

Manning Park Trails Rehabilitation Plan 2027–2031



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**Cockburn Nyungar moort Beeliar boodja-k kaadadjiny. Koora, yeyi, benang baalap
nidja boodja-k kaaradjiny.**

**Ngalak kadij boodjar kep wer kaadidjiny kalyakool yoodaniny, wer koora wer yeyi
ngalak Birdiya koota-djinanginy.**

**The City of Cockburn acknowledges the Nyungar people of Beeliar Boodjar. Long
ago, now and in the future they care for Country.**

**We acknowledge a continuing connection to Land, Waters and Culture and pay our
respects to Elders, past and present.**

Executive Summary

Manning Park is a significant natural area, valued by the community for its recreation opportunities, environmental features and cultural heritage. However, the creation and ongoing use of informal trails in the Manning Ridge area has resulted in vegetation loss, erosion, habitat fragmentation and increased risk to heritage sites.

The Manning Park Trails Rehabilitation Plan provides a coordinated five-year program to protect the park's natural and cultural values while maintaining safe, high quality recreational access. The plan has been informed by a comprehensive trails audit, and recent flora, vegetation, fauna and heritage assessments, which together provide a detailed understanding of current trail impacts and actions required to manage and remediate those impacts.

The plan recommends the closure of 66 informal trails and the partial closure of four others. These closures are prioritised to protect Threatened Ecological Communities, high condition vegetation, and heritage sites. Closure works will be supported through a combination of revegetation, signage, and physical barriers, supported by surveillance, community education and ongoing monitoring.

56 trails, representing 76% of the network by area, will remain open, with targeted maintenance to ensure they remain safe and accessible. Strengthening these formal trails will encourage visitors to use designated trails.

The plan does not seek to introduce any new restrictions on specific recreational activities in Manning Park, besides the creation of new trails, which is already prohibited. Bikers and runners will still be permitted within formal trails.

Through staged implementation, the plan aims to reduce environmental degradation, reduce creation of further informal trails, improve visitor safety, protect cultural values, and support the long-term ecological resilience of Manning Park.

Introduction

The City of Cockburn is responsible for the management of Manning Park. The park comprises lake and wetland environments, limestone ridge systems and areas of remnant bushland, and is well used by walkers, trail runners, mountain bike riders and orienteers. Over time, a network of informal, user created trails has developed across the ridge.

The need for improved trail management has been recognised for some time. The City's Trails Master Plan (2013) identified the importance of managing trail networks across Cockburn, and subsequent management plans highlighted similar issues within Manning Park.

During the preparation of the Manning Park Mountain Bike Concept Plan in 2020, community concerns were raised about the extent of informal trails and their environmental impacts. Increasing visitation and the listing of a Threatened Ecological Community known to occur in Manning Park further reinforced the need to better manage access and protect sensitive areas.

To inform this, the City undertook a series of environmental and cultural assessments between 2023 and 2025, including flora, vegetation and fauna surveys and Aboriginal and European heritage assessments. The assessments confirmed that Manning Park contains important environmental and heritage

values, including areas protected under Commonwealth legislation.

Based on the extent and sensitivity of these values, the City determined it is not viable to develop a mountain bike trail network at Manning Park. In October 2024, Council resolved to focus on trail reconciliation and directed the City to prepare a Trails Audit and Trails Closure Plan.

A comprehensive audit and mapping of all formal and informal trails was completed in 2025. The audit considered trail condition, how trails are used and the environmental and heritage impacts associated with trail use, drawing on the earlier environmental assessments.

The findings from the Trails Audit provide the basis for this Manning Park Trails Rehabilitation Plan. It outlines actions to rehabilitate selected informal trails, maintain the formal network, and support responsible use of the park.

Links to the Strategic Community Plan 2020-2030

The Strategic Community Plan contains two strategic objectives closely aligned with the Manning Park Trails Rehabilitation Plan:

Our Environment

- Protect and enhance our natural areas and streetscapes.

Our Community

- Strengthen and facilitate a safe and secure Cockburn
- Promote and support active, healthy lifestyles through recreation and wellness.

Objectives / Plan

The Manning Park Trails Rehabilitation Plan has been developed to achieve the following objectives:

1. Provide a safe, defined and sustainable trail network for a range of recreational activities
 - Maintain a clear and functional network of formal trails that supports a range of low-impact recreational activities
 - Direct visitors onto appropriate, well-maintained trails to reduce reliance on informal tracks.
2. Protect environmental and cultural values
 - Reduce vegetation loss, erosion and habitat fragmentation caused by informal trails
 - Protect areas of high conservation value, including threatened ecological communities, priority flora and fauna habitat
 - Safeguard heritage sites.
3. Reduce safety risks
 - Address hazards created by unplanned, unmaintained or poorly aligned tracks
 - Improve visitor safety by

consolidating access onto safe, appropriate trails.

4. Educate the community
 - Increase community awareness of environmental and cultural values within Manning Park
 - Encourage responsible recreation through education, signage and ongoing engagement.

Background

Location

Manning Park is located within the City of Cockburn in the suburbs of Spearwood and Hamilton Hill, approximately 16 km southwest of the Perth Central Business District (CBD) and less than one kilometer from the coast.

The park covers an area of approximately 107 hectares and includes Manning Lake, Manning Ridge, and surrounding woodland and parkland. Manning Park forms part of the Beeliar Regional Park and is connected to a chain of wetlands that extend across the Swan Coastal Plain.

The trails subject to this Plan are primarily located within Manning Ridge, west of the lake, and in the area south of the lake. It is noted that some trails extend outside Manning Park into land not managed by the City of Cockburn; these trails are not included in this Plan.

Manning Park is part of Whadjuk Boodjar (Country) and sits within the boundaries of the Whadjuk People Indigenous Land Use Agreement.

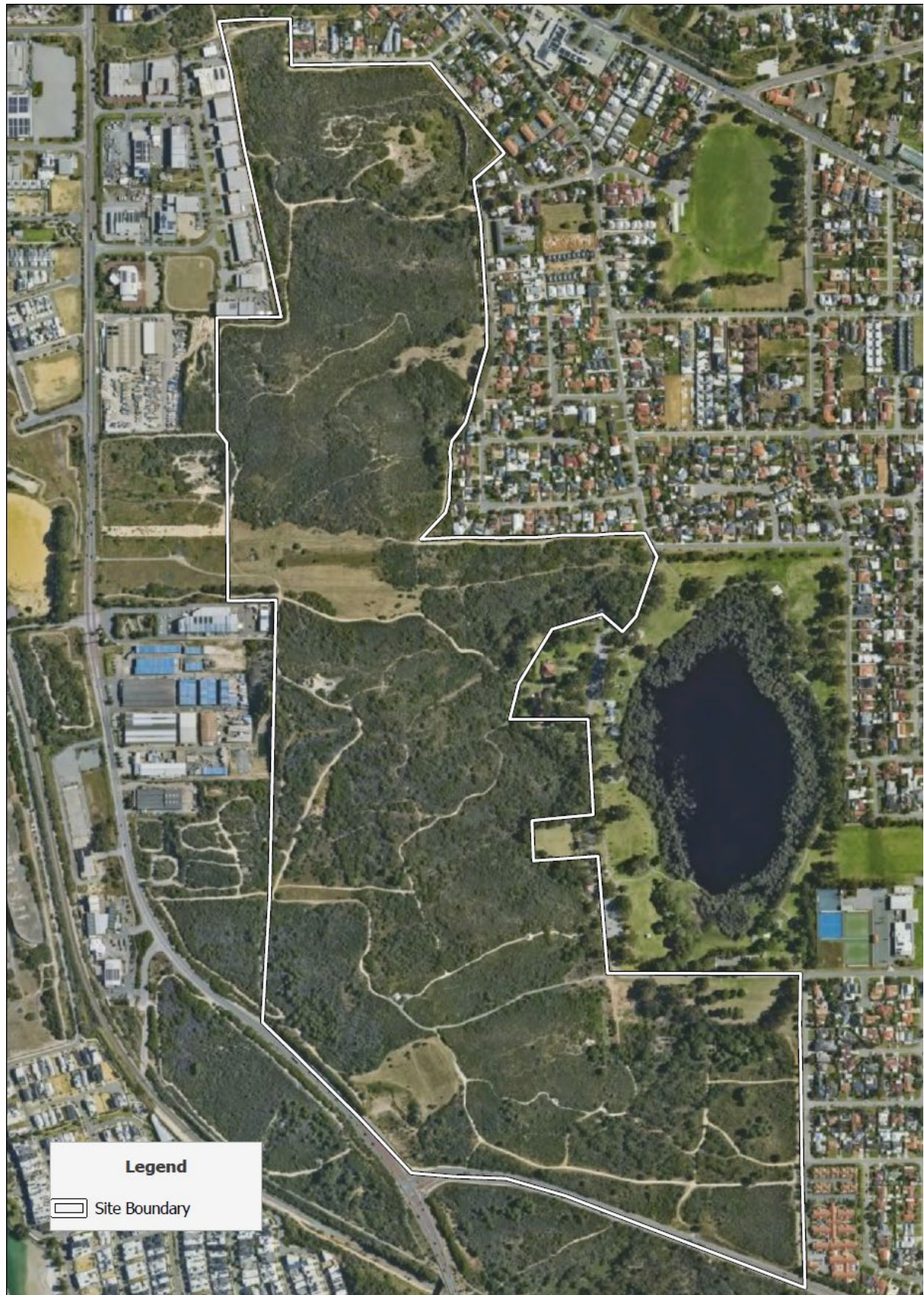


Figure 1: Manning Park

Existing Environment

Vegetation

Manning Park has been subject to a long history of disturbance, particularly extensive vegetation clearing and quarrying associated with 19th-century farming practices. As a result, approximately 33% of the park now consists of modified landscapes, including parkland grassed areas, cleared zones, revegetated areas, firebreaks, and trails.

The remaining 67% of the park supports remnant vegetation, primarily comprising *Melaleuca huegelii* shrublands, along with acacia shrublands and woodlands featuring tuarts (*Eucalyptus gomphocephala*), swamp paperbark (*Melaleuca raphiophylla*), and redheart trees (*Eucalyptus decipiens*). Vegetation condition varies across the site, ranging from high-quality patches to heavily disturbed sections. Most of the remnant vegetation is in Good condition, especially along the central ridge.

The Flora and Vegetation Assessment of Manning Park Reserve (Focused Vision Consulting, 2024) confirmed that Manning Park supports two nationally listed Threatened Ecological Communities (TECs) and one state-listed community. Together, these cover more than half the park:

- Tuart Woodlands and Forests of the Swan Coastal Plain — Critically Endangered (Commonwealth TEC)
- Honeymyrtle Shrublands on Limestone Ridges of the Swan Coastal Plain — Critically Endangered (Commonwealth TEC)
- SCP 26a: *Melaleuca huegelii* – *M. systema* Shrublands on Limestone Ridges (FCT 26a) — Critically Endangered (State-listed TEC).

Flora

The Flora and Vegetation Assessment of Manning Park Reserve (Focused Vision Consulting, 2024) identified that the site supports 156 flora species from 118 genera and 56 families. Of these, 80 species (51%) are native.

No species listed as Threatened under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) or the *Biodiversity Conservation Act 2016* (BC Act) were recorded.

Two priority species occur within the site:

- *Dodonaea hackettiana* (Priority 4)
- *Pimelea calcicola* (Priority 3).

Fauna

Manning Park supports a diverse fauna assemblage, with over 100 vertebrate species recorded during a detailed survey undertaken in 2023 (FaunaTrack, 2023). This includes 69 bird species, 23 reptiles, 12 mammals (including five microbat species), and four amphibians. Six conservation-significant species were recorded during the survey or are known to occur on site include:

- Carnaby's cockatoo (*Zanda latirostris*) – Endangered (EPBC Act)
- Forest red-tailed black-cockatoo (*Calyptrorhynchus banksia naso*) – Vulnerable (EPBC Act)
- Rainbow Bee-eater (*Merops ornatus*) – Marine (EPBC Act)
- White-bellied sea-eagle (*Haliaeetus leucogaster*) - Marine (EPBC Act)
- Quenda (*Isoodon fusciventer*) - Priority species (BC Act)
- Perth-lined Slider (*Lerista lineata*) – Priority species (BC Act)

Other locally significant species include the Painted Button-quail, Western Bluetongue and several microbat species.

The park contains a variety of fauna habitats that support these species. The limestone ridge provides proteaceous shrublands important for black-cockatoo foraging, while tuart woodlands offer hollow-bearing trees for potential nesting and roosting. Dense shrublands and leaf litter along the ridge also provide shelter for Quenda, the Perth-lined Slider, and other ground-dwelling fauna.

Heritage

Aboriginal cultural heritage

Recent Aboriginal archaeological and ethnographic surveys undertaken by Archae-aus (2024) confirm the presence of multiple Aboriginal heritage places within Manning Park. These include places associated with traditional use of water, tool production/use and culturally restricted areas. These places are being progressed for protection under the

Aboriginal Cultural Heritage Act 2021 and must be avoided and protected. No Aboriginal site names, coordinates, or descriptive details are being published in this Management Plan to uphold cultural safety and privacy.

Manning Park sits within Whadjuk Boodjar (Country), and the park's cultural values are interconnected, encompassing the lake, ridge and remnant bushland as part of a living cultural landscape. Management actions will be guided by Whadjuk Knowledge Holders and recommendations in the 2024 heritage assessment report.

Historic (European) heritage

Manning Park contains significant historic features, notably the Azelia Ley Homestead and the Davilak Ruins, which together form part of the State Register of Heritage Places (Manning Park, Place No. 10184).

Threatening Processes

Manning Park is subject to threatening processes that negatively impact ecological and heritage values. The main threats include unsanctioned recreational use (such as informal trail creation), the introduction and spread of weeds, and consequent land degradation and erosion.

Management of these processes is guided by the Natural Area Management Strategy. This Plan supplements the existing approach by providing recommendations for managing such threatening processes when created or exacerbated by informal trails.

These processes are often interconnected, for example, informal tracks create disturbed edges that facilitate weed establishment and accelerate erosion. Coordinated management is essential to prevent further declines.

Recreational Use and Informal Trails

The creation and use of informal trails pose a significant threat to Manning Park's natural and cultural values. These activities result in:

- Vegetation clearing and fragmentation through informal trail creation and widening
- Reduced habitat connectivity across ridge and wetland habitats
- Soil compaction and erosion on steep slopes and sandy soils
- Disturbance to fauna by trampling of vegetation and habitat disruption
- Spread of weeds via disturbed soils and seed movement on footwear, tyres and pets
- Damage to Aboriginal and historic heritage sites from physical disturbance, increased access and unauthorised removal, displacement or loss of artefacts
- Creation of safety hazards for park users due to unplanned, unmarked and poorly maintained routes
- Increased management burden for closure, rehabilitation, monitoring and enforcement.

Land Degradation and Erosion

Land degradation and erosion are driven by vegetation loss, soil exposure and compaction, particularly where informal tracks occur on steep limestone and sandy slopes. This can have the following impacts:

- Loss of soil structure and stability on ridge and slope environments
- Accelerated runoff and rilling/gullying on compacted or unvegetated surfaces
- Sedimentation into Manning Lake and adjacent wetlands, degrading aquatic habitat
- Undermining of track surfaces, creating hazardous conditions for park users
- Increased maintenance liabilities and repeated repair needs.

In addition, rainfall and erosion processes can result in colluvial build-up around the Davilak Ruins, accelerating degradation of the limestone heritage structure. This is exacerbated by the creation and use of informal trails.

Honeymyrtle shrublands Conservation Advice

The Department of Climate Change, Energy, the Environment and Water (DCCEEW) has published Conservation Advice on the Honeymyrtle Shrublands on Limestone Ridges of the Swan Coastal Plain TEC ('Honeymyrtle shrubland'). This Conservation Advice has effect under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and provides guidance that land managers are expected to take into account when managing activities that may affect the ecological community.

Due to the restricted distribution of Honeymyrtle shrublands, the Conservation Advice specifically considers known threats at Manning Park and provides detailed guidance on how these threats should be managed. This includes the following excerpt, which directly references Manning Park:

'Both authorised and unauthorised mountain bike trails have also impacted Honeymyrtle shrubland. The limestone ridges on which Honeymyrtle shrubland occurs, are a prime target for mountain biking because of their elevation.'

'For example, Manning Park in the City of Cockburn has substantial impacts attributed to mountain bike trails. Rehabilitation of informal trails is seen as a benefit to be gained by formalising and expanding the current unsanctioned mountain bike trail network. However professionally built trails, to provide the most challenging trails for the riders (and surfaces that will be durable over time) in limestone karst environments, increase fragmentation, reinforce degradation processes, increase the totally degraded area and reduce biodiversity.'

The Conservation advice includes a specific action to prevent the construction of new trails and to rehabilitate informal trails that go through the ecological community. All Priority Conservation and Research actions relevant to Manning Park, as set out in the Conservation Advice, are listed below:

1. Prevent further clearance or destruction of patches of this ecological community (i.e. retain and protect all patches because losses cannot be offset).
2. Prevent construction of new trails and rehabilitate existing informal trails that go through this ecological community (e.g. for mountain biking, four wheel driving or walking). If any trails are formalised/proposed, they should be designed to fully protect this ecological community, without any negative impacts.
3. The recommended minimum buffer zone for Honeymyrtle shrubland is at least 200m from the outer edge of a patch if the zone is native vegetation or 100m for other adjacent areas. The appropriate size depends on the nature of the buffer and

local context (e.g. slope). Apply larger buffer zones to protect patches from broader landscape threats.

4. Maintain the extent and condition of patches; and maintain existing landscape scale connections between areas of native vegetation (of both this ecological community and of other vegetation types).
5. Retain other native vegetation, near patches of this ecological community, particularly where they are important for connectivity and diversity of habitat, or where they act as buffer zones between this ecological community and any threats or development zones.
6. Where this ecological community is regenerating, support its regeneration to full maturity. For example, provide fencing to minimise damage risk if appropriate, and ensure fire response and management plan are aligned with regeneration needs.
7. Install signs to discourage damaging activities in Honeymyrtle shrubland – such as creating paths and tracks (e.g. for walking and mountain biking); and discourage off-road vehicles.

This Manning Park Trails Rehabilitation Plan has been prepared to address the actions above and to support the long-term protection and gradual improvement in condition of Honeymyrtle shrubland within Manning Park.

Trails Audit Report Findings

Natural Area Consulting Management Services were engaged by the City in 2025 to conduct an audit of all formal and informal tracks within Manning Park. The audit involved mapping each trail and assessing its condition, usage type and frequency, and observed and potential impacts on environmental and heritage values.

Prior to commissioning the audit, the City undertook an internal review of all known formal trails to identify those required to remain open for operational purposes, including routine maintenance and emergency and fire access. These operational requirements informed the scope of which trails could be reasonably recommended for closure.

The audit identified 126 trails within Manning Park. Combined analysis of Strava data and field observations showed that walking and running were the predominant uses, with 104 trails used primarily for these activities, 20 trails for mixed use, and two trails for biking. Although only two trails were classified as predominantly used for biking, cycling activity still occurs on many other trails. Ninety trails were recorded as high frequency of use, 19 as medium, and 17 as low frequency. Trail condition varied, with 42 trails in good condition, 45 in medium condition, and 39 in poor condition.

Of the 126 trails identified in Manning Park, 15 trails had recorded observations of direct heritage or environmental harm occurring and 52 trails recorded the potential to cause heritage or environmental harm. Observed impacts were defined as trails currently causing harm, such as through weed spread, erosion or vandalism. Potential impacts were identified for trails located near priority flora and threatened ecological communities, heritage sites, fauna habitat, or those likely to exacerbate erosion or introduce and spread weeds in bushland areas.

Based on these assessments, the audit recommended that 57 trails remain open, 65 trails be closed, and four trails be partially closed or diverted.

An internal review of the audit resulted in an additional two trails being recommended for closure. Both trails are adjacent to Spearwood Avenue. Trail 73 runs parallel to Spearwood Avenue behind the road safety barrier and lies outside the mapped boundary of Manning Park; this trail is not considered safe for recreational use. Trail 41 provides access to Trail 73 and is therefore redundant and a formal access route exists immediately to the east.

In addition, Trail 87, which was recommended for closure, must remain open to maintain access to Western Power infrastructure and will therefore not be closed. Consequently,

the proposed diversion of Trail 18 to maintain north–south access is no longer required and will not be implemented.

Taking account of this internal review, this Plan recommends that 56 trails remain open (44.4%), 66 trails are recommended for closure (52.4%), and four trails for partial closure (3.2%).

As trail length and width varies significantly across the park, the number of trails does not accurately reflect the effort required to implement the recommendations or the impact of closures on recreational use. Area provides a better measure of this. Based on the approximate area of the 126 trails audited, 19.8% is recommended for closure, 76% for retention, and 3.4% require partial closure.

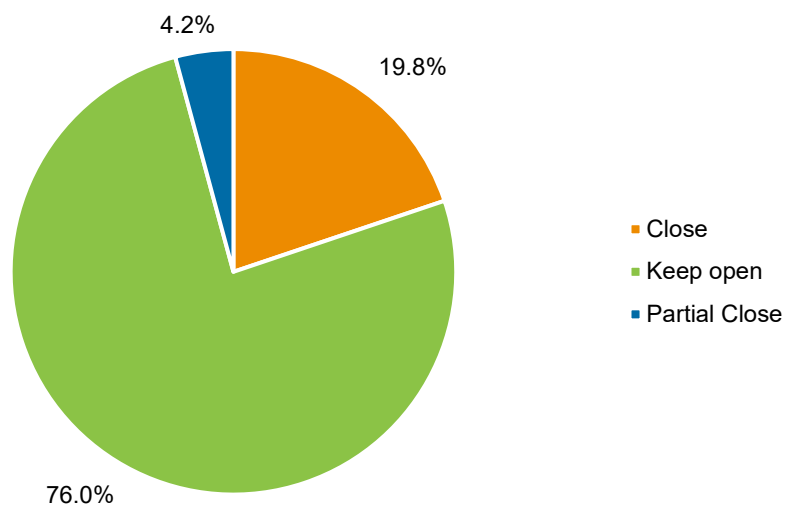


Figure 2: Proportion of trail actions based on approximate trail area

Trail Maintenance

Of the 56 trails identified for retention, 13 have been identified as requiring maintenance in the short-term to ensure safe access and reduce environmental impacts. A map of trails remaining open is presented in Figure 3.

Partial Closures and Diversions

Four trails are recommended for partial closure, with a combined length of 780 m. These trails were identified because sections intersect sensitive environmental or heritage areas, while other portions provide important connectivity or safe access. Diversions are recommended where applicable to redirect access between two existing tracks and prevent degradation of adjacent areas. Trails recommended to be partially closed or diverted are shown in Figure 3.



Figure 3: Trails remaining open and trail diversions

Trail Closures

66 trails are recommended for closure, representing 11 km of informal tracks within Manning Park. These trails vary in width from 0.3 m to 1.0 m and equate to approximately 1.06 hectares of land.

Closures have been prioritised for trails that intersect areas of high conservation value and heritage sites, as well as those in poor condition or providing little connectivity benefit. This approach aims to reduce erosion, weed spread and habitat fragmentation while protecting significant environmental and cultural features. It also aims to maintain a connected and accessible reserve for community and first responders.

A map of the trail closures is shown in Figure 4.



Figure 4: Trail closures

Recommendations and Implementation

This section outlines the key activities required to deliver the Manning Park Trails Rehabilitation Plan over a five-year period. This includes trail maintenance, installation of signage, and the proposed methodology of closing trails using a combination of physical barriers, revegetation and signage, as well as surveillance, education and monitoring.

Trail maintenance

The Trail Audit identified 13 trails as requiring maintenance in the short-term, however, for the Plan to be effective, it is important that all trails remaining open receive ongoing maintenance to encourage use (rather than use of closed trails) and to maintain safe access.

Maintenance will involve pruning back encroaching vegetation to maintain a safe and usable width. Works will use the lowest impact method suitable for the location, in line with existing business as usual practice.

Trail closures

Revegetation

The intent of this plan is not to revegetate every closed trail. Due to the prevalence of limestone outcrops, shallow soils and narrow trail footprints, many sections cannot support planting. For these reasons, full length revegetation is not recommended. Instead, planting will be focused in locations where they will be most effective in reinforcing closures.

Revegetation will be focused at trail ends and intersections where dense vegetation will serve as a clear visual and physical deterrent to unauthorised access. Planting will extend a minimum distance of three meters from the trail end to the point where the closed section is no longer visible (the sightline), whichever is greater. Sightline length varies from 1-15 m depending on the location.

These areas will be planted with hardy, fast-establishing and/or prickly local species at an approximate density of three plants per square metre (See Table 1). All species presented

in Table 1 have been previously recorded at Manning Park as part of the Flora and Vegetation Assessment (Focused Vision Consulting, 2024). Table 1 serves as a general guide only; final species selection will be informed by site conditions and plant availability and will be undertaken with specific consideration of areas mapped as TECs.

Table 1: Recommended plant species	
Scientific Name	Common Name
<i>Acacia pulchella</i> ^{PC}	Prickly Moses
<i>Acacia rostellifera</i> ^C	Summer Scented Wattle
<i>Acacia truncata</i> ^P	
<i>Acacia cyclops</i> ^C	Red-eye Wattle
<i>Alyogyne huegelii</i>	Lilac Hibiscus
<i>Austrastipa elegantissima</i> ^C	Elegant Speargrass
<i>Banksia Sessilis</i> ^{PC}	Parrot Bush
<i>Calothamnus quadrifidus</i> ^P	One-sided Bottlebrush
<i>Dodonaea hackettiana</i>	Hacket's Hopbush
<i>Grevillea preissii</i>	Spider-net Grevillea
<i>Melaleuca huegelii</i>	Chenille Honeymyrtle
<i>Melaleuca systema</i>	Coastal Honeymyrtle
<i>Olearia axilaris</i> ^C	Coastal Daisybush
<i>Rhagodia baccata</i>	Berry saltbush
<i>Spyridium globulosum</i>	Basket Bush

^P Denotes plants that are considered prickly species

^C Denotes plants that are considered colonizer species

Tree guards will be used as a visual cue that rehabilitation is underway and to help reinforce the trail closure. In some rocky areas, tree guards will need to be drilled into the ground.

Desktop assessment of the trail mapping indicates that approximately 125 planting points are required at trail ends and intersections. Based on an average sightline of 10 metres and a trail width of 2 metres, the total revegetation area is estimated at 0.26 hectares.

Although the total revegetation area is relatively small, the requirement for small, scattered planting points across steep and rocky terrain, presents a logistical challenge. To manage this, planting will be staged over a two-year period and delivered in clusters based on location to maximise efficiencies and align with closure priorities. Areas containing vegetation mapped as Good, Very Good or Excellent condition has been prioritised over those mapped as Degraded or Completely Degraded. Planting will occur alongside the rollout of barriers, detailed further in the subsequent section. The trail cluster breakdown is shown in Table 2, below.

Table 2: Trail cluster breakdown					
Year	Cluster Name	Priority	No. of Planting Points	Area of Planting Points (ha)	No. of Plants
1	North Central	High	33	0.069	2100
1	South Central	Medium-High	39	0.081	2400
Year 1 Total			72	0.15	4500
2	South East	Medium	34	0.071	2000
2	North West	Medium	13	0.027	800
2	North East	Low	6	0.012	400

Year 2 Total	53	0.11	3200
Years 1 + 2 Total	125	0.26	7700

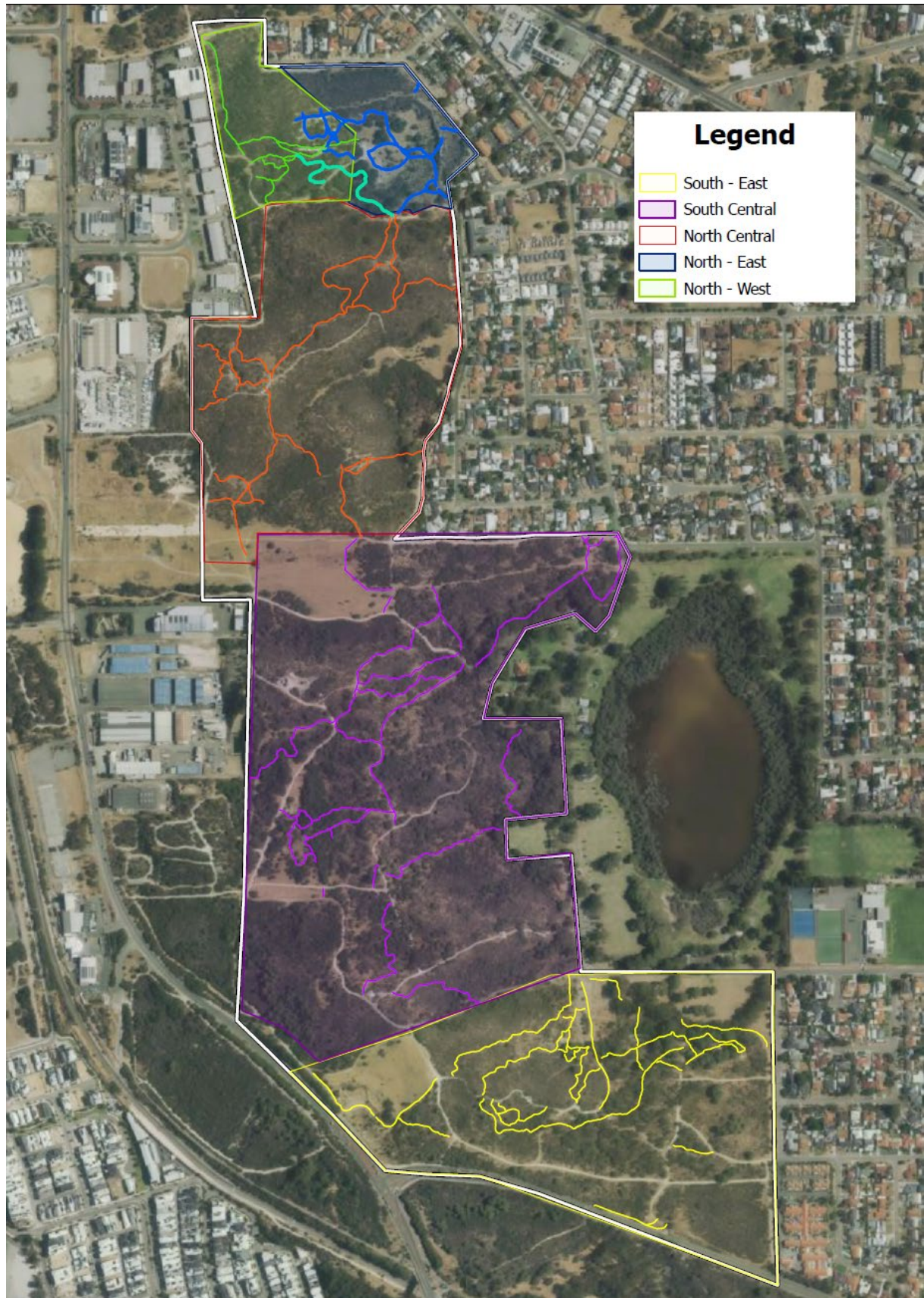


Figure 5: Trail closure clusters

Following installation, planting points will require ongoing maintenance. This will not be subject to the same maintenance standard as the City's revegetation projects as species have been selected to reduce maintenance requirements. Plants will be installed with water crystals to improve survival over summer, and where access allows, the City will undertake watering to support establishment. Infill planting will be undertaken only in instances of mass mortality caused by extreme weather or if the trail is reopened during the five-year period, rather than as a routine annual activity.

In some locations, where cap rock or potential for sub-surface heritage material prevents digging, brush will be used in place of plants to reinforce trail closures and deter access without ground disturbance.

Direct seeding

Direct seeding may also be used in some locations as a cost effective alternative to planting. While planting provides an immediate visual cue that a trail is closed, direct seeding requires far less resources and may be suitable for areas with softer soils. In places where soil depth is limited, seeds can also be applied using clay balls, which help them adhere to harder substrates. Seed should be sourced from the site or from local provenance where practicable

Direct seeding will not be relied on for primary closure points, but it may be used selectively to supplement plantings and encourage natural regeneration, or in areas where digging is not appropriate due to heritage constraints.

Signage

Signage will be installed at each trail closure point (including trail ends and intersections) to inform trail users that the trail is closed for rehabilitation. It is recommended that trail closure signage be installed in Year 1 to inform trail users of the broader rehabilitation works while more robust deterrent measures are implemented in stages. Although some users may continue to access closed trails or may relocate or damage signage, early installation is an important interim measure to reduce recreational pressure and manage impacts to the environment and heritage. This may also allow opportunities for natural rehabilitation to occur.

As rehabilitation works will occur over multiple years, durable metal signage is recommended. Metal signs are more resistant to weathering, avoid the risk of corrugated degradation entering the environment and can be reused by the City at other reserves in future.

In addition, it is recommended that new wayfinding and educational signage be developed and installed at key meeting points, such as carparks and lookouts to advise park users of which trails can be used for recreation and educate them on the importance of staying on formal tracks. This will also be used to educate users on the significance of the Honeymyrtle shrublands in accordance with the Approved Conservation Advice.

Physical barriers

Previous efforts at Manning Park have shown that lightweight barriers are easily moved and do not effectively prevent unauthorised access. To ensure closures are effective, robust and well-designed deterrents are required. Suitable options include:

- Logs and brush.
- Limestone boulders
- Bollards
- Fencing

The type of barrier used will depend on the location, topography, and what materials are available on site. Wherever possible, natural materials such as logs, boulders and brush will be used as they blend with the surrounding bushland, have lower visual impact and can remain in place once rehabilitation is complete, reducing long-term removal and maintenance costs.

The City will prioritise re-using logs sourced from City-managed tree removals. These logs are typically stockpiled until they can be chipped and disposed of, which incurs significant costs and generates waste. In addition, a large fallen Tuart tree, located east of the Davilak Ruin site, can be beneficially re-used. This will require the engagement of a suitably qualified tree crew to cut the tree into manageable lengths in-situ.

Due to the weight of logs and limestone boulders, the City is unable to install these barriers internally using standard operational vehicles or manual handling methods. The City will engage a civil contractor to put barriers in place, using a small mobile plant such as a mini excavator. Depending on the access points, traffic management may be necessary.

In some areas, stronger measures, such as fencing or bollards, will be necessary. This includes areas of heritage significance and in sections that are highly degraded or lack natural barriers, where longer stretches of deterrents are required. Fencing and bollards will be conservation-style, designed to remain in-situ.

Existing fencing

A network of fencing is already in place at Manning Park, primarily to delimit the boundary between the parkland areas and the upland sections that contain remnant vegetation. These fences include vehicle access gates that enable entry for service vehicles and first responders. Pedestrian hop-overs are also located adjacent to some gates to facilitate public movement between areas.

As a result of the trail closures, a small number of internal hop-overs which currently provide pedestrian access into bushland areas will become redundant. Retaining these hop-overs may inadvertently encourage continued access into areas designated for rehabilitation.

To maintain clear and consistent messaging, and to prevent ongoing informal use, it is recommended that redundant hop-overs be removed and replaced with continuous fencing that matches the existing style. Temporary signage directing users to the nearest appropriate access point will be installed as part of this action.

Protecting Aboriginal Heritage

A small number of planned trail closures intersect Aboriginal heritage places. These closures are intended to reduce the risk of unauthorised access and inadvertent damage to culturally sensitive sites.

All works associated with trail closures, such as planting and installation of physical barriers (e.g. fencing or bollards), will be carefully managed to avoid impacts to subsurface Aboriginal heritage materials. Soil disturbance will be limited in these areas.

Special Area Management

Davilak Ruins

Davilak Ruins is experiencing ongoing damage from unauthorised access. The recent heritage assessment found that people walking, riding bikes and driving through the site are breaking down the fragile limestone walls, disturbing the ground, and increasing erosion (Archae-aus, 2024).

To address this, it is recommended that the north-south trail (Trail 7), which currently passes through the centre of the ruins, is diverted away. The same applies to Trail 28, which provides access to the ruins from the east.



Figure 6: Trail management at the Davilak Ruin site

In line with the Davilak Ruins Archaeological Management Strategy (Bush, 2014), bollards should be installed at both the northern and southern entrances to the ruin site along Trail 7 to deter entry. At the northern entry point, bollards should be positioned behind the existing educational signage. The existing vehicle access gate is to remain in place to allow the City continued access for management.

The eastern gate and associated pedestrian access point should be removed and replaced with fencing consistent with the existing fencing around the site. The large educational sign at this location should also be relocated outside the fenced area to allow visitors to appreciate the ruins from further back.

These actions align with the recommendations of the Davilak Ruins Archaeological Management Strategy (Fiona Bush, 2014) and aim to reduce ongoing damage while providing better protection for the site into the future. Other recommendations outlined in the heritage survey and Strategy fall outside the scope of this plan.

Northern former-Quarry site

The north-eastern portion of Manning Park was historically cleared to operate as a limestone quarry, which is understood to have provided building material for the Davilak Homestead. Today, the rocky terrain has made the area popular for mountain-bike use, resulting in the creation of multiple informal trails and rider-installed infrastructure, including jumps and ramps.

This activity has caused trampling of vegetation and contributed to erosion issues and weed spread. It is recommended that several informal trails are closed, while key higher-quality trails are retained to form a usable circuit. Trails identified for closure are generally less than 1 m wide and were assigned low usage in the Trails Audit.

It is also recommended that Trail 39 be diverted to connect with Trail 78 to provide a north–south link within the circuit. Establishing this diversion will require minor formalisation works, as the current alignment passes through dense vegetation. This will involve selective pruning of vegetation to achieve a trail width of approximately 1 m and the application of loose limestone to create a stable surface.

Due to the open and sparsely vegetated nature of this area, planting, used as a closure measure for other trails, will not be effective. Instead, it is recommended that conservation fencing be installed along open boundary sections to prevent access and discourage the creation of new informal trails.

Surveillance

Surveillance is required to improve compliance with trail closures. Given the large size of Manning Park, which has multiple entry points, permanent surveillance of the entire reserve is not possible, particularly in the Manning Ridge.

There are currently seven CCTV locations totalling 19 cameras in Manning Park, all located along Azelia Road in the parkland area. These units were originally installed to discourage and monitor anti-social behaviour.

To reduce the likelihood of closed trails being reopened or new informal trails being created, it is recommended that an additional CCTV unit be installed at the eastern entrance to the northern quarry site off Quarry Road.

In addition to CCTV, it is recommended that the City undertake ranger patrols in the upland areas to reinforce compliance and provide a visible management presence.

Even with an active security presence, enforcing breaches of compliance will be challenging and seldom successful. Identifying people on CCTV footage is difficult and Local Government officers are not authorised to make arrests. It is therefore anticipated that investing in surveillance will only serve to reduce instances of unauthorised trail construction, rather than to rule them out altogether.

Education

Educating the public on the environmental and social impacts of creating informal trails is needed to complement increased surveillance. This can be achieved by conducting community workshops and mailing flyers to local residents on a periodic basis, with additional educational material displayed in City facilities at Manning Park, such as the toilets and museum.

Monitoring

Monitoring is essential to assess the effectiveness of the actions in this plan and to detect new informal trails.

An annual drone survey is recommended. This will provide clear aerial photos of the ridge and surrounding areas, making it easy to see if any new trails have appeared or if closed trails are being used again.

In addition to these scheduled checks, the City's bush crew is on site regularly and can identify and quickly fix minor issues, such as a fallen sign or small areas of trail damage.

Implementation Table

Action No.	Action	Frequency	Year/s	Priority	Total cost
1. Communication & Education					
Objective: To deliver a coordinated communication, education and signage approach that improves community understanding of trail closures, promotes use of designated trails and discourages the creation and use of informal trails.					
1.1	Promote stewardship and responsible recreation via City communication channels	Ongoing	2026-31	Low	In-house
1.2	Install project and wayfinding signage about designated trails at carparks and lookouts	Once	2027-28	High	\$15,000
1.3	Install educational signage about the Honeymyrtle shrublands	Once	2027-28	Medium	\$5,000
2. Trail Maintenance					
Objective: To maintain safe, accessible formal trails and encourage use of designated tracks rather than closed trails.					
2.1	Routine maintenance of open trails	Ongoing	2027-31	Medium	In-house
2.2	Stockpile brush for use in trail closures	Ongoing	2027-31	Medium	In-house
2.3	Vegetation pruning	Annually	2027-31	Medium	\$25,000
3. Trail Closures					

Objective: To implement effective trail closures using vegetation, signage, and physical barriers

3.1	Install trail closure signage at trail ends and intersections	Once	2027	High	\$10,000
3.2	Replace or reinstate damaged/moved signage	As required	2027-31	Medium	In-house
3.3	Pre-planting weed control	Autumn	2028	Medium	\$1,000
		Autumn	2029	Medium	\$1,000
3.4	Planting at trail ends/intersections	May-June	2028	High	\$30,000
			2029	Medium	\$20,000
3.5	Contingency infill planting	May-June	2029-30 (as required)	Low	\$10,000
3.6	Direct seeding	May- June	2029-2030	Low	\$10,000
3.7	Engage tree crew to cut fallen tuart tree into lengths	Once	2027	Medium	\$5,000
3.8	Install trail closure barriers (logs and boulders)	Once per closure point	2027-29	High	\$35,000
3.9	Inspect and maintain physical barriers (repair/replace as required)	Quarterly	2027-31	Medium	In-house

4. Special Area Management - Davilak Ruins

Objective: To prevent further degradation of the Davilak Ruins heritage site

4.1	Divert Trail 7 and Trail 28 away from Davilak Ruins	Once	2027-28	High	\$4,000
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4.2	Install bollards at the north and south points of the Davilak Ruins	Once	2027-28	High	\$1000
4.3	Remove western vehicle access gate and hop-over and replace with fencing	Once	2027-28	Medium	\$7,500
4.4	Remove western educational signage shelter outside the protectable area	Once	2027-28	Medium	

5. Special Area Management - Northern Quarry

Objective: Protect and stabilise the Northern Quarry area by managing informal trail use, reducing environmental degradation, and maintaining a safe, sustainable mountain-bike trail network.

5.1	Remove unauthorised infrastructure on closed trails	As required	2028-2031	Low	N/A In-house
5.2	Divert Trail 39 to connect with Trail 78 and formalise track	Once	2029	Low	\$13,500
5.3	Install conservation fencing to restrict access to open areas	Once	2029	Low	\$5,000

6. Surveillance

Objective: To improve compliance with trail closures through monitoring and enforcement

6.1	Install additional CCTV unit on Quarry Road entrance	Once	2029-30	Medium	\$30,000
6.2	Maintain CCTV units and ensure footage is	Ongoing	2029-31	Medium	N/A

reviewed when incidents occur

6.3	Respond to reports of reopened or new informal trails	As required	2027-31	Medium	TBD
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7. Monitoring & Evaluation

Objective: To assess effectiveness of trail closures and detect new informal trails

7.1	Undertake routine inspections by bush crew during regular site work	Ongoing	2026-31	High	N/A
7.2	Conduct annual drone survey of Manning Ridge	Annual	2028-31	Low	\$30,000
7.3	Evaluate Plan success and determine if further action is required	Once	2031	Medium	TBD

References

- Archae-aus (2024) *Report on an Aboriginal and Historic Heritage Assessment of Manning Park, Western Australia*; Prepared for City of Cockburn by Archae-aus Pty Ltd, North Fremantle, July 2024.
- Bush (2014) Davilak Ruins Archaeological Management Strategy Manning Estate, Hamilton Hill. Prepared by Fiona Bush. January 2014.
- FaunaTrack (2023) *Detailed Fauna and Fauna Assemblages Survey of Manning Park – Hamilton Hill*; Prepared for City of Cockburn by FaunaTrack by FaunaTrack, Denmark WA , November 2023.
- Focused Vision Consulting (2024) *Flora and Vegetation Assessment of Manning Park Reserve*; Prepared for City of Cockburn by Focused Vision Consulting Pty Ltd, Spearwood WA, May 2024.
- Natural Area Consulting Management Services (2025) *Manning Park Trails Audit, Categorisation and Mapping*; Prepared for City of Cockburn by Natural Area Consulting Management Services Pty Ltd, Malaga WA, October 2025.

Appendix A - Trail Audit Report

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