



Shire of Narrogin Walk Trails Master Plan



SHIRE OF NARROGIN WALK TRAILS MASTER PLAN



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The Shire of Narrogin acknowledges the Noongar people as traditional custodians of this land and their continuing connection to land and community. We pay our respect to them, to their culture and to their Elders past and present.

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EXECUTIVE SUMMARY

SETTING THE SCENE

In Western Australia the definition of a trail has been recently set out in the Western Australian Strategic Trails Blueprint 2017 – 2021 (*Department of Sport and Recreation May 2017*):

Trails are pathways or routes that are used for recreation, tourism and appreciation of natural and cultural values. Trails may be short or long; be part of a trail network or a single journey; be used for one activity or be shared by several different trail activities; be primarily used by local residents or form a visitor attraction; be purpose-built paths or routes designated by signage and information.

This is the definition that will be used throughout this Walk Trails Master Plan.

The Shire of Narrogin commissioned the preparation of this Walk Trails Master Plan to provide direction to the upgrading, development and maintenance work of walk trails within (and close to) Narrogin's town site.

The project brief limited the study area to the Narrogin town site and focussed on how the existing walk trail in the town centre could be improved to include 'links' to reserves on the town's doorstep. The scope of the project did not include Highbury nor any other reserves in the Shire area.

From discussions with Shire of Narrogin officers, it is apparent that one of the key driving forces behind the trails planning strategy is the aspiration to develop (or redevelop) a series of trails to support the Shire of Narrogin community to be inclusive, vibrant, healthy and safe. This Master Plan is focussed on developing a small suite of trails that will be of interest to local people but also to visitors to the town.

An objective is to develop the Shire's capacity to support the conservation of natural assets and undertake sustainable resource management. This can be achieved through the placement of suitable interpretation along each trail.

It is expected that upgrading, development and maintenance of existing trails will attract additional visitors to the Shire and to Narrogin in particular.

Narrogin is within easy reach of Perth, being just over two hour's drive. It is well located and easily accessible from Perth and well positioned to take advantage of the growing popularity of bushwalking and other outdoor recreational activities, such as geocaching (a modern twist on traditional hide-and-seek).

Narrogin has several remarkable and attractive features: a rich and diverse history, a fascinating array of historic buildings in the town and Foxes Lair at its doorstep.

The Shire is well placed to provide a destination for Perth's population on day visits, as well as being situated alongside main roads heading south from Perth to other destinations, such as Albany.

Improvement of the existing trails will provide a greater range of opportunities for local people and visitors to enjoy the beautiful environment and become acquainted with the rich and varied history of Narrogin and the region.

To create a suite of quality trails does not necessarily mean constructing numerous new trails. A number of walk trails already exist within or close to Narrogin. The primary aims of this Walk

Shire of Narrogin Walk Trails Master Plan

Trails Master Plan are to determine what trails are currently available, assess what improvements are required to the existing trails, and make recommendations on what additional trails could be developed in the future.

It is crucial that the suite of trails reflect the quintessential character of the area – its natural assets, its Aboriginal history, its pioneers, its heritage and culture, the traditional farming practices and new agricultural enterprises.

This Trails Master Plan also seeks to capitalise on the outstanding built history of the town. The Shire is supporting work on a revamped CBD heritage trail that will, when implemented, take users past a range of interesting and historic sites throughout the town, each with an interesting story.



The Breakaway Walk Trail at Foxes Lair is well used and it provides excellent views out over the surrounding vegetation and landscape.

In terms of local reserves, Foxes Lair is without doubt Narrogin's greatest natural attraction. There are five walk trails through this bushland area and already well used, however there is room for improvement of these popular attractions. This Walk Trails Master Plan promotes their upgrading and a range of safety improvements to the existing trails. Upgrading of these trails will be beneficial to residents of Narrogin, holidaymakers and tourists passing through or visiting Narrogin.

The brief for this project focussed on walk trails. Cycling and horse riding trails have, therefore, not been considered although mountain biking is permitted on some trails and all management roads within Foxes Lair. There is also an extensive network of mountain biking opportunities within the Commonage.

The financial costs involved in implementing the trails program set out in this Walk Trails Master Plan need not be borne by the Council alone. Funding programs are available to assist the Shire of Narrogin in upgrading and enhancing existing trails. This funding can enable and support the Shire to embark on a program to progressively upgrade and expand its trail supply, and to promote the trails and natural attractions of the town to local residents, visitors in nearby towns, as well as Perth's population.

THE EXISTING TRAIL SUPPLY SITUATION

In 'setting the scene' for this Walk Trails Master Plan it is important to be cognisant of the fact that there exists a number of quality trails in and around Narrogin. The inventory of existing trails prepared as part of this project has identified the following core characteristics of 'trail supply':

- ✚ Five walk trails have been developed through Foxes Lair of varying length. Some of these trails, as well as the management tracks throughout Foxes Lair, are available for mountain biking.
- ✚ Two walk trails have been developed at Railway Dam.
- ✚ Several 'trails' exist in Gnarojin Park.
- ✚ Two heritage drive trails, developed in 1988, take visitors through Narrogin town centre and around the historic sites and the district of Narrogin.
- ✚ The existing trails are poorly signposted, in terms of directional / promotional signage to the trailhead and directional signage along the trails.
- ✚ Interpretation along the existing trails needs significant improvement.

The town site of Narrogin has an existing CBD Heritage Walk developed without trail directional markers and no in situ interpretive signage. It relied upon descriptions contained within an A5 brochure only and was originally developed by Mr Maurie White, Honorary Historian of the former Town of Narrogin in 1998. An Interpretative Signage Project for this walk is currently underway. It is understood that this project will address the realignment and upgrading of the existing CBD heritage trail throughout and the upgraded heritage walk will include sites associated with significant people of the town and the region as well as significant events that have helped shape the town and region and former buildings and infrastructure. This Master Plan references this CBD heritage trail in the context that this trail and the three proposed trail projects in the reserves can be linked through a Marketing and Promotional Campaign.

THE ROLE OF TRAILS

Trails have *much* to offer a local government area such as the Shire of Narrogin.

Right across Australia the many benefits of well-planned and promoted trails are being recognised by local government authorities and a range of agencies including tourism organisations, and a number of health organisations. It is now well recognised that recreation trails perform a number of highly beneficial roles in the broader community:

- ✚ They provide opportunities for low-key unstructured passive recreation for local residents and visitors alike;
- ✚ They enable users to gain fitness and they foster general well-being;
- ✚ They are a valuable tourism attraction, especially when marketed well;
- ✚ They can bring economic benefits, from visitors spending more time and more money in a town;
- ✚ They can help instil a conservation ethic amongst users; and

- ✚ They can be a means of educating users about the history and attributes of an area, especially when good interpretation is a feature of the trail.

A Victorian study (prepared for the *Victorian Trails Strategy 2005 - 2010*) found that there is a clear preference for shorter walks (up to 6 kilometres and taking between 30 minutes and 2 hours to walk), on both metropolitan and 'remote' trails. A Market Equity study in South Australia supports this conclusion with 76% of walkers using trails for less than 2 hours. A study in Geelong found that the average duration of a walk is 50 minutes (with the highest numbers walking between 21-30 minutes and 51-60 minutes). (*Source: City of Greater Geelong 2003*).

The trails presented in this Walk Trails Master Plan take into account the preferences of walkers for shorter trails.

WHAT THIS WALK TRAILS MASTER PLAN PROVIDES

As is common with a Walk Trails Master Plan, this document provides the following:

- ✚ An inventory of existing trails including their purpose, general condition and use;
- ✚ Mapping of trails within Narrogin;
- ✚ Preliminary cost estimates and priorities for upgrading of existing trails and development of any proposed new trails;
- ✚ Community comments as an outcome of consultations;
- ✚ A recommended action plan and strategies for implementation of the Walk Trails Master Plan; and
- ✚ Consideration and recommendations for trail information and interpretation including brochures, signs and on-line information.



This Trails Master Plan is limited to consideration of walk trails only. Additionally, the scope of works was limited to the townsite of Narrogin and the reserves in its close proximity

PRINCIPLES FOR SELECTION OF TRAIL PROJECTS

Candidate trails and trail projects were assessed against a number of important criteria:

- ✚ **Community input and aspirations** – local people are best placed to determine local priorities;
- ✚ **User experience.** Trails have to provide a high-quality user experience or else people will not use them or will not come back – word of mouth is a much stronger advocacy tool than marketing strategies. The trail projects need to ensure a high-level user experience;
- ✚ **Shire of Narrogin staff input** – funding and staff resourcing are critical to successfully implementing any trail plan;
- ✚ **Trail demand** – research shows the majority of users are seeking short trail opportunities;
- ✚ **Availability of existing trails** in the Shire – 12 already exist;
- ✚ **Value for money** (recognising that there will be limited budget). Trail projects should look to provide value for money and a good return on the investment made by the Council

(and other stakeholders). A few high quality, well built, well maintained and well promoted trails highlighting the best features of the Shire of Narrogin is preferable to a large number of poor quality trails badly constructed and not maintained;

-  **Consideration of whole of life costs** including repairs, maintenance, upkeep and associated staffing to administer (e.g. how much work is required to upkeep regularly and does the Shire have the staffing capacity to do with other [priority/competing] works required). This may also consider cost vs benefit, e.g. low usage vs regular upkeep such as clearing paths, pruning trees, litter collection etc; and
-  **Practicalities of trail development** – costs, land tenure and access, environmental issues, cultural issues, funding possibilities, project management and staffing availability, possible (on-going) community support and the possibility of opposition, and the safety of users.

RECOMMENDED PROJECTS

What then, can trails do for the Shire of Narrogin? This Walk Trails Master Plan has been developed based on face-to-face consultation with key community members and stakeholders, Shire of Narrogin officers and four days of field work. It is shaped specifically to fit Narrogin's unique qualities and the enhancement of existing trails. It proposes several trail projects that have the potential to deliver benefits to the local community. This Walk Trails Master Plan recognises the needs and demands of local residents and visitors, and it takes advantage of the history of the region and the diverse range of attractive landscapes and vistas on offer within and close to Narrogin.

Combined with the field assessment, consideration of the factors listed above allows the determination of a range of possible trail projects.

Three key trail projects have been identified within this Master Plan. How each of the recommended or proposed projects are specifically prioritised will need to be determined each year internally and be dependent on available resources, funding opportunities and how they link with other Shire projects e.g. the Strategic Community Plan, identified townscape strategies and a range of management plans. These three projects are described below.

Project 1: Foxes Lair Trails Upgrade Project

Foxes Lair is a remarkable piece of bushland, situated on Narrogin's doorstep. Considerable effort by the Friends of Foxes Lair (often with very limited financial resources), has seen made to develop a range of walk trails developed within the area. Most of the existing trails are well formed, with only minor trail surfacing improvements required (erosion control; and refurbishment of steps).

The overall intention is to make the trails more easily navigable. This will be achieved by removing all existing trail directional markers and replacing them with Australian Standard and uniformly designed signs on steel posts.

The installation of interpretive panels along each trail will provide for an educational experience for all users, be they local residents, day trippers, tourists or people holidaying longer in Narrogin.

Project 2: Railway Dam Trails Upgrade Project

Two short walk trails exist within the Railway Dam reserve and appear well used by local people. However, to increase usage and enjoyment several improvements and upgrading of the trail surface is recommended.

The range of improvements include: replacement of informal directional signage with Australian Standard and uniformly designed signs on steel posts; the installation of interpretive signage and filling of parts of the trails to raise them above a typical flood level. Realignment of the Archibald Park Trail is also proposed.

Project 3: Gnarojin Park Trail Upgrade Project

Gnarojin Park has several existing trails, as indicated throughout this report. No new trails are proposed. However, the existing trails could be ‘amalgamated’ into one single trail route, with the installation of trail directional markers designating the circuit trail bringing users past all of the important elements of the park (Dreaming Sites, Centenary Pathway). Improvements will be subject to the findings and conclusions of the (current) Gnarojin Park Masterplan before Council at the time of writing.

MARKETING AND PROMOTION

In addition to the three trails development/upgrading projects outlined above, a fourth project for the Shire of Narrogin is a Marketing and Promotion Program.

A series of trails can be developed or upgraded according to the programs set out in this Trails Master Plan. When in place, these trails will need to be marketed and promoted. This is best achieved through a concerted effort of collating and compiling information and publishing it in the form of simple but aesthetically pleasing brochures – with maps of each trail highlighting special features such as lookouts and locations of interpretive signage. .

This Trails Master Plan recognises the fact that the Shire of Narrogin has a limited capacity to construct and maintain additional trails. It is more appropriate to embark upon a restricted program of activity – but one that is *achievable* – rather than a ‘wish list’ of projects that could well seem too daunting to even attempt. The emphasis therefore is to build on what the Shire already has in the way of existing trails.

Attracting users to trails is a competitive business. Numerous local governments, and not-for-profit organisations, are now beginning to realise the tremendous benefits that trails can bring to a community. Across Western Australia there are hundreds of trails, many of which are poorly built, poorly signposted, poorly maintained and poorly promoted.

With this in mind, this Trails Master Plan strongly recommends that the Shire of Narrogin strive to attain a competitive edge in its supply and marketing of its trails. To this end, the provision of a small suite of quality trails, rather than numerous ‘ordinary’ trails, would be the primary objective. With the implementation of the trails projects developed in this Trails Master Plan, local people will benefit and the Council will be able to attract visitors to the Shire and be able to keep them in the region for a full weekend – or longer. A fully costed and comprehensive marketing and trail promotion program is proposed.



This well placed seat on the Claypit Walk Trail is an ideal location for the installation of an interpretive panel telling a story about the geology of the region.

SUMMARY AND COSTS

In summary, the Shire of Narrogin is fortunate to have an enviable array of physical and geographical attributes – including Foxes Lair on its doorstep, Railway Dam reserve, Gnarojin Park, railway history, a rich agricultural history, heritage buildings and the Aboriginal history of the area. It is just over two hour's drive from central Perth – and located in a region which is already popular with day-trippers from Perth and through which many tourists travel *en route* to other destinations.

This Walk Trails Master Plan sets out a simple project-focussed program of activity designed to deliver the maximum benefits to the widest cross-section of the local and regional community as well as visitors and tourists from Perth. Its focus is on recognising a number of trails already in existence in and around Narrogin. It emphasises the upgrading and enhancement of these trails and enshrines the requirement for quality (and carefully targeted) marketing and promotion.

The estimated cost of implementing the full trails program (including the Marketing Program) set out in this Walk Trails Master Plan is \$ 230,550(+ GST). The costs for each individual project are based on likely contractors/consultants' rates.





Actual costs at the time of implementation will depend on a number of factors, including the state of the economy, the extent of advertising of construction tenders, the availability and competitiveness of contractors, the rise and fall in materials costs, the choice of materials used in construction, final design detail and the extent of the deployment of volunteers/unskilled low cost labour and Shire works crew. Tenders submitted by construction contractors may vary significantly from the estimated costs in the tables contained within this report. The use of low-cost (or volunteer) labour and/or Shire works crew will significantly reduce construction costs.

Funding for the development, upgrading and extension of paths and trails is available from a variety of State and Federal Government programs.

It is important to note that the delivery/implementation of the Walk Trails Master Plan may well be dependent on grant funding and additional resourcing including budget allocations to implement project work, as well as an ongoing commitment to increase annual budgets to cover maintenance costs as prescribed in this document.

RECOMMENDATIONS

It is recommended that the Shire of Narrogin:

-  Receive the Shire of Narrogin Walk Trails Master Plan and seek to implement the recommendations contained therein;
-  Seek funds from other sources and funding programs for the projects contained within the Shire of Narrogin Walk Trails Master Plan.
-  Consider an annual allocation to supplement/match grants from other sources to implement the projects set out in this Walk Trails Master Plan.
-  If external funding is sourced, make arrangements for a portion of the work time of a Shire of Narrogin officer to be dedicated to trails and implementation of this Walk Trails Master Plan.

SECTION 1: PROJECT OBJECTIVES AND METHODOLOGY

1.1 BACKGROUND

This Walk Trails Master Plan for the Shire of Narrogin has been commissioned by the Shire of Narrogin.

The Shire in its request for quotations for this Master Plan indicated that it has a wealth of existing heritage buildings and natural reserves which could be better showcased and connected to allow visitors and local people to appreciate the value and uniqueness of the area. The development of a Master Plan provides a holistic look at the Town and how other interesting aspects of the Shire can be integrated as part of a walking trail. The Shire communicated in its request for quote that it was anticipated that a trails 'network' would have benefits including:

- ✚ Informing and educating visitors and locals of the history and value of the area;
- ✚ Generating interest in the town and encouraging people to stay longer; and
- ✚ Controlling the impacts of visitors in sensitive or fragile environments.

The purpose of this Walk Trails Master Plan is to identify existing trails and the work required to upgrade and improve the reserve trails.

As visitation to the area expands and environmental awareness increases, the natural areas of the Shire will come under increased pressure for use as trails as visitors forge their own way through natural areas, such as Foxes Lair.

The importance of trails in increasing environmental awareness and heritage conservation, as well as providing recreational opportunities to residents, visitors and tourists to the Shire is paramount.

1.2 PURPOSE AND NEED FOR THIS TRAILS MASTER PLAN

Trails planning does not exist in isolation. This Walk Trails Master Plan should be viewed as part of a broader approach by the Shire of Narrogin to provide growth that meets community, environmental and economic goals, and encourages a strong, diversified economy that supports local employment and enhances the quality of life for Shire residents.

The Shire of Narrogin commissioned this Walk Trails Master Plan as a way of developing new recreational opportunities for local people and new attractions for tourists.

The primary purpose of this trails program is therefore to provide additional recreation opportunities for local residents of Narrogin. It is also the intention to attract visitors, enabling economic benefits to occur at a local level. The trails are also intended to be used by local people. Experience elsewhere indicates that recreational trails can indeed be a focal point for quality tourism with the right infrastructure and the right packaging. Recreational trails can be a significant component of a sustainable tourism industry capitalising on significant natural assets.

Recreation trails serve the following purposes:

1. Enable convenient and safe access to natural areas of the Shire for local residents and visitors to the region;
2. Provide safe recreational assets within the Shire of Narrogin;
3. Provide attractions to tourists that would educate them of the ecological, social and cultural significance of places within the Shire;
4. Provide an opportunity for an integrated community project e.g. looking at potential ways to engage the community in different stages of the trail projects;
5. Incorporate Aboriginal heritage into the trail system (especially in interpretive signage); and
6. Highlight the historical significance of other locations and sites within the Shire of Narrogin.

1.3 SCOPE OF THE WALK TRAILS MASTER PLAN

The objectives of the Walk Trails Master Plan project for the Shire of Narrogin are as follows:

- ✚ Visit to the Town to understand and appreciate its various components parts;
- ✚ Meet with community representatives and Aboriginal groups who would have interest in the project;
- ✚ Identify opportunities/places where the existing walks and trails could expand and connect;
- ✚ Reviewing background documents from the Shire's library and examine the range and extent of historical images;
- ✚ Identify key routes and nodes, including: places of interest for interpretive signage, recommendations for improved connections to areas/places, seating and or other interventions (such as public art) which may help connect paces;
- ✚ Identify key themes/messages and suggested images for each node;
- ✚ Preparation of indicative signage concept;
- ✚ Prepare draft Master Plan and provide to Shire for review;
- ✚ Revise Master Plan for final adoption.

To achieve these objectives, the key tasks were to:

- ✚ Determine what trails already exist;
- ✚ Determine the condition of the existing trails;
- ✚ Determine what action should be taken to rectify any issues; and
- ✚ Develop construction plans to enhance the existing trails.

The development and implementation of this Walk Trails Master Plan would make a significant contribution to conserving and interpreting the heritage values of the Shire of Narrogin as well

as bringing tourism opportunities to the region and improving the recreational opportunities of local people.

1.4 METHODOLOGY

In common with most Walk Trails Master Plans, this project applied the following methodology to establish desired and specific outcomes.

Background research – the first stage in the preparation of this Walk Trails Master Plan was to review background material that may influence the supply of, or demand for, trails within Narrogin. In particular, any information pertaining to existing trails, or proposed trail projects, within the Shire was collected and reviewed. The intention was to compile a list of existing trails, their user group, respective condition and as many pertinent facts about those existing trails.

Initial discussions with key Shire of Narrogin officers to confirm scope of work – it was imperative to establish the desired outcomes sought by the Client, and to clarify the scope of work. Initial discussions revealed the intentions of the Client, the role of trails within the local communities, and importantly some local insight into the availability of, and scope for, trails within the Shire of Narrogin.

Meeting with key stakeholders – the input from interested local community members and key stakeholders was crucial to the successful preparation and implementation of this Walk Trails Master Plan. In any community, there are usually people with a direct interest and involvement in trails development – whether it be from a botanical perspective, a tourism viewpoint, a historical interest or any number of other interests. A targeted approach was used in the Trails Master Plan, meeting with key people in the Narrogin community.

Field work – there is no substitute for actually walking existing trails and assessing areas for possible new trails development. Traversing existing trails enables a comprehensive account of the condition of each existing trail to be compiled, including such matters as signage, trail surface, maintenance requirements, interpretation needs, etc. The in-the-field assessment of natural areas and other trail opportunities provided ideas about future trail development possibilities.

Report writing – following background research, selective consultation and in-the-field assessment of existing and future trail opportunities, all relevant information was compiled and included in this report. In the case of the Shire of Narrogin Walk Trails Master Plan, the essential tasks were to compile an account of the nature and condition of all existing trails, make recommendations about the need for additional trails and trail projects, and to provide costs and recommended priorities for the enhancement of the trails network within the Shire of Narrogin.

Further discussions and consultation – upon completion of the fieldwork, and during the preparation of the draft plan, it was necessary to follow up with various stakeholders to clarify matters. This often involves additional meetings and/or discussions to elicit initial feedback on ideas and draft proposals.

Mapping – an essential element of all Trails Master Plans is the mapping of the trails network. A series of maps illustrating the recommended location of the proposed trails upgrading tasks. Individual plans (or aerial photographs) have been produced for each priority trail project.

Submission of draft report to Client for review – upon completion of the draft report and mapping, the report is submitted to the Client for initial review and feedback.

Receipt and consideration of feedback from the Shire of Narrogin – the final Walk Trails Master Plan will reflect all comments received by Shire officers.

Preparation of final Walk Trails Master Plan – following receipt of comments from the Client, the final Trails Master Plan will be prepared and submitted to the Client for consideration and endorsement by the Council.

Following consideration and endorsement by Council, action ideally would commence soon after with the development of a project plan and sourcing of external funding as outlined in the Implementation Plan.

1.5 SOME UNDERLYING PHILOSOPHIES

Constructing and maintaining trails can be an expensive undertaking. Building trails costs money; sometimes hundreds of thousands of dollars. The history of the development of trails in Western Australia has demonstrated that there are limited funds available for the construction of trails – and few, if any, funding programs provide money for the maintenance of trails.

The lack of maintenance has plagued the trails world in Western Australia. All too often the maintenance of a trail is left in the hands of some willing, enthusiastic (and capable) volunteer group, but over time membership of the volunteer group changes, enthusiasm wanes, focus changes. When that happens the trail deteriorates badly through erosion, vegetation becomes overgrown, trail signage disappears and brochures/leaflets if originally developed, become non-existent. The trail then is no longer suitable for use and the original cost and effort in developing the trail has been wasted. This has certainly been the case with the 170+ 1988 Bicentennial Heritage Trails, one of which was developed for Narrogin.

It is imperative therefore that the proponents of trail projects be aware that over-ambitious trail development programs may fail due to limited availability of funds and other resources.

Care must therefore be taken to ensure the proposed trails network be thoughtfully put together, taking into account sustainable resourcing.

In this regard, it makes more sense to have a few quality trails rather than a vast quantity of poorly constructed, poorly maintained and little used trails.

Proposing a long list of trails projects can be counter-productive. When faced with a daunting (and expensive) list of trail development (or upgrading) projects, a community can often abandon plans for the trails network as it all becomes too hard.

It is therefore far more preferable to embark on a well-reasoned (small) suite of trails – a program that can be accomplished over a five to ten-year implementation period.

This Walk Trails Master Plan therefore proposes a number of specific projects that have the potential to deliver solid and real benefits to residents of the Shire of Narrogin. It recognises the needs and demands of local residents (in particular) and visitors, and it takes advantage of the diverse range of attractions on offer including bushland on Narrogin's doorstep, heritage buildings of the town centre, railway history and Aboriginal history.

This Walk Trails Master Plan also recognises the fact that there are 12 existing trails in and around Narrogin – and more within a short drive of Narrogin.

This Trails Master Plan recognises the limited resources of the Shire of Narrogin and that it is more appropriate to embark upon a restricted program of activity – but one that is *achievable* – rather than a 'pie in the sky' list of projects that could well seem too daunting to even attempt.

SECTION 2: TRAILS AND THEIR USERS

2.1 DEFINITION OF A 'TRAIL'

From extensive discussions over many years in Australia and overseas, it is clear that the concept of a trail means different things to different people. For this project to provide effective results it has been important to clarify the definition of a Trail in the local context.

In Western Australia the definition of a trail has been recently set out in the Western Australian Strategic Trails Blueprint 2017 – 2021 (*Department of Sport and Recreation May 2017*):









Trails are pathways or routes that are used for recreation, tourism and appreciation of natural and cultural values. Trails may be short or long; be part of a trail network or a single journey; be used for one activity or be shared by several different trail activities; be primarily used by local residents or form a visitor attraction; be purpose-built paths or routes designated by signage and information.

This is the definition used throughout this Walk Trails Master Plan.

2.2 THE BENEFITS OF TRAILS

Right across Australia the many benefits of well-planned and promoted trails are being recognised by a range of agencies from National Park services to tourism departments, and from local governments to health organisations.

It is now well recognised that recreation trails perform a number of highly beneficial roles in the broader community. The Western Australian Strategic Trails Blueprint 2017 – 2021 (*Department of Sport and Recreation 2017*) provides a succinct summary of these as follows. The Blueprint states:

-  Encouraging more frequent outdoor physical activity leading to improved physical and mental wellbeing and a reduction in lifestyle diseases and associated medical costs;
-  Improved lifestyle due to opportunities for outdoor recreation by individuals, groups, education and community organisations;
-  Providing low cost facilities for recreation accessible to many different groups in the community;
-  Improved awareness and appreciation of the natural environment and support for its conservation and protection;
-  Economic benefits from employment and business opportunities in trail development, management, maintenance, events and supporting products and services;
-  Tourism growth to trail destinations with resulting economic stimulus of local economies;
-  Trails adding to the value of nearby properties;
-  Protection and showcasing of natural, cultural and historic areas by providing for sustainable access routes;

- ✚ Improved sustainability of local communities by making them more attractive places to live; and
- ✚ Opportunities for social interaction and development of community identity through participation in trail activities, maintenance and conservation.

2.3 LOCAL USE OF TRAILS

Development of a trail network will allow use by local people to recreate in an outdoor setting, delivering significant health benefits and developing the community's appreciation of this high-quality natural resource on their doorstep. Development of a trail network will also benefit visitors (and those that depend on the tourism industry).

The Narrogin CBD Heritage Trail and enhancements to walk trails within Foxes Lair, Railway Dam and within Gnarojin Park proposed in this Trails Master Plan will directly benefit local people as well as visitors and tourists.

2.4 DEMAND FOR TRAILS

2.4.1 PARTICIPATION IN TRAILS RELATED ACTIVITIES

The Western Australian Strategic Trails Blueprint 2017 – 2021 (p29) states that Western Australia is seeing increasing growth in trail-related activities. It reports that there has been an overall increase in trail use as reported anecdotally by the (then) Department of Parks and Wildlife and other land management agencies. Uptake has been encouraged by better access, new developments, promotion and an increased community focus on nature-based activity as a pathway to improved fitness, health and wellbeing. Due to unmet demand (particularly for mountain biking and trail bike riding) unsanctioned trails are being developed in some places resulting in potentially unacceptable environmental and cultural impacts.

The 2010 Exercise, Recreation and Sport Survey reports on the propensity of Australians to participate in trail-related activities at a general level:

- ✚ 35.9% of survey respondents across Australia participated in walking, making it the most popular form of activity. This percentage has been consistent since 2001, and walking has been the most popular exercise activity since 2001 (increasing by 44% in that time).
- ✚ 11.9% of survey respondents across Australia participated in cycling, making it the fourth most popular form of activity. Again, cycling has been amongst the top five activities since the ERASS began in 2001 and has increased by 45% between 2001 and 2010 (though it has decreased and increased over that ten-year period). The 2010 level is the highest in 10 years.
- ✚ 4.8% of survey respondents across Australia participated in bushwalking, making it the seventh most popular form of activity. Bushwalking's percentage share of exercise has moved up and down since 2001, but it consistently appears in the Top 10 activities.
- ✚ Regular participation in non-organised physical activities (such as walking, bushwalking and cycling) was highest among people with university degrees (46.6%) or diplomas (42.1%).

- ✚ An estimated 6.7 million persons aged 15 years and over participated at least three times per week in non-organised physical activity (which includes walking, cycling and bushwalking), a regular participation rate of 38.5%.

The *Western Australian Strategic Trails Blueprint 2017 – 2021* (p30) provides the following snapshot:

- ✚ Walking (recreational) is the most popular form of exercise - 32% of men and 52% of women report walking as their main form of exercise (*Source: Australian Sports Commission, AusPlay: Participation data for the sport sector, December 2016*)
- ✚ Top reasons for walking: 52% recreation; 21% transport (*Source: <http://www.roymorgan.com/findings/6123-australian-sportsparticipation-rates-among-children-and-adults-december-2014-201503182151>*)
- ✚ 23% of WA residents cycle weekly
- ✚ 43% of WA residents have ridden a bicycle in the past year
- ✚ Approximately 1.13 million of WA residents cycle once a year. (*Australian Cycling Participation Survey 2015 <https://www.onlinepublications.austroads.com.au/items/AP-C91-15>*)
- ✚ Use of cycle or walking paths increased 7% to 31% between 1999 to 2006 (*<http://www.beactive.wa.gov.au/assets/files/Research/2009%20Adult%20Survey%20Main%20Report.pdf>*)
- ✚ Based on 8.8 million participants 45.3% adults regularly walk for exercise (*<http://www.roymorgan.com/findings/6123-australian-sportsparticipation-rates-among-children-and-adults-december-2014-201503182151>*)

In *Walk WA: A Walking Strategy for Western Australia 2007 – 2020*, the propensity of Western Australians to walk and undertake physical activity is analysed. The strategy quotes from the *Physical Activity of Western Australian Adults Survey 2002*, where walking for recreation was the most popular activity recorded, regardless of gender. Walking for recreation was found more popular among females (70%) than males (55%) and tended to increase with age, peaking in the 45-59 years age group (68%). Walking for recreation was most popular in the 60+ years age group for men (65%) and the 45-59 years age group for women (75%). In children, walking for exercise and walking the dog were among the most prevalent activities classified as 'active play'.

Among the major settings for physical activity, the streetscape is the most popular setting (56%), with 17% using public parks, 14% using cycle and walk paths and 12% using the beach. The 'streetscape' and 'public parks and ovals' are particularly popular with younger adults.

Walking as a form of recreation is growing in popularity, as it is versatile, does not require club membership, payment of facility fees or a long-term commitment, in order to participate. Walking is low impact, can be performed individually, in a social group or with family members or the family dog. Just like their owners, dogs can also obtain health benefits from physical activity. Walking can become a more popular physical activity option for those who see time, age, family commitments or poor health as barriers to increasing physical activity levels.

Both walking and cycling have a core of participants who engage in their activity very frequently e.g. at least once or more per week.

Horse riding is an activity enjoyed by a relatively small number of participants (around 3% of respondents in surveys undertaken by Transplan Pty Ltd). Horse riding demand can also be highly localised – certain localities attract residents who are horse riders. The lack of designated places to ride horses is often an issue raised in public consultation.

2.4.2 WHAT ARE TOURISTS LOOKING FOR?

It is critical to consider the needs of visitors as they provide much of the economic benefits associated with trail development. Recreation trails provide an important piece of tourism infrastructure and provide experiences in the ecotourism market. Visitors are interested in what is local and authentic. Successful tourism destinations are built on factors that give a place its own distinctive character. These factors are lifestyle, heritage, cultural activities, landscape, flora and fauna; characteristics of the basic tourism product of any destination. Recreation trails provide opportunities to highlight many of these characteristics. The provision of interpretive signage along trails is crucial to fulfilling this demand for information.

2.4.3 HOW LONG DO PEOPLE SPEND ON TRAILS?

A Victorian study (prepared for the *Victorian Trails Strategy 2005 - 2010*) found that there is a clear preference for shorter walks (up to 6 kilometres and taking between 30 minutes and 2 hours to walk), on both metropolitan and 'remote' trails. A Market Equity study in South Australia supports this conclusion with 76% of walkers using trails for less than 2 hours. A study in Geelong found that the average duration of a walk is 50 minutes (with the highest numbers walking between 21-30 minutes and 51-60 minutes). (*Source: City of Greater Geelong 2003*).




SECTION 3: BACKGROUND INFORMATION

The Shire of Narrogin has developed a number of documents and plans that have been considered when making recommendations on the future development of trails in the Shire.

The documents of interest are:

-  Strategic Community Plan 2017-2027
-  Foxes Lair Management Plan - 2014
-  Railway Dam Reserve Management Plan – May 2018
-  Draft Gnarojin Park Masterplan – October 2018

Other background material that has informed the recommendations of this Trails Master Plan and which is cited and referenced above includes:

-  Western Australian Strategic Trails Blueprint 2017 – 2021
-  Victorian Trails Strategy 2005 – 2010
-  Walk WA: A Walking Strategy for Western Australia 2007 – 2020

3.1 STRATEGIC COMMUNITY PLAN 2017-2027

The Shire of Narrogin Trails Plan *Strategic Community Plan* has strategies and recommendations of direct relevance to this Walk Trails Master Plan.

As set out in the Environment Objective, the community aspires to protect and preserve its nature reserves and further develop walking trails, parks and gardens and sports facilities.





The Environment Objective of the Strategic Community Plan also states that the Town's history, in the heritage architecture and built form, is also enjoyed, largely because it is a key part of Narrogin's identity and style and gives the heritage of the area a living quality.

As set out in the Social Objective of the Strategic Community Plan, a key outcome is stated as being to maintain and enhance heritage assets.

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3.2 FOXES LAIR MANAGEMENT PLAN

The Aims of the Foxes Lair Management Plan are:

-  to protect and enhance the conservation values of the Reserve.
-  to encourage community involvement in management of the Reserve.
-  to manage the reserve so as to reduce the potential threat of fire whilst maintaining vegetation on site ensuring a bushland backdrop is retained for the south western portion of the town site.
-  to raise community awareness of nature conservation and the importance of protecting remnant vegetation.

- ✚ to encourage sustainable use of the Reserve for passive recreation, education and eco-tourism purposes.
- ✚ to acknowledge the role that the reserve(s) have played in the history and development of the Narrogin Town site.

The Management Plan makes a number of recommendations about the following matters:

- ✚ Fire
- ✚ Drainage
- ✚ Weed Control
- ✚ Use of Off-Road Vehicles
- ✚ Licensed Road Vehicles, Roadways & Parking Areas
- ✚ Maintenance of Walk Trails
- ✚ Littering
- ✚ Signage
- ✚ Wood Cutting and other Unauthorised Activities
- ✚ Promotion and Education
- ✚ Additional Infrastructure
- ✚ Feral Animal Control
- ✚ Review of Management Plan



3.3 RAILWAY DAM RESERVE MANAGEMENT PLAN (RDMP)

The objectives of the RDMP are as follows:

- ✚ To protect and conserve the native vegetation, flora, fauna and habitats;
- ✚ Consolidate work undertaken to date in establishing walking trails and interpretive sites;
- ✚ To facilitate, where practical, existing tracks and pathways to be suitable for people with disabilities;
- ✚ To rehabilitate areas of erosion located within the reserves and recommended action to prevent future erosion;
- ✚ To minimise the impact that reserve users have on the natural environment.
- ✚ To minimise weeds, feral animals and the risk of introducing disease to the reserves; and
- ✚ To minimise the risk of fire damage outside the reserve while maintaining biodiversity.

Among the many recommendations are the following:

- ✚ Formalise the two existing walking trails (Archibald Park Walk and Dam Walk) by installing maps and signage prohibiting visitors to walk off the tracks and educating them of the importance of sticking to tracks.

-  Install interpretive signage identifying native flora along the walking paths for visitors.
-  Install interpretive signage at the location of the historical weir/separator drainage area.








3.4 DRAFT GNAROJIN PARK MASTERPLAN

The Gnarojin Park Masterplan (currently in draft at the time of writing) identified the Park's existing strengths and weakness and its surrounding context. It contains a number of design components or strategies, as well as a number of associated proposed key projects.

The strategies are:

1. Circulation and Access – strengthen the north south axis, strengthen town connections and make them safe;
2. Town Connections - connect the Park and old railway station to the town centre;
3. Buffer and Safety - create a green buffer to the west side to suppress unregulated pedestrian movement along Great Southern Highway;
4. Key Zones - social areas, run-off water treatment, bush ecologies, green space;
5. Lighting - provision of lighting to all social/play/recreational areas and footpaths to improve safety;
6. Water Treatment and Waterway – water purification strategies e.g. water filtration, pooling, water sensitive urban design (WSUD) and wetland establishment;
7. Recreation and Play - connect existing and new recreation areas, place recreation play areas on ends of north south axis to promote and improve circulation;
8. Ecology and Connection to Environment - promote ecological, biodiversity and environmental typologies through information signage;
9. Noongar Dreaming Sites and Artwork/Artefacts - develop Noongar dreaming sites; and
10. Arts - extract, relocate, preserve and reinstall Centenary Walk tiles to a new path and expand current collection of tiles and consider future public art locations across the Park.

The seven projects are:

-  Pathway and access upgrades – improved pedestrian movement is important to the overall functioning of the Park;
-  Lighting; Install and improve for safety;
-  Horticulture and strengthening wildlife habitat;
-  WSUD/water ecologies/erosion prevention;
-  Events/community spaces – introduce exhibition, performance and art spaces to present opportunities for small to large events, display of public art and performances;
-  Nature based playgrounds - at the Park's north and south end; and
-  Town connection.

SECTION 4: TRAIL SUPPLY ANALYSIS




4.1 OVERVIEW

Narrogin has a comparatively high number of existing trails. In the research undertaken, 12 trails were discovered in and around the town, being:

-  CBD Heritage Walk
-  Breakaway Walk Trail (Foxes Lair)
-  Banksia Walk Trail (Foxes Lair)
-  Valley Walk Trail (Foxes Lair)
-  Clay Pit Walk Trail (Foxes Lair)
-  Granite Walk Trail including Arboretum Walk (Foxes Lair)
-  Archibald Park Walk Trail (Railway Dam)
-  Railway Dam Walk Trail (Railway Dam)
-  Narrogin Recreation Trail (Gnarojin Park)
-  Noongar Dreaming Pathway (Gnarojin Park)
-  Centenary Pathway (Gnarojin Park)
-  Narrogin Heritage Trail (Town Drive Trail and District Drive Trail)

Only trails that are regarded as being ‘recognised’ are included in the list above and in Table 1.

‘Recognised’ means that the trail has some or all of the following characteristics:

-  Recognised by the land manager (e.g. Shire of Narrogin; DBCA);
-  Signposting (directional markers; trailhead signage; interpretive signage); and
-  Mapping (such as a map contained within a trail brochure and/or website).

4.2 CONDITION OF EXISTING TRAILS

Trails vary in condition, depending on the level of maintenance they receive, the amount of use they get, the environment in which they are located, the prevailing climatic conditions and a host of other reasons.

Regardless of their age and use, all trails require maintenance and continual upgrading to make them more appealing.

Directional signage that conforms to Australian Standards is lacking on the trails assessed during the course of this trail assessment process.

Trailhead signage (with mapping of the trail route) would benefit all trail users. This signage should indicate length of trail, duration (at a moderate pace), difficulty level, points of interest along the trail route, local access points and connections to nearby residential areas, a 'code of conduct' for permitted user groups, safety information, etc. Interpretive signage is often missing from a trail. Interpretation enriches the users experience.

Attention to trail surfaces, structures (including steps and water bars to prevent erosion) and trailside furniture should be an integral component of an upgrading program. Removal of overhanging and side vegetation (and weeds) should also be regularly undertaken.

Finally, all trails should have information readily available – and a trail brochure is an easy and cheap means of providing information.

4.2.1 TRAIL AUDITS

An assessment of every existing trail was undertaken during the preparation of this Walk Trails Master Plan. The "Trail Assessment Sheet" for each trail is included at Appendix 3 to this report. The assessment covered a range of matters including: This list needs tidying up I started but didn't complete.

- **Trail Characteristics:** surface (gravel/ concrete/ asphalt); length and width, condition erosion, weeds / grass invasion;
- **Promotion:** maps, guidebooks and track notes; web site/s, promotional brochure;
- **User groups:** single use or multiple use;
- **Signage to trailhead:** from local/regional road system;
- **Trailhead facilities:** parking areas; trailhead signage; trail map; trail information; picnic facilities – table, seats, shelter / shade, barbecue, bins, water, bike parking, toilets, emergency phone, lighting, bollard, fencing, gates;
- **Nearby facilities:** shops, public transport;
- **Directional / distance signage:** along trail;
- **Other signage:** location, purpose -promotional; warning; information; advisory; fire safety; code of conduct;
- **Drainage:** culverts, rolling dips, water bars, drainage channels, rock steps;
- **Interpretation:** type; number; topics; need, cultural/Aboriginal;

- **On-trail furniture and structures:** bench seats; tables; viewing platforms; water fountains; boardwalks; bird hides; bird call boxes; tunnels; underpasses; bridges; boardwalks).
- **Road crossings:** (sight lines; signage; other safety matters; vehicle exclusion barriers and emergency access gates).
- **Safety:** for users; conflicts between user groups; fire, etc.
- **Vegetation:** (overhead; side). Need for clearing; invasive species and weeds; re-vegetation needs.
- **Trail type:** (out and back; loop; one way?)
- **Grade of trail:** (easy; to very difficult; AS class?) (Class of trails range from Class 1 which is a universal access trail suitable for people using wheelchairs, through to Class 5 which is essentially a wilderness trail with no signposting).
- **Management and maintenance:** Management plan? Friends of group? Community support. Who manages?
- **General comments:** quality of experience; point of difference; accessibility.

4.3 INVENTORY OF EXISTING (RECOGNISED) TRAILS

Should this not be included earlier before the actual list? The list of existing trails is based on information from a number of sources:

- ✚ Information supplied by various stakeholders;
- ✚ Information brochures, trail maps and books;
- ✚ Trails observed during field work;
- ✚ Information provided by members of the community; and
- ✚ Input from Shire of Narrogin staff.

Table 1 – Existing Trails – Shire of Narrogin

	Trail Name	Location	User group	Land tenure	Trail Manager	Comments (brochure, interpretation, etc)	Condition (standard of construction, level of maintenance)	Length	Difficulty (grades, etc)
1	Narrogin CBD Heritage Walk	Narrogin town centre	Walkers	Public road reserves	Shire of Narrogin	Old brochure with map; no interpretive signage.	Follow footpaths throughout the town centre. Some recently paved footpaths.	1.72km	Moderate to easy (Class 2)
Interpretive panels: nil (interpretation contained within brochure)									
2	Narrogin Heritage Trail (x2)	Narrogin town centre and perimeter of town	Drive trail	Public road reserves	Heritage Council	Old brochure and map; old and sometimes missing interpretation.	Mostly asphalt roads with some gravel/unsealed sections.	14km and 117km	Drive Trails
Interpretive panels: Several plaques remain; most appear to be missing.									
3	Breakaway Walk Trail	Foxes Lair	Walkers	A Class Reserve	Shire of Narrogin	64ha bushland reserve. One of five walk trails. Interpretation on information panels at car parks.	High quality; well maintained.	400m	Easy; mostly Class 2
Interpretive panels: no permanent interpretation along trail.									
4	Banksia Walk Trail	Foxes Lair	Walkers	A Class Reserve	Shire of Narrogin	64ha bushland reserve. One of five walk trails. Interpretation on information panels at car parks.	Well constructed. Well maintained. Directional signage requires improvement.	2.2km	Easy walking (Class 2/3)

Shire of Narrogin Walk Trails Master Plan

Interpretive panels: no permanent interpretation along trail.									
5	Valley Walk Trail	Foxes Lair	Walkers	A Class Reserve	Shire of Narrogin	64ha bushland reserve. One of five walk trails. Interpretation on information panels at car parks.	Well constructed. Well maintained. Directional signage requires improvement.	880m	Easy walking (Class 2/3)
Interpretive panels: no permanent interpretation along trail.									
6	Claypit Walk Trail	Foxes Lair	Walkers	A Class Reserve	Shire of Narrogin	64ha bushland reserve. One of five walk trails. Interpretation on information panels at car parks.	Some rocky surfaces. Lengthy section of trail along management track.	1.98km each way	Moderate difficult (Class 2/3)
Interpretive panels: no permanent interpretation along trail.									
7	Granite Walk Trail / Arboretum Walk	Foxes Lair	Walkers	A Class Reserve	Shire of Narrogin	64ha bushland reserve. One of five walk trails. Interpretation on information panels at car parks.	Some rocky surfaces. Lengthy section of trail along management track.	1.62km	Moderate difficult (Class 2/3)
Interpretive panels: Old sign along trail; information on trailhead panel.									
8	Railway Dam Walk Trail	Railway Dam	Walkers	Public reserve	Shire of Narrogin	Reserve created for establishment of dam for railways. Highly valued recreation area.	Trail utilises wide vehicle tracks and dam wall, some 2 – 3m wide.	700m	Easy (Class 2)
Interpretive panels: no permanent interpretation along trail.									

Shire of Narrogin Walk Trails Master Plan

9	Archibald Park Walk Trail	Railway Dam	Walkers	Public reserve	Shire of Narrogin	Reserve created for establishment of dam for railways. Highly valued recreation area.	Trail utilises wide vehicle tracks and dam wall, some 2 – 3m wide.	1.26km	Easy (Class 2).
Interpretive panels: no permanent interpretation along trail.									
10	Centenary Pathway	Gnarojin Park, Narrogin	Walkers and cyclists	Public reserve	Shire of Narrogin	Brochure available; Predominantly compacted gravel trail containing commemorative plaques.	Good quality unsealed pathway.	500m one way	Easy (mostly Class 1)
Interpretive panels: 100 commemorative plaques along walkway.									
11	Noongar Dreaming Pathway	Gnarojin Park, Narrogin	Walkers and cyclists	Public reserve	Shire of Narrogin	Brochure exists. Series of aboriginal artworks alongside Narrogin Brook within Gnarojin Park.	High quality artworks; need maintenance	Approx. 500m	Easy (Class 2)
Interpretive panels: several along trail.									
12	Narrogin Recreation Trail	Gnarojin Park, Narrogin	Walkers and cyclists	Public reserve	Shire of Narrogin	No brochure; trailhead information sign.	Well maintained; needs trail directional markers.	1.94km	Easy (Class 2)
Interpretive panels: 100 black granite tiles of Narrogin Centenary Pathway, and interpretation associated with Noongar Dreaming Sites									

4.4 TRAILS NETWORK STRENGTHS AND OPPORTUNITIES

From the information obtained and the list of trails currently existing in Narrogin, some conclusions can be drawn:

- ✚ Compared with many other local governments in Western Australia, the Shire of Narrogin offers a good range of walk trail experiences in a variety of geographic locations (i.e. natural/remnant bushland; in-town heritage buildings; and riverine environment).
- ✚ It has extensive array of heritage buildings and heritage sites, and innumerable stories and historic events, within the town site. The Shire has a rich exploration, settlement, farming and agricultural history and therefore numerous historic sites capable of forming the foundation for a heritage trail. The presence of numerous heritage buildings, sites of significance and places where various events and interesting activities occurred all point to the support for the current initiative to develop the CBD Interpretative Signage Project to promote this history and bring a focus to Narrogin's heritage.
- ✚ The region has a rich Aboriginal history, as well as more recent European history (including railway history) – enabling many stories to be told.
- ✚ There are already several walk trails available to visitors and local people.
- ✚ Some information about the existing trails is available in brochures and on-line, though the quality of the information varies markedly.
- ✚ There is little or no information about the 'condition' of any of the trails or about whether they are easy or difficult.
- ✚ The availability of interpretation on the trails varies. Although trailhead information for the trails in Foxes Lair is plentiful, no permanent interpretation occurs along any of the trails. The Narrogin town walk has an old leaflet/brochure describing (briefly) each site and the trail route, but there is no in-situ signage.
- ✚ The existence of Foxes Lair on the west side of the town with its huge expanse of varied and beautiful landscapes and vegetation is one of Narrogin's greatest natural assets and it is strongly recommended the suite of existing walk trails be capitalised upon.
- ✚ The trails/pathways of Gnarojin Park, and the parkland area itself, are a fabulous asset and are located right on the town's eastern doorstep. The park is only a short walk over the railway footbridge from the Dryandra Country Visitor Centre.

4.5 MAPPING EXISTING & FUTURE TRAILS

The accompanying plans (see Appendix 4) illustrate the range of existing and proposed non-motorised trails:

Plans 1 - 4: Plans of each trail project

SECTION 5: PROPOSED TRAIL PROJECTS AND COSTS

5.1 REVIEW OF KEY OUTCOMES

As set out earlier, this Walk Trails Master Plan sought a number of outcomes, including:

- ✚ An inventory of existing trails;
- ✚ Identification of future trail opportunities; and
- ✚ Determination of a costed, prioritised and staged program of development for the trail projects.

5.2 ASSESSMENT CRITERIA

The key elements considered in the determination of trail opportunities were:

- ✚ Benefit to local community. Trails that benefit local people are important. Trails that enable people to experience natural areas, such as the riverine environment and the coastline, are beneficial.
- ✚ Trail demand – the majority of users are seeking short trail opportunities (as discussed earlier). Though they are very difficult to quantify, the health benefits to be gained by increasing the propensity of local people to exercise and get fit on local trails and pathways should not be underestimated as part of the demand consideration.
- ✚ Value for money (recognising that there will be limited budget). Trail projects should look to provide value for money and a good return on the investment made by the Council and other land managers. Several high-quality, well built, well maintained and well promoted trails highlighting the best features of the Shire of Narrogin is preferable to a large number of poor quality trails badly constructed and not maintained. Where appropriate, trail projects should build on existing trails, and broader recreation and other community facility investments.
- ✚ Practicalities of trail development – costs, project planning, implementation and whole of life costs, land tenure and access, environmental issues, cultural issues, funding possibilities, possible (on-going) community support and the possibility of opposition, and the safety of users.
- ✚ User experience. Trails have to provide a high-quality user experience or else people will not use them or will not come back – word of mouth is a much stronger advocacy tool than marketing strategies. The trail projects need to ensure a high-level user experience.
- ✚ Visitor appeal. A desire of the Shire of Narrogin is to develop a suite of trails that will attract additional tourists to the town of Narrogin. The benefit of trails in this instance would be the increased spending by tourists as they would tend to stay longer in a town (for example, by buying lunch or coffees or staying overnight).
- ✚ Key background documents and already adopted strategies of the Shire of Narrogin.

5.3 THE PROPOSED TRAIL PROJECTS

As part of the preparation of this Trails Master Plan, a wide range of possible / potential trail projects were evaluated. The process included a review of:

- ✚ Existing trails in the Shire of Narrogin area. As noted elsewhere, there are already 12 trails in the Shire.
- ✚ Existing trails elsewhere in the region – including neighbouring local governments (ie. trail supply).
- ✚ Visitor expectations and local needs (ie. demand for trails). Local demand was partly established through information obtained from local people and Shire staff.
- ✚ Population characteristics, trends and projections.
- ✚ Successful trail projects elsewhere in Western Australia, Australia and the rest of the world.

In the course of investigating potential trails in the Shire of Narrogin an inspection was made to assess the need for the upgrading of the existing trails in Foxes Lair, Railway Dam and the paths/trails in Gnarojin Park.

5.3.1 RECOMMENDED PROJECTS

Following a review of all existing trails and potential trail projects in the Shire of Narrogin, the following list summarises the set of trail projects proposed in this Trails Master Plan:

- ✚ Foxes Lair trails upgrades - Project 1
- ✚ Railway Dam trails upgrades – Project 2
- ✚ Gnarojin Park pathways/trails upgrades – Project 3.

Future Projects:

- ✚ Trails Marketing Program (brochures and other materials) – Project 4
- ✚ Narrogin GeoTour

The cost estimates that follow are broad estimates only and are subject to confirmation. They are provided here as indicative costs only.

Project 1 - Foxes Lair Trails Upgrade Project

Location:

Foxes Lair, Narrogin (See Plans 1 – 3 at Appendix 4)

Concept:

The existing trails within Foxes Lair are very attractive and appear well used but require upgrading and enhancement to make them even more appealing, safer and more sustainable.

The intention is to remove all old trail directional marker arrows (many of which do not conform to Australian Standards, are sometimes confusing, and sometimes not well located) and install new posts with trail directional marker 'plates' and "Narrogin Trails" pictogram (see Section 8.3.1).

The installation of interpretive panels along each trail will provide for an educational experience for all users, be they local residents, day trippers, tourists or people holidaying longer in Narrogin.

Rationale for development:

The existing trails have been in place for several years and despite constant and ongoing maintenance by the local "Friends of Foxes Lair" group they require further development.

Much of the directional signage in place requires replacement for various reasons. Installation of new steel posts (see diagram in Section 8.3.1), with directional arrow plates and iconic pictogram promoting Narrogin Trails, although moderately expensive over the 5 trails, is necessary and will immediately bring a higher degree of quality to the trails network – inducing greater appreciation of the trails network and greater use.

Some trail surfaces/steps need upgrading; overhead branches require removal as they are a safety hazard; and side vegetation requires clearing in some locations.

The installation of interpretive signage along the trails will enable greater appreciation of the natural and other facets of this remarkable bushland area.

Primary user groups:

Walkers.




Note: the existing flights of steps on most of the Foxes Lair Trails make them not suitable for people in wheelchairs. Making these existing trails accessible for wheelchairs would not be economically viable. However, there is scope for making a section of the Breakaway Trail (to the lookout) wheelchair accessible.

Cycling on some trails, and the management access tracks within Foxes Lair, is permissible. Locations where cyclists can and can't ride is indicated by existing signage in Foxes Lair, on the Foxes Lair brochure, and on the Foxes Lair website mapping.

Description of Foxes Lair Trails Upgrade Project

Numerous improvement and enhancements are recommended including: better signposting (to direct potential users to the trailheads), installation of interpretation (to educate and inform all trail users), attending to erosion, repairing steps and removal of overhanging branches and vegetation.









Consultations required:

-  Shire of Narrogin
-  Friends of Foxes Lair
-  Aboriginal community




Interpretation:

The following topics are recommended:




Banksia Walk Trail

-  Foundations of buildings
-  Narrogin water supply
-  Banksias
-  Wildflowers (x2) (including orchids)
-  Birds
-  Fauna
-  Geology
-  Bush tucker and medicines






Breakaway Walk Trail

-  Origin of name / history
-  Mallet and breakaway story
-  Wildflowers (x2)







Valley Walk Trail

-  Wildflowers (x2) - Greenhood orchids; Triggerplants
-  Birds
-  Ochres

Claypit Walk Trail

-  Claypits
-  View at Lookout - possibly Binneringie Dyke
-  Bush tucker and medicines
-  Sheaoks
-  Wildflowers (x2) - Dragon orchid sun orchids

Granite Walk Trail

-  Firing range/military history
-  Granite outcropping
-  Arboretum
-  Why are eucalypts unique
-  Australia's largest toadstool
-  Birds

Cost Estimate for Project 1: Foxes Lair Trails Upgrade Project

Banksia Walk Trail			
Plan Ref	Distance from t/h	Tasks	Costs
T	0.0	Install trailhead map panel (for all 3 trails) Install TDM (Straight arrow – for Banksia Walk). Remove old TDM.	550
	44	Install TDM (Right arrow - for Banksia Walk).	200
	47	Trim bush.	20
1	56	Trim bush. (Remove old TDM).	30
	99	Remove old TDM. Install Interpretive Panel. (Wildflowers 1)	320
	156	Install TDM (Straight arrow). Remove old TDM.	210
2	165	Road crossing. Install “Road/Trail Crossing” signs on road and trail.	1000
	190	Remove old arrow on tree.	10
	200	Install TDM (Straight arrow). (Confirmation sign - to be seen from road crossing).	200
3	300	Install Interpretive Panel. (Birds)	300
	470	Junction – Install TDM (Right arrow).	200
	490	Existing bench seat. Install Interpretive Panel. (Narrogin water supply)	300
4	520	Remove fallen tree.	100
	552	Y-junction. Install TDM (Right arrow) at head of junction.	200
	570	Trim bushes.	20
4	600	Install Interpretive Panel (Foundations).	300
	635	Remove old TDM posts.	50
	680	Y-junction. Install TDM (Straight arrow). Remove old TDM’s. (Confusing.)	250

	715	Road crossing. Install “Road/Trail Crossing” signs on road and trail.	1000
	720	Install TDM (Straight arrow). on East side of road – (East of cut through log).	200
	778	Note: Concrete slab to north.	0
5	800	Install Interpretive Panel. (Banksias).	300
	810	Junction – remove fallen TDM. Install TDM (Straight arrow).	220
	902	Y-junction. Install TDM ((Right arrow).	200
	1.11	Road crossing. Install “Road/Trail Crossing” signs on road and trail.	1000
	1.13	Install TDM on East side of access road (Straight arrow).	200
	1.29	Y-junction. Install TDM (Right arrow).	200
	1.31	Cross tracks. Install TDM on South side (Straight arrow).	200
6	1.40	Remove old TDM. Install Interpretive Panel. (Fauna).	320
	1.44	Track junctions. Install TDM (Straight arrow). (Could have Left arrow for residents entering from road).	200
	1.60	Install confirmation TDM (Straight arrow).	200
7	1.72	Install Interpretive Panel. (Eucalypts).	300
8	1.78	Existing bench seat. Install Interpretive Panel (Wildflowers). (Existing temporary interpretation: orchids).	300
	1.95	T-junction. Install TDM (Right arrow).	200
	1.98 - 2.05	Repair erosion. Install drainage dips or water bars.	500
	2.08 - 2.10	Refurbish steps.	2000

	2.17 - 2.20	Repair erosion - Install drainage dips or water bars (minor erosion).	1000
	2.21	Junction with Breakaway Trail Install TDM (Straight arrow).	200
	2.24	End of Banksia Trail.	0
		Allowance for design and supply of 8 interpretive panels at \$1880 per panel). (Allowance for colour process, plate shaped in trail theme 600 x 400, single painted aluminium post).	15,040
		Allowance for design and supply of trailhead panel (for all 3 trails) and structure (1 panel @ 1200mm x 800mm).	5,000
		Allowance for research, write, design and supply A4 brochure, with map (5000 copies, DL) – for 3 trails.	5,500
		<i>Sub-Total</i>	<i>\$38,540</i>
		+ 10% Project management	3,850
		+ 10% Contingency	3,850
		Total (not including GST)	\$46,240

Valley Walk Trail			
Plan Ref	Distance from t/h	Tasks	Costs
	0	Install trailhead map panel (for all 3 trails) – already costed for Banksia Walk.	0
	0	Install TDM - common post with Banksia Walk (Straight arrow – for Valley Walk).	30
	44	Install TDM - common post with Banksia Walk (Right arrow for Valley Walk).	30
	47	Remove fallen tree – already costed for Banksia Walk.	0
	56	Trim bush – already costed for Banksia Walk.	0
	99	Remove old TDM – already costed for Banksia Walk.	0
	156	Y-junction. Install TDM - common post with Banksia Walk (Left arrow).	30

	170	Install confirmation TDM (Straight arrow).	200
1	175	Install Interpretive Panel (Ochres).	300
	357	Old track junction. Install TDM (Left arrow).	200
2	380	Install Interpretive Panel (Birds).	300
	437	Barrier to Motor vehicles. Install TDM (Straight arrow).	200
3	440	Existing bench seat. Install Interpretive Panel (Wildflowers 1)	300
	518	Existing TDM. (Leave)	0
4	547	Install Interpretive Panel (Wildflowers 2) (Existing temporary interpretation – Greenhood Orchids June-August).	300
	563	Barrier with TDM. (Leave)	0
	580	Junction. No need for TDM (next junction only metres away).	0
	600	T-junction (with Banksia Walk). Install TDM (Left arrow - common post with Banksia Walk).	30
	615 - 680	Repair erosion – already costed for Banksia Walk.	0
	714 - 737	22 steps and eroded track – already costed for Banksia Walk.	0
	835	Junction with Breakaway Trail. Install TDM - common post with Banksia Walk (Straight arrow for Valley Walk).	30
	855	End of Valley Walk.	0
		Allowance for design and supply of 4 interpretive panels at \$1880 per panel). (Allowance for colour process, plate shaped in trail theme 600 x 400, single painted aluminium post).	7,520
		<i>Sub-Total</i>	<i>9,470</i>
		+ 10% Project management	950
		+ 10% Contingency	950
		<i>Total (not including GST)</i>	<i>\$11,370</i>

Breakaway Walk Trail			
Plan Ref	Distance from t/h	Tasks	Costs
	0	Install trailhead map panel (for all 3 trails) – already costed for Banksia Walk.	0
	0	Install TDM - common post with Banksia Walk and Valley Walk (Straight arrow – for Breakaway Walk).	30
1	35	Install Interpretive Panel (Foxes Lair naming)	300
	44	Install TDM - common post with Banksia Walk and Valley Walk (Straight arrow for Breakaway Walk).	30
2	100	Install Interpretive Panel (Wildflowers 1)	300
	123	If Class 1 trail, remove tree (or cut through). Install TDM (Straight arrow). (Rocky 123 → 198)	300
3	150	Install Interpretive Panel (Wildflowers 2)	300
4	198	Existing bench seat at lookout point. Install Interpretive Panel (Breakaway and mallets).	300
	210	Install TDM (Straight arrow).	200
	220	Trim bushes.	20
	250	Trim bushes.	20
	351	Junction with Banksia Walk and Valley Walk. Install TDM - common post with Banksia Walk (Left arrow for Valley Walk).	30
	370	End of Breakaway Trail.	0
		Allowance for design and supply of 4 interpretive panels at \$1880 per panel). (Allowance for colour process, plate shaped in trail theme 600 x 400, single painted aluminium post).	7,520
		Allowance for construction of all-abilities trail surface (0m - 200m).	5,000
		<i>Sub-Total</i>	<i>14,350</i>
		+ 10% Project management	1,430
		+ 10% Contingency	1,430
		Total (not including GST)	\$17,210

Clay Pit Walk Trail			
Plan Ref	Distance from t/h	Tasks	Costs
T	0	Install trailhead map panel.	500
	0	Install TDM (Straight arrow).	200
	0	Remove old sign.	50
	0	Install "Trailhead" 'chevron' sign.	300
1	28	Install Interpretive Panel (Clay pit).	300
	43	Install TDM (Right arrow).	200
	93	Barrier. Install TDM (Straight arrow).	200
	122	Remove old (confusing) TDM (or paint over arrow).	30
	177	Remove old TDM.	30
	187	Road crossing. Install "Road/Trail Crossing" signs on road and trail.	1000
	201	Remove old TDM. Install new TDM (Straight arrow).	220
	231	Remove old TDM – or paint over arrow.	20
2	231	Install Interpretive Panel (bush tucker / medicines).	300
	250-280	Old sleeper steps (OK – no action required).	0
	296	Bend in track. Install TDM (Left arrow). Paint over old blue arrow on green post or remove.	220
	315-358	24 sleeper steps (OK – no action required).	0
	348	Remove old TDM.	20
	372	Spur to lookout. Install TDM (Right arrow) on W side. (Left arrow and pictogram on West side for lookout).	220
	377 - 415-456	Lookout.	0
	415	Lookout. Existing bench seat.	300

3		Install Interpretive Panel (Binnerie Dyke / geology)	
	456 (372)	Install TDM (Straight arrow) on N side for continuation along trail (same post as 372).	20
	484	Left hand bend. Install TDM (Left arrow).	200
	567	Existing TDM – paint over arrows.	20
	593	Remove existing TDM. Install TDM (Straight arrow).	220
	629	Remove existing TDM.	20
	639	Road crossing – no need for signage (minor track).	0
	651	Remove existing TDM. Install TDM on far side of road/track (Straight arrow).	220
	676	Existing TDM – remove or paint over arrows.	20
	676-709	29 Sleeper steps – OK – no need for action.	0
	697	Existing TDM – remove or paint over arrows.	20
	715	Existing TDM – remove. Install TDM (Left arrow). Existing bench seat.	220
	828	Post and rail fence. Install TDM (Left arrow).	200
	836-847	7 sleeper steps – OK – no need for action.	0
	847	Existing TDM – remove or paint over.	20
	867	Existing TDM – paint over.	20
	891	Existing TDM (with marker) – remove marker or paint over.	20
	902	Existing TDM (with marker) –remove marker. Install TDM (Right arrow).	220
	902→ end	Trail uses vehicle track.	0
4	980	Install Interpretive panel (Sheoaks)	300
	1.02	Old track joins vehicle track. Existing TDM - remove arrow or paint over.	220

		Install TDM (Right arrow).	
	1.21	Track bends to right. Install TDM (Right arrow).	200
5	1.30	Existing TDM – paint over. Existing temporary interpretation (Banksia Nivea/Couch honeypot). Install Interpretive panel (Wildflowers 1)	320
	1.48	Remove existing TDM. Install new TDM (Straight arrow).	220
	1.72	Existing TDM – remove arrow or paint over. Existing temporary interpretation (Red Leschenaultia).	20
	1.74	Existing (confusing) TDM – remove arrow or paint over.	20
	1.75	T-junction. Install TDM at head of T-junction (Left arrow).	200
	1.89	Existing temporary interpretation (Frasers Dryandra).	0
6	1.89	Install Interpretive panel (Wildflowers 2)	300
	1.93	Management access gate. No action required.	0
	1.95	Replace existing (informal) signs to Granite Walk (x 2) with “Granite Walk” ‘chevron’ sign.	500
	2.00	End of Clay Pit Walk Trail.	0
		Allowance for design and supply of 6 interpretive panels at \$1880 per panel). (Allowance for colour process, plate shaped in trail theme 600 x 400, single painted aluminium post).	11,280
		Allowance for design and supply of trailhead panel and structure (1 panel @ 1200mm x 800mm).	5,000
		<i>Sub-Total</i>	<i>24,130</i>
		+ 10% Project management	2,410
		+ 10% Contingency	2,410
		<i>Total (not including GST)</i>	<i>\$28,950</i>

Granite Walk Trail

Plan Ref	Distance from t/h	Tasks	Costs
T	0	Install trailhead map panel.	500
	0	Remove old TDM. Install TDM (Straight arrow).	220
	30	Existing picnic shelter.	0
	60	Existing bench seat.	0
	77	Remove old TDM. Install new TDM (Straight arrow).	220
1	120	Bench seat. Install Interpretive Panel (Arboretum).	300
	220	Existing information shelter.	0
	238	Existing picnic tables (x 2).	0
	247	Remove existing TDM. Install new TDM (Straight arrow).	220
	284	Remove old TDM.	20
	368	Remove existing TDM.	20
	374	Remove old TDM.	20
	377	Install new TDM (Left arrow).	200
	385	Remove old TDM.	20
	409	Remove old TDM.	20
	446	Remove old TDM. Replace with new (Straight arrow).	220
	488	Remove old TDM.	20
	557	Remove old TDM.	20
	593	Remove old TDM.	20
	605	Road crossing. Install "Road/Trail Crossing" signs on road and trail.	1000
	611	On west side, remove old TDM. Install new TDM (Straight arrow).	220

	635	Remove old TDM.	20
	651	Remove old TDM.	20
2	720	Install Interpretive Panel (Rifle Range Butt).	300
	754	Track bends to left. Install TDM (Left arrow).	200
	765	Remove old TDM.	20
	794	Remove old TDM. Install new TDM (Left arrow).	220
	816	Remove old TDM.	20
3	851	Install Interpretive Panel (Granite outcropping).	300
	866	Remove old TDM. Install new TDM (Straight arrow).	220
4	866	Existing seat. Install Interpretive Panel (toadstool)	300
	913	Cut back fallen tree.	50
	926	Remove old TDM. Replace with new TDM (Straight arrow).	220
	968	Remove old TDM.	20
	1.03	Remove old TDM. Replace with new (Straight arrow).	220
	1.13	Remove old TDM arrows from tree. Install new TDM (Straight arrow).	220
	1.15	Remove old TDM.	20
	1.16	Existing bench seat. Install Interpretive Panel (Eucalypts)	300
5	1.24	Remove old TDM. Replace with new TDM (Straight arrow).	220
	1.30	Remove old TDM. Replace with new TDM (Straight arrow).	220

	1.35	Remove old TDM.	20
	1.36	Left bend in trail. Install new TDM (Left arrow).	200
	1.37	Remove old (confusing) TDM.	20
	1.38	Remove arrow from tree. Install TDM (Straight arrow).	220
	1.39	Remove arrow from tree.	20
	1.43	Remove old TDM.	20
	1.44	Install new TDM (Left arrow) – next to tree/rocks.	200
6	1.44	Install Interpretive Panel (Birds)	300
	1.46	Remove old TDM.	20
	1.46	Trail joins vehicle track.	0
	1.47	Install TDM on N side of vehicle track (Right arrow).	200
	1.53	Rifle range embankment on RHS.	0
	1.58	End of Granite Walk Trail.	0
		Allowance for design and supply of 6 interpretive panels at \$1880 per panel). (Allowance for colour process, plate shaped in trail theme 600 x 400, single painted aluminium post).	11,280
		Allowance for design and supply of trailhead panel and structure (1 panel @ 1200mm x 800mm).	5,000
		<i>Sub-Total</i>	<i>23,870</i>
		+ 10% Project management	2,390
		+ 10% Contingency	2,390
		<i>Total (not including GST)</i>	<i>\$28,650</i>

Project 2 - Railway Dam Trails Upgrade Project

Location:

Railway Dam, Narrogin (See Plan 4 at Appendix 3)

Concept:

The existing trails within the Railway Dam Reserve are very attractive and appear well used by local residents especially but require upgrading and enhancement to make them even more appealing, safer and more sustainable.

Two walk trails exist: the Archibald Park Walk Trail and the Dam Walk Trail.

The trails are characterised by rudimentary directional markers along the trail. However, markings are sometimes poorly located, too infrequent and confusing at some junctions. Apart from some interpretation at the main information boards at the parking area no other interpretation exists.

A new section of purpose-built trail alongside a section of the drainage channel is proposed (to take users off the vehicle track and to bring them closer to the channel).

The project envisages the installation of Australian Standard trail directional markers (to replace the informal signage that currently exists), and the installation of interpretive panels along each trail.

The installation of interpretive panels along each trail will provide for an educational experience for all users, be they local residents, day trippers, tourists or people holidaying longer in Narrogin.

Rationale for development:

The existing trails, although well used, can be upgraded significantly. This can be achieved through better directional signage, interpretive signage, filling of some lying areas and, in the case of the Archibald Park Walk Trail, construction of a new section of trail to take users off a section of vehicle track and alongside the interesting diversion drain system.

These recommended improvements will make for a more enjoyable attraction for local people and visitors.

Primary user groups:




Walkers; wheelchair users; cyclists.

Note: the recommended improvements (notably, the filling of wet areas) will make the entire Railway Dam Trail accessible for wheelchairs.






Description of Railway Dam Trails Upgrade Project

This project is about making better use of the existing Railway Dam Reserve trails by various improvements with the end result being well interpreted and signed trails from the parking areas around both bodies of water and/or through an historic and interesting section of bushland. The range of improvements include: new sections of trail; filling of flood prone sections of trail; installation of interpretive signage; improved directional signage to make the trails more attractive and appealing to users (local people; day-trippers; tourists passing through; holidaymakers).

Consultations required:

-  Shire of Narrogin
-  Friends of Foxes Lair
-  Aboriginal community

Interpretation:

-  Railways and dam
-  Birds x 2 (possibly piebald tortoise)
-  Immigrants
-  Jet boats
-  Drainage channels at separator loop

Cost Estimate for Project 2: Railway Dam Trails Upgrade Project (See Plan 5)

Archibald Park Walk Trail			
Plan Ref	Distance from t/h	Tasks	Costs
T	0	Install trailhead map panel (for both trails).	500
	10	Install TDM (Straight arrow).	200
	50 - 65	Fill over 15m.	600
	90	Install TDM (Left arrow).	200
1	110	Existing bench seat. Install Interpretive Panel (Railway and Railway Dam).	300
	160 - 174	Existing bridge.	0
	235	Remove old TDM signs. Install TDM (Left arrow).	220
	235 - 245	Fill over 10m.	550
	320	Install TDM (Right arrow).	200
	376	T-junction. Install TDM (Straight arrow).	200
	418	Install TDM (Left arrow).	200
	434	Install TDM (Right arrow).	200
	470	Install TDM (Left arrow).	200
2	496	Install Interpretive Panel alongside white gum (Jet Boats)	300
	615	Install TDM (Straight arrow) – alongside tree.	200
	720	Track bends left 90°. Install TDM (Left arrow).	200
	767	Track bends left 90°. Install TDM (Left arrow).	200
	875	Track junction. Install TDM (Right arrow).	200
	907	Archibald Park sign. No action required.	0

	915	Track junction. Install TDM (Straight arrow).	200
3	990	Install Interpretive Panel (Diversion drains).	300
	990 – 1.31	Construct new trail through bushland. Clean out drains. Remove vegetation.	2000
	1.32	End of Archibald Park Walk Trail	0
		Allowance for design and supply of 3 interpretive panels at \$1880 per panel). (Allowance for colour process, plate shaped in trail theme 600 x 400, single painted aluminium post).	5,640
		Allowance for design and supply of trailhead panel and structure (1 panel @ 1200mm x 800mm).	5,000
		Allowance for supply and install trail ‘promotional’ fingerboard signage on regional and local roads.	500
		Allowance for research, write, design and supply A4 brochure, with map (5000 copies, DL) – for 2 trails.	5,500
		<i>Sub-Total</i>	<i>23,810</i>
		+ 10% Project management	2,380
		+ 10% Contingency	2,380
		<i>Total (not including GST)</i>	<i>\$28,570</i>

Railway Dam Walk Trail			
Plan Ref	Distance from t/h	Tasks	Costs
	0	Trail head map panel (already costed for Archibald Park Trail).	0
	0	Install TDM - common post with Archibald Park Walk Trail (Straight arrow – for Railway Dam Walk).	30
	50 - 65	Fill over 15m (already costed).	0
	90	Install TDM - common post with Archibald Park Trail (Left arrow for Railway Dam Walk).	30

	110	Existing bench seat. Install Interpretive Panel (Railway and Railway Dam). (Already costed for Archibald Park Trail).	0
	160 - 174	Existing bridge.	0
	235	Remove old TDM signs. Install TDM - common post with Archibald Park Trail (Right arrow for Railway Dam Walk).	30
	245 - 255	Fill over 10m.	600
1	322	Existing bench seat. Install Interpretive Panel (Birds 1).	300
	355	Right angle bend in trail. Install TDM (Right arrow).	200
2	419	Existing bench seat. Install Interpretive Panel (Birds 2).	300
	463	Right angle bend in trail. Install TDM (Right arrow).	200
3	535	Existing bench seat. Install Interpretive Panel (Immigrants).	300
	630	Trail junction. Install TDM - common post as at 90 (Straight arrow).	30
	653 - 670	Fill (as costed earlier).	0
	710	End of Railway Dam Walk Trail.	0
		Allowance for design and supply of 3 interpretive panels at \$1880 per panel). (Allowance for colour process, plate shaped in trail theme 600 x 400, single painted aluminium post).	5,640
		<i>Sub-Total</i>	<i>7,660</i>
		+ 10% Project management	770
		+ 10% Contingency	770
		Total (not including GST)	\$9,200

Project 3 - Gnarojin Park Pathways/Trails Upgrade Project

Location:

Gnarojin Park, Narrogin

Concept:

Gnarojin Park, located a short stroll from the Dryandra Country Visitors Centre, has the potential for becoming one of Narrogin's most visited sites. It already has several trail/paths, including the Narrogin Recreation Trail (a loop trail encompassing both sides of Narrogin Brook), the Centenary Pathway and the Noongar Dreaming Pathway.

Gnarojin Park is currently the subject of a Master Plan which sets out a range of improvements.

This Walk Trails Master Plan recommends some simple but necessary improvements to the existing trails network, namely the installation of trail directional marker posts (with perhaps distance markers) to help guide people on the entire loop/circuit of Gnarojin Park.

Rationale for development:

First time users of Gnarojin Park can easily become confused about the location and extent of the paths and trails network. Improved directional signage and trailhead signage (at several locations) will help all park users find and navigate their way to all significant parts of the park and particularly the Noongar Dreaming sites.

Primary user groups:



Walkers; wheelchair users; cyclists.

The recommended improvements will make the entire pathway easily navigable for all users from the trailhead at the northern end of the Park (off Gordon Street) all the way to the southern end boardwalk, across Narrogin Brook to the western side, and returning to the trailhead at the northern end.

Description of Gnarojin Park Pathways/Trails Upgrade Project

This project is about making better use of the existing segments of pathway by various improvements notably the installation of trail directional markers.

Consultations required:

-  Shire of Narrogin
-  Aboriginal community

Interpretation:

-  No additional interpretation proposed.

Cost Estimate for Project 3: Gnarojin Park Pathways/Trails Upgrade Project

Gnarojin Park Recreational Trail			
Plan Ref	Distance from t/h	Tasks	Costs
		Allowance for supply and installation of trail directional marker posts (with trail directional marker arrows, and “Narrogin Trails” pictogram plates).	6,000
		Allowance for trail distance plates (to be affixed to trail directional marker posts)	1,000
		Allowance for supply and install trail ‘promotional’ fingerboard signage on regional and local roads.	800
		<i>Sub-Total</i>	<i>7,800</i>
		+ 10% Project management	780
		+ 10% Contingency	780
		<i>Total (not including GST)</i>	<i>\$9,360</i>

Project 4 - Trails Marketing Program (brochures and other materials)

Location:

Non-specific.

Concept:

One of the best mechanisms for ensuring the sustainability of the trails is to have lots of people using them, including local residents and visitors from the Perth metropolitan region and elsewhere. Five key steps need to be taken to build usage of the trails:

1. Undertake the redevelopment/upgrading program outlined in this report, to develop the trails as high-quality experiences for potential users;
2. Use high quality, well maintained interpretive material;
3. Prepare clear, concise and informative written material, including easy-to-read maps/brochures;
4. Inform potential users of existing trails, and future developments; and
5. Host events on the developed trails.

An important task for this project is defining just how to best utilise the Shire of Narrogin's natural and built assets to create a series of trails which will be of lasting benefit to the community.

The Shire of Narrogin is a place rich in agricultural history, Aboriginal history and natural heritage. Therefore, a trail potentially provides a visitor with a community-based interactive means of experiencing aspects of the settlement history from the perspective of the community, and the Aboriginal population. The essence of the trails product is to provide visitors with an opportunity to learn more about the local or regional area they are visiting and an opportunity to provide an economic and social base for regional tourism development.

In order to maximise usage of the Shire of Narrogin Trails Network (when upgraded) it is necessary to ensure that all local people, day-trip visitors and tourists passing through on their way to some other destination know of their existence. To facilitate this usage, a marketing and promotional campaign is proposed.

The purpose of the marketing and promotional campaign is to create awareness of the attractions of the Shire, and the means of accessing them via the trails. It will generate local support and enthusiasm for the project, as well as generating state-wide promotional coverage of the project through local and state media.

Several components are included within the Marketing Plan.



When trails are upgraded and/or constructed, new brochures following a consistent theme should be prepared – such as is the case for the Otways Trails in Victoria. Walk, cycle and drive trails are marketed in the same manner.

Develop logo and design standards – Develop comprehensive brief, select designers – produce colour and mono output versions of logo plus style manual (in line with Shire branding).

Market Planning and Target Marketing – Engage marketing consultant to work with local implementation group / tourism operators to review existing tourism products and market test trails concepts. Develop a 12-month (minimum) promotional program to promote trails and other facilities, including targeted advertising, listing of websites, briefing and information distribution to information to linked visitor information outlets, publicity program to niche and mainstream print and radio media.

Membership Fees – Establish links with visitors centres and WA Tourism Network through payment of appropriate memberships

Industry Familiarisation Program – Develop familiarisation program for tourism industry network eg local visitor centres, WATC, RAC, media

Postcard Promotion – Design, print and distribute postcards promoting the trails to local residents targeting visiting friends and relatives' market

Brochure Distribution – Contract specialist brochure distribution firm/s for targeted brochure delivery to key information outlets throughout WA. (Note: individual trail brochures have been costed in each trail upgrading program).

Collation of all information (including research and seeking copyright approval if applicable) and confirming accuracy of the data will take a significant amount of time and may also need to consider contracting a person or consultant to only work on this project.

Cost Estimates for Marketing and Promotion Plan

Tasks	Costs
Develop logo and design standards	\$6,000
Market Planning and Target Marketing	
o Marketing consultants – review existing products; market test trails	\$3,000
o Promotional program	\$12,000
Membership Fees	\$3,000
Industry Familiarisation Program	\$5,000
Postcard Promotion	\$3,000
Brochure / Trail Guide Distribution	\$5,000
Trails “Guide Book”: research, write and design; cartography; preparation (DL size; 20 pages including fold out map and cover pages)	\$6,000
Printing of Guide Book	\$8,000
<i>Total (not including GST)</i>	\$51,000

Information Brochures / Booklet

All trail users require information, to safely access and enjoy the trails in question. Delivering that information is often a challenge for trail providers and is usually one poorly met.

Ideally all trails should have a brochure which will contain an accurate and informative map, showing clearly the various routes that are possible, defined access and egress points, appropriate trail behaviour information and interpretive material. In addition, such a map/brochure should show distances between points and could provide basic 'trail notes' where appropriate.

Distributing such a product can be difficult. Visitors to the trailheads may not even be aware that trail brochures exist. Consideration should be given to distributing brochures from many locations in the region such as the Shire's administration office in Narrogin, the Dryandra Country Visitor Centre and other visitor centre's in the region, the Old Courthouse Museum, town cafés and other shops, and possibly from dispensers at the trailheads.

Several other mechanisms exist for wider distribution (or just to raise awareness of the brochure/trail) via stories in local newspapers circulating in the region and the wider Perth metropolitan region, the Dryandra Country Visitors Centre and equipment suppliers.

When all trails are developed and available for use, the recommended approach is to devise a 'package' of trail information – a small booklet which contains maps and other information about the complete set of trails that are available in the Shire of Narrogin. This has been done successfully in other local governments.

A set of brochures (recommended) or booklet should be professionally prepared and designed, and should be printed in an attractive format, pleasing to the eye yet still simple to read. It should have the following features:

- ✚ A clear concise map, with distances, scale bar, north point and other annotations;
- ✚ Trail notes, describing key points along the way and relating them to distances and directions;
- ✚ Background information about the Shire of Narrogin, the history of farming and other primary pursuits in the area, aboriginal history and early European exploration and settlement, other features of the region, the heritage buildings, and the trails themselves;
- ✚ Educational information about trail usage, safety and etiquette;
- ✚ Some interpretive information about culture, history, geography and environmental matters;
- ✚ Information about management and maintenance, including phone numbers for reporting any trail related matters;
- ✚ Emergency contact details and directions; and
- ✚ Clear indication of routes to and from the trail head and parking areas, and guidance on do's and don'ts regarding usage.

In summary, the set of brochures (or booklet) MUST be professional. It should be articulate, enjoyable to read, easy to follow, informative, educational and should inspire confidence in being able to follow each trail route. It is the primary point of contact with trail users and should be at least as good as the trail itself.

There are many fine examples of trails brochures and booklets available, and the brochures or booklet prepared for the suite of trails to be developed in the Shire of Narrogin should be modelled on the best of those available.

(It is acknowledged that brochures already exist for locations within the Shire of Narrogin, including Foxes Lair and Railway Dam, but probably should be upgraded upon completion of the trails program. Improved mapping of the trails is recommended).

Availability of Trail Information and Promotion

Access to information describing the location of existing trails is surprisingly difficult in many places in Australia. In most locations, a multitude of organisations, both government and local government, and community groups that manage the natural areas and parks within a local government (and surrounding local government areas) makes the accessibility of pertinent information complex.

A priority action would be to establish a centralised location for the distribution and dissemination of trail information for the Shire of Narrogin. All trails related brochures and booklet (when prepared) should be made available at least in one location – preferably more.

Mapping of Trails

An essential requirement of any trail is appropriate and adequate mapping – for use both on trailhead signs and promotional material (including brochures and web sites).

Maps provide a quick visual representation of the trail route – indicating primarily the route of the trail, the destination, whether it is out and back, or a loop.

Good mapping will contain an array of information, including:

- ✚ access roads from nearby towns (and distances)
- ✚ north point and scale bar
- ✚ trailhead location
- ✚ trailhead facilities (e.g. parking, picnic tables, toilets, barbecues, etc)
- ✚ difficulty level (easy; moderate; difficult; disabled)
- ✚ length and duration (and direction of travel if one-way loop)
- ✚ points of interest along the trail, including geographical features
- ✚ symbols indicating location of interpretive panels (if any)
- ✚ other information if relevant, such as crossroads, cross tracks, trailside furniture (seats, shelters, lookouts), viewpoints, emergency (fire) escape routes, etc.



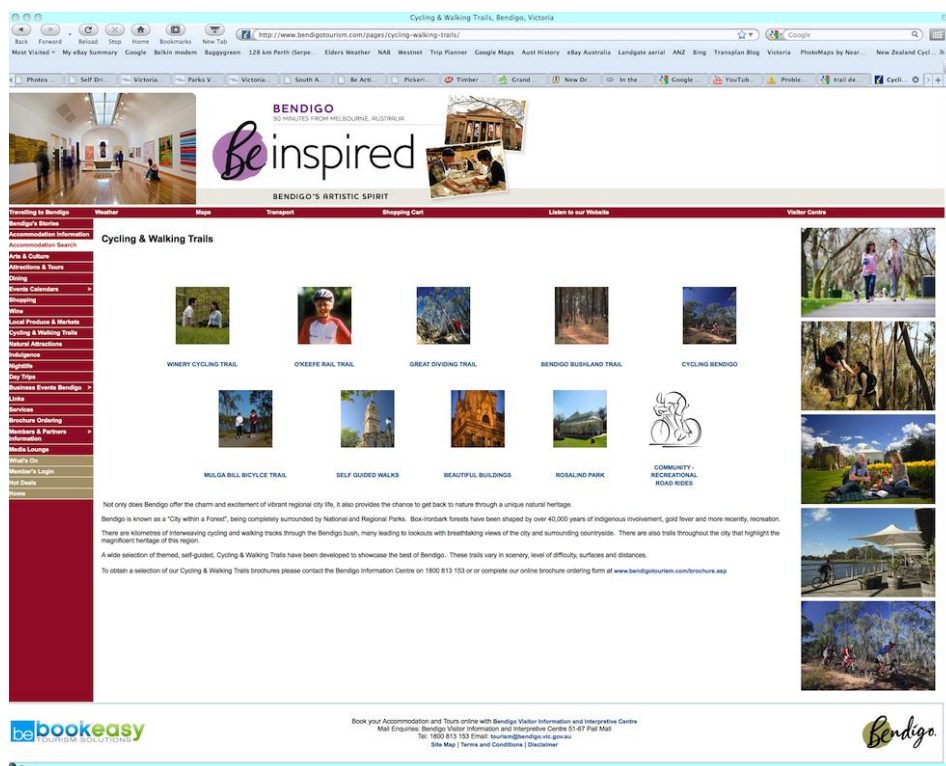
Excellent mapping and information is a key feature of the developing trails network in Mullewa.

Website Development

Additionally, the same basic information contained within each trail brochure should be uploaded onto Council's web site. Websites are now a well-established mechanism for promoting trails. Each trail brochure should be available as a PDF from the trails website.

It is important that the website give ample information about accessing the trail route. It should encourage local people to use the trail network and potential visitors to visit, but also give those who may not be able to visit a worthwhile experience.

The actual format of the website needs to be developed in conjunction with specialist website designers but should cover the following:



Above: The City of Bendigo (Victoria) has an excellent example of a website dedicated to the range of trails (walk, cycle, horse ride and drive) within its region.

- ✚ Description of each trail (location and access details, characteristics, length, duration, classification, highlights and points of interest, etc);
- ✚ Images (photographs and / or sketches) of some of the notable sites along the trail – contemporary and historic;
- ✚ Historic and geological information of the region;
- ✚ Aboriginal cultural information;
- ✚ Flora and fauna to be seen along each trail;
- ✚ Location map (to guide access to each trail);
- ✚ Information about the various activities and facilities available at the trailhead;
- ✚ Links to other relevant sites; and
- ✚ Downloadable education materials (including PDF of the trail brochure and map).

5.4 SUMMARY OF PROJECT COSTS

In considering all of the cost estimates provided in this Section it must be recognised that these have been provided on the basis that the whole of each job is undertaken.

The cost estimates that follow are broad estimates only and are subject to confirmation. They are provided here as indicative costs only.

The figures have been calculated at expected consultancy and contractors' rates, with no allowances made for volunteer input.

<i>Project</i>	<i>Project Description</i>	<i>Cost*</i>
1	Foxes Lair Trails Upgrade Program	132,420
2	Railway Dam Trails Upgrade Program	37,770
3	Gnarrojin Park Pathways/Trails	9,360
4	Trails Marketing Program	51,000
Totals		\$230,550*
* Total Cost (not including GST, but including 10% Project Management and 10% Contingency)		

1. Note: Estimated costs are as at December 2018. An additional 5% should be added to each individual total if implementation does not occur for 2-3 years. An additional 10% should be added to each individual total if implementation does not occur for 4-5 years.
2. Note: The cost estimates set out above are based on recent relevant construction costs from other trail projects in WA and elsewhere in Australia. Real-life costs will depend on a number of factors, including the state of the economy, the extent of advertising of construction tenders, the availability and competitiveness of contractors, the rise and fall in materials costs, the choice of materials used in construction and final design detail and the use of volunteers or low cost labour. Tenders submitted by construction contractors may vary significantly from the estimated costs in the tables contained within this report. The use of low-cost (or volunteer) labour will significantly reduce construction costs.

SECTION 6: IMPLEMENTATION PROGRAM

6.1 TIMEFRAME FOR IMPLEMENTATION

While an effort has been made to keep this Trails Master Plan relatively simple (with a limited number of projects), they are all worthwhile and deserving projects – mainly as a result of a desire to provide facilities for local people (in addition to visitors). Too many Trails Master Plans are overloaded with ‘actions’ and projects and can be daunting for those agencies charged with delivering on the outcomes proposed.

This Trails Master Plan is project-focussed, as this targeted approach appears the most likely to actually deliver outcomes ‘on the ground’. A range of substantial benefits could be garnered by simply proceeding with any of the projects – these are all simple, stand-alone projects that would deliver tangible benefits to the Shire of Narrogin – particularly local people.

As noted, there are already 12 trails in the Shire. The focus of this Trails Master Plan therefore has been on developing a trails action plan that will maximise the benefits to local people and the Shire of Narrogin through increased tourism. The intention is to provide a suite of trails – or a trail – that will have a ‘point of difference’ to all other trails in the region and in so doing become the reason why people choose to come to Narrogin – rather than some other area or region that also offers a suite of trails.

The entire set of trails projects should be regarded as a complete package. The provision of a *complete* package of trail opportunities is far more likely to deliver benefits to the Shire. For this reason, the Council is recommended to proceed with implementation of all trail projects in a timely manner.

The implementation program is set out over a 5-year period. With sufficient funding (both from grants and Shire contributions), all these projects could be brought to fruition in a shorter timeframe, providing skilled and experienced project management is available. The employment of a project manager to undertake these key projects (in addition to current resources) could facilitate expeditious development of the trail program.

For delivery of the projects, it is more efficient to focus on each project one by one. Including the funding for the project as a single item will mean that if approved the whole project can be undertaken with clarity about what would be included and the community would see a whole trail being delivered rather than incremental improvements.

It will be up to staff and Council to prioritise which projects should be undertaken first, and the following schedule has been recommended.

The input of volunteers could bring about significant cost savings, and the work to date by various groups in the community (such as the Friends of Foxes Lair) has been enormous.

There is an ever-increasing propensity for State and Federal government departments to provide funding for non-motorised transport and tourism projects. However, funding programs change over time, particularly when there is a change of Government.

Consequently, the total project costs that are included within this Walk Trails Master Plan ought not to be considered overwhelming. There is funding available. However, it will take a concerted effort by the Shire of Narrogin to apply for, and secure, this funding.

The marketing of the trails of the Shire of Narrogin can begin in earnest at any time, though caution is needed to ensure that all trails (existing and proposed) are brought to the desired standard before full-on marketing occurs.

The table that follows illustrates a possible scenario for the full and progressive upgrading and development of all trail projects.

Narrogin Trails Master Plan Implementation Schedule

<i>Project</i>	<i>Project Costs (not including GST)</i>				
	<i>Year 1</i>	<i>Year 2</i>	<i>Year 3</i>	<i>Year 4</i>	<i>Year 5</i>
Project 1: Foxes Lair Trails Upgrade Program	74,820	57,600			
Project 2: Railway Dam Trails Upgrade Program			37,770		
Project 3: Gnarojin Park Pathways/Trails				9,360	
Project 4: Trails Marketing Program					51,000
	74,820	57,600	37,770	9,360	51,000

SECTION 7: INTERPRETATION AND INTERPRETIVE SIGNAGE

7.1 INTERPRETATION SIGNAGE ON TRAILS

Interpretation is the key to the success or failure of many trails. Trails can be regarded as merely the vehicle for telling stories – for educating and entertaining people.

On-trail interpretation is becoming more and more of a feature of trails built in recent times. When well done, interpretive signage can add significantly to the richness and depth of the user's experience. It can also generate a sizeable cost and can be subject to ongoing vandalism in rural and remote areas. Care will need to be taken in a base-line decision about what on-trail interpretation is provided, and in choosing a style of signage with a reputation for withstanding both graffiti and vandalism. Etched anodised aluminium may be a good option, as it is sturdy and enables easy graffiti removal.

The unique and varied flora, fauna and landscape of the Shire of Narrogin, its Aboriginal history, its history of exploration and settlement, historic and contemporary agricultural enterprises, and characters of the area (past and present) are just a few of the themes that could be developed along the trails.

Visitors (and local people) want to learn, see, and do! People travel to heritage sites and tourist areas for a mix of memorable educational experiences that are at the same time fun or entertaining.

What will make the trails of Shire of Narrogin popular attractions will be the quality of the interpretive material, and the manner in which that interpretive material is presented and delivered. The trail interpretive material will encourage interaction and immersion, thus providing a far more rewarding learning experience.

Of fundamental importance to the proposal for interpretive panels (along each trail) is ensuring that the stories to be told are well written, informative, accurate, enriching and entertaining. The writing of interpretive panels so that they are interesting and captivating is a special skill – and not a task left in the hands of someone who simply has a good knowledge of local history.

It is strongly recommended that specialist interpretation consultants be engaged to undertake the necessary research, consultation, writing and design of the panels, and to arrange manufacturing and delivery. Local people should be encouraged to participate in collating the background research where appropriate.

7.2 EXAMPLES OF INTERPRETATION

The following are just some ideas of the ways in which interpretation can be presented via innovative pedestals. Examples are provided.



Above: colour interpretive panel on powder coated post in Wongan Hills, WA.



Above: colour interpretive panel on double powder coated posts at Dalyellup, WA.



Above: interpretive panel on rust steel pedestal, Carnamah, WA.



Above: interpretive panel on single powder coated post, Meekatharra, WA.

FOXES LAIR TRAILS - POSSIBLE INTERPRETIVE TOPICS.

<i>Banksia Walk Trail</i>	
1	Foundations of buildings
2	Narrogin water supply
3	Banksias
4	Wildflowers (#1) (including orchids)
5	Wildflowers (#2) (including orchids)
6	Eucalypts
7	Birds
8	Fauna

<i>Valley Walk Trail</i>	
1	Wildflowers (#1)
2	Wildflowers (#2)
3	Birds
4	Ochres

<i>Breakaway Walk Trail</i>	
1	Origin of name / history (Foxes Lair)
2	Mallet and breakaway story
3	Wildflowers (#1)
4	Wildflowers (#2)

<i>Claypit Walk Trail</i>	
1	Claypits
2	View at Lookout - possibly Binneringie Dyke (geology)
3	Bush tucker and medicines
4	Sheoaks
5	Wildflowers (#1)
6	Wildflowers (#2)

<i>Granite Walk Trail</i>	
1	Arboretum
2	Firing range/military history
3	Granite outcropping
4	Why are eucalypts unique?
5	Australia's largest toadstool
6	Birds

<i>Railway Dam Trails</i>	
1	Railways and dam
2	Birds (#1) (possibly piebald tortoise)
3	Birds (#2)
4	Immigrants
5	Jet boats
6	Drainage channels at separator loop / diversion drain

SECTION 8: TRAIL DEVELOPMENT CONSIDERATIONS














8.1 GENERAL CONSIDERATIONS

The following information is provided as a backdrop for the trails construction and upgrading program described elsewhere in this Walk Trails Master Plan. It is intended to give a framework against which to measure recommendations made regarding the upgrading of the trails.

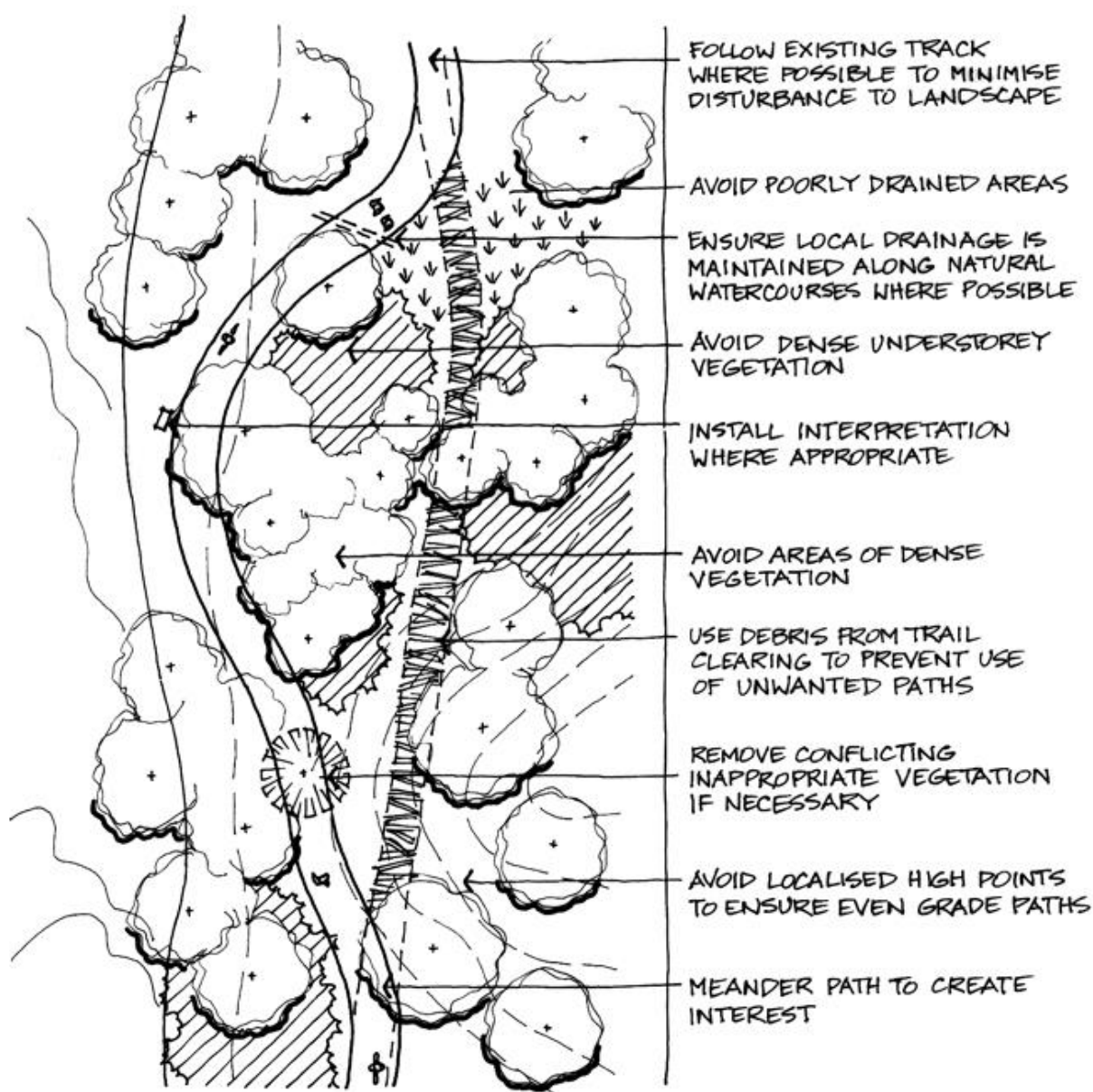
8.1.1 GENERAL CONSIDERATIONS FOR SUSTAINABLE TRAILS

This section of the Report addresses a series of matters relating to trail design and development – to achieve trails (and paths) that are constructed with minimal disturbance to the natural environment, are sustainable and that require minimal maintenance.

In general, the following general design and location considerations should be taken into account before and during construction of any trail or path:

-  Following existing tracks/trails where possible to minimise disturbance to the landscape.
-  Avoiding poorly drained areas.
-  Ensuring local drainage is maintained along natural watercourses where possible.
-  Avoiding dense understorey where possible.
-  Avoiding areas of dense vegetation that may require heavy clearing.
-  Avoiding environmentally sensitive areas (e.g. areas of endangered flora).
-  Using debris from trail clearing to prevent use of unwanted paths.
-  Removing conflicting inappropriate vegetation if necessary and as approved.
-  Avoiding localised high points to ensure even path grades.
-  Avoiding long straight sections with long steady grades. Trail to meander to take advantage of natural and man-made features and to create interest.
-  Avoiding areas with high erosion potential.
-  Locating path/trail near to points of interest.
-  Taking note of safety hazards and avoiding where possible.

Drainage and control of erosion are fundamental issues when developing or upgrading trails – especially on sloping areas. Effective drainage will be essential along each of the existing and proposed trails. Nothing is more devastating to a trail surface than extensive use in wet, boggy conditions. Such use in wet periods on unstable areas may loosen the trail subsurface and will create an ongoing maintenance problem.



TRAIL ALIGNMENT GUIDELINES

Similarly, allowing water to flow down a trail without creating 'run-off' opportunities is quite clearly going to produce erosion problems. Siting of the trail route on higher (level) ground should always be the aim.

Choosing appropriate materials for the trail's sub-base and topping (surface layer) is critical to the longevity and suitability of the trail for the intended user groups.

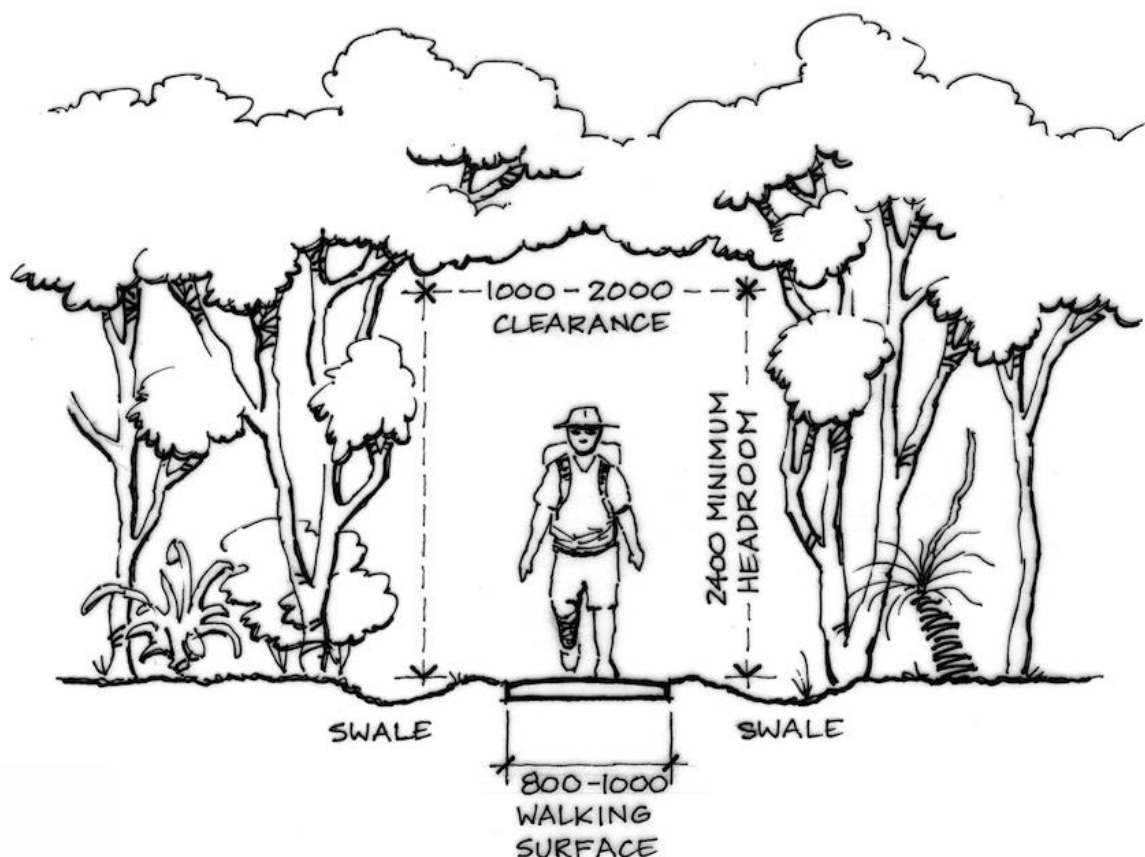
Culverts and other drainage controls should be used to direct run-off away from the trails where needed. It should be noted that some slope is desirable on shared-use trails. A perfectly level trail will hold water (ponding), creating mud holes that then become maintenance problems.

8.1.2 TRAIL WIDTH AND HEIGHT

The resurfaced walk trails should have a maximum trail width of 1.5 metres. In some sections however, the surface will be wider, as it will follow existing vehicle tracks.

On some sections of new purpose-built walk trail, there is an opportunity to provide a more intimate experience by reducing the trail width to around 1.0 to 1.2 metres. The expected lower usage levels will mean fewer opportunities for conflicts to occur between users.

On trails to be used only for walking, height clearance should be around 2.5 metres. Pruning of overhanging branches should occur where necessary to enable safe passage without the need for stooping under branches.



WALK TRAIL – GENERAL CHARACTERISTICS

To function effectively, shared-use trails should have a minimum trail width of 2.5 metres.

Maintaining consistency of width is important – particularly when cyclists are likely to be the main user group using a trail or pathway.

It is important to ensure that the entire trail is available for a wide range of users (including people with disabilities where appropriate, parents with prams, etc.) rather than having the trail solely for able-bodied walkers.

People in wheelchairs, and cyclists, need ample space to pass each other without having to divert off a path or trail.

8.1.3 TRAIL SURFACE MATERIAL

Trails in Foxes Lair and Railway Dam Reserve use the natural earth surface (or management tracks). Little is needed in the way of surfacing improvements although fill using imported material is required for several locations on the trails in the Railway Dam Reserve.

8.1.4 EROSION CONTROL AND WATER CROSSINGS

Proper drainage is of considerable importance in constructing a lasting, maintenance-free trail. Water should be removed from trail surfaces as fast as possible, wherever possible. The steepness of some of the trails and the type of soil dictate individual site requirements for the frequency of draining water from the trail. When new surfacing is applied care should be taken to ensure water flows away from the trail surface and does not pool.

8.2 SAFETY CONSIDERATIONS

8.2.1 ROAD CROSSINGS

Road / trail crossings usually present a special hazard which must be addressed carefully.

In the case of the trails highlighted in this Walk Trails Master Plan for the Shire of Narrogin, there are several (minor) road crossings where consideration is needed (along the trails within Foxes Lair). The relatively low volume and speeds of motor vehicle traffic anticipated should not cause an issue.

8.3 SIGNAGE

Several kinds of signage are required on trails including distance, directional, warning, promotional, etiquette and interpretive signs. Trail signage should be standardised across the Shire of Narrogin. It should accord with relevant local or Australian 'standards' or practices.

It is recommended that trails in the Shire of Narrogin have a consistent colour scheme and consistent and uniform suite of logos (with a logo unique to each trail). The use of distinctive trail markers and colour scheme is important throughout the Shire of Narrogin, to engender a sense of uniqueness. This also applies to the set of trail brochures that will be prepared.

Directional signage along trails is strongly recommended, and it will enable visitors without trail maps to easily navigate their way around each trail. A style similar to that installed on the Guilford Heritage Trails is recommended (see photos).

8.3.1 DIRECTIONAL SIGNAGE

Trail markers need to be placed at regular intervals along all trails – particularly at corners and junctions. As the trails within the Shire of Narrogin will attract a large number of novice (inexperienced) walkers, it is considered appropriate to install markers at closer intervals than would normally be the case. It is recommended that directional markers be placed on treated pine or steel post totems every 100 -120 metres. The posts should be 125-150 mm diameter, 1.5 metres in length, and buried 600 mm in the ground. At these recommended spacing's they should be clearly visible in the near distance and minimise confusion and uncertainty. The standard colour scheme is black on a yellow triangle but given the uniqueness of the localities a situation-specific colour scheme should be considered. The trail markers should have a distinguishing symbol or logo.

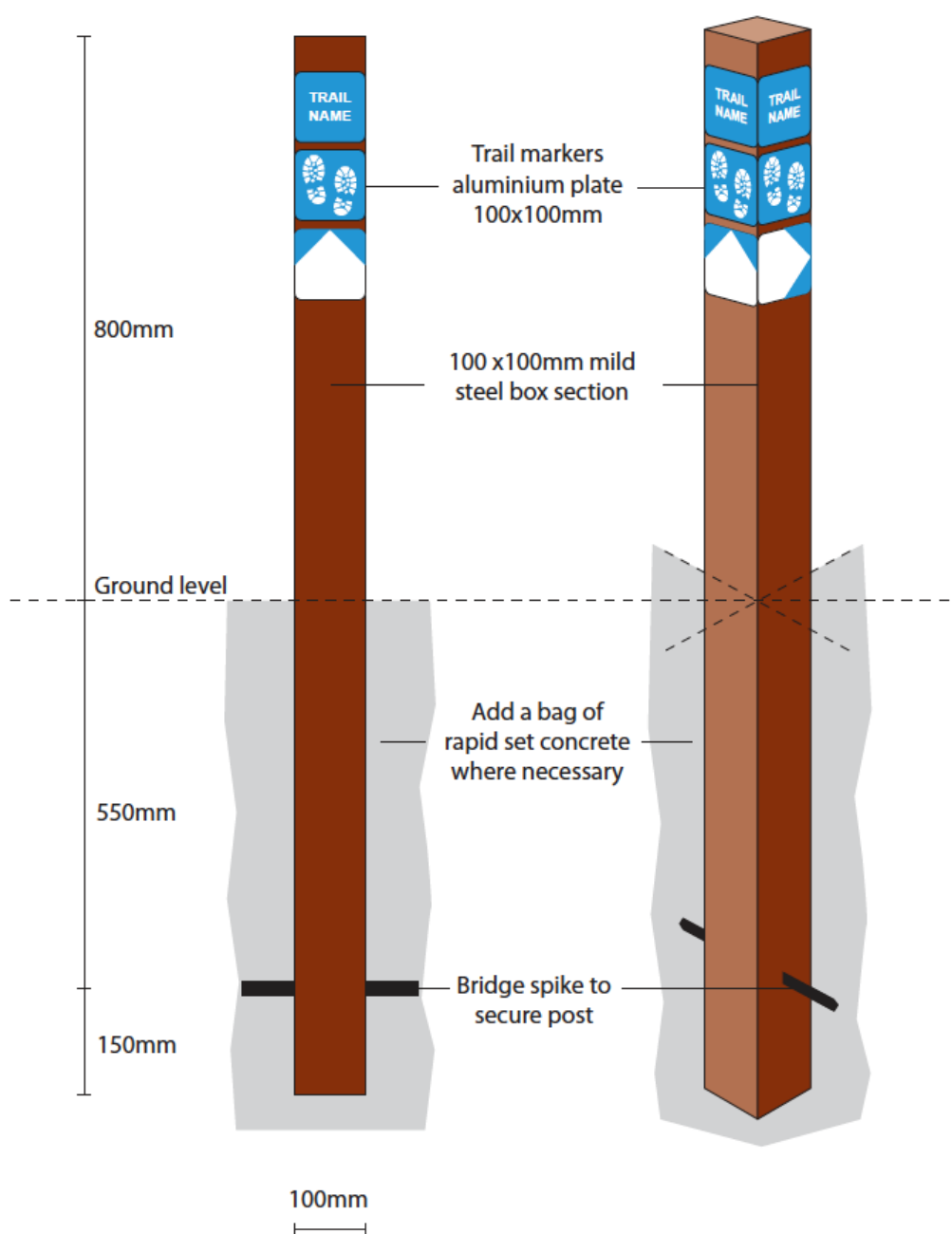
The colour palette being developed as an outcome of the 2016 Narrogin Townscape Study Review will influence the design/colour of logos used on the trails.

An example of a possible logo has been provided (see “Narrogin Trails” pictogram) in Section 8.6.

Markers are usually not required along straight sections of trail as the trail is usually clear and obvious but given the fact that the trails will attract entry-level trail users, it is recommended that additional trail and directional markers be used to assist these users. The use of a higher number of directional trail markers will result in even the most inexperienced of users feeling confident that they can remain on track. Arrows should be either vertical (straight ahead) or horizontal (turn here). They must be affixed with at least 2 nails (on pine posts) to prevent them being turned or removed by vandals. Alternatively, the direction marker arrows could be affixed with glue/silastic.



The Meekatharra Trails (above left) and the Guildford Heritage Trails (above right) are both excellent models for how walk trails should be signposted. They feature excellent directional markers (colour coded) for each of the different trails.



Above: trail directional marker post for installation in soft ground. Hole can be dug to accommodate post and rapid set concrete is then poured into hole.

INTERPRETIVE SIGNAGE

A wide range of materials are used for interpretive panels across Australia. These vary substantially in terms of longevity/hardiness and price. Simply put, the cheaper the panel the more prone it is likely to be to vandalism and the shorter the period that it will retain its full original 'colour' and therefore its aesthetic appeal. Experience in many locations has shown that vandals and the

weather can combine to make life difficult for interpretive panels and can quickly erode the investment made by the host organisation.

If interpretive panels are to last and are to still be looking good in 10 – 15 years' time, they will necessarily be from the more expensive end of the spectrum.

One particular panel material (and manufacturing process) is recommended – especially in locations such as the Shire of Narrogin that are going to be exposed to a high potential for vandalism because of the isolated and remote nature of some of the existing and proposed trails.

Architectural-grade etched anodised aluminium panels (see example in photo at right Joshua Lake near Boyanup, Shire of Capel) retain their high-quality aesthetics into the 10-year (and beyond) time-frame – regardless of weather.

Further, this material / process has the greatest resistance to vandalism (paint, ink, pen, felt pens, scratching, impact damage etc.) of any known option on the Australian market.

Not surprisingly, this grade of etched anodised aluminium is at the more expensive end of the range and can cost up to double some of the cheaper options. Further, only one manufacturer (Armsign Pty Ltd, Lismore, NSW) produces these panels. It is important to note that other manufacturers produce 'photo-anodised aluminium' panels (not "etched" and generally at a cheaper rate) – but this is NOT the same process and does not produce the same quality or longevity.

It has been found that Armsign are genuinely committed to a competitive approach, knowing that their panels are always being compared with cheaper processes. This ensures that their quotes give good value-for-money, despite the lack of direct competition. Many clients do not understand the (significant) differences between various aluminium-based panels and therefore apply continuing pressure to Armsign's costing regime.

Anodised aluminium interpretive panels can be cut to any shape. For example, the panels on the Tuart Walk in the tuart forest at northern end of Dalyellup (Shire of Capel) are cut in the shape of a tuart leaf. The panels along the Joshua Lake Trail in Boyanup (Shire of Capel) are cut in the shape of a leaf.

The actual pedestals for all trails could/should be made from 10 mm thick sheet steel, acid-etched (or sandblasted) to induce rusting; and could feature a unique 'cut-out' on the face of the pedestal (see examples). Each pedestal will have a design / image / shape cut from the front face – this will illustrate some aspect of the interpretive story. For the proposed new/re-aligned trail in the Narrogin CBD, for example, the words "Narrogin Heritage Trail" could be cut from the face, similar to that shown in the photograph above for the Menzies Heritage Trail.



The use of rusty steel pedestals, and interpretive panels cut to special shapes, is considered 'state of the art' in presenting information along trails. The above example is from the Joshua Lake Trail near Boyanup.

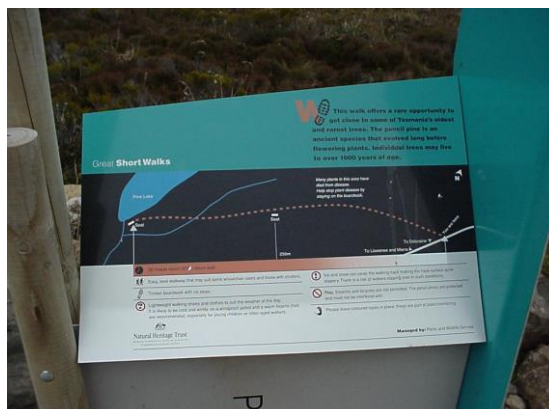
8.4 TRAILHEADS AND PARKING

Given that the much of the usage of the trails is likely to come from visitors to the region from the Perth metropolitan region, a formal ‘trailhead’ is vitally important to give trail users a defined starting and ending point for each trail. It is valuable to have a defined location for a large interpretive/information/mapping display, from which all directions and distances are taken, and to which users from further away can be directed.

Trailheads should generally have ample places for parking of cars (and tour buses if desirable), picnic tables, and trailhead signage.



Above: All trails featured in the 60 Great Short Walks of Tasmania program have a distinctive trailhead sign – indicating to prospective trail users they are in for a quality experience.



Above: The panel in the trailhead sign of the 60 Great Short Walks of Tasmania has vital information including level of difficulty, trail length, a map and features of interest.



Above: Another style of trailhead sign used on trails in Tasmania. This sign also has the important information a trail user might want, notably length, difficulty and a map of the trail.



Above: In Wongan Hills, the Mt Matilda Trail has a high level of information, indicating interpretive points, a map and photos of what a trail user might experience along the trail.

8.5 AUSTRALIAN WALKING TRACK GRADING SYSTEM SYMBOLS

Although uncommon in Western Australia to date, it would be appropriate to install a Track Grading symbol at the commencement of each of the existing and proposed trails.



8.6 TRAIL LOGO

It is

recommended that an overall logo be devised for use on all trail signs through the Shire of Narrogin, and on trail promotional material and trailhead signage. The use of a logo unique to the Shire of Narrogin trail network will provide greater prominence and recognition of the Shire's trails, and an identifiable branding.

A trail logo, used in conjunction with arrow plates and a unique colour scheme, will be effective in alerting users to the route of their chosen trail particularly when there are trail junctions and overlapping sections of trail.



SECTION 9: RESOURCES AND FUNDING OPPORTUNITIES

9.1 INTRODUCTION

Resourcing trail construction and promotion programs can be challenging, as can resourcing ongoing maintenance requirements. It must be recognised that a Trails Master Plan such as this, and the individual projects it contains, are an investment in the future. Well planned and built, well interpreted and appropriately promoted, the trail projects will bring tourists and money into the Shire of Narrogin (and keep them longer in the district). The project has the ability to stimulate the local economy, especially if elements of the manufacturing, construction and installation processes can be undertaken locally. It is highly likely local people in the Shire of Narrogin can undertake several aspects of the projects outlined in this Trails Master Plan.

A range of sources of funds and other resources are currently available, and some of the better known are summarised below. This list should NOT be taken to be full and final, as there are no doubt other sources not shown.

9.2 FUNDING PROGRAMS

Federal Government

Until recently, various funding programs of the Federal Government were likely sources for trail-related projects. These programs included Tourism Quality projects (TQUAL), Tourism Industry Regional Development Fund (TIRF) and Regional Development Australia.

The TIRF provided funding for tourism related projects. Several trail projects have been funded in the TQUAL. There will be no further rounds of the TIRF Grants Programme.

Similarly, the TQUAL funding program has been scrapped.

State Government

Lotterywest Funding

Grants are open throughout the year.

Funding may be sought under the following categories only:

- Trail Planning
- Trail Construction
- Upgrades to existing trails
- Promotion and Marketing

Trail Maintenance is not eligible for funding under this program.

Applications can be made at any time throughout the year:

Further Information:

Steve Bennett
Recreation Development Leader
246 Vincent Street, LEEDERVILLE WA 6007
PO Box 329, LEEDERVILLE WA 6903

Telephone (08) 9492 9732

Facsimile (08) 9492 9711

Website: <http://www.dsr.wa.gov.au/trailsfunding>

Lotterywest - Cultural Heritage - Interpretation Grants

Cultural Heritage - Interpretation Grants support projects which assist communities to understand and communicate the significance of their cultural heritage places and objects. It is envisaged that projects will help communities to maintain their sense of identity and heritage.

In providing these grants Lotterywest recognises and acknowledges the importance of the State's diverse communities and their role in the care of Western Australia's cultural heritage for the future. The Program will aim to:

- ✚ interpret and make clear the cultural heritage significance of objects/places;
- ✚ encourage organisations of all types to develop initiatives which engage communities in active and creative ways with their cultural heritage;
- ✚ enhance community identity and sense of place; and
- ✚ enhance social and economic development of communities.

For the purpose of these grants, 'place' can include a building or other structure, group of buildings or other structures, or a landscaped area.

Examples of the type of project that may be considered for funding include:

- ✚ the development of interpretation plans;
- ✚ the creation and installation of interpretive materials;
- ✚ the improvement of collection management practices;
- ✚ assistance with the employment of consultants for a project or the contracting of specialist services;
- ✚ the assessment of significance of moveable heritage objects in accordance with the Heritage Collections Council guidelines ('significance': A Guide to Assessing the Significance of Cultural Heritage Objects and Collections is available on www.amol.org.au/craft/publications);
- ✚ the development of on-going public education and information programs;
- ✚ improving the documentation, research and/or display environment(s) of the object(s) or place;
- ✚ training in relation to interpretative projects;
- ✚ publication regarding the heritage object(s)/place;
- ✚ public programs and the use of innovative strategies such as music and theatre; and
- ✚ interpretive signage which discovers and celebrates the community's heritage.

In recent years the maximum of \$15,000 for any one project has been set. Projects that exceed this amount and are a joint initiative discussed with the Program Coordinator prior to an application being developed.

Contact Details:

Lotteries Commission Program Coordinator,

Cultural Heritage - Interpretation

Phone: (08) 9340 5270

Toll Free: 1800 655 270

Fax: (08) 9340 5274
Email: grants@lottery.wa.gov.au
Website: www.lotterywest.wa.gov.au

Lotterywest (Community Funding)
74 Walters Drive
Osborne Park WA 6017
PO Box 1113
Osborne Park WA 6917

Shire of Narrogin Contributions

Many of the grant programs available for trail projects require matching contributions, and it is recommended that the Shire of Narrogin make an annual budget allocation each year for the trail initiatives recommended in this Trails Master Plan.

Corporate Sponsors

Sponsorship is big business – and very competitive. Two main options exist: either negotiate with local corporate entities which have a geographical and social connection with the area or go after the ‘big’ players for big projects. Many large companies have formalised sponsorship programs.

Funding for trail development has been received from a number of major (and minor, local) companies. Sums of up to \$100,000 can be gained, if benefits can be proven. Any company with an operation within the region would appear to be a potential sponsor.

Green Corps

Federally funded “Young Australians for the Environment” program. A ‘major project’ provides a host partner agency with 10 ‘trainees’ and a supervisor for 14 weeks within a 26-week program. All materials, tools and technical supervision to be provided, as is accommodation and some other basic requirements.

Volunteers

Often the last thought-of resource – but often the most effective. Many trails are only built – and then kept alive – by volunteer input. Either establish a specific local ‘Trail Volunteers’ or ‘Friends of...’ group, or tap into existing community organisations such as service clubs, progress associations, schools, scouts etc.

The Lower Moore River Working Group has done an outstanding job over the last 10-15 years or longer.

Conservation Volunteers Australia (CVA)

The Trust provides small crews of volunteers, with a supervisor, to undertake environmental activities. Teams of between five and eight people work for one to two weeks. An administration fee is imposed by CVA. Materials, tools and technical supervision need to be provided by the host agency. CVA have been involved in trail projects elsewhere in Australia.

REFERENCES

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APPENDIX 1 - GEOCACHING AND GEOTRAILS

GEOCACHING

Thousands of people in over 200 countries are discovering a new pastime known as geocaching (pronounced “geo-cashing”). This adventure sport/hobby involves the use of a handheld GPS receiver or Smartphone (with the appropriate app) and based on information provided on the official geocaching website (geocaching.com), the GPS receiver (or Smartphone) guides its operator to hidden treasures (caches) waiting to be found all over the world.

Participants navigate to a specific set of GPS coordinates and then attempt to find the geocache (container) hidden at that location. There are currently over 3 million active geocaches (hidden containers) and over 6 million geocachers (people) worldwide.

A typical geocache consists of a waterproof container and a logbook. Signing the logbook proves you found it. Once the logbook is signed, the container is put back in exactly the same place it was found, to await the next finder.

Every geocache hunt proves to be a completely different experience. In many cases, the trip leads the geocacher to new and unusual places they may never have seen if they hadn’t been guided by their GPS receiver and the cache hider’s directions.

All that is needed is a handheld GPS receiver (many are available for as little under \$100.00) and internet access. Log on to geocaching.com (membership is free) and enter the postcode of the location where you’d like to go geocaching. You’ll get a list of caches in that area, waiting to be found. From that list, enter the latitude/longitude coordinates of your chosen cache(s) into your GPS receiver, and you’re good to go. When you find a cache sign the logbook, then return the container to its hiding spot for the next finder. (Having a Smartphone with the Geocaching app makes it easier to navigate to a cache).

The *geocaching.com* web site offers ways of monitoring all visitor contact with caches. Specific caches can be put on a *Watch List* so that whenever visitors find them, the person who selected the Watch List option is alerted to the discovery. This could be a Visitor Centre, a Shire staff person or a member of the local community. When finds are logged it is also possible to discover information about the person that found them, (such as their nationality, travel plans etc). The Watch List option also lets people know if the cache has disappeared or has been damaged in some way, so it can be replaced and repaired.

GEOTRAIL (GEOTOUR)

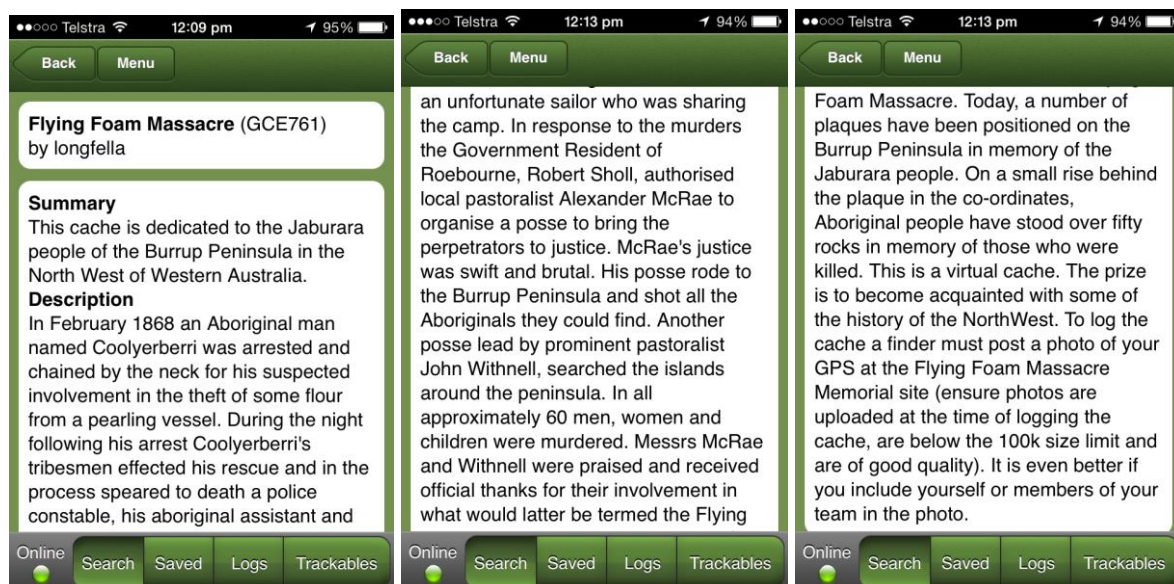
A geocaching trail (a GeoTrail) is simply a series of geocaches tied together by a common theme. There is not necessarily an itinerary or fixed route, as we would think of a traditional drive trail, but rather a series of points of interest in a self-guided goal-oriented plan. Usually, between 10 and 20 designated geocaches make up a “GeoTrail”. The quest to find the geocaches along a GeoTrail will take participants throughout a region, often discovering aspects of its history.

Participants can pick and choose which participating caches they wish to seek, based on their choice of location, difficulty, and terrain levels. Typically, there is an incentive to finding all caches along a “GeoTour”. In the case of the proposed GeoTour, finding all caches could earn a unique souvenir provided by the Shire of Narrogin. To add interest to the GeoTour, a clue would be added at every geocache (for example, a letter of a special phrase). When all caches are found, and all letters found, the entire phrase (perhaps a puzzle) will be revealed. In the case of the proposed GeoTour, the phrase could use the Shire’s slogan:

LOVE THE LIFE

Once the secret phrase is revealed, the successful geocacher would claim the souvenir at, for example, the Visitor Centre.

Another advantage of using a geocache is that interpretive information can be provided by the insertion of a story in the cache 'description' (see example below for the Flying Foam Massacre geocache near Dampier on the Burrup Peninsula).



Above: the Geocaching app available for Smartphones also includes the ability to include a description of the geocache. In the case of the Flying Foam Massacre on the Burrup Peninsula near Dampier in the Pilbara, the opportunity was taken to provide some interpretive information. The geocaches proposed for the Narrogin GeoTour could also include interpretive information in the geocache description.

The Geo

Trail could incorporate the work being undertaken by local resident Doug Sawkins in his "Vanishing Farms" blog.

APPENDIX 2 – TRAIL MAINTENANCE PLAN PRO-FORMA CHECKLIST

The checklist shown is an example from the KEP Track Trail Management Plan

KEP TRACK MAINTENANCE CHECKLIST

The checklist that follows has been designed to be copied before each regular inspection, filled out and filed for future reference. It assumes the inspection will commence at Mt Helena and proceed in an easterly direction towards Wooroloo. This is an essential component of the maintenance program.

KEP TRACK (Mt Helena to Wooroloo) - MAINTENANCE CHECKLIST

Inspection Date (circle a year and tick one box):

- | | | | |
|---------------------------------------|---------------------------------------|--|---------------------------------------|
| <input type="checkbox"/> Jan 2005/6/7 | <input type="checkbox"/> Feb 2005/6/7 | <input type="checkbox"/> Mar. 2005/6/7 | <input type="checkbox"/> Apr 2005/6/7 |
| <input type="checkbox"/> May 2005/6/7 | <input type="checkbox"/> Jun 2005/6/7 | <input type="checkbox"/> Jul 2005/6/7 | <input type="checkbox"/> Aug 2004/5/6 |
| <input type="checkbox"/> Sep 2004/5/6 | <input type="checkbox"/> Oct 2004/5/6 | <input type="checkbox"/> Nov. 2004/5/6 | <input type="checkbox"/> Dec 2004/5/6 |

Actual Date: _____

Person undertaking inspection: _____ Signature: _____

LOCATION	ACTION REQUIRED	TICK IF OKAY	ACTION TAKEN (IF ANY)
Sawyers Road Crossing in Mt Helena	<ul style="list-style-type: none"> • Check gate west side • Check directional markers • Check totems and signage • Check promotional signage 		
Johnston Street (Mt Helena)	<ul style="list-style-type: none"> • Check gate west side • Check directional markers • Check totems and signage 		
Lion St crossing	<ul style="list-style-type: none"> • Check gates both sides • Check interpretive sign (north west corner) • Check directional markers • Check totems and signage • Check promotional signage 		
Exit from Eastern Hills High School (crossing)	<ul style="list-style-type: none"> • Check gate east side • Check directional markers • Check totems and signage • Check interpretive sign (opposite Sime Rd) 		
Thomas / Elliot road crossing	<ul style="list-style-type: none"> • Check gates both sides • Check directional markers • Check totems and signage • Check promotional signage • Check interpretive sign (opposite booster station) 		
Chidlow Reserve	<ul style="list-style-type: none"> • Check interpretive signs (at turnoff to Lake Leschenaultia; opposite standpipe; opposite stone building; at old interpretive shelter) • Check condition of new trail through reserve 		

KEP TRACK (Mt Helena to Wooroloo) - MAINTENANCE CHECKLIST

LOCATION	ACTION REQUIRED	TICK IF OKAY	ACTION TAKEN (IF ANY)
Old Northam Rd (Chidlow)	<ul style="list-style-type: none"> • Check gate east side • Check directional markers • Check totems and signage • Check promotional signage • Check culvert west side • Check ramps • Check interpretive sign (mid point between Old Northam Rd & Ash Rd) 		
Ash Rd crossing	<ul style="list-style-type: none"> • Check gates both sides • Check directional markers • Check totems and signage • Check promotional signage 		
Doconing Rd crossing	<ul style="list-style-type: none"> • Check gates both sides • Check directional markers • Check totems and signage • Check promotional signage • Check interpretive sign (150 metres east of crossing) 		
Old Northam Rd crossing	<ul style="list-style-type: none"> • Check gates both sides • Check directional markers • Check totems and signage • Check promotional signage • Check culverts (both sides) • Check interpretive sign (SW corner) 		
Entrance to horse trials paddocks	<ul style="list-style-type: none"> • Check gates • Check directional markers • Check totems and signage • Check road warning signs 		
Government Rd crossing	<ul style="list-style-type: none"> • Check gates both sides • Check directional markers • Check totems and signage • Check new 40 metre section of trail at road crossing 		
Government Road to Green St	<ul style="list-style-type: none"> • Check interpretive sign (where pipeline crosses trail) • Check interpretive sign (opposite Jason St) 		
Green Street	<ul style="list-style-type: none"> • Check gates both sides • Check directional markers • Check totems and signage 		
Any additional work required?			
Hazard Inspection	Whole trail - annually		
Annual budget allocation	Discuss with staff		

APPENDIX 3 – TRAIL ASSESSMENT SHEETS/TRAILS AUDIT

Shire of Narrogin Walk Trails Master Plan – Trails Audit

Trail Name:	Narrogin CBD Heritage Walk (Included in this audit for information but not included as part of the Walk Trails Master Plan's proposed projects as viewed by the Shire as a separate project and currently underway).
Location:	Various sites around townsite of Narrogin.
Trail Characteristics: surface (gravel; concrete; asphalt); Length and width condition? erosion? Weeds / grass invasion?	1.72km walk trail around the streets of Narrogin townsite. Utilises existing footpaths (including brick paved footpaths and asphalt). Kerb ramps in most road crossings. Duration approximately 1 – 1.5 hrs.
Promotion: maps, guide books and track notes; web site? Promo brochure?	Undated (but old) A5 grayscale brochure (14 pages). Features many of the old buildings of the townsite.
User groups: single use or multiple use?	Single use - walking.
Signage to trailhead: from local/regional road system	No trailhead signage.
Trailhead facilities: (parking areas; trailhead signage; trail map; trail information; picnic facilities – table, seats, shelter / shade, barbecue); bins; water; bike parking; toilets; emergency phone; lighting; bollards fencing	Start of trail is at Old Courthouse (now a museum). Shade and shelter available in grounds of museum. However, as trail passes through commercial centre of Narrogin, all trailhead facilities are readily available (such as toilets, shops, phones, etc).
Nearby facilities: shops, public transport	Trail passes through commercial centre of Narrogin.
Directional / distance signage: along trail	No directional signage. (Instructions contained within brochure).
Other signage: (location; promotional; warning; information; advisory; fire safety; code of conduct)	Black cockatoo awareness sign.
Drainage: (culverts – clear?); rolling dips; water bars drainage channels; rock steps.	Footpaths and streets are well drained.
Interpretation: type; number; topics; need? Cultural/Aboriginal?	Interpretation is generally about old buildings of Narrogin, with a brief history of each building.
On-trail furniture and structures: (bench seats; table viewing platforms; water fountains; boardwalks; bird hides; bird call boxes; tunnels; underpasses; bridges boardwalks)	Trail route passes by several parks where seating and shade is available.
Road crossings: (sight lines; signage; other safety matters; vehicle exclusion barriers and emergency access gates)	Numerous road crossings, typical of any regional town. No particular safety issues.
Safety: for users; conflicts between user groups; fire etc	None noted. Sight distances at road crossings are adequate.
Vegetation: (overhead; side). Need for clearing; invasive species and weeds; re-vegetation needs.	No overhanging vegetation along route.
Trail type: (out and back; loop; one way?)	Loop trail. Starts and finishes at Old Courthouse museum.
Grade of trail: (easy; to very difficult)	Easy.
Management and maintenance: Management plan? Friends of group? Community support. Who manages?	No evidence of any ongoing management of walk trail. Nothing to maintain other than making brochure available.
General comments: quality of experience; point of difference; accessibility	Old brochure is not readily available. Trail route is logical in that it passes by majority of old historic buildings in the core of the commercial area of the Narrogin town site. Brochure does contain some basic interpretive information, although subject matter could be made more entertaining and interesting. Trail could be improved by eliminating overlap section at beginning/end, by installing directional signage, by having attractive in-situ signage and by production of a new brochure. Interpretive stories that could/should be told need careful consideration.

Shire of Narrogin Walk Trails Master Plan – Trails Audit

Trail Name:	Narrogin Heritage Trail (A drive trail and not a Walk Trail)
Location:	Drive trail through town centre and around perimeter of town.
Trail Characteristics: surface (gravel; concrete; asphalt); Length and width condition? erosion? Weeds / grass invasion?	Approximately 14km drive trail. Mix of asphalt and gravel roads.
Promotion: maps, guide books and track notes; web site? Promo brochure?	Old (1988) Heritage Trail brochure. Drive trail is one of approximately 170 trails (of various types) developed in 1988 as part of Australia's Bicentenary
User groups: single use or multiple use?	Drive trail (could be cycled and walked).
Signage to trailhead: from local/regional road system	No signage evident.
Trailhead facilities: (parking areas; trailhead signage; trail map; trail information; picnic facilities – table, seats, shelter / shade, barbecue); bins; water; bike parking; toilets; emergency phone; lighting; bollards fencing	No trailhead facilities evident (although trail does start at old Courthouse Museum). Trail passes through commercial centre of Narrogin, all trailhead facilities are readily available (such as toilets, shops, phones, etc).
Nearby facilities: shops, public transport	Trail passes through commercial centre of Narrogin.
Directional / distance signage: along trail	None.
Other signage: (location; promotional; warning; information; advisory; fire safety; code of conduct)	Usual in-town signage for pedestrians and motor vehicle traffic
Drainage: (culverts – clear?); rolling dips; water bars drainage channels; rock steps.	Roads well drained.
Interpretation: type; number; topics; need? Cultural/Aboriginal?	Some interpretive signage does still exist at several locations featured in the trail brochure.
On-trail furniture and structures: (bench seats; table viewing platforms; water fountains; boardwalks; bird hides; bird call boxes; tunnels; underpasses; bridges boardwalks)	Trail is a drive trail – no requirement for on trail furniture. Trail does pass by several parks.
Road crossings: (sight lines; signage; other safety matters; vehicle exclusion barriers and emergency access gates)	Drive trail passes through numerous intersections.
Safety: for users; conflicts between user groups; fire etc	No safety issues noted.
Vegetation: (overhead; side). Need for clearing; invasive species and weeds; re-vegetation needs.	No issues.
Trail type: (out and back; loop; one way?)	14km loop drive trail (as well as a longer 117km drive trail around the Narrogin District).
Grade of trail: (easy; to very difficult)	Drive trail, therefore easy to complete. As a cycle or walk trail, very difficult
Management and maintenance: Management plan? Friends of group? Community support. Who manages?	No maintenance of drive trail appears to have been undertaken. Most of signage has disappeared over time. Brochure is not readily available.
General comments: quality of experience; point of difference; accessibility	Drive trail passes by many locations of dubious importance/significance. Several historic sites featured in brochure have become part of industrial estates. Trail is generally uninteresting and should be discontinued. Interpretive plaques that do remain should be left in place.

Shire of Narrogin Walk Trails Master Plan – Trails Audit

Trail Name:	Breakaway Walk
Location:	Foxes Lair
Trail Characteristics: surface (gravel; concrete; asphalt); Length and width condition? erosion? Weeds / grass invasion?	Gravel surface. Approximately 400 metres. Trail width ranges from 800mm to 1500mm. Some rocky surfaces.
Promotion: maps, guide books and track notes; web site? Promo brochure?	Excellent web site for Foxes Lair. Foxes Lair Reserve brochure available from Visitor Centre (which has map of trails and description of each). Link to Foxes Lair website from Shire of Narrogin website.
User groups: single use or multiple use?	Walk trail.
Signage to trailhead: from local/regional road system	Signage on Williams Rd indicating walk trails.
Trailhead facilities: (parking areas; trailhead signage; trail map; trail information; picnic facilities – table, seats, shelter / shade, barbecue); bins; water; bike parking; toilets; emergency phone; lighting; bollards; fencing	Trailhead map panel, with mapping and general information on Foxes Lair. Wildflower information. Several picnic tables and shelter. Adequate car parking area. No toilets.
Nearby facilities: shops, public transport	Narrogin town centre is less than 1.5 km away, where full range of services available.
Directional / distance signage: along trail	Rudimentary directional markers along trail (blue arrows). No distance signage on trail.
Other signage: (location; promotional; warning; information; advisory; fire safety; code of conduct)	Black cockatoo awareness sign.
Drainage: (culverts – clear?); rolling dips; water bars; drainage channels; rock steps.	Drainage appears satisfactory. Several drainage dips evident.
Interpretation: type; number; topics; need? Cultural/Aboriginal?	None along trail. Information available at trailhead: soils and vegetation; wildflowers; trail information; birds. Should be interpretive panels for formation of breakaway; wildflowers; aboriginal matters (bush tucker?).
On-trail furniture and structures: (bench seats; table viewing platforms; water fountains; boardwalks; bird hides; bird call boxes; tunnels; underpasses; bridges; boardwalks)	One bench seat.
Road crossings: (sight lines; signage; other safety matters; vehicle exclusion barriers and emergency access gates)	None.
Safety: for users; conflicts between user groups; fire etc	No safety issues.
Vegetation: (overhead; side). Need for clearing; invasive species and weeds; re-vegetation needs.	Some overhanging bushes that should be trimmed.
Trail type: (out and back; loop; one way?)	Loop trail. Marked for two way travel (should be one way only).
Grade of trail: (easy; to very difficult)	Easy, but probably not suitable for people in wheelchairs.
Management and maintenance: Management plan? Friends of group? Community support. Who manages?	Local “Friends of” group undertakes majority of work in reserve.
General comments: quality of experience; point of difference; accessibility	Excellent short walk trail suitable for most visitors. Provides wonderful view of breakaway, but could be improved with interpretive panel(s) along trail route – especially at lookout point. Trail directional markings should be improved.

Shire of Narrogin Walk Trails Master Plan – Trails Audit

Trail Name:	Banksia Walk
Location:	Foxes Lair
Trail Characteristics: surface (gravel; concrete; asphalt); Length and width condition? erosion? Weeds / grass invasion?	Gravel surface. Approximately 2200 metres. Trail width ranges from 600mm to 3000mm. Some rocky surfaces.
Promotion: maps, guide books and track notes; web site? Promo brochure?	Excellent web site for Foxes Lair. Foxes Lair Reserve brochure available from Visitor Centre (which has map of trails and description of each). Link to Foxes Lair website from Shire of Narrogin website.
User groups: single use or multiple use?	Walk trail. Could be cycled on mountain bike.
Signage to trailhead: from local/regional road system	Signage on Williams Rd indicating walk trails.
Trailhead facilities: (parking areas; trailhead signage; trail map; trail information; picnic facilities – table, seats, shelter / shade, barbecue); bins; water; bike parking; toilets; emergency phone; lighting; bollards; fencing	Trailhead map panel, with mapping and general information on Foxes Lair. Wildflower information. Several picnic tables and shelter. Adequate car parking area. No toilets.
Nearby facilities: shops, public transport	Narrogin town centre is less than 1.5 km away, where full range of services available.
Directional / distance signage: along trail	Rudimentary directional markers along trail (yellow arrows). However, markings are sometimes poorly located, too infrequent, sometimes confusing and occasionally lying on ground. No distance signage on trail.
Other signage: (location; promotional; warning; information; advisory; fire safety; code of conduct)	Black cockatoo awareness sign.
Drainage: (culverts – clear?); rolling dips; water bars; drainage channels; rock steps.	Drainage appears satisfactory. Several drainage dips and water bars evident.
Interpretation: type; number; topics; need? Cultural/Aboriginal?	Information available at trailhead: soils and vegetation; wildflowers; trail information; birds. Should be interpretive panels for formation of breakaway; wildflowers; aboriginal matters (bush tucker?); and birds. Temporary wildflower identification signage in place.
On-trail furniture and structures: (bench seats; table viewing platforms; water fountains; boardwalks; bird hides; bird call boxes; tunnels; underpasses; bridges; boardwalks)	2 bench seats along trail. Set of timber steps near breakaway.
Road crossings: (sight lines; signage; other safety matters; vehicle exclusion barriers and emergency access gates)	2 road crossings (not marked by warning signage).
Safety: for users; conflicts between user groups; fire etc	No safety issues evident (but potentially could occur if mountain biking was promoted on narrow single tracks sections of trail).
Vegetation: (overhead; side). Need for clearing; invasive species and weeds; re-vegetation needs.	Some overhanging bushes that should be trimmed.
Trail type: (out and back; loop; one way?)	Loop trail. Marked for two way travel (should be one way only).
Grade of trail: (easy; to very difficult)	Moderately difficult due to length.
Management and maintenance: Management plan? Friends of group? Community support. Who manages?	Local “Friends of ...” group undertakes majority of work in reserve.
General comments: quality of experience; point of difference; accessibility	Good quality experience through attractive bushland. Wildflowers need interpretive (identification) panels in situ. Birdlife also should be interpreted by in situ signage along trail. Steps near breakaway need some renovation. Trail directional markings should be improved. Trail experience could be improved by marking trail for one-way travel.

Shire of Narrogin Walk Trails Master Plan – Trails Audit

Trail Name:	Valley Walk
Location:	Foxes Lair
Trail Characteristics: surface (gravel; concrete; asphalt); Length and width condition? erosion? Weeds / grass invasion?	Gravel surface. Approximately 880 metres. Trail width ranges from 600mm to 3000mm. Some rocky surfaces.
Promotion: maps, guide books and track notes; web site? Promo brochure?	Excellent web site for Foxes Lair. Foxes Lair Reserve brochure available from Visitor Centre (which has map of trails and description of each). Link to Foxes Lair website from Shire of Narrogin website.
User groups: single use or multiple use?	Walk trail. Could be cycled on mountain bike (but steps would provide a challenge).
Signage to trailhead: from local/regional road system	Signage on Williams Rd indicating walk trails.
Trailhead facilities: (parking areas; trailhead signage; trail map; trail information; picnic facilities – table, seats, shelter / shade, barbecue); bins; water; bike parking; toilets; emergency phone; lighting; bollards; fencing	Trailhead map panel, with mapping and general information on Foxes Lair. Wildflower information. Several picnic tables and shelter. Adequate car parking area. No toilets.
Nearby facilities: shops, public transport	Narrogin town centre is less than 1.5 km away, where full range of services available.
Directional / distance signage: along trail	Rudimentary directional markers along trail (red arrows). However, markings are sometimes poorly located, too infrequent, missing at some junctions, and confusing. No distance signage on trail.
Other signage: (location; promotional; warning; information; advisory; fire safety; code of conduct)	Black cockatoo awareness sign. No trail bikes signage. Mountain bikes allowed.
Drainage: (culverts – clear?); rolling dips; water bars; drainage channels; rock steps.	Attempts made to control drainage. Some erosion still occurring along trail.
Interpretation: type; number; topics; need? Cultural/Aboriginal?	Information available at trailhead: soils and vegetation; wildflowers; trail information; birds. Should be interpretive panels along trail for formation of breakaway; wildflowers; aboriginal matters (bush tucker?); and birds. Temporary wildflower identification signage in place.
On-trail furniture and structures: (bench seats; table viewing platforms; water fountains; boardwalks; bird hides; bird call boxes; tunnels; underpasses; bridges; boardwalks)	One seat along trail. Several flights of timber steps.
Road crossings: (sight lines; signage; other safety matters; vehicle exclusion barriers and emergency access gates)	None.
Safety: for users; conflicts between user groups; fire etc	No safety issues evident (but potentially could occur if mountain biking was promoted on narrow single tracks sections of trail).
Vegetation: (overhead; side). Need for clearing; invasive species and weeds; re-vegetation needs.	No overhanging vegetation.
Trail type: (out and back; loop; one way?)	Loop trail. Marked for two way travel (should be one way only).
Grade of trail: (easy; to very difficult)	Easy to moderately difficult because of flights of steps.
Management and maintenance: Management plan? Friends of group? Community support. Who manages?	Local “Friends of” group undertakes majority of work in reserve.
General comments: quality of experience; point of difference; accessibility	Good quality experience through attractive bushland. Wildflowers need interpretive (identification) panels in situ. Birdlife also should be interpreted by in situ signage along trail. Steps near breakaway need some renovation. Trail directional markings should be improved. Trail experience could be improved by marking trail for one-way travel.

Shire of Narrogin Walk Trails Master Plan – Trails Audit

Trail Name:	Claypit Walk
Location:	Foxes Lair
Trail Characteristics: surface (gravel; concrete; asphalt); Length and width condition? erosion? Weeds / grass invasion?	Gravel surface. Approximately 1980 metres. Trail width ranges from 600mm to 2500mm. Some rocky surfaces. Lengthy section of trail along management track (but no traffic).
Promotion: maps, guide books and track notes; web site? Promo brochure?	Excellent web site for Foxes Lair. Foxes Lair Reserve brochure available from Visitor Centre (which has map of trails and description of each). Link to Foxes Lair website from Shire of Narrogin website.
User groups: single use or multiple use?	Walk trail. Could be cycled on mountain bike (but steps would provide a challenge).
Signage to trailhead: from local/regional road system	Signage on Williams Rd indicating walk trails.
Trailhead facilities: (parking areas; trailhead signage; trail map; trail information; picnic facilities – table, seats, shelter / shade, barbecue); bins; water; bike parking; toilets; emergency phone; lighting; bollards; fencing	No trailhead map panel. Several picnic tables and bench seats. Adequate car parking area at trailhead. No toilets.
Nearby facilities: shops, public transport	Narrogin town centre is less than 2.0 km away, where full range of services available.
Directional / distance signage: along trail	Rudimentary directional markers along trail (blue arrows). However, markings are sometimes poorly located, too infrequent, missing at some junctions, and confusing. No distance signage on trail.
Other signage: (location; promotional; warning; information; advisory; fire safety; code of conduct)	None.
Drainage: (culverts – clear?); rolling dips; water bars; drainage channels; rock steps.	Efforts made to control erosion. Drainage dips and water bars evident.
Interpretation: type; number; topics; need? Cultural/Aboriginal?	Temporary wildflower identification signage in place. Should be (permanent) interpretive panels along trail for wildflowers; aboriginal matters (bush tucker?); and birds.
On-trail furniture and structures: (bench seats; table viewing platforms; water fountains; boardwalks; bird hides; bird call boxes; tunnels; underpasses; bridges; boardwalks)	Several flights of timber steps (with as many as 20 steps up and 30 down). Spur trail to lookout with seat.
Road crossings: (sight lines; signage; other safety matters; vehicle exclusion barriers and emergency access gates)	One, but minimal traffic.
Safety: for users; conflicts between user groups; fire etc	No safety issues evident (but potentially could occur if mountain biking was promoted on narrow single tracks sections of trail).
Vegetation: (overhead; side). Need for clearing; invasive species and weeds; re-vegetation needs.	No overhanging vegetation noted.
Trail type: (out and back; loop; one way?)	Loop trail. Marked for two way travel (should be one way only).
Grade of trail: (easy; to very difficult)	Easy to moderately difficult because of flights of steps and length of trail.
Management and maintenance: Management plan? Friends of group? Community support. Who manages?	Local “Friends of ...” group undertakes majority of work in reserve.
General comments: quality of experience; point of difference; accessibility	Attractive trail route with excellent views at lookout. Wildflowers need permanent interpretive (identification) panels in situ. Birdlife also should be interpreted by in situ signage along trail. Trail directional markings should be improved. Trail experience could be improved by marking trail for one-way travel. Walking along management track is not an issue.

Shire of Narrogin Walk Trails Master Plan – Trails Audit

Trail Name:	Granite Walk / Arboretum Walk
Location:	Foxes Lair
Trail Characteristics: surface (gravel; concrete; asphalt); Length and width condition? erosion? Weeds / grass invasion?	Gravel surface. Granite walk is approximately 1620 metres. Trail width ranges from 500mm to 2000mm. Some rocky surfaces. Lengthy section of trail along management track (but little traffic). Moderately undulating.
Promotion: maps, guide books and track notes; web site? Promo brochure?	Excellent web site for Foxes Lair. Foxes Lair Reserve brochure available from Visitor Centre (which has map of trails and description of each). Link to Foxes Lair website from Shire of Narrogin website.
User groups: single use or multiple use?	Walk trail. Could be cycled on mountain bike.
Signage to trailhead: from local/regional road system	Signage on Range Rd indicating walk trails.
Trailhead facilities: (parking areas; trailhead signage; trail map; trail information; picnic facilities – table, seats, shelter / shade, barbecue); bins; water; bike parking; toilets; emergency phone; lighting; bollards; fencing	Parking for 4-5 cars at trailhead. Trailhead signs but no map. Information shelter at end of Arboretum Walk. 2 picnic tables within Arboretum picnic area. Bench seats along trail.
Nearby facilities: shops, public transport	Narrogin town centre is less than 1.5 km away, where full range of services available.
Directional / distance signage: along trail	Rudimentary directional markers along trail (some new arrows with rock symbol). However, markings are sometimes poorly located, too infrequent and missing at some junctions. No distance signage on trail.
Other signage: (location; promotional; warning; information; advisory; fire safety; code of conduct)	“Walking in Foxes Lair” sign at car park off Range Road. Black cockatoo awareness sign.
Drainage: (culverts – clear?); rolling dips; water bars; drainage channels; rock steps.	Efforts made to control erosion. Drainage dips and water bars evident.
Interpretation: type; number; topics; need? Cultural/Aboriginal?	Temporary wildflower identification signage in place. Should be (permanent) interpretive panels along trail for wildflowers; aboriginal matters (bush tucker?); trees, granite outcropping; and birds.
On-trail furniture and structures: (bench seats; table viewing platforms; water fountains; boardwalks; bird hides; bird call boxes; tunnels; underpasses; bridges; boardwalks)	Several bench seats and picnic tables. Plant/tree ID signs throughout arboretum.
Road crossings: (sight lines; signage; other safety matters; vehicle exclusion barriers and emergency access gates)	Trail route includes several road crossings and walking along road, but minimal traffic.
Safety: for users; conflicts between user groups; fire etc	No safety issues evident (but potentially could occur if mountain biking was promoted on narrow single tracks sections of trail).
Vegetation: (overhead; side). Need for clearing; invasive species and weeds; re-vegetation needs.	Some overhanging vegetation needs to be trimmed.
Trail type: (out and back; loop; one way?)	Loop trail. Marked for two way travel (should be one way only).
Grade of trail: (easy; to very difficult)	Easy to moderate, due to length (1620m).
Management and maintenance: Management plan? Friends of group? Community support. Who manages?	Local “Friends of” group undertakes majority of work in reserve.
General comments: quality of experience; point of difference; accessibility	Interesting and attractive walk trail through arboretum and past granite outcrops. Trail features old rifle range firing mounds and target mound (with fascinating stone pitched wall). Directional markings could be improved. Permanent interpretive panels should be installed along trail. Trail experience could be improved by marking trail for one-way travel.

Shire of Narrogin Walk Trails Master Plan – Trails Audit

Trail Name:	Dam Walk
Location:	Railway Dam
Trail Characteristics: surface (gravel; concrete; asphalt); Length and width condition? erosion? Weeds / grass invasion?	700m walk trail around Railway dam. Trail utilises wide vehicle tracks and dam wall, some 2 – 3m wide.
Promotion: maps, guide books and track notes; web site? Promo brochure?	Excellent web site for Foxes Lair. Railway Dam brochure available from Visitor Centre (which has map of trails and description of each).
User groups: single use or multiple use?	Walk only.
Signage to trailhead: from local/regional road system	Signage on Great Southern Hwy pointing to Railway Dam.
Trailhead facilities: (parking areas; trailhead signage; trail map; trail information; picnic facilities – table, seats, shelter / shade, barbecue); bins; water; bike parking; toilets; emergency phone; lighting; bollards; fencing; gates	No trailhead signage for walk trails. No signs near car parking area indicating existence of the two walk trails. Signage exists for immigrant history and railway dam history.
Nearby facilities: shops, public transport	Narrogin town centre is less than 1.8 km away, where full range of services available.
Directional / distance signage: along trail	Rudimentary directional markers along trail. However, markings are sometimes poorly located, too infrequent and confusing at some junctions. No distance signage on trail.
Other signage: (location; promotional; warning; information; advisory; fire safety; code of conduct)	None.
Drainage: (culverts – clear?); rolling dips; water bars; drainage channels; rock steps.	Minimal. High water levels have caused serious drainage issues along trails. Two areas along trail will need to be raised with fill and drainage pipe installed.
Interpretation: type; number; topics; need? Cultural/Aboriginal?	No interpretation along trail. Should be (permanent) interpretive panels along trail for birds, railway dam, drainage channels, and immigrants.
On-trail furniture and structures: (bench seats; table viewing platforms; water fountains; boardwalks; bird hides; bird call boxes; tunnels; underpasses; bridges; boardwalks)	4 seats along trail overlooking dam.
Road crossings: (sight lines; signage; other safety matters; vehicle exclusion barriers and emergency access gates)	None.
Safety: for users; conflicts between user groups; fire etc	None.
Vegetation: (overhead; side). Need for clearing; invasive species and weeds; re-vegetation needs.	No issues.
Trail type: (out and back; loop; one way?)	Loop trail.
Grade of trail: (easy; to very difficult)	Easy, and probably suitable for people in wheelchairs.
Management and maintenance: Management plan? Friends of group? Community support. Who manages?	Local “Friends of” group undertakes majority of work in reserve.
General comments: quality of experience; point of difference; accessibility	Attractive short walk with excellent views over dam and birdlife from 4 separate viewing areas (with seats). Requires fill in two areas (10-15m on north side and 20-30m on south side). Directional markings could be improved. Permanent interpretive panels should be installed along trail.

Shire of Narrogin Walk Trails Master Plan – Trails Audit

Trail Name:	Archibald Park Walk
Location:	Railway Dam
Trail Characteristics: surface (gravel; concrete; asphalt); Length and width condition? erosion? Weeds / grass invasion?	1.26 km walk trail around former jet boat racing circuit. Trail utilises wide vehicle tracks, some 2 – 3 m wide.
Promotion: maps, guide books and track notes; web site? Promo brochure?	Excellent web site for Foxes Lair. Railway Dam brochure available from Visitor Centre (which has map of trails and description of each).
User groups: single use or multiple use?	Walk only.
Signage to trailhead: from local/regional road system	Signage on Great Southern Hwy pointing to Railway Dam.
Trailhead facilities: (parking areas; trailhead signage; trail map; trail information; picnic facilities – table, seats, shelter / shade, barbecue); bins; water; bike parking; toilets; emergency phone; lighting; bollards; fencing; gates	No trailhead signage for walk trails. No signs near car parking area indicating existence of the two walk trails. Signage exists for immigrant history and railway dam history.
Nearby facilities: shops, public transport	Narrogin town centre is less than 1.8 km away, where full range of services available.
Directional / distance signage: along trail	Rudimentary directional markers along trail. However, markings are sometimes poorly located, too infrequent and confusing at some junctions. No distance signage on trail.
Other signage: (location; promotional; warning; information; advisory; fire safety; code of conduct)	None
Drainage: (culverts – clear?); rolling dips; water bars; drainage channels; rock steps.	Minimal. High water levels have caused serious drainage issues along trails.
Interpretation: type; number; topics; need? Cultural/Aboriginal?	No interpretation along trail. Should be (permanent) interpretive panels along trail for birds, railway dam, drainage channels, immigrants.
On-trail furniture and structures: (bench seats; table viewing platforms; water fountains; boardwalks; bird hides; bird call boxes; tunnels; underpasses; bridges; boardwalks)	Seats along trail.
Road crossings: (sight lines; signage; other safety matters; vehicle exclusion barriers and emergency access gates)	None.
Safety: for users; conflicts between user groups; fire etc	None.
Vegetation: (overhead; side). Need for clearing; invasive species and weeds; re-vegetation needs.	No issues.
Trail type: (out and back; loop; one way?)	Loop trail.
Grade of trail: (easy; to very difficult)	Easy, but probably not suitable for people in wheelchairs.
Management and maintenance: Management plan? Friends of group? Community support. Who manages?	Local “Friends of ...” group undertakes majority of work in reserve.
General comments: quality of experience; point of difference; accessibility	Directional markings could be improved. Permanent interpretive panels should be installed along trail.

Shire of Narrogin Walk Trails Master Plan – Trails Audit

Trail Name:	Centenary Pathway
Location:	Gnarojin Park
Trail Characteristics: surface (gravel; concrete; asphalt); Length and width condition? erosion? Weeds / grass invasion?	Gravel pathway; approximately 500 metres long.
Promotion: maps, guide books and track notes; web site? Promo brochure?	“Narrogin Centenary Pathway” brochure available from Visitor Centre. Information about Gnarojin Park on Shire of Narrogin website.
User groups: single use or multiple use?	Walk; could be cycled.
Signage to trailhead: from local/regional road system	Good signage to Gnarojin Park from surrounding/regional road network.
Trailhead facilities: (parking areas; trailhead signage; trail map; trail information; picnic facilities – table, seats, shelter / shade, barbecue); bins; water; bike parking; toilets; emergency phone; lighting; bollards fencing; gates	Gnarojin Park has full range of facilities including car parking areas (sealed and unsealed); picnic tables, barbecues, lighting, bins, shelters, toilets; playground; skate park.
Nearby facilities: shops, public transport	Narrogin town centre is less than 500 m away, where full range of services available.
Directional / distance signage: along trail	None.
Other signage: (location; promotional; warning; information; advisory; fire safety; code of conduct)	Various park-related signage. Need for signage directing visitors from Visitor Centre over footbridge to Park.
Drainage: (culverts – clear?); rolling dips; water bars drainage channels; rock steps.	No issues.
Interpretation: type; number; topics; need? Cultural/Aboriginal?	100 black granite tiles depicting events in Narrogin’s history. Tiles cover every aspects of Narrogin’s history.
On-trail furniture and structures: (bench seats; table viewing platforms; water fountains; boardwalks; bird hides; bird call boxes; tunnels; underpasses; bridges boardwalks)	Gnarojin Park has numerous tables, seats and shelters including crescent shaped seats, each representing the different Noongar seasons. Gnarojin Park has several connections to Narrogin town centre across railway (including overhead bridge). Several bridges across brook.
Road crossings: (sight lines; signage; other safety matters; vehicle exclusion barriers and emergency access gates)	None.
Safety: for users; conflicts between user groups; fire etc.	No issues.
Vegetation: (overhead; side). Need for clearing; invasive species and weeds; re-vegetation needs.	No issues.
Trail type: (out and back; loop; one way?)	Out and back (but could be included in loop trail in conjunction with Narrogin Recreation Trail (also within Gnarojin Park).
Grade of trail: (easy; to very difficult)	Easy.
Management and maintenance: Management plan? Friends of group? Community support. Who manages?	Shire Narrogin.
General comments: quality of experience; point of difference; accessibility	Very innovative pathway, but now showing signs of age. Several tiles broke. Could/should be better promoted and brochure could be more readily available. Pathway should be ‘packaged’ together with Noongar Dreaming Trail and Narrogin Recreation Trail as a complete circuit/loop, rather than individual ‘trails’.

Shire of Narrogin Walk Trails Master Plan – Trails Audit

Trail Name:	Noongar Dreaming Pathway
Location:	Gnarojin Park
Trail Characteristics: surface (gravel; concrete; asphalt); Length and width condition? erosion? Weeds / grass invasion?	Majority of trail route uses existing gravelled trail. Some of Dreaming Sites are not located on gravel path. Trail length is approximately 500 m.
Promotion: maps, guide books and track notes; web site? Promo brochure?	Noongar Dreaming Sites brochure available from Visitor Centre. Information about Gnarojin Park on Shire of Narrogin website.
User groups: single use or multiple use?	Walk; but could be cycled.
Signage to trailhead: from local/regional road system	Good signage to Gnarojin Park from surrounding/regional road network.
Trailhead facilities: (parking areas; trailhead signage; trail map; trail information; picnic facilities – table, seats, shelter / shade, barbecue); bins; water; bike parking; toilets; emergency phone; lighting; bollards; fencing; gates	Gnarojin Park has full range of facilities including car parking areas (sealed and unsealed); picnic tables, barbecues, lighting, bins, shelters, toilets; playground; skate park.
Nearby facilities: shops, public transport	Narrogin town centre is less than 500 m away, where full range of services available.
Directional / distance signage: along trail	None.
Other signage: (location; promotional; warning; information; advisory; fire safety; code of conduct)	“No Littering” signs. Need for signage directing visitors from Visitor Centre over footbridge to Park.
Drainage: (culverts – clear?); rolling dips; water bars; drainage channels; rock steps.	No issues.
Interpretation: type; number; topics; need? Cultural/Aboriginal?	Trail consists of at least 8 sites where Aboriginal artists have interpreted Noongar heritage and culture. Perhaps could be enhanced by placement of small interpretive panels explaining what each site represents (for those who do not have brochure).
On-trail furniture and structures: (bench seats; table viewing platforms; water fountains; boardwalks; bird hides; bird call boxes; tunnels; underpasses; bridges; boardwalks)	Gnarojin Park has numerous tables, seats and shelters including crescent shaped seats, each representing the different Noongar seasons. Gnarojin Park has several connections to Narrogin town centre across railway (including overhead bridge). Several bridges across brook.
Road crossings: (sight lines; signage; other safety matters; vehicle exclusion barriers and emergency access gates)	None.
Safety: for users; conflicts between user groups; fire etc	No issues.
Vegetation: (overhead; side). Need for clearing; invasive species and weeds; re-vegetation needs.	No issues (although vegetation screens from view some of the Dreaming Sites located away from the main gravel pathway).
Trail type: (out and back; loop; one way?)	Out and back (but could be included in loop trail in conjunction with Narrogin Recreation Trail (also within Gnarojin Park).
Grade of trail: (easy; to very difficult)	Easy.
Management and maintenance: Management plan? Friends of group? Community support. Who manages?	Shire of Narrogin.
General comments: quality of experience; point of difference; accessibility	Excellent range of sculptures, each different, representing Noongar heritage and culture. Some require maintenance due to weed growth. Would benefit from a new trail or pathway being constructed to allow visitors to walk closer to the sites. If renovated, and promoted better, could be a highlight of Narrogin. Pathway should be ‘packaged’ together with Narrogin Centenary Trail and Narrogin Recreation Trail as a complete circuit/loop, rather than individual ‘trails’.

Shire of Narrogin Walk Trails Master Plan – Trails Audit

Trail Name:	Narrogin Recreation Trail
Location:	Gnarojin Park
Trail Characteristics: surface (gravel; concrete; asphalt); Length and width condition? erosion? Weeds / grass invasion?	Long sections of gravel pathway and concrete paths; approximately 1940 metres long. Also includes lengthy boardwalk over Narrogin Brook.
Promotion: maps, guide books and track notes; web site? Promo brochure?	Information about Gnarojin Park on Shire of Narrogin website. No promotional brochure discovered.
User groups: single use or multiple use?	Walk; but could be cycled.
Signage to trailhead: from local/regional road system	Good signage to Gnarojin Park from surrounding/regional road network.
Trailhead facilities: (parking areas; trailhead signage; trail map; trail information; picnic facilities – table, seats, shelter / shade, barbecue); bins; water; bike parking; toilets; emergency phone; lighting; bollards fencing; gates	Gnarojin Park has full range of facilities including car parking areas (sealed and unsealed); picnic tables, barbecues, lighting, bins, shelters, toilets; playground; skate park. Exercise station at southern end of park. Trailhead signage with map at northern (sealed) car park.
Nearby facilities: shops, public transport	Narrogin town centre is less than 500 m away, where full range of services available.
Directional / distance signage: along trail	None.
Other signage: (location; promotional; warning; information; advisory; fire safety; code of conduct)	“No Littering” signs. Various park-related signage. Need for signage directing visitors from Visitor Centre over footbridge to Park.
Drainage: (culverts – clear?); rolling dips; water bars drainage channels; rock steps.	No drainage issues. Culverts under pathway.
Interpretation: type; number; topics; need? Cultural/Aboriginal?	100 black granite tiles of Narrogin Centenary Pathway, and interpretation associated with Noongar Dreaming Sites.
On-trail furniture and structures: (bench seats; table viewing platforms; water fountains; boardwalks; bird hides; bird call boxes; tunnels; underpasses; bridges boardwalks)	Gnarojin Park has numerous tables, seats and shelters including crescent shaped seats, each representing the different Noongar seasons. Gnarojin Park has several connections to Narrogin town centre across railway (including overhead bridge). Several bridges across brook.
Road crossings: (sight lines; signage; other safety matters; vehicle exclusion barriers and emergency access gates)	None.
Safety: for users; conflicts between user groups; fire etc	No issues.
Vegetation: (overhead; side). Need for clearing; invasive species and weeds; re-vegetation needs.	No issues.
Trail type: (out and back; loop; one way?)	Loop trail.
Grade of trail: (easy; to very difficult)	Easy (probably suitable for people in wheelchairs).
Management and maintenance: Management plan? Friends of group? Community support. Who manages?	Shire of Narrogin.
General comments: quality of experience; point of difference; accessibility	Quality experience in a very pleasant parkland alongside Narrogin Brook. Route is unclear, especially at southern end where boardwalk is located. Narrogin Recreation Trail should be ‘packaged’ together with Narrogin Centenary Trail and Noongar Dreaming Trail as a complete circuit/loop, rather than individual ‘trails’. Needs trail directional markers. Needs additional pathway/trail on town side (as Noongar Dreaming Sites seem ‘stranded’ away from trail).

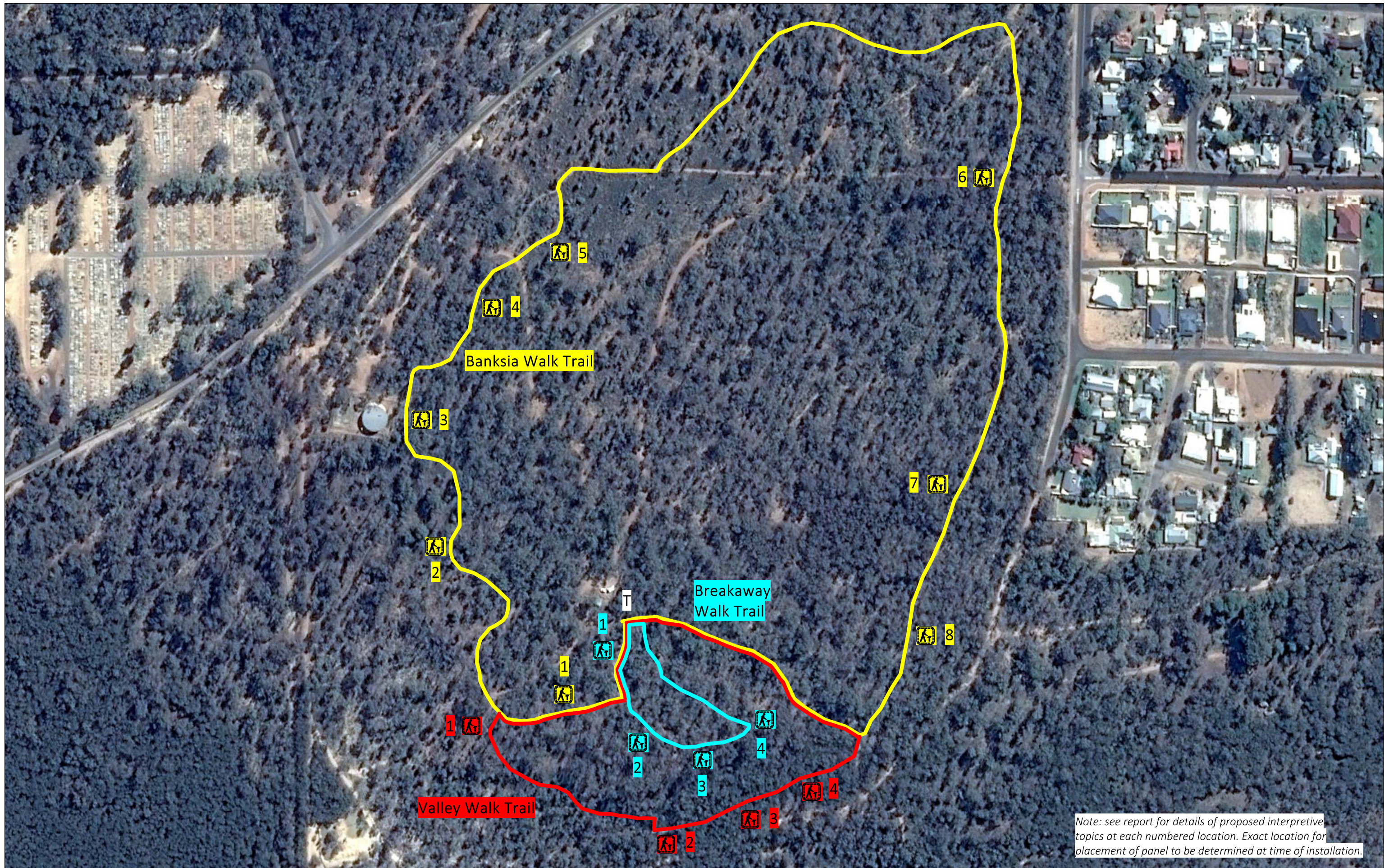
APPENDIX 4 – PLANS

Plan 1: Foxes Lair Walk Trails (Banksia, Valley, Breakaway)

Plan 2: Claypit Walk Trail

Plan 3: Granite Walk Trail

Plan 4: Railway Dam Trails



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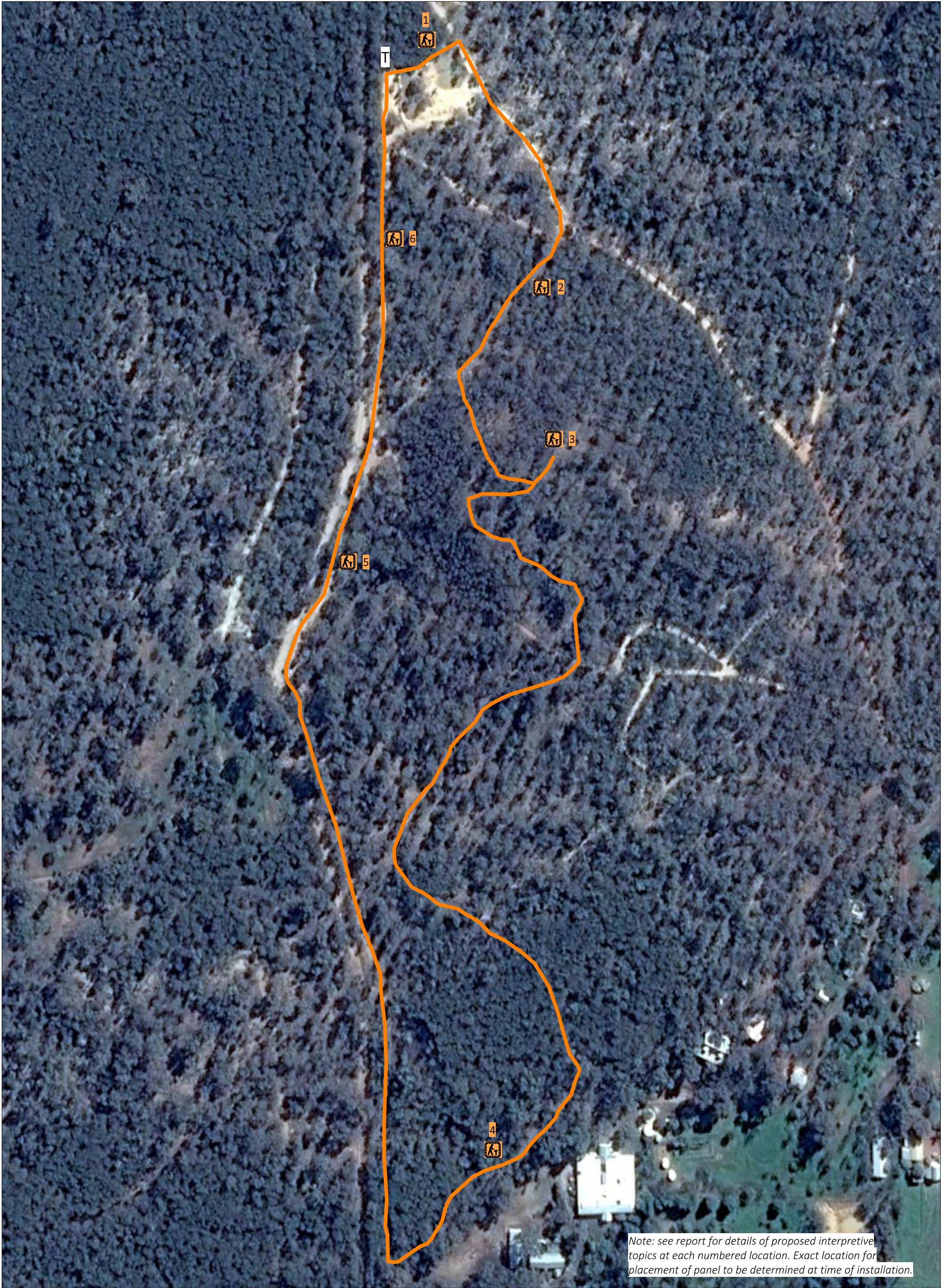


December 2018

Narrogin Walk Trails Master Plan

Plan 1: Foxes Lair Trail





Note: see report for details of proposed interpretive topics at each numbered location. Exact location for placement of panel to be determined at time of installation.



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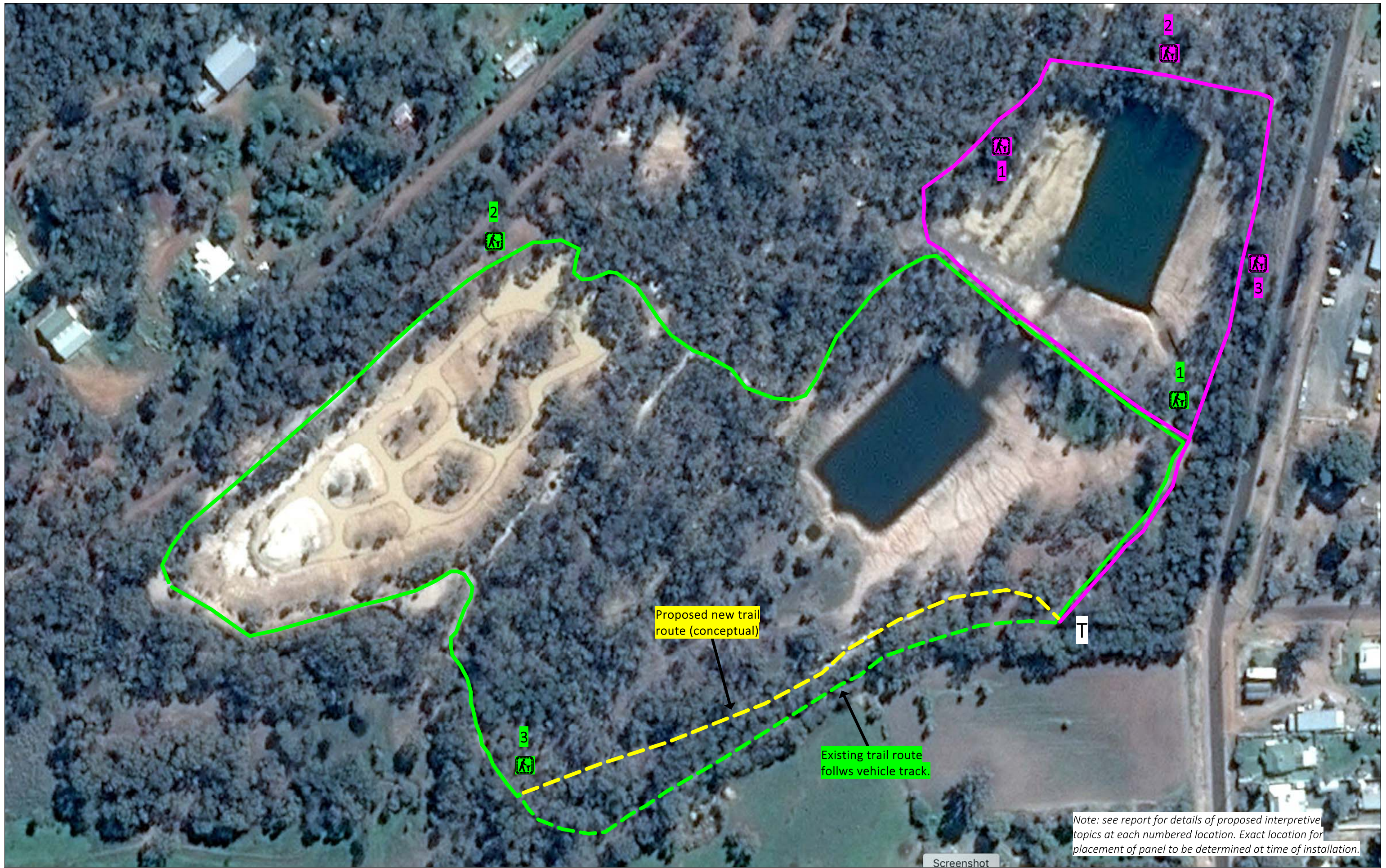


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Narrogin Walk Trails Master Plan

Plan3: Granite Trail





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Narrogin Walk Trails Master Plan

Plan 4: Railway Dam Trail



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