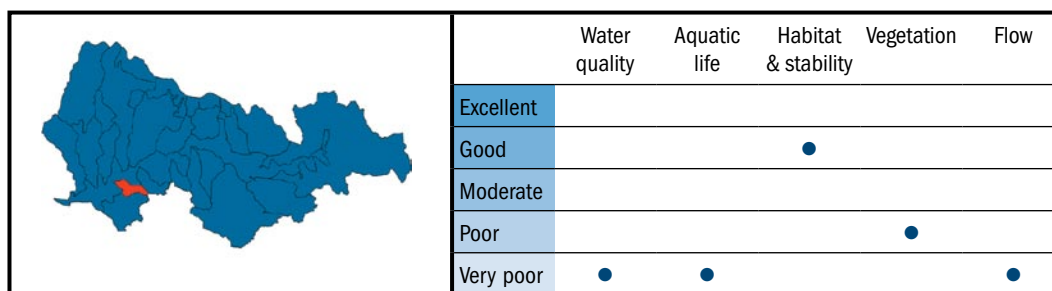
## Koonung Creek

**Regional Importance: Low**

**Management Objective: Prevent further damage**

**Current Condition: Very Poor**

**Target: Very Poor**

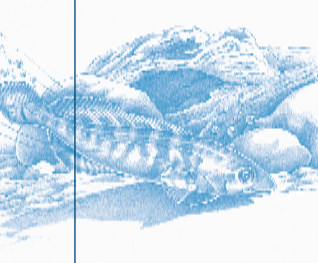


**Current Social Value: Moderate**

**Target: Moderate**

Koonung Creek is a small tributary of the Yarra that arises in Blackburn North and Doncaster. Its catchment is almost entirely urban, however the creek contains major parklands in some of its reaches that have high recreational value. The creek has been heavily modified by realignment and erosion control works, particularly those associated with the Eastern Freeway, however it has retained native fish species, listed water birds, the growling grass frog and the floodplain contains sites of significant Aboriginal heritage. The most significant risks for the creek are associated with altered hydrology, largely as a result of the urbanised catchment, loss of vegetation in the streamside zone, poor water quality, loss of in-stream habitat and barriers to fish movement.

**River Health Program:** The prospects for significantly improving stream health are modest due to the substantial modification that has occurred to the creek and its catchment. The long-term program will focus on improving the streamside zone through revegetation and improving water quality through management of urban stormwater.



## Yarra Catchment


### Mullum Mullum Creek

**Regional Importance:** High

**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:** Moderate

**Target:** Moderate

This is a small tributary of the Yarra River flowing from Ringwood and North Croydon through large areas of open space along its length, before meeting the Yarra in the Yarra Valley parklands at Templestowe. There are some native plants still remaining along its banks in open space reserves close to the Yarra River, and several native fish species and the water rat still live in the creek. Works to improve habitat in the area have seen platypus return to the lower part of the creek.

Mullum Mullum Creek has been affected by weeds, loss of habitat, and the impacts of changed flows, which have contributed to increased bank erosion. Water quality is degraded by urban runoff, as well as inputs from unsewered areas.

**River Health Program:** The focus for stream health improvement will be on protecting and improving the remnant streamside zone vegetation, improving water quality through implementation of municipal stormwater management plans and the *Yarra River Action Plan*, and reinstating in-stream habitat.