

Maribyrnong Catchment

The Maribyrnong catchment lies northwest of Melbourne. It covers an area of approximately 143 square kilometres and yields an average annual flow of 120,000 million litres. The Maribyrnong River has two main branches: Deep Creek and Jacksons Creek. Both are fed by a number of major tributaries including Boyd Creek and Konagaderra Creek. All rivers and creeks tend to be deeply incised, exhibit a high variability in flow and are subject to extended periods of low flow. Around 10% of the catchment retains natural vegetation, 80% is agricultural and 10% urban. A small forestry industry (both hardwood and plantation) occurs in the upper reaches.

The Rosslynne Reservoir is located on Jacksons Creek, just west of Gisborne, and supplies both irrigation and domestic water. These deeply incised valleys have valuable areas of remnant vegetation are found, including the highly valued river red gum. The rivers and creeks are characterised by poor water quality, changed flows and loss of riverbank and aquatic habitat. A rich Aboriginal culture exists and some of the most significant sites in the region are found in this catchment.

The health of the rivers and creeks in the upper catchment is good, but many tributaries and the middle and lower reaches of the river have declined as a result of rural and urban development. There has been much urban and industrial development in the lower section and the impacts of this are evident through poor water quality.

Five-year program objective

The Maribyrnong catchment program will significantly increase knowledge and improve understanding of the risks to the health of rivers and creeks. Strategies will be put in place to reduce flow stress on rivers and creeks and the State Government's *Central Region Sustainable Water Strategy* proposes an additional 3 GL/yr to the environmental flow regime.

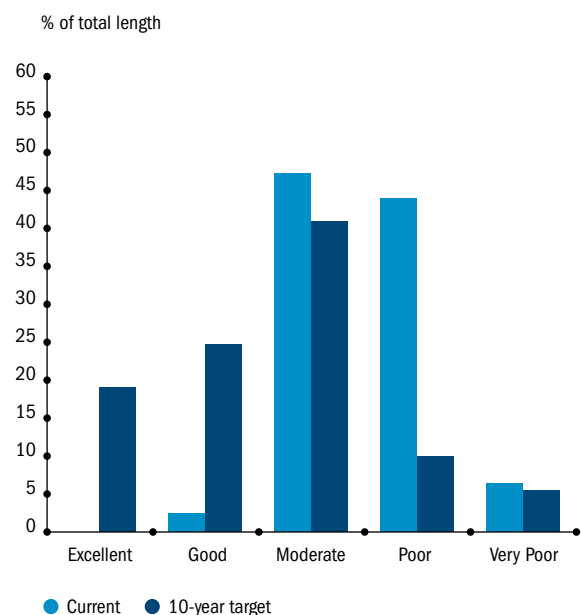
Land management will be improved, reducing nutrient runoff and erosion and improving water quality. Throughout the catchment, streamside vegetation and the natural and cultural landscapes will be enhanced and protected. Within five years, the Maribyrnong catchment river health program will have reduced nitrogen contributions to rivers and creeks. Reservoir catchments will be protected from land use activities. Approximately 90 kilometres of streamside land will be revegetated. In ten years, there will be 220 kilometres of rivers and creeks in good or excellent condition, of which 54 kilometres will be considered ecologically healthy.

There will be approximately 280 kilometres of rivers and creeks with an improvement in the IRC physical form rating.

The lower sections of the Maribyrnong River will be a focus for recreation with significant boating and fishing facilities and extensive trails linking parks. The rich indigenous heritage values in this section of the catchment will also be protected and interpreted to allow others to understand their significance.

A summary of the five-year river health program and 10-year target condition for rivers and creeks within the Maribyrnong 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 years) programs are contained in the attached Resource CD.

Figure 8. Current and 10-year condition targets for rivers and creeks in the Maribyrnong catchment



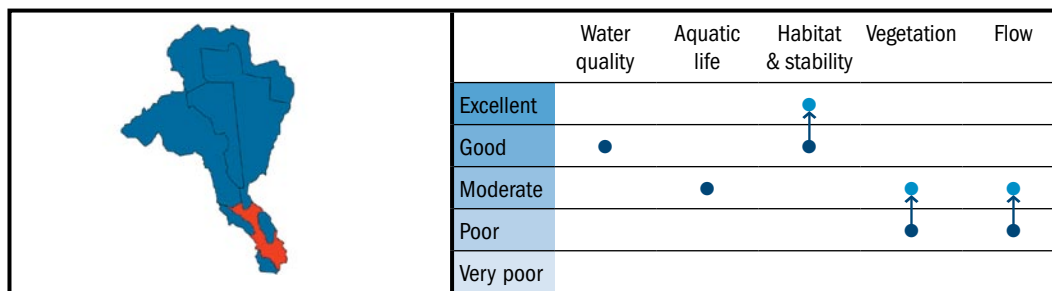
Maribyrnong River

Regional Importance: High

Management Objective: Improve condition and enhance social values

Current Condition: Moderate

Target: Good



Current Social Value: Very High

Target: Very High

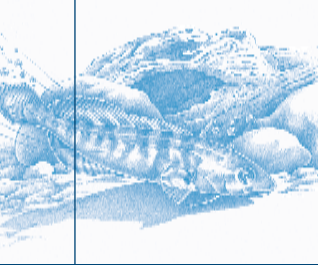
The Maribyrnong River flows through a gorge area, significant because of its landscape values, recreational opportunities, geomorphological significance and European and Aboriginal heritage values. The Brimbank Park area has a rich Aboriginal culture and contains some of the most significant sites. Brimbank Park also provides an extensive trail network and the Maribyrnong River is a source of water for local vegetable growers. The lower Maribyrnong flows through a largely urbanised area before running through Yarraville and joining the Yarra River. River red gums and the resident platypus population are important community values. Fishways have been installed in the lower Maribyrnong River, which will enable important native fish species such as the Australian grayling to recolonise the upper tributaries.

As with much of the Maribyrnong catchment, changes to flow pose a risk to river health. Other risks include lack of remnant native vegetation and poor quality streamside zones, including the presence of weeds.

River Health Program: Over five kilometres of vegetation and weed control will occur, which will also enhance heritage values. Stream flow will be managed to secure and manage appropriate environmental flows.



Fishway on the Maribyrnong River at Brimbank Park.



Maribyrnong Catchment

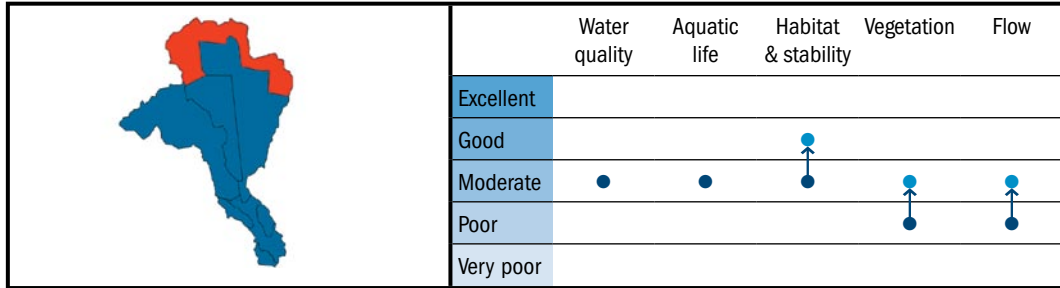
Deep Creek Upper

Regional Importance: Low

Management Objective: Improve condition

Current Condition: Poor

Target: Moderate



Current Social Value: Low

Target: Moderate

The upper sections of Deep Creek and Boyd Creek run through the rural townships of Lancefield and Newham. These creeks often cease flowing in summer and aquatic life is reliant on the remaining deep pool habitats. Important populations of Yarra pygmy perch, mountain galaxias and spotted galaxias, which have special conservation value, inhabit the upper reaches of these creeks. The upper section of Deep Creek is also a source of irrigation water for agriculture and is a proclaimed Water Supply Catchment. The upper sections of Deep Creek also support passive recreation and some public open space.

Erosion, stock access and weeds are key risks in these sections of the Deep and Boyd Creeks. Changes to the natural stream flow also pose a risk to river health.

River Health Program: Environmental flows will be established and managed and information gathered on the animals and water quality within the creek. About five kilometres of revegetation will be undertaken, along with weed control and streamside fencing. A waterway management plan will also be developed.

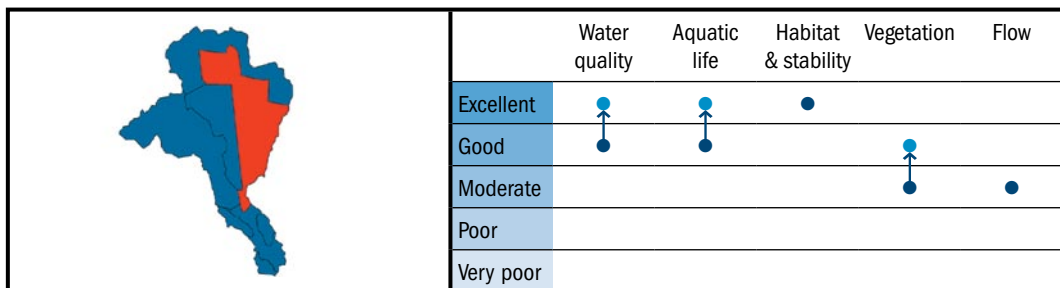
Deep Creek Lower

Regional Importance: Very High

Management Objective: Improve condition

Current Condition: Moderate

Target: Good



Current Social Value: Moderate

Target: Moderate

The lower section of Deep Creek runs through small rural townships including Romsey and Bulla and its tributaries provide water for agricultural use. The Konagaderra Creek is a tributary of Deep Creek and is included in this unit. The deep pools are extremely important habitats for native fish and other animals such as platypus and water rat. An important population of the Yarra pygmy perch, which has special conservation value, inhabits Deep Creek and is particularly important above Darraweit Guim. There is significant intact native vegetation in the lower parts of Deep Creek. Weeds and stock access are key risks.

River Health Program: The Upper Maribyrnong Stream Flow Management Plan will be implemented to provide environmental flows in Deep Creek. A waterway management plan will be developed and approximately 40 kilometres of revegetation, streamside fencing and weed control will be undertaken. The fish, aquatic macroinvertebrates and water quality will be further studied to gain a better understanding of the values and risks to river health. Some 36 kilometres of Deep Creek will be considered ecologically healthy.

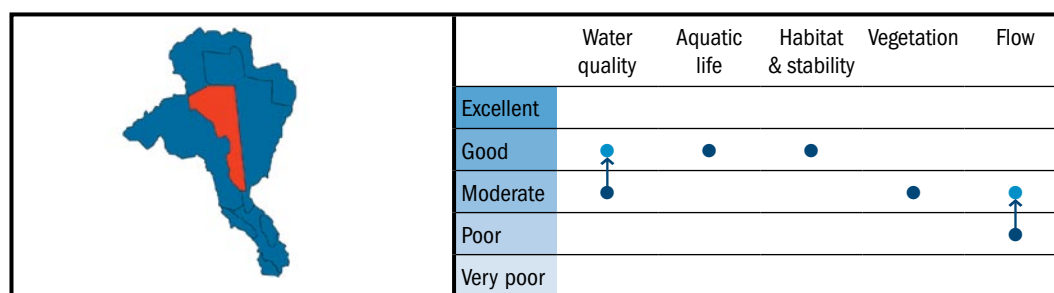
Emu Creek

Regional Importance: High

Management Objective: Improve condition

Current Condition: Moderate

Target: Good



Current Social Value: Low

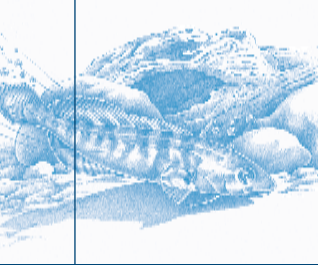
Target: Low

The Emu, Main and Bolinda creeks rise near Mt Macedon and join the Jacksons Creek near Sunbury. A number of small weirs divert water supply for townships including Gisborne, and the catchments have been declared water supply catchments. Sections of Emu Creek are popular for fishing and Emu Creek is likely to have populations of Yarra pygmy perch, mountain and spotted galaxias, which all have special conservation significance. However, there are a number of barriers to fish migration, often associated with water supply or farm dams. Key risks are changes to stream flow, presence of weeds and stock access, which leads to poor streamside vegetation.

River Health Program: The five-year program will focus on implementing the Upper Maribyrnong Stream Flow Management Plan. The long-term program will address other risks and include the development of a waterway plan, management of water quality to protect water supply and stream frontage management.



Deep Creek, Daraweit Guim.



Maribyrnong Catchment

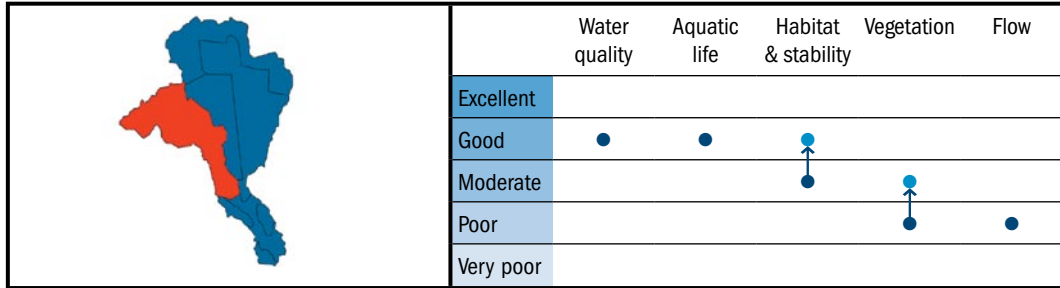
Jacksons Creek

Regional Importance: High

Management Objective: Improve condition

Current Condition: Poor

Target: Moderate



Current Social Value: Moderate

Target: High

This unit includes the Jacksons, Riddells, Sandy and Baringo creeks. The Jacksons Creek rises near Gisborne and flows through Sunbury before it joins the Deep Creek near Melbourne Airport. Rosslynne Reservoir is located on the Upper Jacksons Creek, and is a major source of water for the towns of Gisborne and Sunbury, and for agricultural users as far downstream as Keilor.

A major risk to the health of the Jacksons and Riddells creeks is the expanding urban centre of Sunbury, as well as growing townships such as Gisborne and Riddells Creek. Streamside vegetation is of poor quality and weeds and stock access pose a risk to the remaining vegetation.

River Health Program: Investigations into aquatic life will be undertaken and a waterway plan developed. Revegetation, weed control and fencing will take place on about 14 kilometres of rivers and creek and fish passage will be provided at three sites on Jacksons Creek. Where possible, improvements to environmental flows will also be made.

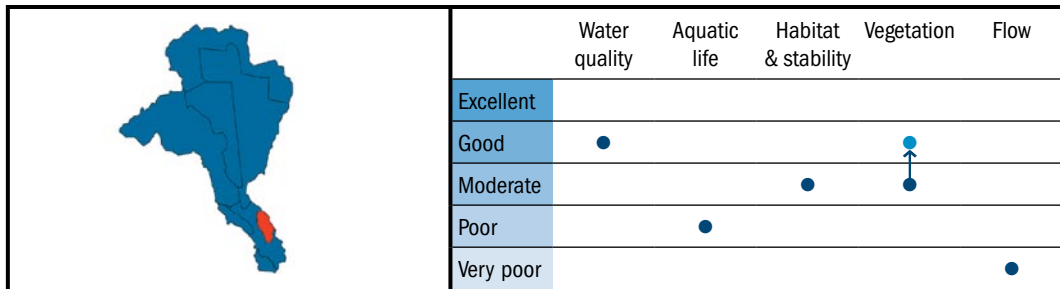
Steele Creek

Regional Importance: Moderate

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

Current Condition: Poor

Target: Moderate



Current Social Value: Very High

Target: Very High

The creek originates near Tullamarine Airport, then flows south through urban areas to meet the Maribyrnong estuary at Avondale Heights. Overall condition is poor and there have been a number of pollution spills over the years that have contributed to poor water quality. Some areas are valued for passive recreation. Risk include poor water quality and degraded streamside zone. Development of the old Niddrie Quarry site provides an opportunity to improve the condition of the creek.

River Health Program: Activities will involve implementing priority actions in the Steele Creek Waterway Activity Plan. Revegetation, channel improvements and enhancing the environment for passive recreation will also take place in conjunction with the development of the former Niddrie Quarry.

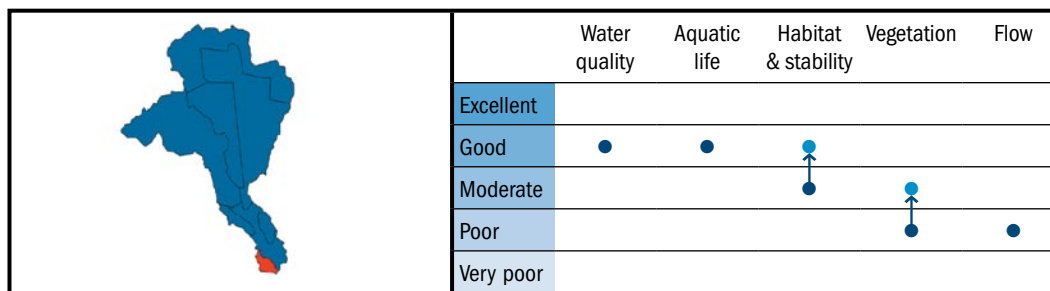
Stony Creek

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

Stony Creek has an urban and industrial catchment and flows through the inner western suburbs of Melbourne including Sunshine, Tottenham, West Footscray and Yarraville. Much of Stony Creek is highly modified. Natural reaches exist along some of the parks and reserves. Although environmental values tend to be low, the creek supports some native frog species and a number of native fish are likely to inhabit the lower estuarine reach. In addition, the creek has high social values associated with bike paths and recreation reserves. Key risks to river health are urban stormwater, poor instream habitat and a lack of streamside vegetation.

River Health Program: Activities in the next five years will involve developing and implementing a revegetation plan for Stony Creek, and protecting recreation and heritage values.

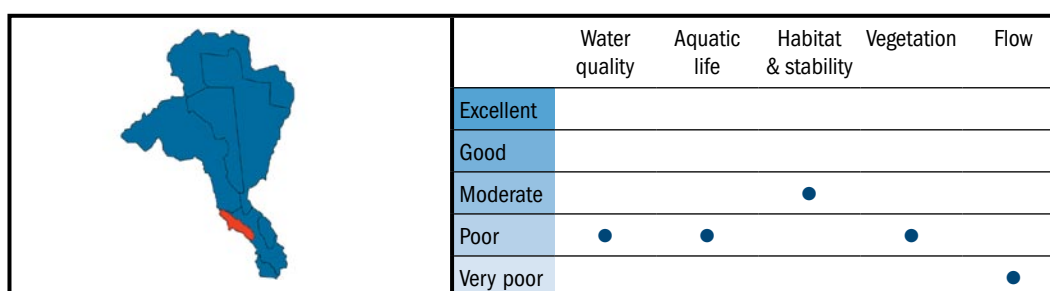
Taylor's Creek

Regional Importance: Low

Management Objectives: Prevent further damage

Current Condition: Poor

Target: Poor



Current Social Value: High

Target: High

Taylor's Creek is a small tributary of the Maribyrnong that has river red gums and interesting geological features, downstream of Taylor's Lakes. A site of early Aboriginal occupation, it lies north of Keilor, flowing through rapidly expanding urban areas near Sydenham. Much of the lower reaches retain natural features, and two listed frog species and water birds have been recorded associated with the creek. Through changes in land use and catchment development much of the creek's streamside zone has been altered, and the biggest risks to stream health are weed invasion, altered hydrology and poor water quality.

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 weed control and revegetation, and improving water quality through management of industrial sites and the implementation of urban stormwater management plans.