Kauwi-marnirla–Field River Conservation Park

Draft Management Plan 2025

SOUTH AUSTRALIA

Government of South Australia
Department for Environment and Water

Contents

Acknowledgement of Yarta (Country)

The Government of South Australia acknowledges Kaurna Miyurna (people) as the custodians of the Adelaide Plains and recognises that their cultural and heritage beliefs continue to be just as important to living Kaurna Miyurna today.

Photo: Zane Gough

Your views are important

The Kauwi-marnirla—Field River Conservation Park Draft Management Plan outlines the objectives and strategies that will set the strategic direction for the management of the park.

It is released for public comment to provide members of the community an opportunity to express their views on the future management of the park.

Feedback received will be considered before the development of a final plan. Once developed, the final plan will be submitted to the Minister for Climate, Environment and Water for adoption under Section 38 of the *National Parks and Wildlife Act 1972*.

I encourage all interested people to assist in shaping the long-term management of this park by making a submission on this draft plan. Guidance for the preparation of a submission can be found on page 18.

M Williams

Michael Williams

Director of National Parks and Wildlife

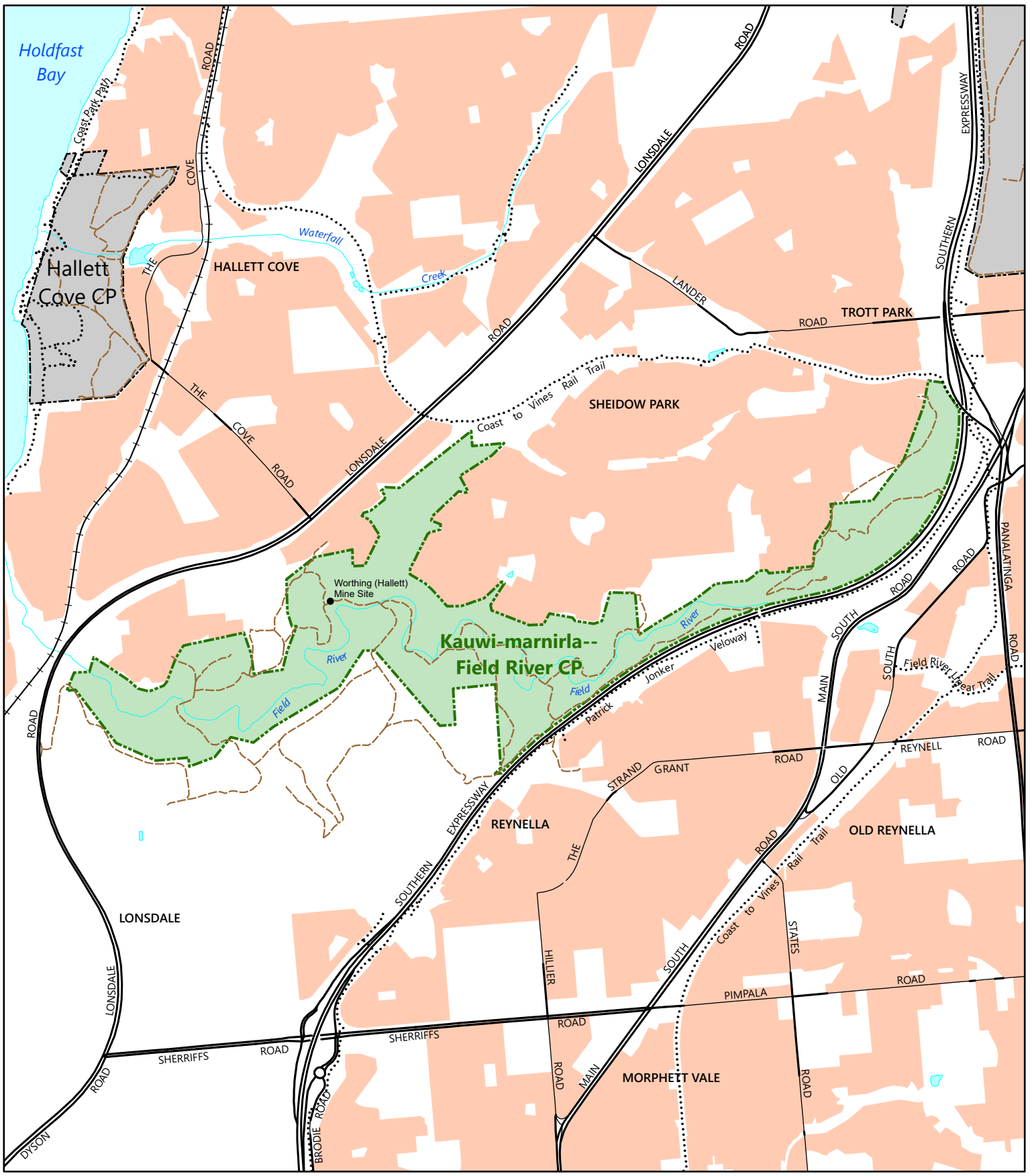
Developing this draft plan

This draft management plan has been developed following the proclamation of Kauwi-marnirla—Field River Conservation Park in November 2024.

The strategic management, objectives, and strategies outlined in this plan have been developed by the Department for Environment and Water with input from members of the Kaurna community, technical experts, park managers and the broader community.

The specific actions required to manage the park in accordance with this plan will be developed and monitored at a park operational level. This approach ensures that the plan is flexible and able to guide a range of future management challenges.

Once complete, this plan will be the first adopted management plan for Kauwi-marnirla—Field River Conservation Park.



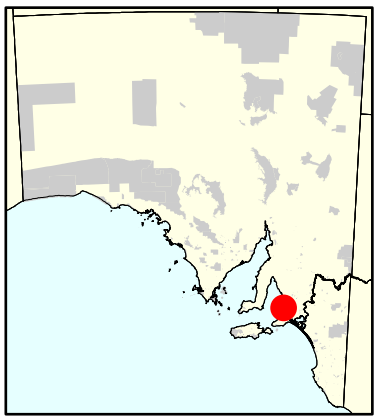


Figure 1

Kauwi-marnirla—Field River Conservation Park

LEGEND

- Sealed road
- Vehicular track
- Recreation Trail
- Watercourse
- Waterbody
- Kauwi-marnirla—Field River Conservation Park
- Other parks
- Built Up Area

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Directions for management

Kauwi-marnirla—Field River Conservation Park is situated on the traditional lands of the Kaurna Miyurna (Kaurna people). The park (177ha) protects Field River and adjoining areas of open grassy woodland. Located 25km south of Adelaide the park is positioned between the suburbs of Hallett Cove and Reynella (Figure 1).

Field River Catchment is geomorphically characterised as an uplift fault block feature of the Mount Lofty Ranges. The catchment's characteristics mark a landscape change between catchments of the Fleurieu Peninsula and the Adelaide Plains, where Field River flows into Gulf St Vincent through the park as a rocky gorge characteristic of rivers of the Fleurieu Peninsula, rather than onto an alluvial flood plain characteristic of the neighbouring catchments of the Adelaide Plains.

The park is an important component of Country for Kaurna Miyurna who maintain a long and living connection with the Field River catchment area set within the connected landscape of Kaurna Country. For Kaurna Miyurna, features and significant sites across the landscape are connected. The park protects ecological, geological, cultural and historic values and provides opportunities for environmental restoration and a place for locals and visitors to connect to nature.

Kauwi-marnirla—Field River Conservation Park is proclaimed under the *National Parks and Wildlife Act 1972* (NPW Act). The objectives of the NPW Act ensure that parks are managed primarily for conservation, while supporting public use, enjoyment and education about the park's purpose and significance.

The park was proclaimed primarily to preserve the Field River watercourse and the associated grassy woodlands which support a diverse range of native plant species including grasses and other small herbaceous plants, many of which are no longer common in the Adelaide and Mount Lofty Ranges Region. The lower parts of the river flow all year round and is home to ecologically significant fish and aquatic macroinvertebrate species. At the time of colonisation, Kaurna Miyurna actively managed the landscape as an open grassy woodland using traditional fire management practices. Kaurna land management and other cultural practices are recognised and respected as living culture.

Strategic management of the park will focus on maintaining and enhancing ecosystem health and protecting cultural assets by managing threats such as pest plant and animals, altered hydrological regimes, inappropriate recreational use and the impacts of climate change. Management programs will utilise the best available scientific information and contemporary management practices and will be enhanced by working with Kaurna Miyurna to learn from their experience managing their Country. Kaurna practitioners can deliver land management services that utilise traditional knowledge and practices, providing an opportunity for Kaurna Miyurna to reconnect with the cultural and environmental values of Country. Prior to proclamation, significant environmental restoration works were delivered in partnership with Kaurna practitioners and continuing these works will be remain an important component of park management.

The park's urban setting makes it vulnerable to illegal vehicle access and anti-social behaviour, creating management challenges for visitor safety. Additional risks include increased stormwater and runoff entering the park, which can flood tracks and trails, damage infrastructure, and pollute water sources. Evidence of past quarrying and mining activities will also be considered when undertaking visitor risk mitigation strategies.

Supporting safe access for low-impact recreation is a priority for management. Trail networks and infrastructure will be managed for visitors to enjoy and learn about park features in a way that protects park values. Historic built fabric in the park represents the areas rich history and tell an important story from early colonisation of the area. Working collaboratively with adjoining land managers and state and local government agencies will enable greater connection across the landscape and continuity of the visitor experience.

Visitor facilities will support low impact uses such as walking and cycling and may include infrastructure such as basic seating, trail heads and trail signage. Management tracks and trails will be designated to provide walk-in access and will be managed as per operational requirements. Tracks primarily for fire management access are managed in accordance with relevant fire management plans.

The surrounding community has a strong affiliation with this park and have been actively involved in associated projects such as the development of nearby Glenthorne National Park-Ityamaiitpinna Yarta. Volunteer groups supported by the City of Marion and the State Government have been active in the Field River catchment for many years, and have campaigned for its protection, undertaken activities to enhance and restore habitat and engaged local communities in caring for the environment. Maintaining and building relationships with volunteers and local communities will support their continued involvement in park management opportunities, increase community connections to nature and help to achieve effective conservation outcomes.

The strategic management, objectives and strategies outlined in this plan are designed to enable adaptive management of the park. The specific actions required to manage this park in accordance with the plan will be developed and monitored at a park operations level and in accordance with relevant threatened species recovery plans and fire management plans. This approach provides the flexibility necessary to address future management challenges and opportunities.

Photo: Zane Gough

Photo: Dan Easton

Significance and Purpose

Kauwi-marnirla—Field River Conservation Park was proclaimed on 7 November 2024 following the acquisition of mostly privately owned land in 2022 for inclusion as a reserve under the *National Parks and Wildlife Act 1972*. The park is part of the traditional lands of the Kaurna Miyurna for whom the land, water, plants and animals are central to their spirituality and identity. Kaurna Miyurna maintain a living connection to the Field River and surrounding landscape bound by heritage, birth rights, dreaming and creation stories. Sites and features across the Field River catchment and the broader southern Adelaide region are culturally and spiritually significant for the Kaurna community.

Park management provides an opportunity to continue to partner with the Kaurna community and collaborate to protect and promote their culture and heritage, as well as help to facilitate the return of Kaurna cultural practices to the landscape. In recognition and respect for the Kaurna Traditional Owners, the park is co-named. Kauwi-marnirla translates to place of 'two good waters' and is pronounced 'Coowee-ma-rni-rla'.

The Field River watercourse system is environmentally and culturally significant. A Kaurna cultural heritage survey by Kaurna Traditional Owners has identified significant sites and objects in the park and the entire watercourse is considered an Aboriginal heritage site in accordance with the *Aboriginal Heritage Act 1988*.

The Field River catchment is in an elevated position between two uplift fault escarpments of the Mount Lofty Ranges, with the river draining through a steep sided rocky valley and flowing out through the river mouth at Hallett Cove into the Gulf St Vincent. The river is spring-fed and flows all year round. At the mouth of the Field River, intertidal exchange occurs to form a short inland coastal estuary. While this estuary system is beyond the park boundary, watercourse restoration and protection works within the park are likely to have a positive impact on coastal ecosystem health downstream. The geological features are such that the lower reach of the Field River is recognised as a geological monument (SA Geoheritage Site).

Kauwi-marnirla—Field River Conservation Park is significant for protecting a range of remnant grassland, grassy woodland and watercourse vegetation communities which are no longer prevalent across the Adelaide metropolitan landscape. The riparian ecosystems provide critical habitat for aquatic flora and fauna as a source of water and a cooling refuge, with implications for species resilience to climate change by helping them to survive increasing temperatures. The park's steep rocky terrain has largely prevented significant development and vegetation clearance, providing some protection to a diversity of native plant species and habitats. However, the park is surrounded by urban and industrial development which has management implications for flora and fauna which rely on this area for refuge.

The park's riverine ecosystem and connection to the downstream estuary system provides critical habitat for aquatic flora and fauna. Diadromous fish species such as common galaxias *(Galaxias maculatus)* and congolli *(Pseudaphritis urvillii)* are found in the park and rely on a healthy flowing river to move between saltwater and freshwater environments each year to breed. They are also a key food source for other larger fish, as well as birds. The good water quality, constant flow and cobbled river base supports sensitive aquatic macroinvertebrates, including the rare water penny beetle *(Sclerocyphon sp.* (Family Psephenidae)*)* along with mayflies, stoneflies and caddisflies.

Once widespread across the Adelaide Plains and foothills, grassy woodland communities have been heavily cleared since European settlement in 1836. The park protects remnant stands of grassy woodland and riparian vegetation communities, which provide critical habitat for native fauna within an urban setting. These include dryland tea-tree *(Melaleuca lanceolata)* open grassy woodlands, which once would have been dominant along the flanks of Field River but now only persist in remnant stands on the steeper rocky hillsides, grey box *(Eucalyptus macrocarpa)* and mallee box *(Eucalyptus porosa)* open grassy woodlands scattered along the outer edges of the park, drooping sheoak *(Allocasuarina verticillata)* open grassy woodland throughout the mid to upper slopes and river red gum *(Eucalyptus camaldulensis var. camaldulensis)* stands along the river channel. Some of the original groundcover vegetation also remains, including soft tussock mat-rush *(Lomandra densifolia)*, wingless fissure-plant, *(Maireana enchylaenoides)*, sticky hop-bush *(Dodonaea viscosa ssp. spatulata)* and native scurf-pea *(Cullen australasica)*.

Very old dryland tea-tree trees on some hillsides play a key role in retaining and restoring these vegetation communities, as younger trees are regenerating around older or dead trees. Native grasses and other groundcover scattered throughout the park also provide an opportunity to conserve and restore regionally significant grassy woodlands. Additionally, the park contains heavily modified vegetation communities identified as suitable for transformation into novel systems that can offer valuable habitat.

Since the state government acquired the land, Green Adelaide has collaborated with the Department for Environment, the Kaurna Nation, local government, volunteer groups and other government and non-government agencies to implement restoration activities across the new park. This collaborative approach is working towards effective outcomes for habitat restoration, pest plant and animal management, and supporting ecosystem transition to a more natural and resilient system in the long-term.

The area has a significant mining and quarrying history, evidence of which can still be found in the park. The Worthing Mine Site, including the mine site, tall stone chimney stack and engine house (pump house) is listed as a State Heritage Place in the South Australian Heritage Register (SHP 10545). Other features of historical significance include the dismantled remains of a flying fox which was constructed to transport limestone from the Reynella quarry to a limestone crusher at Marino. Several tunnels, shafts, adits and bridges are located throughout the park from historical mining and quarry works.

The park is highly valued by the community as a quiet space to enjoy nature through walking and birdwatching and to connect with the local history and culture.

Photo: Dan Easton

What are we looking after?

- The Field River catchment which supports riparian habitats with important connections downstream to coastal ecosystems of the Gulf St Vincent.
- A cultural landscape within Kaurna Country with sites, objects, and stories that have been passed down through generations that are of profound cultural and spiritual significance to the Kaurna Miyurna.
- Historic sites, some of which are listed in the South Australian Heritage Places Database.
- Remnant riparian and grassy woodland habitats connected by modified vegetation systems that provide refuge and habitat connectivity for wildlife in an urban landscape.
- Geological landscapes and features including a recognised Geoheritage site presenting a geological record stretching back 700 million years.
- Opportunities for low-impact nature based recreational activities and educating visitors about the park's natural and cultural values and how they connect to the broader landscape.
- Habitat that supports vulnerable woodland bird species along with the yellow-tailed black cockatoo *(Zanda funerea whiteae)* and peregrine falcon *(Falco peregrinus Macropus)*, listed as threatened under the *National Parks and Wildlife Act 1972* (vulnerable and rare respectively) and the Flinders Ranges worm-lizard *(Aprasia pseudopulchella)* which is listed as vulnerable under the *Environment Biodiversity and Conservation Act 1999* and is considered rare within the Adelaide and Mount Lofty Ranges region.
- Opportunities for Kaurna Miyurna to care for their Country, reconnect to the land and educate visitors and the community about Kaurna culture, including land management practices.
- Over 200 invertebrate species, including sensitive aquatic macroinvertebrate species which require good water quality and flow.

Challenges and opportunities

Key challenges and opportunities in the protection and management of this park are:

- working with adjoining land managers and local government to provide visitor access for people to enjoy nature-based activities in a way that protects park values and connects across the broader landscape to provide continuity of the visitor experience.
- supporting volunteer effort and fostering a greater appreciation of the park's natural and cultural values within the local community.
- managing the environmental, cultural and public safety impacts of stormwater and run-off entering the park, and other surrounding land use and development impacts.
- enabling Kaurna Miyurna to undertake traditional activities in the park to support their spiritual, cultural and social beliefs, and to connect and care for Country, including through cultural burning practices.
- partnering with Kaurna Miyurna to ensure significant sites are protected and to facilitate opportunities for the provision of services from Kaurna businesses.
- managing the risk of bushfire for the protection of life and assets of the neighbouring community.
- working in partnership with Green Adelaide, neighbouring land managers and local government to protect and improve Field River ecological health, contributing to catchment health beyond the park boundary.
- understanding the impacts of climate change and the strategies required to support ecosystem resilience to decreasing rainfall and streamflow, increased temperatures, and increased risk of extreme fires.
- providing a safe and culturally appropriate way for visitors to learn about the park's significance to the Kaurna Miyurna's living culture and history of mining and quarrying.

Photo: Dan Easton

Theme 1: Restoring and conserving natural values

Kauwi-marnirla—Field River Conservation Park is uniquely positioned within the Field River catchment to play an important ecological role for biodiversity conservation and restoration of an urban catchment system. The park provides landscape connections to other natural areas such as Glenthorne National Park – Ityamaiitpinna Yarta, Happy Valley Reservoir and numerous local government reserves, offering opportunities to work collaboratively on landscape-scale restoration and conservation programs. Protecting and improving environmental values within the park such as water quality and habitat availability are likely to have a positive flow-on effect to the surrounding environments, such as increasing aquatic and marine ecosystem resilience and enhancing nature corridors for wildlife.

For generations the open, grassy plains of the Adelaide landscape existed in harmony with the natural cycles of rain, drought, fire and traditional use by the Kaurna Miyurna. Kaurna Miyurna actively managed the land as an open grassy woodland characterised by an understory dominated by grasses that were managed using traditional fire practices. The arrival of European explorers and colonists in the 1800's had a profound effect on their way of life, and Kaurna Miyurna were removed from Country, preventing them from managing the land and undertaking cultural practices.

Ongoing collaboration with the Kaurna community enables Kaurna land management practices and traditional knowledge to be incorporated into park management programs, as per cultural protocols and with the consent of the appropriate Kaurna Miyurna. Fostering relationships with Kaurna Miyurna through park management will help to build capacity within the Kaurna community to care for Country and undertake cultural practices on Country, while meeting biodiversity conservation objectives.

The Field River catchment reaches beyond the park boundary and is fed by several ecologically significant and unique tributaries which vary in habitat, water quality and runoff characteristics. Runoff from individual tributaries into the catchment occurs at different times throughout the year, which, combined with a perennial or near perennial flow from the spring system near the confluence of Field River and Sheidow Creek, causes Field River to flow all year round, with a period of elevated flow in winter and spring and lower flows in summer and autumn. This flow regime, and lack of sediment from the surrounding catchment has allowed the cobble base of the river to be maintained, a rare occurrence in the urban rivers of Adelaide. The riverine ecosystem is in a relatively healthy condition, despite being surrounded by residential and industrial land, historical grazing by stock, and interruption of natural flows by the Happy Valley Reservoir upstream.

Urban stormwater feeds into the river system and can carry weed seeds, pollutants, litter and debris and, at times, erodes the landscape, creating a sediment load that impacts riparian and downstream marine ecosystems. The shallow clay soil over smooth sheet limestone found on the park's rocky slopes is particularly vulnerable to erosion from stormwater and other soil disturbance such as inappropriate weed removal techniques and unauthorised vehicle access.

Healthy water is an integral component of healthy Country and culture for Kaurna Miyurna, with fresh and marine water quality having a vast range of cultural and spiritual values. The entire Field River watercourse is recognised as a culturally significant site. Adverse impacts to Field River water quality and ecosystems can damage cultural sites and inhibit Kaurna cultural practices.

Managing threats to the watercourse and associated habitats such as the impact of pest plants and animals, pollution, erosion and interruptions to natural flows will help to maintain water quality, improve ecosystem health and protect cultural sites and practices.

The park's grassland, grassy woodland and riparian vegetation associations are habitat for woodland birds such as the yellow-rumped thornbill (*Acanthiza chrysorrhoa*) and sacred kingfisher (*Todiramphus sanctus sanctus*), species whose populations are declining in the Adelaide and Mount Lofty Ranges, along with the state-vulnerable yellow-black tailed cockatoo. These vegetation associations can become further degraded with inappropriate restoration efforts, particularly planting regimes which increase tree and shrub cover in open grassy habitats. Many fauna species found within these systems can be cryptic, such as the Flinders Ranges worm-lizard and other lizard species, and open grassy habitats are typically critical for their persistence in the region.

Encouraging natural regeneration, supported by strategic revegetation and habitat reconstruction will increase habitat for many native plants and animals. Revegetation programs will be informed by environmental science, Kaurna practitioner knowledge and other expert advice and will take fire management needs into account. Planting will aspire to replicate vegetation conditions maintained by Kaurna practices while remaining responsive to natural recruitment, natural succession, resourcing, resilience, threats, novel habitat values and other factors. Areas recovering from previous land-use activities, particularly cleared areas at a suitable distance from established remnant vegetation, are suited to the restoration of habitat.

Plantings may be used to mitigate impacts on ecologically or culturally sensitive areas where illegal vehicle access occurs and to improve habitat values of modified areas such as the existing stormwater ponds. Management programs will incorporate pest plant control and managing grazing pressure impacts from native and pest animals where required.

Pest plants are a major threat to habitat condition, river health and threatened species' populations through competition and displacement. Historic clearance and disturbance of land surrounding the park, along with the removal of stock in the 1990's, has led to the spread of pest plants including feral olives (*Olea europaea*), desert ash (*Fraxinus angustifolia*) and other woody and herbaceous species. These species are a priority for control in habitat restoration programs to protect remnant vegetation and cultural sites, support natural regeneration and improve water quality and flow. Control methods will be applied in a manner which minimises impacts to the native species and habitats they are intended to benefit. Volunteers make a significant contribution to pest plant management in this park, and support for this will continue.

Introduced animals including the red fox (*Vulpes vulpes*), European rabbit (*Oryctolagus cuniculus*), and domestic cat (*Felis catus*) have been observed in the park. Their impacts include predation on native wildlife, destruction of native vegetation through grazing, and competition for food and shelter. Control measures for pests that are a significant contributor to the decline of native species and where programs are likely to be effective in supporting the restoration of habitat will be a priority.

Within the southern Adelaide urbanised landscape, many wildlife species have declined in number, but others have adapted to changes and have been able to exploit the opportunities provided by altered habitats. Native species such as western grey kangaroos (*Macropus fuliginosus*) can adapt well to altered habitats and populations can grow beyond sustainable levels, leading to adverse impacts on biodiversity and other park values. While the presence of native wildlife is essential, there is an increasing requirement to actively manage native species in order to prevent and mitigate unwanted and adverse impacts, both within the park and across the broader landscape.

While impacts from native wildlife, including western grey kangaroos, is currently assessed as minimal to the park's values, local kangaroo populations across the broader landscape are known to occur in numbers that can cause adverse impacts to conservation and cultural values.

Applying best-practice management, and monitoring impacts from native wildlife will provide a foundation for adaptive management of the park. Evidence of total grazing pressure will be used where required to determine impacts to park values by native and introduced herbivores. While managing the impacts of herbivores will primarily focus on the control of introduced species, where evidence indicates that western grey kangaroos are having an unsustainable impact on conservation values or cultural sites, management programs will be implemented and will consider the interests of the Kaurna Miyurna. While non-lethal options will be considered, they are often unsustainable, ineffective, or create animal welfare concerns. Where they are considered unsuitable, culling will be undertaken as it remains the only practicable method of control. Any culling will follow strict procedures for the humane destruction of wildlife. Kangaroo management may also include commercial harvest options.

Fire has helped shape the Australian landscape over millions of years. As an ecological process fire has shaped the flora and fauna and continues to contribute to healthy ecosystems. Landscape modification, active fire suppression, and climate change have resulted in changes in fire regimes across the landscape with long-lasting impacts to ecosystem function. The Kaurna Miyurna have used fire for many different purposes over tens of thousands of years, shaped by traditions, story and song lines, knowledge, and responsibility.

Fire management activities are an important component of land management in Kauwi-marnirla—Field River Conservation Park and includes cultural burning undertaken by Kaurna practitioners. Management activities aimed at reducing bushfire risk and managing conservation values are guided by the fire management plan. Fire management activities, including prescribed burning will be implemented across strategic areas of the park to reduce the risk, intensity and spread of bushfires, and make suppression more achievable and safer, whilst retaining other recognised heritage values by clearance and buffer zones. Prescribed burning and cultural burning are also used as an ecological tool to maintain and improve the health of habitats, with pest plant control and grazing pressure management included in park management programs where required.

Climate change projections for the region indicate decreasing rainfall and streamflow, increasing temperatures, and more heightened fire danger days. It is likely to exacerbate threatening processes such as impacts from pest plants and animals, changes in water flows and more frequent and higher intensity bushfires. Understanding the impacts of a changing climate and how to support ecosystems to be resilient, will be crucial in successful long-term park management. Research and monitoring will be vital in developing an understanding and implementing subsequent programs to mitigate the impacts.

Volunteer groups have been actively enhancing conservation values in the Field River catchment area, including on land now encompassed within the park for many years. They have provided protection to remnant vegetation and increased the extent of habitat over large areas through weed control, native plantings and rubbish removal and have engaged the local community in conservation programs. These volunteer groups have a strong sense of stewardship and are regularly present in the area. Support for volunteers and the conservation outcomes that they achieve will continue.

Working in collaboration with Kaurna Miyurna, local government and organisations including Friends of Parks volunteers, Green Adelaide, research organisations and non-government organisations will be important for successful conservation activities and supporting community participation in park management. Management programs will focus on activities that achieve conservation outcomes across the landscape.

Objective

Manage ecosystem health by enhancing and restoring habitat and managing key threats.

Strategies

- Continue to develop and refine priorities for habitat rehabilitation works including outcomes for species and ecosystem resilience and environmental water management solutions, in collaboration with key stakeholders.
- Implement pest plant and animal control programs to improve habitat and water quality and reduce impacts on cultural values. Focus on new and emerging weeds that are likely to spread and impact native habitats, weeds that are impacting threatened species, and weeds that are having a significant impact on habitat structure and function.
- Implement fire management activities as per the relevant fire management plan to minimise likelihood and impact of bushfires, and to maintain and enhance ecological values, retaining other recognised heritage values.
- Incorporate Kaurna land management practices into park management programs with the Kaurna Nation, including cultural burning in fire management activities.
- Where evidence indicates that impacts from western grey kangaroos (*Macropus fuliginosus*) is unsustainable and impacting park values, implement management programs.
- Support and encourage volunteer effort for the protection of park values and to achieve ecological outcomes.
- Partner with other state government agencies, local government and volunteer groups to educate the local community about impacts of garden escapees and inappropriate stormwater management on park values.
- Incorporate the skills and knowledge of the Kaurna Miyurna into research, monitoring and management activities whilst ensuring that traditional ecological knowledge and intellectual property rights are respected.
- Encourage research that improves understanding of biodiversity within and adjacent to the park and underpins the refinement of management strategies for the development of ecosystem resilience.

Photo: Dan Easton

Photo: Dan Easton

Theme 2: Interpreting and protecting our shared history

The Field River is unique for its demonstrable history that can be appreciated by park visitors and the community. From mining and quarrying evidence and Kaurna living culture and artifacts, to a geological record that stretches back 700 million years, there are many opportunities for the park's vast history to be told through interpretation and stories.

Kaurna Miyurna have occupied and managed land across the Adelaide Plains for tens of thousands of years. Their culture and connection to land and sea Country is evident in the form of cultural sites, stories, songs, knowledge, and responsibility to care for Country. For Kaurna Miyurna the features across the landscape are linked and profoundly important to their cultural and spiritual connection to their traditional lands. A Kaurna cultural heritage survey documents the Kaurna Miyurna's long and living connection with the Field River within the connected landscape of Kaurna Country.

Information about cultural sites and stories may be confidential. Certain Kaurna Miyurna who hold knowledge can identify and advise on the management of cultural sites. There may be no visual evidence of the site's significance, however landscape features may physically represent a particular story. These stories, the knowledge of the land and its uses, remains the intellectual property of the Kaurna Miyurna. Sharing this knowledge requires the consent of the appropriate Kaurna Miyurna and may be subject to cultural protocols.

Ensuring Kaurna cultural sites are protected from impacts associated with public visitation, conservation programs, development or park maintenance activities will be achieved in consultation with Kaurna Miyurna. All Aboriginal sites, objects and remains are protected from damage, disturbance or interference by the *Aboriginal Heritage Act 1988*, regardless of whether they are known in the Register of Aboriginal Sites and Objects. Opportunities to recognise Kaurna Miyurna culture and educate visitors on the importance of Kaurna land management practices will be explored with the Kaurna community.

Land in the area was some of the first purchased in the Adelaide region by Europeans and several local families retain a strong affinity with the park and its surrounds. Interpretation of Kaurna Miyurna and European presence of the area will be central to creating meaningful connections for park visitors to the natural, cultural, geological and heritage values, as well as to the recreation opportunities on offer in the park and those that connect across the broader landscape.

Field River's geology and landscape is a formal Geoheritage site (previously known as a Geological Monument). It's iconic rocks and structures were formed by the ancient squashing, folding, uplift and erosion of the extensive fold-thrust belt of meta-sedimentary rocks known as the Delamerian Mountain chain. The Precambrian rocks exposed in the steep, rocky cliffs and gorges were laid down as sediments hundreds

of millions of years ago in the Adelaide Rift Superbasin just prior to the emergence of complex Ediacaran life on Earth (first recognised in the Flinders Ranges). Field River's rocks present a geological record that stretches back 700 million years, from the Upper Sturtian rocks at the eastern end progressing west to the younger Marinoan redbeds. Discovered more than 100 years ago by the famous Professor Walter Howchin within the park, the river passes through the 'Great Anticline', an enormous arch-like fold in the rocks formed over time as horizontal layers of sediment built up and were folded, with the oldest layer of rock found at the core. The anticline, along with other well-exposed rock formations found in the park are of great significance and educational value to park visitors and students.

With key cultural significance, since the 1880's, limestone from Precambrian formations known geologically as the Brighton series, has been quarried in Marino, Reynella and Hallett Cove. In the early 1900's, stone from the old Reynella quarry was transported via horse-drawn trolleys to the local railway station before being transported to the limestone crusher at Marino. An aerial ropeway known as the *flying fox* eventually replaced the horses and became a tourist attraction. Remnants of the flying fox remain in the park, along with other quarrying evidence such as a tramway tunnel and river diversion tunnels and trenches.

The Worthing Mine was built during Australia's first mining era in the 1840's, following the discovery of copper ore on nearby land at Worthing Farm. The Cornish style mine, along with miner's cottages and offices were built, and a waterwheel was brought out to the site, however no copper ore was discovered at the site and the mine was never operational. The Worthing engine house (pump house) is the oldest remaining in Australia and is considered the most significant relic of the mining era. The Worthing Mine Site is listed on the South Australian Heritage Register and protected under heritage legislation. Any work on the Worthing Mine structures requires the provisions of the *Planning Development and Infrastructure Act 2016* to be followed. The site will provide a focal point for interpretation and will help educate visitors on the history of the area. Evidence from historic mining and quarrying may present some risks to park users which is addressed further in Theme 3.

Key sites that are significant to Kaurna Miyurna culture and heritage, and sites of European heritage importance will be monitored to ensure threats are appropriately managed in order to preserve the essence of these places for future generations.

Objective

Respectfully interpret the shared history of the park and protect significant sites.

Strategies

- In liaison with Heritage SA, protect structures and sites of heritage significance and ensure risks to the public are managed. Where feasible, undertake stabilisation and restoration works to the Worthing Mine Site to preserve heritage, slow the process of deterioration and reduce the impact of invasive trees and vegetation on the structures.
- In partnership with Kaurna Miyurna, ensure sites that are significant to Aboriginal culture and heritage are managed appropriately for their protection and ensure the story told through interpretation has input and perspective of Kaurna Miyurna. Where required, develop specific policies for sites that are at risk of damage, disturbance, or inappropriate access by park visitors.
- Facilitate business and employment opportunities for Kaurna Miyurna that enable them to work on Country and develop business enterprises through activities such as cultural heritage surveys and cultural site protection works, as well as build capacity within the Kaurna community to practice traditional land management techniques.
- Provide interpretive material to facilitate appreciation of the ecological, geological and historical significance of the park and to raise awareness of Kaurna Miyurna's culture and heritage. Work in collaboration with the Kaurna Nation and key stakeholders to develop key messages.

Photo: Zane Gough

Theme 3: Fostering community connections

Kauwi-marnirla—Field River Conservation Park is an important community asset, valued for its ecological, geological, cultural, heritage and recreational values. The Field River, with its associated creeklines and natural habitats provides a unique space for people to experience and appreciate natural connections across the landscape through low-impact activities. Encouraging public use and enjoyment of the park is a priority for park management and provides an opportunity to promote the importance of Kaurna land management practices and connection to Country, biodiversity, healthy waterways and how people can take a proactive role in conservation.

The Kaurna Miyurna maintain a deep relationship with Country. Several anthropological stories including the Tjilbruke Dreaming Story are associated with the southern Adelaide area, and the Mount Lofty Ranges more broadly. Enabling access to Country for Kaurna Miyurna to undertake contemporary cultural practices such as performing ceremonies, cultural burning and gathering plant materials, will help to build and sustain their connection to Country, improve ecosystem health and increase cultural awareness within the broader community.

In addition to the Green Adelaide-led projects, several volunteer groups, schools, local government and other non-government organisations have been working in partnerships on biodiversity conservation projects in the Field River area.

Appropriate new opportunities for the community to connect with the park and support long-term conservation outcomes will be supported.

The park is in proximity to popular community recreational spaces such as Glenthorne National Park – Ityamaiitpinna Yarta, Happy Valley reservoir, the Coast to Vines Rail Trail, and other reserves, wetlands and creeks which connect the community to nature. Formalising walking trails through the park will seek to increase the visitor experience through connections across the landscape while mitigating potential impacts to ecosystems and cultural sites that are vulnerable to threats associated with human activity such as weed invasion, erosion and disturbance.

Dogs are permitted in the park on designated trails and management tracks provided they are kept on a lead and are under effective control at all times. Cycling is permitted on fire management tracks and designated shared use trails.

The development of any new facilities or future upgrades to facilities will be small-scale and designed to support low-impact visitation. Upgrades and new facilities will ensure inclusive access and experiences for all abilities wherever possible. Car parks and public access points will be considered in strategic locations in collaboration with local government to minimise potential impacts on neighbouring residents. Any development of new trails, visitor facilities or upgrades

to trails and facilities will be subject to detailed planning and assessment of the environmental and visitor risks, impacts to cultural sites and restoration programs, and site suitability with regard to topography and access requirements.

Providing safe and sustainable recreational and operational access to the park is a key consideration for current and future park use. High flows during storm events may cause tracks and trails to be flooded, and the park's steep and undulating landscape and geological composition, combined with the impacts of historic mining and quarrying, has created some significant safety issues. A hazard assessment has been completed in identified mining activity areas, noting that caves, cavities and cracks are present through the exposed faces of natural and excavated areas, presenting rock fall and entrapment risks. These risks may also be present in areas not included in the hazard assessment report. This report, along with any other risk management processes deemed necessary by park managers will be used to plan for safe visitor access.

Before the park was established, illegal activities such as four-wheel driving, motorbike access, camping, rubbish dumping, fence damage, and anti-social behaviour degraded habitats and created safety concerns for the local community. Since active park management began, these issues have noticeably declined. Visitor access and impacts from recreational use will be monitored and should any adverse impacts to park values or safety concerns arise visitor access may be reviewed and altered, including trail modification or closure, and restricted access if impacts to park values become unsustainable or if the risk to users is unmanageable.

The ecological and geological features of Kauwi-marnirla—Field River Conservation Park provide opportunities for public participation in programs such as citizen science, and educational visits for schools. Promoting these opportunities and facilitating relationships with educational institutions and community groups will encourage community involvement in monitoring and reporting, help to increase scientific knowledge and build a better understanding of the park's natural values.

Objectives

Provide access for a range of outdoor activities supported by interpretation to facilitate a greater connection to park values.

Maintain and nurture on-going relationships with the community to facilitate opportunities for involvement in park management and sustain Kaurna culture through enabling contemporary cultural practices.

Strategies

- Provide opportunities for walking and cycling on designated tracks and trails without impacting park ecological and cultural values and provide appropriate signage and infrastructure to support safe visitor access.
- Support and encourage partnerships with educational institutions, community groups and local government for the use of the park for education, citizen science opportunities, and to undertake research and monitoring.
- Work with the Kaurna community to provide access to the park for undertaking contemporary cultural, traditional and spiritual practices. Investigate formal options such as developing an Indigenous Land Use Agreement or cultural use protocol. Encourage park visitors to honour and respect these practices.
- Support volunteer groups working in and adjacent to the park boundary and help to facilitate collaboration between groups for opportunities which encourage new volunteers and promote community appreciation of park values.
- Implement management strategies to prevent unauthorised activities and mitigate impacts to park values and visitor safety, with a focus on safety around the mining and quarrying areas. This may include installation of new infrastructure or upgrades to existing infrastructure such as signage, fences and gates, along with community education campaigns.
- Work with local governments to identify strategic public access and car parking locations and consider upgrades to facilities. Monitor community sentiment and visitation to the park to assess the demand on facilities, and potential impacts on park neighbours.
- Manage and maintain visitor facilities to enable low impact use and the protection of biodiversity, riparian areas and geological features.

Invitation to contribute

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The Kauwi-marnirla—Field River Conservation Park Draft Management Plan has been released for public consultation to facilitate community input into the management of this park.

You are invited to contribute by making a written submission. Please consider the points below when drafting your submission to help ensure that it is effective:

- Make your submission concise and clear
- Reference any specific comments to a page or section within the draft plan
- Identify aspects of the draft plan that you support, or do not support. Explain your reasons for disagreeing with the content of the draft plan and suggest alternatives
- Highlight any information that may be inaccurate and provide a reference to assist with further editing.

Please note that your submission will become part of the public record and will be available to anyone who requests a copy unless you specifically request otherwise.

After all submissions received have been carefully considered, a final park management plan will be prepared and forwarded to the Minister for Climate, Environment and Water for consideration together with a detailed analysis of submissions received.

You can submit your comments via post, email or online using the details provided.

Submissions close at 5pm 30 April 2026

Written submissions:
Protected Area Policy
Department for Environment and Water
GPO Box 1047 ADELAIDE SA 5001

E-mail submissions:
DEWProtectedAreaManagement@sa.gov.au

Online submissions: Yoursay.sa.gov.au

Photo: Dan Easton

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References

Croft, S and Croft, T (2021). *Field River Area Land Unit Descriptions.* Adelaide, South Australia. Report prepared for Green Adelaide Field River Restoration Project

The South Australian Division of the Geological Society of Australia, Geological Heritage Sub-committee (2002). *Geological Monuments in South Australia, Parts 1-9*. https://www.gsa.org.au/Public/Public/Divisions/SA_Subpages/South_Australian_Geological_Heritage.aspx.

For further information please contact:

Department for Environment and Water. Phone Information Line (08) 8204 1910, or see SA White Pages for your local Department for Environment and Water office.

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