

A photograph of a wooden boardwalk with railings winding through a lush forest. The boardwalk is made of light-colored wood and has a simple wooden railing. It curves through a dense forest with many trees and ferns. A large, fallen tree trunk lies across the path in the foreground. The text "Shire of Gingin Trails Master Plan" is overlaid in the center of the image.

Shire of Gingin Trails Master Plan

SHIRE OF GINGIN

TRAILS MASTER PLAN



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EXECUTIVE SUMMARY AND RECOMMENDATIONS

SETTING THE SCENE

The Shire of Gingin has commissioned the preparation of this Trails Master Plan to provide direction in regard to the upgrading, development and maintenance of trails across the Shire.

In discussions, it is apparent that the one of the key driving forces behind the trails planning strategy is to develop (or redevelop) a series of trails to support the Shire of Gingin community to be inclusive, vibrant, healthy and safe.

Another 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.

The projects identified in this plan will improve the provision of age-friendly infrastructure for all, taking into account Disability Access and Inclusion Planning.

Upon completion of the trail upgrading program, promotion of the trails will support the development of the Shire of Gingin as a premier tourist destination.

The recommendations for interpretation on some of the trails will include Aboriginal cultural and historical information in accordance with the Shire's Cultural Heritage Management Plan, Heritage Agreement and Reconciliation Action Plan.



It is expected that the upgrading and enhancement of the existing trails will attract additional visitors to the Shire and into the towns of Gingin, Guilderton and Lancelin in particular. In addition to being attractive to visitors, the trails will also be of benefit to local people.

Gingin is within easy reach of Perth, being just over one and a quarter hour's drive via the Brand Highway, or a series of other routes/roads. The coastal towns are also well located and easily accessible from Perth via the Mitchell Freeway and Indian Ocean Drive. The towns of the Shire are 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).

The Shire of Gingin has a wide range of attractive and varied landscapes, notably the coast and, further inland, rolling hills and farmlands.

The coastal settlements (including Guilderton, Seabird, Ledge Point and Lancelin) are popular holiday destinations, as well as being home for numerous residents.

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

However, visitor numbers to the Shire of Gingin, as with any area, could be increased, and having quality trails is seen as one way of attracting additional visitors, keeping visitors longer and to keep them coming back.

This is a plan for the upgrading of three walk trails – one in each of the three sub-regions of the Shire (Upper Coastal, Lower Coastal and Gingin & Rural). It is not a Local Bike Plan and therefore has not considered the network of existing facilities nor the need for additional off-road paths and on-road cycling facilities.

The upgrading of the existing trails (and the development of several new trails) will provide a greater range of opportunities for local people and visitors to enjoy the beautiful environment and history that is available, and to become acquainted with the rich and varied history of the towns and the region.



This Trails Master Plan is focussed on developing a small suite of trails that will be of interest to not only local people but visitors as well. To create a suite of quality trails does not necessarily mean constructing numerous new trails. 13 trails already exist within the Shire of Gingin. The primary goals of this Trails Master Plan are to determine what trails are currently available in the Shire, to assess what improvements are required to the existing trails, and to make recommendations on what additional trails could be developed in the future.

The suite of trails must reflect the quintessential character of the area – its coastal environs, its rivers, 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 Shire. A revamped in-town Heritage Trail in Gingin is proposed, as well as a GeoTour (or GeoTrail) that will, when implemented, take visitors to a wide range of interesting and historic sites scattered throughout the Shire.

The Moore River and the coastline of the Shire are without doubt two of the Shire of Gingin's greatest natural attractions and it is alongside these two features that trails and pathways have already been developed. Though they are already well used, there is much room for improvement of these popular attractions. This 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 Guilderton and Lancelin, holidaymakers and tourists passing through or visiting these towns.

The financial costs involved in implementing the trails program outlined in this Trails Master Plan need not be borne by the Council alone. Funding programs are available to assist the Shire of Gingin in upgrading and enhancing existing trails and in the development and promotion of new trails. This will enable the Shire to embark on a program to progressively upgrade and expand the trail supply, and to promote the trails and natural attractions of the Shire to local residents, visitors in nearby towns, as well as the population of Perth.



THE EXISTING TRAIL SUPPLY SITUATION







In 'setting the scene' for this Trails Master Plan it is important to be cognisant of the fact that 13 trails already exist in the Shire of Gingin including one trail currently being enhanced located on the old limestone road off Cowalla Rd. The inventory of Existing Trails prepared as part of this project has identified the following core characteristics of 'trail supply':

- ✚ Most of the existing trails are for walking only.
- ✚ There appears to be no formally recognised mountain bike trails or horse-riding trails within the Shire.
- ✚ The trails that do exist in the Shire of Gingin are currently not well packaged and promoted. The trail brochures/leaflets that do exist have no consistency in look and no uniform branding.
- ✚ 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 improvement.

THE ROLE OF TRAILS








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

Right across Australia the many benefits of well-planned and promoted trails are being recognised by a range of agencies including tourism organisations, local government authorities 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.


WHAT THIS TRAILS MASTER PLAN PROVIDES








As is common with Trails Master Plans, the Project provides the following:

-  An inventory of existing and potential trails including their purpose, general condition and use.
-  Identification of potential trails while having due regard for other landowners such as adjoining local governments and land managed by other agencies and government departments.
-  Mapping of trails within the Shire of Gingin.
-  Preliminary cost estimates and priorities for upgrading of existing trails and development of any proposed new trails.
-  Community consultation.
-  Provision of a recommended action plan and strategies for implementation of the Trails Master Plan.
-  Consideration and recommendations for trail information and interpretation including brochures, signs and on-line information.

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;

-  **Shire of Gingin staff input** – funding and staff resourcing are critical to successfully implementing any trail plan;
-  **Trail demand** - the majority of users are seeking short trail opportunities;
-  **Availability of existing trails** in the Shire – 13 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 Gingin 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;
-  **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; and
-  **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.

PROPOSED PRIORITY PROJECTS

What then, can trails do for the Shire of Gingin? This Trails Master Plan has been based on face-to-face consultation with key stakeholders and many days of field work. It is shaped specifically to fit the Shire of Gingin's unique qualities and the enhancement of three existing trails (one in each of the three sub-regions).

It proposes three significant trail projects that have the potential to deliver benefits to the local community. This 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 the Shire of Gingin.

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

The following trail projects have been identified as much needed in the community by residents, key stakeholder groups and staff of the Shire of Gingin. The prioritisation of the trails will be determined each year by staff and will be dependent on available resources, funding opportunities and how they link with other shire projects e.g. townscape strategies and coastal management plans.

Seven specific projects are recommended in this Trails Master Plan. The seven projects are as follows:

Project 1: Gingin Town Heritage Trail - Upgrading and Realignment Project

This project is about the realigning and upgrading of the existing heritage trail throughout the Gingin townsite. The resultant trail will be approximately 2300 metres long – about an hour's walk. The original trail is now dysfunctional with missing trail directional markers and very old interpretation.

The Municipal Inventory of Heritage Places provides the basis for the redevelopment and realigning of the proposed new Gingin Heritage Trail. Recognising that not all listed sites/places can be included on a coherent circuit trail, the proposed heritage trail route 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.

The trail could feature interpretive signage on rusty steel pedestals depicting images of the region and the town. (Rusty steel structures are already used in two locations in Gingin – outside the CRC and at the memorial adjacent to the sound shell in Granville Park).

Project 2: Moore River and Silver Creek Trails Upgrading Project

The existing trails along the Moore River (Riverside Trail 1 and Riverside Trail 2) and Silver Creek are very popular but require upgrading and enhancement to make them even more appealing, safer and more sustainable.

The intention is to upgrade the existing natural earth surfaces by applying crushed limestone and, in some instances, relocating the trail(s) away from the river's edge where the trail route is prone to inundation during periods of high water levels.

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 Guilderton.

Project 3: Lancelin Coastal Path Upgrading Project

Much of the coastal shared path/trail is already in place, although could be significantly improved.

With the current upgrading and access improvements to Hinchcliffe Hill Lookout, it is highly desirable that the existing path be extended to enable cyclists and people in wheelchairs to access the new ramp on the north side of the lookout. This necessitates a significant extension to the path network.




This project is about making better use of the existing segments of pathway by various improvements with the end result being a well interpreted and signed trail from Grace Darling Park in the south through to Hinchcliffe Hill Lookout at the northern end.

The range of improvements include: new sections of path, kerb ramps to enable safer access to the path; safety improvements by better control of wind-blown sand; installation of interpretive signage; and a promotional brochure to make the trail more attractive and appealing to users (local people; day-trippers; tourists passing through; holidaymakers).

In addition to the trails development/upgrading projects listed above, another important task (or trails-related project) for the Shire of Gingin is a Marketing and Promotion Program (Project 4).

A series of trails will be developed or upgraded through the programs set out in this Trails Master Plan. When in place, they will need to be better promoted. This is best achieved through a concerted effort at compiling information and publishing it in the form of simple but aesthetically pleasing brochures/maps.

Other trail projects are recommended for implementation following the completion of these three priority projects (and the promotion/marketing program). They are:

-  Moore River Water Trail (Project 5)
-  Connection between Silver Creek and Moore River foreshore pathway (Project 6)
-  Gingin GeoTour Project (Project 7)

In proposing a total of three priority projects this Trails Master Plan recognises the fact that the Shire of Gingin has a limited capacity to construct and maintain more 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, and then selectively over the coming years add to that suite of trails.

A PROGRAM OF DELIVERY

This Trails Master Plan is unusual in that the Shire of Gingin has three main communities (Gingin, Guilderton and Lancelin) as well as several other smaller communities. Each community would prefer that their project be undertaken and fully completed first. However, and as stated elsewhere, it has to be recognised that not all trail improvements can be achieved at the same time – particularly when there are competing demands.

This Trails Master Plan sets out a multi-year implementation program for the Trails Master Plan projects – a program determined by the Shire of Gingin.

A range of grant programs is outlined in the report, which appear strong prospects for various elements of the program. For example, the Lotterywest Trails Funding Program is a highly likely source for any/all of these trail projects. In years gone by funding has been available from the Wheatbelt Development Commission under the Royalties for Regions funding program. It is not known whether additional funding will be available from a similar scheme in the future.

The cost estimates set out in this Trails Master Plan are based on full commercial rates (using contractors and consultants). Savings can be made using volunteers and/or Shire works staff for some tasks (such as trail clearing and construction, and installation of signage etc).

MARKETING AND PROMOTION

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 Gingin 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, be the primary objective. With the implementation of the trails projects developed in this Trails Master Plan, 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.

SUMMARY AND COSTS

In summary, the Shire of Gingin is fortunate to have an enviable array of physical and geographical attributes – including the Moore River, the coastline, a rich agricultural history, the heritage buildings of Gingin and the region and the Aboriginal history of the area. It is just over one 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 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 community and, importantly, tourists visiting from Perth. It does not focus solely on developing new trails but recognises the existence of notable trails already in the towns of the Shire of Gingin. It emphasises the upgrading 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 Trails Master Plan is **\$778,570** (+ 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 and final design detail and the use of volunteers, Shire staff 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 and/or Shire staff 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 Trails Master Plan will be dependent on grant funding and additional resourcing including budget allocations to implement as well as an ongoing commitment to increase annual budgets to cover maintenance costs as prescribed in this document. Additional resourcing also includes employment of or contracting a Project Manager who can oversee all aspects of each project and works aware that shire staff are at full capacity.

RECOMMENDATIONS

It is recommended that the Shire of Gingin:

-  Receive the Shire of Gingin Trails Master Plan and seek to implement the recommendations contained therein over the suggested implementation program.
-  Consider an annual allocation to supplement grants from other sources to implement the projects contained within the Shire of Gingin Trails Master Plan.
-  If external funding can be sourced, make arrangements for a portion of the work time of an officer of the Shire of Gingin to be dedicated to trails and implementation of this Trails Master Plan.
-  Make a budget allocation for additional staffing costs to engage a Project Manager.
-  Seek funds from other sources and funding programs for the projects contained within the Shire of Gingin Trails Master Plan.
-  Consider the need to increase staff resourcing to maintain new/upgraded trails into the future. In particular, staff such as a Project Officer may be needed to undertake all aspects of the project including signage which would include content/information research, wordings/maps, coordination and development.

SECTION 1: PROJECT OBJECTIVES AND METHODOLOGY

1.1 BACKGROUND

This Trails Master Plan for the Shire of Gingin has been commissioned by the Shire of Gingin, with funding support from Lotterywest.

The development of the Trails Master Plan will provide the framework to direct the planning of trails in the Shire of Gingin to ensure they are well planned, managed, resourced, promoted and maintained and, where practical, linked to external trails networks and wider regional trails.

The purpose of this Trails Master Plan is to identify existing trails and to assist in the forward planning for the provision of new trails throughout the Shire of Gingin.

The plan includes an overview report detailing existing trails and potential new trails, and management and maintenance of existing trails and the construction and infrastructure development of new 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 dunes to coastal locations and good fishing spots along the Moore River.

The shire has a variety of historic sites and heritage assets, and these too could well be linked by trails. Therefore, the importance of trails in increasing environmental awareness and heritage conservation, as well as providing recreational and tourist potential to residents and visitors to the Shire is paramount.

1.2 PURPOSE AND NEED FOR THIS TRAILS MASTER PLAN

Trails' planning does not exist in isolation. This Trails Master Plan is part of a broader approach by the Shire of Gingin 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 residents of the Shire.

The Shire of Gingin commissioned this Trails Master Plan as a way of developing new tourism opportunities to the towns and improving the recreational opportunities of local people.

Recreational trails are not an isolated product – they link with a whole range of other planning processes – tourism, open space planning, regional planning, economic development, and natural resource management planning. Trails need to be placed in a wider context of other issues. (See Section 4 which deals with a range of background information and reports which have helped shape the outcomes of this Trails Master Plan).

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.





The intention of developing (or redeveloping) trails in the Shire of Gingin is to attract visitors, especially in areas where these trails can link to existing towns and services enabling economic benefits to occur at a local level. The trails are also intended to be used by local people.

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 Gingin.
3. Provide attractions to tourists that would educate them of the ecological, social and cultural significance of places within the Shire of Gingin.
4. Provide an opportunity for an integrated community project e.g. looking at potential ways to engage the community in different stages of the projects.
5. Incorporate Aboriginal heritage into the trail system (especially in interpretive signage).
6. Support the historical significance of other locations and sites within the Shire of Gingin.

1.3 SCOPE OF THE TRAILS MASTER PLAN

The purpose of this Trails Master Plan for the Shire of Gingin is to:

-  to determine what trails already exist;
-  to determine the condition of the existing trails;
-  to determine what action should be taken to rectify any issues; and,
-  to develop construction plans to enhance the three existing trails (projects 1, 2 and 3 - enhancements to existing trails).

The development and implementation of this Trails Master Plan would make a significant contribution to conserving and interpreting the heritage values of the Shire of Gingin as well as bringing tourism opportunities to the region and improving the recreational opportunities of local people.

1.4 METHODOLOGY

In common with other Trails Master Plans, this project followed a similar methodology to establish the desired outcomes.

Background Research – the first stage in the preparation of this Trails Master Plan was to review background material that may influence the supply of, or demand for, trails within the Shire of Gingin. 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, condition and as many pertinent facts about those existing trails. During this stage, digital mapping data was obtained in preparation for the fieldwork.

Initial Discussions with Shire of Gingin staff 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 taking into account resourcing constraints, 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 Gingin.

Meeting with key stakeholders – the input from interested local people and key stakeholders was crucial to the successful preparation and implementation of this Trails Master Plan. In any community, such as the Shire of Gingin, there are numerous 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. Each has a vital role to play in shaping the Plan. Three community stakeholder meetings were delivered in Gingin, Guilderton and Lancelin.

Field work – there is no substitute for actually walking (or cycling) 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.

Briefing the Council – following the three community consultation meetings and fieldwork a presentation was made to the Councillors to inform them of progress and community input.

Report writing – following background research, 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 Gingin 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.

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 with key stakeholders – such as the Lower Moore River Working Group and the Gingin Railway Station Tourist Information Centre) – 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. Mapping of the trails network within the Shire involves one map showing the location of all existing trails, and a series of other maps illustrating the recommended location of the proposed trails upgrading tasks. Individual plans (on aerial photography) were produced for each priority trail project.

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

Receipt and consideration of feedback from the Shire of Gingin – all comments received on the Draft Plan were taken into consideration in the preparation of the final Trails Master Plan.

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

Should the Trails Master Plan be received by Council, action ideally would commence soon after with the development of a project plan and sourcing of external funding for implementation as defined 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 personnel in the volunteer group changes (or leaves the area), enthusiasm wanes, focus changes. When that happens the trail surface deteriorates badly through erosion, vegetation becomes overgrown, trail signage disappears and brochures/leaflets become non-existent. The trail then is no longer suitable for use. The original expense and effort in developing the trail has been wasted.

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.

When proposing a trails network, three fundamental questions must be answered:

Where is the money going to come from?

Who is going to use the trail?

Who is going to maintain the trail?

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 5-year or 10-year implementation period.

This Trails Master Plan therefore proposes a number of specific projects that have the potential to deliver solid and *real* benefits to the Shire of Gingin. It recognises the needs and demands of local residents (in particular) and visitors, and it takes advantage of the diverse range of attractive landscapes on offer (coastal, riverine, rural, historic town).

This Trails Master Plan also recognises the fact that there are 13 existing trails in the Shire of Gingin – and more within a short drive of Gingin.

This Trails Master Plan recognises the limited capacity of the Shire of Gingin. 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 that will be used throughout this 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. The Blueprint states (page 22):

BENEFITS THAT ARE GENERALLY RECOGNISED INCLUDE:

-  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.
-  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 not only benefit visitors (and those that depend on the tourism industry). There will also be benefits to local residents. 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.


In particular, this Trails Master Plan proposes several projects of direct benefit to local people, such as the Gingin Heritage Trail, the enhancements to the riverside trails in Guilderton and enhancements to the coastal path network in Lancelin. The re-development and upgrading of these trails and pathways will be of value to current and future residents (as well as visitors).

2.4 DEMAND FOR TRAILS

2.4.1 WHAT DO PEOPLE DO?

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 5 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) (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% WA residents cycle weekly
- 43.3% WA residents have ridden a bicycle in the past year
- 1.13 million approx. WA residents cycle once a year Source: Australian Cycling Participation Survey 2015 (Source: <https://www.onlinepublications.austroads.com.au/items/AP-C91-15>)
- Use of cycle or walking paths increased 7% to 31% between 1999 to 2006 (Source: <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 (Source: <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 by a relatively small number of participants (around 3% of respondents to 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 also 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.

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*).









The Shire of Gingin Community Perceptions Survey (2016) report stated that 52% of respondents were satisfied with paths and trails and 23% were not, although it is important to note that this includes general pathways, not specific to trails.

SECTION 3: CONSULTATION

3.1 THE SHIRE OF GINGIN (STAFF)




An Inception Meeting for this Trails Master Plan was held in Gingin on 15 February 2018 with Allister Butcher (Executive Manager Operations – Construction) and Raees Rasool (Executive Manager Assets), and Jodie Mortadza (Coordinator Community Services & Engagement - the project administrator).

The following matters were discussed:

-  The Shire has commissioned this project for the following reasons:
 - for the Shire to be clear about what trails already exist
 - what needs to be done to improve existing trails
 - to use trails to encourage visitors to the area
-  Trails Master Plan to focus on the enhancement of three existing trails being:
 - Gingin and Rural Trail: 3 Bridges Walk Trail, Gingin
 - Lower Coastal Trail: Guilderton Boardwalk Trail (includes Moore River and Silver Creek)
 - Upper Coastal Trail: Lancelin trail encompassing the Hinchcliffe Hill Lookout.
-  Funding and staffing resources of the Shire are important determinants when proposing new trail projects.
-  The upgrading of existing trails is a better option than proposing new trails, as ongoing maintenance (including whole of life costs) is a major concern.
-  Plan will also include an overview of other potential trails, existing and new that could be enhanced/developed in the future.
-  Discussed a canoe trail at Guilderton however due to limited car parking space already in the area it may not be a good option.
-  With regards to community consultation, it would be beneficial to invite interested stakeholders in each of the areas and surrounds.
-  Timeline for implementation of recommendations may be based on internal capacity and other priority commitments.

3.2 GUILDERTON COMMUNITY

A meeting was held 23 March 2018. The following matters were discussed:

-  Focus should be on repairing/enhancing/upgrading existing trails before any new trails are developed.
-  Ongoing maintenance of existing trails is required and that is becoming more difficult.
-  Additional interpretation along each trail is needed. Trails need to include Yued Nyoongar and European history and culture.

- ✚ Yued Nyoongar women are keen to have stories told. Yued Nyoongar artist and historians need to be included in all projects.
- ✚ Use Aboriginal Heritage funding for engagement of community. Access specific funds like NAIDOC for launching/celebrations.
- ✚ Separate space between men's and women's place with the connecting of the trails and the location of some trails.
- ✚ Ablutions needed at the groyne and on additional trails – toilet paper everywhere.
- ✚ Few people use Lighthouse Trail because of sandy surface.
- ✚ Weed control, trail surfacing and replacement of directional signs needed on Djena Koorl-iny Trail.
- ✚ Extension to boardwalk is desirable.
- ✚ Route linking Silver Creek Trail, through golf course, to join trail at foreshore near river mouth was discussed.
- ✚ Fishing platforms (and more barrier fencing) should be built, to help prevent indiscriminate access to river foreshore.
- ✚ Booklet should be developed to indicate bird viewing areas (similar to that developed for Moora).
- ✚ Ownership of the trails was questioned.
- ✚ Sustainability of the trails is important.
- ✚ Trail authentication/ recognition by government services.
- ✚ Additional signage needed to help protection of the sandbar.
- ✚ Surfacing of Silver Creek trailhead is urgently required (cars get bogged in sand).

3.3 LANCELIN COMMUNITY

A meeting was held 27 March 2018. The following matters were discussed:





- ✚ Lancelin South development – trail/paths proposed. Yet to occur (fully funded by developer).
- ✚ Path to the Complex mooted. Could be an important link for local people.
- ✚ Maintenance along edges of existing concrete paths needed.
- ✚ Rehabilitation of foreshore dunes is important to stop sand blowing over paths.
- ✚ Edward Island Tombolo Management Plan made recommendations for management of the area.
- ✚ Land ownership has previously prevented some sections of path from being completed.
- ✚ Access to Hinchcliffe viewing platform is required for cyclists and wheelchairs. Best achieved by constructing new paths along Beacon Road and Hinchcliffe Road.
- ✚ It was stated that a Bike Plan has been prepared for the Shire of Gingin. Shows missing links in path network in Lancelin.

- ✚ Additional interpretation is required along the foreshore path e.g. whale station was once located along the beach in Lancelin; military history; town built on swamp; islands; fishing industry; shipwrecks (e.g. Grace Darling).
- ✚ Signage proposed at Hinchcliffe lookout, including 'directional dial'.
- ✚ Need for consistency in provision of interpretation across the entire Shire.
- ✚ Limestone trail for cyclists and walkers to Ledge Point suggested.
- ✚ Preservation of foreshore reserves along the path/trail with new fences.
- ✚ Need to make use of Lancelin Coastal Erosion Hazard map to avoid substantial infrastructure inside setbacks.
- ✚ NACC can assist with environmental interpretation information.

3.4 GINGIN COMMUNITY






A meeting was held 27 March 2018. The following matters were discussed:

- ✚ Chain across Three Bridges Walk (at southern side of Gingin Brook) is off-putting to potential users. Should be replaced by lockable/removable bollards, noting that the bridge is not able to accommodate vehicles (emergency vehicle must access site from the north end).
- ✚ Location of signage along Three Bridges Walk is very confusing and too much of it.
- ✚ The road was used to drive cattle to stockyards (and hence became known as the stock route).
- ✚ More bench seats needed along boardwalk.
- ✚ Concrete path suggested along Brockman St to cater for residents of Marchmont Estate. If 'trail route' to remain as currently is would like to see concrete pathway to Marchmont as would have dual purpose to support local residents access to town. Concrete path would be very expensive.
- ✚ Option suggested of re-routing Three Bridges Walk Trail along Weld St (and not along Brockman St).
- ✚ Important to retain cemetery visit option for both its history and wildflowers.
- ✚ Ensure stock route history is included on a trail.
- ✚ Cut out 'rusty metal cows' along stock route as a symbol of history (similar to that shown in Mullewa photo).
- ✚ Could have two separate trails: an 'historical' route, and a 'natural' route.
- ✚ Removing weeds along 'stock route' and replanting with native species was suggested. Wildflower planting to enhance stock route section of trail; however, need to avoid areas where cows cross reserve between paddocks.
- ✚ Signage on Three Bridges Trail and Heritage Walk Trail is old, not visible and unmaintained.
- ✚ A limestone trail along Weld St would potentially be a safer (and shorter) way of getting walkers to northern end of 'stock route'. Extra planting would provide more shade.

-  Preference for crushed limestone trail rather than concrete path.
-  Maintaining paths must also be a consideration, for example if trees fall down they need to be removed from site to not distract from the trail experience. In addition, if a path has 'honky nuts' is it realistic and achievable to remove these on a regular basis?
-  Acknowledgement that trails encourage visitors to stay longer, and spend money in town, and that local people will use the trails too.
-  *Note: information flyers to highlight the Town History Trail is underway and this could be integrated into the future trail development program.*

3.5 SHIRE OF GINGIN COUNCIL
















A presentation was made by the consultant to the Gingin Shire Council on 4th April 2018. The presentation focussed on the following matters:

-  Scope of the project.
-  Existing trails within the Shire of Gingin.
-  Community consultation events.
-  Proposed trail projects.
-  Phasing of Trails Master Plan project.




SECTION 4: BACKGROUND INFORMATION

The Shire of Gingin 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
-  Municipal Inventory of Heritage Places
-  Age Friendly Community Plan
-  Cultural Heritage Management Plan 2016-2019
-  Reconciliation Action Plan
-  Community Infrastructure Plan – Final Report (March 2016)
-  Strategic Community Plan 2015--2025 – Review - Context and Research
-  Strategic Community Plan Review Youth Consultation
-  Draft Coastal Hazard Risk Management and Adaption Plan
-  Edwards Island Tombolo Coastal Management Site Plan
-  Lower Moore River Silver Creek Recreation Reserve Management Plan (2006)
-  Lower Moore River – River Action Plan (August 2000)
-  How People Use the Moore River Estuary for Recreation (Feb 2000)
-  Community Perceptions Survey 2016
-  Old North Road Stock Route Drive Trail – Trail Development Plan (July 2008)

Other background material that have informed the recommendations of this Trails Master Plan include:

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

4.1 STRATEGIC COMMUNITY PLAN 2017-2027













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

In the Focus Area of “Infrastructure & Development”, the Shire’s Performance Indicators include maintain or achieve satisfied or better with “paths and trails”. Increased kilometres of dedicated walk and cycle trails are specifically mentioned.

4.2 MUNICIPAL HERITAGE INVENTORY

This document provides a brief history of the many heritage buildings and sites that could be included in a townsite Heritage Trail for Gingin and any drive trail that could be developed.

For example, within the Gingin townsite the Inventory highlights the following buildings/sites (Categories 1 and 2):

-  Gingin Post Office
-  Gingin Railway Station and Quarters
-  Gingin Road Board Office
-  Gingin War Memorial
-  Granville
-  Gingin Hotel
-  Philbey's Cottage
-  Dewar's House – 15 Weld Street
-  St Luke's Anglican Church, Cemetery and Belfry
-  St Luke's Anglican Church Rectory
-  St Catherine's Roman Catholic Church
-  Uniting Church

4.3 AGE FRIENDLY COMMUNITY PLAN

The *Age Friendly Community Plan* has strategies and recommendations of relevance to this Trails Master Plan. The Age Friendly Community Plan focusses on possible actions to create a more age-friendly environment.

The high priority actions identified include:

- Provision of safe and suitable roads and footpaths.
- Well planned maintenance of infrastructure, roads and footpaths.
- Improved quality of footpaths.

Survey respondents would like to see an increase in walking trails and paths around town.

The Plan identified that there are limited formal crossings in main town sites, citing the potential for improvement including signage and line markings at major access points. Areas of priority are identified within the audit.





4.4 CULTURAL HERITAGE MANAGEMENT PLAN 2016-2019

The Shire of Gingin and Yued Nyoongar People *Cultural Heritage Management Plan 2016-2019* was prepared to strengthen the continuing partnership between the Shire of Gingin and the Yued Nyoongar People, whose traditional country includes the Shire Area.

The Plan sets out numerous strategies to recognise and protect Aboriginal heritage sites and to minimise impacts on Aboriginal heritage sites as far as practicable.

Of particular relevance to the implementation of this Trails Master Plan is the need for Council staff to take all reasonable precautions to protect cultural places from damage caused by construction or associated activities.





The Plan recommends:

-  Significant Aboriginal heritage sites are to be included in the Shire's Heritage Inventory which is currently being collated.
-  To provide further acknowledgement of the Yued Nyoongar People through signage or the naming of streets, parks, buildings and other landmarks in the area).
-  To incorporate a greater Yued Nyoongar involvement/ element into public arts projects in the Shire.
-  Walk trails recognising Yued Nyoongar history and stories.

4.5 RECONCILIATION ACTION PLAN

This Reconciliation Action Plan is designed to improve and progress awareness both within the Shire community and to its visitors of the Yued Nyoongar People as Traditional Owners of the area. The RAP sets out a Vision and numerous actions where the Shire of Gingin and the Yued Nyoongar People can work together.

The RAP provides information and recommendations on several matters that are relevant to this study, in particular the preparation and installation of storyboards at tourist information bays, walkways, tourist spots (e.g. Guilderton/ Lancelin foreshore). The RAP recommends:

-  Significant Aboriginal Heritage sites to be added to Shire of Gingin Heritage Inventory.
-  Storyboards/ lines: To be created regarding Yued Nyoongar people and displayed in prominent places (for example, Guilderton and Lancelin foreshores).
-  Website: Permanent content regarding Yued Nyoongar culture and people to be added.
-  Recording / transcribing oral histories of local Yued Nyoongar People with a view to publishing and selling locally in future in Shire Offices and local shops.

4.6 STRATEGIC COMMUNITY PLAN 2015--2025 – REVIEW - CONTEXT AND RESEARCH

This report provides information on several matters that are relevant to this study:

Tourism Research Australia (2014), estimated that 377,000 tourists visited the Shire in 2014, spending \$44 Million and were serviced by 61 Tourism Businesses.

The majority of tourists were domestic day-trippers with 261,000 visits. There were also 110,000 domestic and 6,000 International overnight trips, averaging 2 and 11 nights respectively.

This Plan also reports on the aging population of the Shire of Gingin. It states that the Regional Development Council (2016:4) has identified 'Four Planks' to successful Aging in the Bush. The foundation plank is Age-friendly communities, which involves providing infrastructure that supports older residents to remain active and is a key focus for local government service delivery.

4.7 COMMUNITY INFRASTRUCTURE PLAN

This Plan, developed in 2016, makes the following relevant recommendations:

Walk Trails

- Upgrade and redevelopment of the path network to ensure greater accessibility and use.
- Lighting, accessible for seniors / families to be considered as a mechanism of increasing use of current facilities and increase safety.

Implement Actions and Recommendation from the Heritage Inventory Review

- Implement recommendations in the Shire's Asset Management Plan and integrate into the Shire's Tourism and Economic Strategy (noting that Shire does not currently have these documents) and Trails Master Plan (Interpretative Signage).

Shire Wide Trails Strategy and Master Plan

- Tourism needs to express their story and strategy of the current facilities that are within these two towns which are popular places for tourists to visit. This will promote the Shire as investing in jobs, promoting investment tourism operators and local businesses from outside sources. As well as the expansion of businesses within the area. Transport and accessibility to and from Ledge Point and Lancelin is a key factor as signage is poor; accessibility to facilities and tourist attractions is poor with no public transport in the area.

Upper Coastal

- There is a lack of trails or paths to and from the town sites to facilitate access to community facilities.
- Better access to all facilities (Walk and Trails).
- Ensure the proposed caravan park in Lancelin South connects and promotes trail network to the Lancelin Sports Complex (although the caravan park is no longer considered for anytime in the near future).
- Opportunity for linking Lancelin and Ledge Point through walk and bicycle trails for future shared use of facilities.

Lower Coastal

- The safety and accessibility of the areas is poor with little to no signage or lighting. It has extremely poor trails or paths to and from the town sites.
- Opportunity for various types of trails for future use of facilities.
- Develop an access Pathway Plan to enhance existing facilities and movement throughout the area and Shire.

Rural Gingin (Gingin Townsite)

- The safety and accessibility of the area is poor with little to no signage or lighting around the place, and has limited trails or paths to and from the townsite.
- No new facilities required, upgrade to all current facilities (especially for recreation grounds, walk and trail paths).
- Opportunity for Shire wide Trails Plan which will be integrated into other strategies.

4.8 STRATEGIC COMMUNITY PLAN REVIEW YOUTH CONSULTATION

In September 2016, the Shire of Gingin consulted with children and young people that lived, studied, worked or played in the Shire to seek their input into the review of the Strategic Community Plan (SCP). Two strategies were developed to consult with children and young people. The first was an art competition, targeted at children and young people aged four to seventeen. The second was an online survey, targeted at young people aged twelve to eighteen. The Shire promoted both of these consultation options through social media and the website, as well as to existing contacts at the local primary and secondary schools. In total, 104 children and young people participated in the consultation.

For young people in their teens, when asked what the first thing they would do if they were the President of the Shire, a large proportion of responses related to new or improved facilities and infrastructure.

4.9 DRAFT COASTAL HAZARD RISK MANAGEMENT AND ADAPTION PLAN

The (Draft) Coastal Hazard Risk Management and Adaption Plan (CHRMAP) was prepared by Cardno, for the Shire of Gingin, January 2018) The Plan states that the “Shire of Gingin is preparing for the threats of climate change and sea level rise to the coastal settlements of Guilderton, Seabird, Ledge Point and Lancelin”. The CHRMAP has been prepared to provide a long-term view of the potential future coastal erosion impacts to the townships of Seabird, Ledge Point and Lancelin and highlight possible strategies to adapt to the changing future oceanic and coastal conditions.

For this Trails Master Plan, this is particularly relevant given the erosion that has occurred at locations along the Lancelin coastline, the (historic) proposals for an additional viewing platform (Wallace lookout) and the current plan to upgrade and enhance the existing coastal pathway.

4.10 EDWARDS ISLAND TOMBOLO COASTAL MANAGEMENT SITE PLAN

The Edwards Island Tombolo Coastal Management Site Plan (prepared by Country Coasts & Rivers for the Friends of Lancelin Coast Inc., July 2007) was commissioned by the FOLC in recognition of an urgent need for a coastal management site plan that will promote sustainable use of the Edwards Island tombolo area.

Specific issues addressed include protection of dune vegetation, viability of existing infrastructure, rationalisation of beach access tracks, shoreline changes and their likely impacts, seaweed accumulation, usage facility requirements (e.g. sail-board assembly) and recommends management actions to maintain a sustainable foreshore environment.

4.11 OLD NORTH ROAD STOCK ROUTE DRIVE TRAIL

The 2008 trail plan (prepared by Transplan Pty Ltd) highlighted numerous historic sites between Reabold Hill in Perth and Geraldton which could be linked together by a ‘drive trail’. Sites within the Shire of Gingin included the Junction Bridge at Neergabby, the PWD road (limestone paved road) off Cowalla Rd and the Cowalla Bridge area. Interpretation for these sites has been prepared and

has been installed. A walk trail is also in place along the remaining section of the old limestone paved road.



Future development of the entire drive trail could still be undertaken, perhaps using a trail app (rather than physical signage for directions and interpretation).

SECTION 5: TRAIL SUPPLY ANALYSIS



5.1 OVERVIEW

The Shire of Gingin has a comparatively high number of existing trails. In the research undertaken, 13 trails were discovered, being:







Gingin:

-  Three Bridges Recreation Trail
-  Gingin History Walk Trail (including Jim Gordon VC Trail)




Lancelin:

-  Hinchcliffe Lookout and trail
-  Foreshore path




Guilderton:

-  Djena Koorl-iny Trail
-  Lighthouse Trail
-  Riverside Trail 1
-  Riverside Trail 2
-  Silver Creek Trail
-  Foreshore Trail (inc. boardwalk and steps)

Elsewhere:

-  Yued Bilya Djinna Track (Moore River, Indian Ocean Drive)
-  Nilgen Lookout and Wildflower Walk (Nilgen Nature Reserve, Indian Ocean Drive)
-  Stone Paved Road Walk Trail (part of Old North Road Stock Route Drive Trail)

Only trails that are regarded as being ‘recognised’ are included in this table. ‘Recognised’ means that the trail has some or all of the following characteristics:

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

The attributes of each of these trails are summarised in the table in the following pages. These attributes were compiled when each trail was assessed.

5.2 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 commonly lacking on most of 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 limestone 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.

5.2.1 TRAIL AUDITS

An assessment of every existing trail was undertaken during the preparation of this 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:

- **Trail Characteristics:** surface (gravel; concrete; asphalt); Length and width condition? Erosion? Weeds / grass invasion?
- **Promotion:** maps, guidebooks and track notes; web site? Promo 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; bollards; fencing; gates
- **Nearby facilities:** shops, public transport.
- **Directional / distance signage:** along trail.
- **Other signage:** (location; promotional; warning; information; advisory; fire safety; code of conduct).
- **Drainage:** (culverts – clear?); 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.

5.2.2 THREE BRIDGES RECREATION TRAIL (GINGIN)

The Three Bridges Recreation Trail utilises some of the route of the Gingin History Walk (including the Jim Gordon VC Trail boardwalk).

Much of the trail follows the road verge of Brockman Street north of the town towards the cemetery. This is long, unattractive and uninteresting, with some dangerous areas due to abundance of marri nuts. To avoid these dangerous conditions, road walking may be required. The section of trail along the road reserve known as the “stock route” is very attractive – but without any interpretation. The route crosses the Three Bridges – the feature after which the trail is named.



Above: the old “stock route” portion of the Three Bridges Trail is very attractive but requires a long and uninteresting walk to get to it at the north end.

The trail is missing directional markers in some areas; and in other areas there are far too many trail markers. Interpretive signage, where it exists, is old, fading and requires upgrading should the decision be made to continue promoting this trail.

At over 4 kilometres it will not appeal to many visitors to Gingin, but sections are valued by local people as an exercise route.

Based on the above information the consultant for the Trails Master Plan recommends removal of most of the old trail directional markers (as many are poorly located, missing or too closely spaced) and their replacement with markers at better locations and at better intervals. Removal of marri nuts along the verge of Brockman Street (between Cheriton Rd and Weld St) is also warranted to improve the safety of trail users. Placement of several interpretive panels would also enhance the trail experience. The Council may wish to construct a trail or path along Brockman Street, or re-route the trail along the western verge of Weld Street subject to land acquisition. The above could be considered as a future project as resourcing and need is determined. (The Trail Assessment Sheet in Appendix 3 provides further information).

5.2.3 GINGIN HISTORY WALK TRAIL (GINGIN HERITAGE WALK)

The townsite of Gingin is fortunate to have numerous historic buildings and an interesting and varied history. As stated earlier, many of the buildings (past and present) are recorded in the Municipal Inventory of Heritage Places. Several leaflets have been prepared over the years guiding visitors along a route where they can learn a bit of history associated with the buildings of the town.

Other than the small amount of information contained within each leaflet, only a few on-site information signs still exist to inform or entertain visitors. The interpretive signage should be removed and be replaced with signage that is more entertaining, interesting and visually appealing.



Above: The Gingin Hotel is one of numerous old buildings included on the route of the Gingin Heritage Walk. Old interpretation still exists (on the wall of the hotel).

This trail is worth preserving and at around 2.0km is well within the capabilities of most visitors.

This Trails Master Plan recommends a revised and improved trail route, with new trail directional markers and high quality, durable interpretive signage.

5.2.4 HINCHCLIFFE HILL LOOKOUT AND TRAIL (LANCELIN)

The short gravel trail up to the lookout is being upgraded in accordance with plans prepared by the Shire of Gingin.

The lookout platform itself provides exceptional views out over the ocean towards the nearby islands, as well as panoramic views up and down the beach and over some of the residential and commercial areas of Lancelin.

Given the importance of the site, and the amount of usage it attracts, a suite of improvements is highly recommended including the flight of steps (as already proposed on the south side), accessible ramps from the north side, interpretation of features/stories of the area as well as continuation of the coastal path along nearby streets to permit access to the lookout for cyclists and people in wheelchairs.



Above: the Hinchcliffe Lookout provides panoramic views. Access to the lookout is currently being improved to make it more accessible.

5.2.5 FORESHORE PATH (LANCELIN)

Over 2km of concrete shared path exist along the coast at Lancelin providing outstanding recreational walking and cycling opportunities for residents and visitors alike.

Some basic interpretation exists at intervals along the path, however some are badly faded and no longer legible.

The improvement of access and redevelopment of the Hinchcliffe Hill Lookout dictates that an effort needs to be made to ensure cyclists using the foreshore path and people in wheelchairs have a continuous sealed path to the lookout.

It is also recommended that a short (30m boardwalk) be constructed as a spur off the main pathway towards the beach, just south of Hinchcliffe Lookout.

This Trails Master Plan recommends a range of minor improvements along the path to ensure it becomes a safer, more attractive and better used resource for the residents of Lancelin and visitors to the town.



Above: 2km of shared use paths exist along the foreshore in Lancelin providing excellent access to the beaches and scenic viewpoints.

5.2.6 DJENA KOORL-INY TRAIL (GUILDERTON)

Opened in November 2014, the Djena Koorl-iny Trail utilises old vehicle tracks through the dunes north of the Guilderton townsite. While some trailhead signage exists, the biggest improvement to this 1.6km walk would be the installation of interpretive signage along the trail route.

At present the trail route consists primarily of sandy wheel tracks and a lengthy beach walk back to the trailhead. These tough walking conditions would not suit most people. Some parts of the track are showing signs of deterioration with vegetation regrowth. In addition, some trail directional signs are missing leading to trail users not knowing how to follow the trail at its northernmost point.



Above: good trailhead information exists at the Djena-Koorl-Iny Trail in Guilderton but the trail lacks any interpretation along its route.

Several improvements are recommended to make this trail a better and more popular attraction of Guilderton (including interpretive signage, improved trail surfacing, improved trail directional marking and better directional signage to the trailhead).

5.2.7 LIGHTHOUSE TRAIL (GUILDERTON)

Although this 'trail' is shown on several signs in Guilderton it would more correctly be called a 4WD track. It has no trailhead, no trail directional markers and no interpretation. In its current built form, it is a physically demanding walk due to the long lengths of walking required in the deep sand.

The route does lead users to a high point where magnificent views can be seen of the coastline and surrounding residential areas. The lighthouse is several hundred metres away from the trail route.

Given that other trails in Guilderton provide a far better walking experience, and this route is obviously used by 4WD on a regular basis, it is recommended that no funds be spent on enhancing this trail.

It is recommended that when signage for the trails of Guilderton are replaced/updated, and when trail brochures and mapping are updated, the Lighthouse Trail be removed and no longer promoted.



Above: wide, sandy and uninteresting 4WD tracks characterise the Lighthouse Trail in Guilderton. Continued promotion of this 'trail' should be avoided.

5.2.8 RIVERSIDE TRAIL 1 (GUILDERTON)

At 470m one way, this is a relatively short trail but nonetheless very picturesque as it follows close to the Moore River.

The trail commences at the carpark area shared with the Riverside 2 trail. Several significant improvements are recommended including upgrading of the trail surface, removal of protruding stumps (which are a trip hazard), the upkeep of the limestone steps, the installation of additional seating and the installation of interpretive panels

The trail provides excellent opportunities to get close to the Moore River and provides spectacular views out over the river to the high sand dunes on the south side.



Above: although only a short trail, Riverside Trail 1 enables users to get close to the river and, when combined with Riverside Trail 2 and Silver Creek Trail, provides a lengthy traverse in a very pleasant riverine environment.

5.2.9 RIVERSIDE TRAIL 2 (GUILDERTON)

This is a longer trail (730m one way) and includes a lengthy section of boardwalk with magnificent views out over the Moore River and to the high sand dunes on the south side of the river.

The trail is characterised by a narrow earth trail with several flights of limestone block steps and the boardwalk. It provides numerous access to small beaches along the river. Apart from some general information at the trailhead there is only one information panel along the trail.



Above: even though it is showing signs of deterioration, the boardwalk on the Riverside Trail 2 provides a highly attractive feature of the trail. Work is required to re-affix all the decking timbers to extend its life.

Several enhancements could make this trail an outstanding feature of Guilderton. The range of suggested improvements includes installation of a series of interpretive panels, cutting back

overhead vegetation and side growth, as well re-surfacing and realignment of the trail. Many of the decking timbers of the boardwalk are loose and therefore a program to insert additional screws on all boards is required. It is also recommended that the trail have a well-defined end point and it is suggested this be where an existing bench seat provides a great view out over the river. Although the trail does continue well beyond this point, and is often used by local people, most trail users will want to know where the 'official' end point is.

5.2.10 SILVER CREEK TRAIL (GUILDERTON)

Silver Creek Trail is approximately 630m one way, on a well-made, relatively wide track. The trail commences at the carparking area off Stephens Cres and follows the north-eastern bank of the creek.

As with the two Riverside Trails, the Silver Creek Trail could be improved with several significant enhancements such as filling and compaction of the car parking area, the installation of interpretive signage along the trail and the completion of the trail surfacing (to eliminate the loose sandy section).



Above: The Silver Creek Trail requires minimal work, other than some re-surfacing and the installation of interpretation.

5.2.11 FORESHORE TRAIL (INC. BOARDWALK AND STEPS) (GUILDERTON)

The concrete path, timber boardwalk and flights of timber steps are one of the main attractions of the river mouth of the Moore River. The path has several interpretive panels covering a wide range of topics.

The high-level viewing platform and boardwalk provide outstanding views out over the ocean, the Moore River itself, the parkland at the river mouth and some of the riverside residential areas.

Little is required in the way of enhancements. As with the boardwalk on Riverside Trail 2, many of the decking timbers of the upper boardwalk (to the lookout gazebo) are loose. A program to insert additional screws on all boards is required.

The development of a connecting trail to the Silver Creek Trail (utilising existing paths and a route through the golf course) is recommended.



Above: the foreshore path, boardwalk and viewing platforms at the mouth of the Moore River are well used by day-trippers to Guilderton as well as those staying at the adjacent caravan park.

5.2.12 YUED BILYA DJINNA TRACK (MOORE RIVER, INDIAN OCEAN DRIVE)

This 1km (each way) trail commences at the large rest area beside the Moore River on Indian Ocean Drive. The trail follows the western side of the river through open country and through open woodland beside the river. The trail features a trailhead panel and 4 interpretive panels (about the Yued) along the route.

Several improvements are recommended including the need for a promotional sign on Indian Ocean Drive at the entrance to the rest area (so passers-by know of the existence of the trail), a more obvious trailhead sign (indicating the existence of the trail), additional trail directional markers (as the current level of signage is inadequate) and the installation of seating along the trail.



Above: the Yued Bilya Djinna Track runs parallel with a section of the Moore River and several interpretive panels tell various Yued Nyoongar stories.

5.2.13 NILGEN LOOKOUT AND WILDFLOWER WALK (INDIAN OCEAN DRIVE)

This trail is without doubt the best trail within the Shire of Gingin. It was developed and is managed by the (now called) Department of Biodiversity, Conservation and Attractions.

It features a 170m concrete path to a lookout, as well as a 610m crushed and stabilised limestone trail. There are several large interpretive panels along the trail (at lookout points), as well as 16 plant identification panels.

This trail exhibits all the best attributes of a quality trail: ample car and bus parking; a high-quality trailhead map panel; shaded picnic tables and information signs; high quality concrete path (accessible standard); outstanding viewpoints; interesting and ample interpretation; high quality trail surfaces; and good promotional signs on the nearby regional road (Indian Ocean Drive).



Above: magnificent views can be seen from the viewing area at the end of the concrete path of the Nilgen Wildflower Walk. 16 plant identification panels are located along the walk trail.

5.3 INVENTORY OF EXISTING (RECOGNISED) TRAILS

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 Gingin staff.

Table – Existing Trails – Shire of Gingin

Trail NameLocationUser groupLand tenureTrail ManagerComments (brochure, interpretation, etc)Condition (standard of construction, level of maintenance)LengthDifficulty (grades, etc)									
Gingin									
1	Three Bridges Recreation Trail	Gingin town & surrounds	Walkers	Public road reserves and river reserve	Shire of Gingin	Old leaflet and map; interpretive signage (where it still exists) is old and faded.	Long sections follow road verge which is uninteresting and somewhat dangerous; signage is old and needs replacement; shorter circuit now defunct.	4.17km	Moderate (Class 2)
Interpretive panels: Numerous (at trailhead, along boardwalk, and at several buildings/sites). None along road or “stock route” section of trail.									
2	Gingin History Walk Trail	Gingin town centre	Walkers	Public road reserves and river reserve	Shire of Gingin	Old leaflet and map; old fading interpretation; excellent boardwalk.	New boardwalk in excellent condition; signage is old and needs replacement.	2.0km	Easy (Class 2)
Interpretive panels: Numerous (at trailhead, along boardwalk, and at several buildings/sites)									

Guilderton									
3	Foreshore Trail	Guilderton	Walkers	Foreshore reserve	Shire of Gingin	Popular foreshore pathway and boardwalk at mouth of Moore River; shown on Guilderton maps.	High quality; well maintained.	1.33km (depending on route taken)	Easy; mostly Class 1 (& Class 2)
Interpretive panels: several along pathway and at lookouts									
4	Djena Koorliny Trail	Guilderton	Walkers	Public (foreshore reserve)	Shire of Gingin; NACC	Trailhead map panel; interpretive panel; follows old 4WD track; shown on Guilderton maps.	Overgrown in parts; hard walking.	1.75km	Difficult: sand walking (Class 3)
Interpretive panels: None along trail; information on trailhead panel.									
5	Lighthouse Trail	Guilderton	Walkers	Public	Shire of Gingin	No brochure; no trailhead; mostly sand with some sections of road sheeted with crushed limestone; shown on Guilderton maps.	Difficult walking in 4WD sand tracks	2.09km	Difficult: sand walking (Class 4)
Interpretive panels: None									
6	Riverside Trail 1	Guilderton	Walkers	Public reserve	Shire of Gingin	No brochure; trailhead map panel; well-maintained natural earth track; shown on Guilderton maps.	Easy walking; good river views	470m each way	Easy (Class 2)
Interpretive panels: None along trail; information on trailhead panel.									

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7	Riverside Trail 2	Guilderton	Walkers	Public reserve	Shire of Gingin	No brochure; trailhead map panel; reasonably well maintained natural earth track; many limestone steps; shown on Guilderton maps.	Easy walking; good river views; overgrown in parts	730m each way	Easy (Class 2)
Interpretive panels: Old sign along trail; information on trailhead panel.									
8	Silver Creek Trail	Guilderton	Walkers	Public reserve	Shire of Gingin	No brochure; trailhead map panel; well-maintained track recently upgraded; shown on Guilderton maps.	Easy walking; good views of creek; short boardwalk across creek	700m each way	Easy (Class 2)
Interpretive panels: Panel at site of Creek House; information on trailhead panel.									

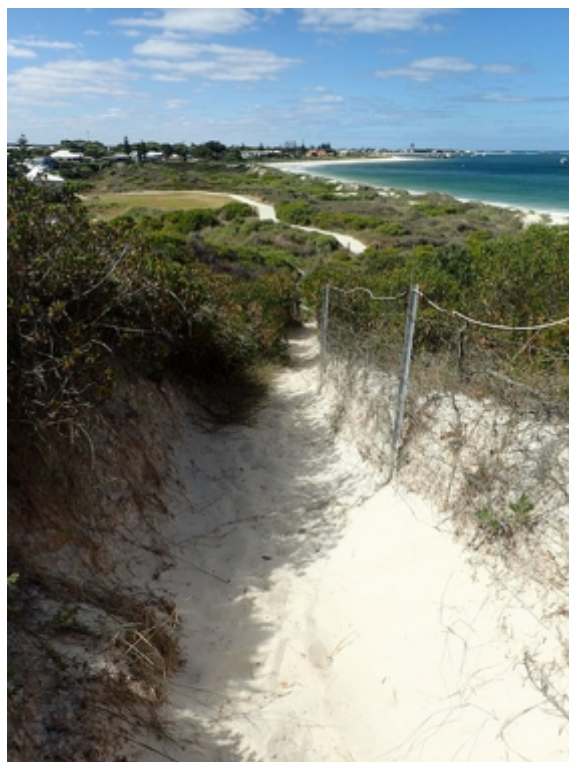
Lancelin									
9	Hinchcliffe Lookout and trail (Lancelin)	Lancelin	Walkers	Foreshore reserve	Shire of Gingin	No interpretation; signage to viewing platform	Gravel trail soon to be upgraded to concrete path and ramp, with timber staircase. High quality viewing platform.	165m gravel trail and 70m sand track (soon to be upgraded)	Easy (Class 2); Soon to be Class 1.
Interpretive panels: none									

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10	Lancelin Foreshore Path	Lancelin	Walkers and cyclists	Foreshore reserve	Shire of Gingin	Series of concrete paths along foreshore; timber viewing platform; several interp panels	Good quality concrete paths; well maintained	2.3km	Easy (mostly Class 1 & Class 2)
Interpretive panels: signage at several locations along path (offshore islands; birds)									
Elsewhere									
11	Nilgen Lookout and Wildflower Walk	Nilgen Nature Reserve - Paconaua	Walkers; wheel chairs	Nature Reserve	DBCA	Excellent all-abilities concrete pathway and stabilised limestone trail; many interpretive panels	High quality construction; very well maintained	170m ISC path; 610m limestone trail	Easy (Class 1)
Interpretive panels: Numerous; at trailhead, information shelters; at lookout; along trail; and at viewpoints									
12	Yued Bilya Djinna Track	Gabbadah	Walkers	Moore River (River Reserve)	Shire of Gingin	No brochure; trailhead panel (small); 4 interpretive panels	Well maintained; needs additional trail directional markers	1.05km	Moderate (Class 2/3)
Interpretive panels: 4 panels plus trailhead panel (about Yued Nyoongar and bush tucker; seasons)									
13	Stone Paved Road Walk Trail	Cowalla Road	Walkers	Public reserve	Shire of Gingin	Trail brochure and interpretive signage.		1.3km	Easy (Class 2)



Above: signage on the old Three Bridges Trail in Gingin has deteriorated badly.



Above: access to the Hinchcliffe Hill Lookout in Lancelin has been upgraded.



Above: the Riverside Trails of Guilderton provide spectacular views from many sites.



Above: the Nilgen Wildflower Walk features 16 plant identification panels.

5.4 TRAILS NETWORK STRENGTHS AND OPPORTUNITIES

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

- ✚ Compared with many other local governments in Western Australia, the Shire of Gingin offers a good range of trail experiences in a variety of geographic locations.
- ✚ It does have an array of heritage buildings and heritage sites within the town of Gingin and throughout the Shire. The presence of numerous heritage buildings, sites of significance and places where various events and interesting activities occurred all tend to support the development of a heritage walk trail in Gingin and (later) a GeoTour (drive trail) throughout the municipality.
- ✚ The Shire has a rich exploration, settlement, farming and agricultural history and therefore numerous historic sites capable of forming the foundation for a heritage drive trail. The region has a rich Aboriginal history, as well as more recent European history – enabling many stories to be told. The history of these heritage sites is already well documented in the Shire’s Municipal Inventory of Heritage Places.
- ✚ There are several ‘walks’ (rather than ‘signed’ trails) available to visitors, complementing the ‘recognised’ trails that already exist.
- ✚ No formal mountain biking trails exist, although it is highly likely that mountain bike riding occurs on tracks throughout the Shire.
- ✚ No formal horse riding trails exist (though horse riding does occur throughout the Shire on forest tracks and maintenance tracks).
- ✚ Some information about the existing trails is available in brochures, 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. The Yued Bilya Djinna Track along the Moore River has several interpretive panels about bush tucker and the Yued Nyoongar which are very informative. The foreshore pathway at Guilderton also has several informative interpretive panels, but more stories could be told about the river and the region on the other riverside trails at Guilderton. The Gingin town walk has several versions of a leaflet describing (briefly) each site, but in-situ signage is old and deteriorated.

5.5 MOUNTAIN BIKING OPPORTUNITIES IN THE SHIRE OF GINGIN

There are many types of mountain biking trails (and MTB trails ranging from easy to difficult) to cater for the wide range in the skills of people cycling in off-road situations.

One of the most successful techniques for providing for the range of MTB disciplines is to create a ‘hub’ or Mountain Bike Park - for a ‘cluster’ or ‘nest’ of mountain biking trails.

The advantage of a cluster of MTB trails of varying difficulty is that inexperienced mountain bikers can start on the easiest trails and graduate to more and more difficult trails as their

skills and confidence improves. IMBA (the International Mountain Bicycling Association) states that trail systems must serve the needs of multiple user groups and take environmental and geographic factors into account, as well as creating good experiences for diverse visitors.

Westcycle, in partnership with the Department of Sport and Recreation, the (then) Department of Parks and Wildlife and the WA Mountain Biking Association has developed a WA Mountain Bike Strategy.

This strategy guides the provision of high quality mountain biking experiences that riders of all mountain biking styles and levels of experience can use and enjoy, while at the same time ensuring mountain biking experiences are provided only where they are appropriate, safe and sustainable according to best practice standards.

The recommendations and proposals of that Strategy guide the future provision of mountain bike trails throughout Western Australia.

As this Trails Master Plan has been limited to the examination of three (existing) trails for further development/enhancement, there has been no opportunity to assess areas for potential development of mountain bike trails. The neighbouring Shire of Chittering commissioned a Mountain Bike Trails Master Plan (following on from its Trails Master Plan planning process) which identified several potential areas for the development of MTB trails in that local government area.

No mountain biking trails have been proposed in this Trails Master Plan.

5.6 MAPPING EXISTING & FUTURE TRAILS

The accompanying plans (see Appendix 3) illustrate the range of existing and proposed non-motorised trails:




Plan 1: Location of Existing Trails

Plans 2 - 6: Plans of each trail project

SECTION 6: PROPOSED TRAIL PROJECTS AND COSTS








6.1 REVIEW OF KEY OUTCOMES

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

-  An inventory of existing non-motorised recreation trails;
-  Identification of future trail opportunities; and
-  Determination of a costed, prioritised and staged program of development for three trail projects.






6.2 ASSESSMENT CRITERIA

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

-  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 Gingin 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 Gingin is to develop a suite of trails that will attract additional tourists to the town of Gingin. 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).
-  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.
-  Key background documents and already adopted strategies of the Shire of Gingin.

6.3 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 Gingin area. As noted elsewhere, there are already 13 trails in the Shire.
-  Existing trails elsewhere in the region – including neighbouring local governments (ie. trail supply). For example, the Shire of Chittering has been developing/upgrading its trails.
-  Visitor expectations and local needs (ie. demand for trails). Local demand was partly established through information obtained from local people and Shire staff, and through comment provided by those attending the three stakeholder consultation meetings held during the preparation of the plan (Gingin, Guilderton, Lancelin).
-  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 Gingin an inspection was made of the need for the upgrading of the in-town heritage walk trail in Gingin, the existing trails along the Moore River and Silver Creek, and the need for enhancements of the coastal path/trail in Lancelin.





6.3.1 RECOMMENDED PROJECTS

Given that it is preferable to have a small set of quality trails, rather than a large quantity of trails of poor quality, the set of recommended new trails is reasonably short. This is a sensible approach, given the limited financial resources of the Shire to devote to the development and, importantly, the ongoing maintenance of trails.

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

-  Gingin Heritage Trail redevelopment, realignment and upgrade – Project 1
-  Moore River and Silver Creek Trails upgrades - Project 2
-  Lancelin Coastal Path upgrades – Project 3

Future Projects:

-  Trails Marketing Program (brochures and other materials) – Project 4
-  Moore River Water Trail – Project 5
-  Connection between Silver Creek and Moore River foreshore pathway – Project 6
-  Gingin GeoTour– Project 7.

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

Project 1: Gingin Heritage Trail (Redevelopment, Realignment, Upgrading Project)

Location:

Gingin townsite (See Plan 2)

Concept:

This project is about the realigning and upgrading of the existing heritage trail throughout the Gingin townsite. The resultant trail will be approximately 2300 metres long – about an hour's walk. The original trail is now dysfunctional with missing trail directional markers and very old interpretation.

The Municipal Inventory of Heritage Places provides the basis for the redevelopment and realigning of the proposed new Gingin Heritage Trail. Recognising that not all listed sites/places can be included on a coherent circuit trail, the proposed heritage trail route 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. The sites included on Plan 2 are located along the recommended future heritage trail route.

The trail could feature interpretive signage on rusty steel pedestals depicting images of the region and the town. (Rusty steel structures are already used in two locations in Gingin – outside the CRC and at the memorial adjacent to the sound shell in Granville Park). The trail also lends itself to Smartphone technology (such as trail apps) delivering oral histories, stories and descriptions, photographs and video.

Trail directional markers would be required to guide trail users along the route.

Rationale for development:

In-town heritage trails provide a signposted and interpreted route to the most significant sites within a town, thereby informing local people about their history as well as being an interesting activity for visitors to a town to enjoy.

The intention is to have one clearly marked route using existing footpaths (and the existing boardwalk) as well as the grassed area within Granville Park. Trail directional markers would be installed at all changes of direction and road crossings. Interpretive panels, utilising rusty steel sculptures as pedestals, could also be installed at all sites of interest (sites / stories / events to be determined).

It is recommended that the Shire of Gingin offer a range of interpretive devices including on-site signage, maps, brochures and (as a future project) digital media such as smartphone technology (phone app) to cater for a wide variety of visitors. Development of a trail app has not been costed.

Primary user groups:

Walkers; local people; visitors to Gingin.

Note: most of the recommended new trail route will be wheelchair-friendly, but not all. A wheelchair loop within the proposed new bigger loop will be available. The proposed new circuit that takes in most, but not all, the significant heritage buildings/sites within Gingin (and can be accessed by wheelchair).

Description of project:

This project involves redeveloping and upgrading the existing in-town heritage trail in Gingin. The proposed heritage trail would commence from either the Visitor Centre on Brockman St, or Granville Park, and use existing footpaths where they exist. The realigned trail could also have the Gingin railway station as a starting point, with a trailhead map panel installed there as well.

The Shire of Gingin Municipal Inventory of Heritage Places lists a number of sites of heritage value in the Gingin townsite. The sites (and buildings) themselves are to be regarded as the anchor point, at which any number of stories associated with the site (or building) could be told.

The project will include the following elements:

- ✚ Research of historical records, the local history collection, the Battye library, books, desk top research and the Municipal Inventory of Heritage Places.
- ✚ Extensive consultation with local people (in particular the Gingin History Group) to determine the most suitable places/sites/stories and with business owners to determine the suitability of each site.
- ✚ Installation of directional signage.
- ✚ Installation of new interpretive signage and trailhead signage.

Consultations required:

- ✚ Shire of Gingin
- ✚ Gingin History Group
- ✚ Visitor Centre
- ✚ Local people and business owners

Interpretation:








Local groups have already devoted significant time and effort in past years into researching sites that have been included in the existing leaflets for the town walk trail.

Interpretive sites/subjects on the circuit trail could include:

- ✚ Settlers' House
- ✚ Gingin Road Board Office
- ✚ CWA House
- ✚ Gingin Post Office
- ✚ Philbey Cottage
- ✚ Gingin Hotel
- ✚ Gingin Railway Station and Quarters



Above: the use of rusty steel pedestals, such as this example from the Menzies heritage trail, is recommended for the trails proposed in this Trails Master Plan.

-  House – 15 Weld Street
-  St Luke's Anglican Church, Cemetery and Belfry
-  St Luke's Anglican Church Rectory
-  Uniting Church
-  Dewar's House
-  Jones' Shop
-  Granville Hotel

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

Cost Estimate for Project 1: Gingin Heritage Trail - Redevelopment, Realignment, Upgrading Project (See Plan 2)

Gingin Heritage Trail			
Plan Ref	Distance from trailhead	Tasks (Note: signposted for walking in clockwise and anti-clockwise direction)	Costs
1	0	Trailhead: Weld St Install double sided trailhead sign on Weld St (on eastern verge/path between flowers pots (or just inside wall). Note: trail crossing warning signs already exist on Weld St at this location. No additional warning signage needed.	800
2		Install trail directional marker (TDM) post (Straight arrow on W face of post; Right arrow on S face; Left arrow on E face).	300
3		Install trailhead map panel.	400
4	30	Start of boardwalk – install TDM (Straight arrow on W face of post; Right arrow on E face).	300
5	60	Existing bench seat.	0
6	115	At bend in boardwalk – supply and install bench seat.	600
7	280	T-junction – install TDM post (with Left arrow on W face of post; Right arrow on N face of post).	300
8	340	Install TDM post (Straight arrow on S face; Straight arrow on N face).	300
9	440	Constable St crossing: Install TDM post alongside timber power pole (Straight arrow on S face; Straight arrow on N face). Install Interpretive Panel for Settlers Cottage.	300 200
10	450	Install TDM post at start of path (with Left arrow on S face of post; Right arrow on W face of post).	300

11	550	Install Interpretive Panel for Roads Board Building and CWA.	200
12	560	Install TDM post near gate outside Playgroup (with Left arrow on S face of post; Right arrow on W face of post).	300
13	655	Install Interpretive Panel for Gingin Post Office and brief overview of Three Bridges Stock Route trail commencing northwards.	200
14	680	Constable St crossing (north entrance of Three Bridges/ 'stock route' trail): Install TDM post in corner of garden bed (with Left arrow on E face of post; Right arrow on S face of post).	300
15	--	Install Map Panel outside CRC. Install TDM at path near Brockman St (Straight arrow on W face).	400 300
16	721	Install TDM post in corner of garden bed near veranda post (Straight arrow on N face; Straight arrow on S face).	300
17	793	Install Interpretive Panel for Commercial Area (and historic businesses/enterprises) – at southern end of veranda between timber power pole and veranda post.	200
18	838	Install TDM post in corner of flower bed (Right arrow on N face; Left arrow on W face).	300
19	849	Install Interpretive Panel for Philbey Cottage (now Gingin Dental Clinic) and other buildings in main shopping centre.	200
20	891	Brockman St crossing: Install TDM post in garden bed on east side of road crossing (Right arrow on N face; Left arrow on W face).	300
21	906	Install TDM post alongside power pole on west side of road crossing (Left arrow on E face; right arrow on S face).	300
22	925	Install Interpretive Panel for St Luke's and graveyard (to left of entrance gate to graveyard).	200
23	937	Install TDM post at corner of fence of graveyard – slightly angled to direct people across park towards bridge at water wheel (Straight arrow on N face; Straight arrow on S face).	300
24	985	Install TDM post on north side of bridge to water wheel - slightly angled to direct people towards corner of fence of graveyard (Straight arrow on N face; Straight arrow on S face).	300
25	1010	Install Interpretive Panel for water wheel.	200

26	1042	Install TDM post at path junction (Right arrow on N face; Left arrow on W face). Install Interpretive Panel for Granville Park; Cheriton arch, café.	300 200
27	1154	Install TDM post at western end of ramp at sound shell (Left arrow on E face; Right arrow on S face).	300
28	1203	Install TDM post at north end of line of salmon gums (Straight arrow on N face; Straight arrow on S face).	300
29	1203 - 1273	Construct 70m limestone or gravel trail (1.5m wide) on east side of line of salmon gums (including small pipe culvert).	4,500
30	1326	Remove panel in existing fence. Install TDM post (Right arrow on N face; Left arrow on S face).	150 300
31	1406	Install Interpretive Panel for Gingin Hotel (directly below existing interpretive sign on wall).	200
32	1426	Install TDM post alongside power pole (Straight arrow on E face; Straight arrow on W face).	300
33	1478	Install TDM post alongside power pole (Straight arrow on E face; Straight arrow on W face).	300
34	1524	Install Interpretive Panel for Railway Houses.	200
35	1584	Corner of Jones St and Roe St: Supply and install sign pointing to stockyards, Three Bridges and 'stock route'. Install Interpretive Panel for Stockyards and Three Bridges. Install TDM post on north side of road crossing (Jones St) (Left arrow on E face; Right arrow on S face).	300 200 300
36	1590	Install TDM post on south side of road crossing – at commencement of new section of trail through bushland (Straight arrow on N face; Straight arrow on S face).	300
37	1592 - 1725	Construct 133m new gravel or crushed limestone walk trail (1.0m wide) through bushland (to fence of station grounds).	5,320
38	1725	Remove panel in existing fence – install gate. Install TDM post alongside gate (Straight arrow on W face; Straight arrow on E face).	400 300
39	1770	Install TDM post (Straight arrow on W face; Straight arrow on E face).	300

40	1820	Install TDM post alongside existing gate (Straight arrow on W face; Straight arrow on E face).	300
41	1825	Install Interpretive Panel for Gingin Railway Station. Install trailhead map panel.	200 400
42	1870	Install TDM post alongside existing gate (Straight arrow on W face; Straight arrow on E face).	300
43	1920	Remove panel/wire in existing fence – install gate. Install TDM post outside gate (Left arrow on W face; Right arrow on N face). (Road crossing: Jones St)	400 300
44	1937	Install TDM post alongside timber fence (Right arrow on S face; Left arrow on E face).	300
45	2020	Install TDM post at break in existing timber fence (Straight arrow on W face; Straight arrow on E face).	300
46	2080	Install TDM post alongside power pole (Left arrow on W face; Right arrow on N face). Install Interpretive Panel for Dewar’s House.	300 200
47	2095	Weld St crossing: Install TDM post on west side of road crossing (Right arrow on S face; Left arrow on E face).	300
48	2110	Install TDM post on east side of road crossing (Left arrow on W face; Right arrow on N face). Install Interpretive Panel for Uniting Church.	300 200
49	2150	Church St crossing: Install TDM post on north side of road crossing - (Straight arrow on S face; Straight arrow on N face).	300
50	2240	Install Interpretive Panel for Mrs Jones’ Shop.	200
	2300	Trail end.	
51		Allowance for consultation, research, writing, design, fabrication and supply of 15 interpretive panels.	45,000
52		Allowance for design and supply of 15 creative rusty steel sign pedestals.	19,500
53		Allowance for design and supply of trailhead panels and structure (3 panels @ 1200mm x 800mm).	15,000
54		Allowance for research, write, design and supply A4 brochure, with map (5000 copies, DL).	5,500
55		Allowance for supply and install trail ‘promotional’ fingerboard signage on regional and local roads.	600

		<i>Sub-Total</i>	<i>112,470</i>
		+ 10% Project management	11,250
		+ 10% Contingency	11,250
		<i>Total (not including GST)</i>	<i>\$134,970</i>

Recommended Staging of Gingin Heritage Trail Project

Recommended Staging - Gingin Heritage Trail (Redevelopment, Realignment, Upgrading Project)		
Stage	Component	Cost
1	Fabrication and installation of directional and trailhead signage	27,200
2	Consultation, research, writing, design, fabrication and supply and installation of interpretive panels; new trail brochure	73,000
3	Construction of new trail sections and miscellaneous works	12,270
	<i>Total</i>	<i>\$112,470*</i>
* does not include 10% Project Management fees, 10% contingency nor 10% GST		

Note: until fences are modified and gates installed, trail route directional signage will need to differ from that specified in table. The Project Manager will need to consider the impact of a staged approach when signposting the trail route.

Project 2 - Moore River and Silver Creek Trails Upgrading Project

Location:

Guilderton (See Plans 3 - 5)

Concept:

The existing trails along the Moore River (Riverside Trail 1 and Riverside Trail 2) and Silver Creek are very popular but require upgrading and enhancement to make them even more appealing, safer and more sustainable.

The intention is to upgrade the existing natural earth surfaces with crushed limestone and, in some instances, relocate the trail(s) away from the river's edge where the trail route is prone to getting inundated during periods of high water levels.

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 Guilderton.

Rationale for development:

The existing trails have been in place for many years and despite constant and ongoing maintenance by the local group (Lower Moore River Working Group) they require further development.

Trail surfaces are in need of upgrading; protruding stumps and overhead branches require removal as they are a safety hazard; side vegetation requires clearing; boardwalk decking requires work; new fishing platforms should be installed to prevent intrusion by fishers to pristine areas of the river.

Primary user groups:





Walkers.

Note: the existing flights of steps on each of the two "Riverside Trails" make the majority of these existing trails not suitable for people in wheelchairs. Making these existing trails accessible for wheelchairs would not be economically viable, as they are located in a pristine riverside environment with steep slopes that prohibit wheelchair-friendly trails (without spending hundreds of thousands of dollars on cutting new trail through relatively pristine environments).


Description of 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), surfacing of long lengths of the trails, the addition of new trailside furniture to provide resting and viewpoints, removal of stumps, branches and vegetation, and the preparation of a trail brochure.

Consultations required:

-  Shire of Gingin
-  Lower Moore River Working Group
-  NACC
-  Yued Nyoongar

Interpretation:

-  Riverside 1: 2 panels featuring the histories/stories of pioneering families of the Guilderton area.

Cost Estimate for Project 2: Moore River and Silver Creek Trails Upgrading Project

Riverside Trail 1 (Moore River)			
Plan Ref	Distance from t/h	Tasks	Costs
1	0	Trailhead (for Riverside Trail 1 and Riverside Trail 2). Install Trail Directional Post with pictogram for “Class 2” trail.	140
2	0 - 10	Resurface 10m existing trail with crushed limestone (2 – 3 metres wide).	1,000
3	10 - 355	Resurface existing trail with crushed limestone (1 – 1.5 metres wide).	20,700
4	35	Existing bench seat: Install interpretive panel.	200
5	125 - 136	Existing limestone steps: Sweep.	40
6	172	Existing limestone steps down from road: Sweep. Place and compact approximately 10m limestone surfacing.	40 400
7	179	Fabrication and installation of bench seat. Install interpretive panel (pioneers).	600 200
8	276	Fabrication and installation of bench seat under large tree. Install interpretive panel (pioneers).	600 200
9	294	Existing limestone steps down from road: Sweep.	40
10	306	Remove stump.	40
11	325	Remove stump.	40
12	328	Remove stump.	40
13	334	Remove stumps.	60
14	355	Install trail directional marker post with directional arrows.	300
15	355 - 370	Construct 15 new trail with crushed limestone (1.5m wide).	900
16	365	Trim overhanging vegetation.	50

17	370	Existing viewing area (with bird identification panel): Install crushed limestone surface (approx. 50m ²).	2,000
18	370 - 410	Construct 40m new trail with crushed limestone (1.5m wide).	2,400
19	410	Existing viewing area (with bird identification panel): Install crushed limestone surface (approx. 40m ²).	1,600
20	410 - 430	Construct 20m new trail with crushed limestone (1.5m wide).	1,200
21	430	Junction with existing limestone trail.	0
22	430 - 470	Existing limestone trail – no action required.	0
23	470	Silver Creek Trailhead: Install Trail Directional Post with pictogram for “Class 2” trail. Fill and grade car parking area (approx. 2000m ²).	140 80,000
24		Relocate Silver Creek Trail sign to beginning of existing limestone path.	200
25		Allowance for consultation, research, writing, design, fabrication and supply of 2 interpretive panels.	3,400
26		Allowance for design and supply of 2 creative rusty steel sign pedestals.	2,600
27		Allowance for research, write, design and supply A4 brochure, with map (5000 copies, DL).	5,500
28		Allowance for supply and install trail ‘promotional’ fingerboard signage on regional and local roads.	600
		<i>Sub-Total</i>	<i>125,230</i>
		+ 10% Project management	12,520
		+ 10% Contingency	12,520
		Total (not including GST)	\$150,270

Riverside Trail 2 (Moore River)			
Plan Ref	Distance from t/h	Tasks	Costs
1	0	Viewing area (eastern end of trail): Selective clearing to remove undergrowth from viewshed.	300

		Re-wire fencing.	200
		Install sign indicating end of formal trail (but informal trail continues).	60
		Install crushed and compacted limestone surfacing (allowance for 15m ²)	600
		Install interpretive panel.	200
2	0 - 50	Trim overhead vegetation.	100
3	50 - 60	Existing flight of limestone block step: Sweep steps.	40
4	60 - 525	Apply and compact 465m crushed limestone surfacing (1m wide).	18,600
5	65	Remove overhead branch (near bottom of steps).	30
6	100 - 150	Prune overhead vegetation.	100
7	150 - 160	Relocate trail uphill away from river's edge (above high water mark). Remove bushes. Install interpretive panel.	100 200
8	180	Remove low paperbark branch.	50
9	200	Remove low paperbark branch.	50
10	225	Remove protruding branches on paperbark.	50
11	265	Remove low paperbark branches.	50
12	280	Remove protruding branch.	50
13	385	Possible landing area for delivery of materials: Install interpretive panel.	200
14	500 - 525	Realign trail away from river's edge (above high water mark).	0
15	525 - 642	Existing boardwalk: Allowance for re-screwing all boardwalk decking timbers. Install interpretive panel.	4,000 200
16	642 - 668	Existing flight of limestone block steps: Sweep steps. Apply crushed limestone fill between steps to make level.	50 200
17	668 - 695	Apply and compact 27m crushed limestone surfacing (1m wide).	1,080
18	695	Flight of limestone block steps to river: Install interpretive panel (top of steps).	200

		Allowance for procurement and installation of floating fishing/boat platform (pontoon).	7,000
		Cut back tree alongside steps.	50
		Widen steps where necessary.	200
19	730	Trailhead (for Riverside Trail 1 and Riverside Trail 2): Install Trail Directional Post with pictogram for “Class 2” trail.	140
20		Allowance for consultation, research, writing, design, fabrication and supply of 5 interpretive panels.	8,500
21		Allowance for design and supply of 5 creative rusty steel sign pedestals.	6,500
22		Allowance for research, write, design and supply A4 brochure, with map (5000 copies, DL).	5,500
23		Allowance for supply and install trail ‘promotional’ fingerboard signage on regional and local roads.	600
		<i>Sub-Total</i>	<i>55,200</i>
		+ 10% Project management	5,520
		+ 10% Contingency	5,520
		Total (not including GST)	\$66,240

Silver Creek Trail			
Plan Ref	Distance from t/h	Tasks	Costs
1	0	Trailhead: Fill and grade car parking area (costed in Riverside Trail 1 works list). Relocate Silver Creek Trail sign to beginning of existing limestone path (costed in Riverside Trail 1 works list).	- -
2	0	Fabricate and install new trailhead sign (duplicate of the existing sign in trailhead parking are) at commencement of Silver Creek Trail. Install Trail Directional Post with pictogram for “Class 2” trail.	500 140
3	0 - 175	Resurface 175m existing (sandy) trail with crushed limestone (1.5m wide).	10,500
4	175 - 509	Existing trail surface is OK – no action required.	0

5	260	Install interpretive panel (Yued Nyoongar)	200
6	509 - 528	Existing boardwalk: Trim overhanging vegetation. Install interpretive panel (Flora and Fauna)	50 200
7	544	T-junction: Fabricate and install directional signage (Right arrow and words for direction to Creek House; Left arrow and words for direction to Guilderton and river mouth).	300
8	652	End of trail at "Creek House Park" (existing interpretation, mill and trough and 2 picnic tables): Install interpretive panel (Creek House). Install Trail Directional Post with pictogram for "Class 2" trail.	200 140
9		Allowance for clearing and construction of 100m possible future all-weather trail route.	5,000
10		Allowance for consultation, research, writing, design, fabrication and supply of 3 interpretive panels.	5,100
11		Allowance for design and supply of 3 creative rusty steel sign pedestals.	3,900
12		Allowance for research, write, design and supply A4 brochure, with map (5000 copies, DL).	5,500
13		Allowance for supply and install trail 'promotional' fingerboard signage on regional and local roads.	600
		<i>Sub-Total</i>	<i>32,330</i>
		+ 10% Project management	3,230
		+ 10% Contingency	3,230
		<i>Total (not including GST)</i>	<i>\$38,790</i>

Recommended Staging of Moore River and Silver Creek Trails Upgrading Project

Recommended Staging - Moore River and Silver Creek Trails Upgrading Project		
Stage	Component	Cost
1	Car park surface improvement (Silver Creek Trailhead)	80,000
2	Riverside 2 Trail – Trail surfacing and realignment; vegetation trimming; stairs upgrading	21,700
3	Riverside 1 Trail – Trail surfacing (and miscellaneous work on steps; stumps etc)	31,330
4	Silver Creek Trail – Trail surfacing (and suggested new trail route)	15,550
5	Consultation, research, writing, design, fabrication and supply and installation of interpretive panels	32,200
6	Preparation of new trail brochure(s)	16,500
7	Miscellaneous works on all trails (including pontoon on Riverside 2 trail; and road signage)	11,480
8	Riverside 2 Trail – boardwalk repairs	4,000
	Total	\$212,760*
* does not include 10% Project Management fees, 10% contingency nor 10% GST		

Project 3 - Lancelin Coastal Path Upgrading Project

Location:

Lancelin (See Plan 6)

Concept:

Much of the coastal shared path/trail is already in place, although could be significantly improved. With the current upgrading and access improvements to Hinchcliffe Lookout, it is highly desirable that the full length of the existing coastal path be extended to enable cyclists and people in wheelchairs to access the new ramp on the north side of the lookout from Grace Darling Park, to the south. This necessitates a significant extension to the path network. There have been recent upgrades to the Hinchcliffe Hill Lookout with the construction of a new ramp that will support wheelchair access to the north side.

Rationale for development:

Without the recommended extension to the Lancelin coastal pathway, cyclists will not be able to access the redeveloped Hinchcliffe Hill Lookout.

Primary user groups:

Walkers; wheelchair users; cyclists.






Note: the recommended improvements will make the entire pathway accessible for wheelchairs (from the southern end at Grace Darling Park all the way to the north end to the proposed new access ramp to the Hinchcliffe Lookout). Accessibility for wheelchair users and cyclists along this pathway has certainly been a significant consideration.

Description of project:


This project is about making better use of the existing segments of pathway by various improvements with the end result being a well interpreted and signed trail from Grace Darling Park through to Hinchcliffe Lookout.

The range of improvements include: new sections of path, kerb ramps to enable safer access to the path; safety improvements by better control of wind-blown sand; installation of interpretive signage; and a promotional brochure to make the trail more attractive and appealing to users (local people; day-trippers; tourists passing through; holidaymakers).

Consultations required:

-  Shire of Gingin
-  Friends of Lancelin Coast (Inc)
-  Lancelin District Community Association
-  NACC
-  Yued Nyoongar

Interpretation:

-  A series of 7 panels featuring the important stories in Lancelin's history.

Cost Estimate for Project 3: Lancelin Coastal Path Upgrading Project (See Plan 6)

Lancelin Coastal Path			
Plan Ref	Distance from t/h	Tasks	Costs
1	0	Trailhead at Grace Darling Park: Install trailhead map panel. Install trail directional marker post (with Straight arrow on S face; Straight arrow on N face). Install bike parking rails. Install interpretive signage (Grace Darling Shipwreck).	400 300 1,000 200
2	100	Road crossing (Hopkins St): Install kerb ramp (SW corner of Hopkins St and Cunliffe St).	600
3	110	Cut break in kerbs.	1,000
4	110 - 340	Install 230m kerbing in car park to create 3.0m wide shared path (utilising existing sealed area). (Alternative: clear vegetation and construct 230 metres new 3.0m wide path on west side of fence).	11,500
5	350	Sandy track into beach: Existing interpretation (Edwards Island). Install trail crossing signs either side of path (on entry to and exit from sandy track) – visibility is poor. Trim bushes to improve visibility. Remove bollards or add reflective tape.	600 50 50
6	480	Sandy track into beach: Existing interpretation (faded – can't be read). Trim bushes to improve visibility. Install trail crossing signs on beach side of path (on exit from sandy track) – visibility is poor.	50 600
7	895	Remove bollards or add reflective tape (at path entry from Cunliffe St). Install trail directional marker post (with Left arrow on S face; Right arrow on N face).	50 300
8	945	Entrance to gazebo: Install bike parking rails. Install new interpretive panel (Aboriginal use of coastal area).	1,000 200

9	1150	Remove bollards or add reflective tape.	50
10	1175	Remove sand over path (40m). Construct low retaining wall (40m).	400 3,000
11	1235	Remove sand over path. Construct low retaining wall (outside Kerfuffle).	400 1,500
12	1240	Road crossing (Miragliotta St): Remove mountable kerbing and install kerb ramp on north side. Install trail directional marker post on north side (with Left arrow on S face; Right arrow on W face).	600 300
13	1275	Existing interpretation (Lancelin Island): Install new interpretive panel (fishing industry).	200
14	1275	Install trail directional marker post (with Left arrow on W face; Right arrow on N face).	300
15	1310	Remove sand over path. Construct low retaining wall.	400 2,000
16	1470	Install bike parking rail (near Endeavour Tavern).	1,000
17	1395	Existing interpretation (various). Install bike parking rails.	0 1,000
18	1795	Install interpretive panel (history of Lancelin – built on swamp).	200
19	1835	Install trail directional marker post at path junction (in park).	300
20	1835	Install trailhead map panel in park.	400
21	1835	Install bike parking rails in park.	1,000
22	1880	Relocate existing shipwrecks interpretation (<u>or</u> install new interpretive panel similar in design to other proposed new panels/structures) at better location.	300
23	1890	Existing military equipment: Install interpretive panel (military history – 10 th Light Horse).	200
24		End of concrete path.	-
25		Install bike parking rails at The Dunes.	1,000

26	2185	Road crossing (Gingin Rd 1): West side - Install kerb ramp (concrete/transition) from path to road. East side – Install kerb ramp in mountable kerbing. Construct 10m concrete path around power pole (and away from drainage gully) – east side of pole. Install trail directional signage on west side (with Right arrow on S face; Left arrow on E face; interpretation pictogram on S face and E face).	600 600 2,250 300
27	2275	Road crossing (Gingin Rd 2): South side - Install kerb ramp (concrete/transition) from path to road. Install trail directional signage on South side (with Left arrow on W face; Right arrow on N face). North side - Install kerb ramp (concrete/transition) from path to road.	600 300 600
28	2325	Install trail directional signage at intersection of North St and Beacon Rd (with Left arrow on W face; Right arrow on N face).	300
29	2410	End of existing path (at entrance to caravan park): Construct new ramp (remove dangerous lip).	600
30	2410 - 2850	Construct 440m new concrete path (2.5m wide) from entrance to caravan park along Beacon Rd and Hinchcliffe Rd to lookout).	110,000
31	2510	At corner Hinchcliffe Rd and Beacon Rd: Install kerb ramp. Install trail directional signage (with Left arrow on S face; Right arrow on W face).	600 300
32	2790 - 2850	Clear vegetation for proposed new path.	300
33	2850	Proposed new ramp to Hinchcliffe Lookout: Install bike parking rails. Install trailhead map panel.	1,000 400
34		Research, design, fabricate and install “directional dial” at Hinchcliffe Lookout.	2,000
35		Install interpretive panel (offshore islands) at Hinchcliffe Lookout.	200
36		Allowance for research, writing, design, fabrication and supply of 7 interpretive panels.	11,900

37		Allowance for design and supply of 7 creative rusty steel sign pedestals.	9,100
38		Allowance for design and supply of trailhead panels and structure (3 panels @ 1200mm x 800mm).	15,000
39		Allowance for research, write, design and supply A4 brochure, with map (5000 copies, DL).	5,500
40		Allowance for supply and install trail 'promotional' fingerboard signage on regional and local roads.	600
		<i>Sub-Total</i>	<i>195,500</i>
		+ 10% Project management	19,550
		+ 10% Contingency	19,550
		Total (not including GST)	\$234,600

Recommended Staging of Lancelin Coastal Path Upgrading Project

Recommended Staging - Lancelin Coastal Path		
Stage	Component	Cost
1	Path construction (northern end)	110,300
2	Kerb cuts and kerb ramps; kerbing; removing sand and retaining walls	27,250
3	Consultation, research, writing, design, fabrication and supply and installation of interpretive panels; trailhead map panels	38,700
4	Miscellaneous works (bike parking; directional markers; warning signage)	13,750
5	Preparation of new trail brochure(s)	5,500
	Total	\$195,500
* does not include 10% Project Management fees, 10% contingency nor 10% GST		

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. Four 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 Gingin's natural and built assets to create a series of trails which will be of lasting benefit to the community.

The Shire of Gingin 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 Gingin Trails Network (when developed) it is necessary to ensure that day-trip visitors, tourists passing through on their way to some other destination and local people 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>	<i>\$51,000</i>
10% GST	5,100
<i>Total (including GST)</i>	<i>\$56,100</i>

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 commonly 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 Council office in Gingin (and Lancelin), the Visitor Centre and Railway Station in Gingin, the Visitor Centre in Guilderton and the Lancelin Tourist Information office, cafés in each town and other shops, tourist bureaux in the region 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, tourist bureaux 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 (walk and drive) that are available in the Shire of Gingin. 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 Gingin, the history of farming and other primary pursuits in the area (timber milling, fishing, wineries, etc), 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 Gingin should be modelled on the best of those available.

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 Gingin. 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).

Project 5: Moore River Water Trail

Location:

Moore River, Guilderton

Concept:

A water trail is similar to a land-based trail in that it has a route with access points. The overall philosophy taken in planning a water trail (primarily for kayaks and canoes) has been to take users on a “treasure hunt”, rather than just a list of places to stop and look at things of interest. Navigating on a water body (a lake, a creek or a passage) and “finding all the treasures” can bring a sense of achievement.

It is also acknowledged that, while the water trail will be promoted for ‘canoe/kayak’ use, it is likely to attract attention from other water users, notably motorised fishing and pleasure craft (depending on access to the Moore River and water level).

Rationale for development:

Canoeing and kayaking on the Moore River is already an extremely popular activity. Providing a water-based trail will serve to make this activity a more enjoyable and purposeful activity for those that seek this type of adventure.




A new water trail, being relatively uncommon in WA, will also serve to attract new visitors to Guilderton.

Primary user groups:

Canoeists; kayakers; ‘tinnie’ users.

Description of project:

The project will include the following elements:

-  Examining potential ‘sites’ along the Moore River and Silver Creek where interpretive panels could be affixed (where they would not be significantly affected by ‘normal’ water level changes. Need to record GPS coordinates.
-  Research, writing, design, fabrication, transport and fabrication of interpretive panels.
-  Production of a waterproof trail brochure.

There are a number of issues that need to be considered when contemplating the ‘installation’ of a water trail. Firstly, suitable launching sites must be available (or able to be constructed). Ease of access to still water is a prime requirement. Secondly, ample ‘trailhead’ parking will be required, as canoeists/kayakers generally will need to carry their



*Kayaking and canoeing on Silver Creek is already popular.
Excellent launching facilities are already in place.*

canoes/kayaks to the launching site in/on a vehicle. Thirdly, the existence of private property will need careful consideration, just as it will in the development of a land-based trail.







There may also be a need to assess risks before undertaking this project and also a need to take into account other resource considerations (being a water based activity).

Simple, on-shore landing points on sandy gentle slopes has been the preferred approach – these are often preferred by canoeists/kayakers. Such landing points also prevent erosion and other impacts as well as serving the user's need. There are already several suitable launch points on the Moore River and Silver Creek, including the boat launching area near the river mouth, two locations on Silver Creek and at the end of Caraban Rd.



Above: illustration of floating interpretive panels. Something similar would clearly distinguish the Moore River Water Trail from any others in Australia.

Promotional literature including mapping is a significant element for water trails. Information (along with access) is a critical key to success for canoe trails. The map is a gateway to a water trail. Maps prepared for the water trails should show:

-  Access points;
-  Landing sites and the facilities at those sites;
-  Routes and travel times;
-  Off-river facilities such as car parking;
-  Hazards to navigation and rules and regulations; and
-  Location of interpretive panels and the stories they tell.

They also feature information on the flip side of the map about the suggested route, what can be seen along the route, trip planning, canoe and kayak safety, environmental considerations and a contact list.

Printing the map on synthetic, water-proof and tear-proof paper is critical; such a map will last through wet conditions. Printing of water-proof and tear-proof maps are a major cost item for canoe trails. However, the sale of advertising space on maps is often used to offset printing costs.

Some Councils have provided very good interactive maps on their websites. These are useful for planning a trip (though with the advent of internet-capable mobile phones, their use might be more widespread in the future).

The Shire of Gingin may wish to explore further landing points once the water trail is established and usage has been monitored.

Consultations required:



Shire of Gingin



Department of Transport

Interpretation:

Interpretation serves the same purpose on water as it does on land.

In keeping with the nature of the journey, the use of floating interpretive panels attached to buoys is recommended. Buoyage Systems Australia is a Victorian firm which undertakes buoyage system design, manufacture, installation and service. They have provided some preliminary designs and costings for floating buoys for use on canoe trails. Buoys will have three faces for varied signage, tamper proof sign attachment and long lasting baked-on lettering and reflective tape. Buoys could be designed to be extra wide to accommodate interpretive etched anodised aluminium signs (the preferred sign for interpretive panels). Buoys would have a base of around 400 millimetres and stand 600 millimetres high.

Development of floating interpretation panels opens up a range of possibilities. Canoes/kayaks will travel close to the shore in areas where it is difficult to land, thus increasing the number of possible interpretive sites (and themes and subjects).

It is recommended that approximately 10 interpretive sites should be chosen during the planning stages as this will affect the choice of subjects to be interpreted.

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

Cost Estimate for Project 5: Moore River Water Trail

	Tasks	Costs
1	Fieldwork (to ascertain practicalities of water trail; impediments to development; opportunities; confirmation of launching sites; possible interpretive sites, etc) (allow 1 day + vessel hire)	\$1,500
2	Consultation with Sire of Gingin, Department of Transport and others, (allow 2 days)	\$1,000
3	Preparation of simple trail development plan. Includes: work lists and cost estimates, interpretation, maintenance, management, promotion, marketing (allow 2 days)	\$2,000

4	Allowance for supply of 10 buoys and fixing of interpretive panels.	4,000
5	Allowance for research, writing, design, fabrication and supply of 10 interpretive panels.	17,000
6	Allowance for locating/fixing floating buoys in place	5,000
7	Allowance for design and supply of trailhead panels and structure (3 panels @ 1200mm x 800mm).	15,000
8	Installation of trailhead signage (3 panels).	\$1,200
9	Write, design and supply waterproof A4 brochure, with map (5000 copies, folded to DL).	\$6,000
<i>Sub-Total</i>		<i>52,700</i>
+ 10% Project Management		5,270
+ 10% Contingency		5,270
Total (not including GST)		\$63,240

Project 6 - Connection between Silver Creek and Moore River foreshore pathway

Concept

This project envisages a trail to connect the existing trails along Silver Creek and the Moore River (Riverside Trails 1 and 2) with the existing foreshore path and boardwalk at the mouth of the Moore River. Providing a marked connection will enable a much longer (distance and time) trail to be undertaken by local people and visitors to Guilderton.

Rationale for development:

The existing trails along Silver Creek and Moore River (Riverside Trails 1 and 2) are physically separated from the path/boardwalk and lookouts in place at the mouth of the Moore River. As there is no existing trail between the two areas, walkers must walk on the roads to get from one area to the other.

Primary user groups:

Walkers.

Description of project:

The proposed project involves determining/confirming a trail route between the two areas.

The proposed route utilises existing footpaths (along Edwards St) and a well-worn but overgrown track through bushland within the confines of the golf course. The route also involves crossing two fairways of the golf course.

Little work is required to make this connection work. Some clearing of vegetation will be required, trail surfacing would be preferred and trail directional marking necessary.

Consultations required:



Shire of Gingin



Golf course management

Interpretation:

None required.

Cost Estimate for Project 6: Connection between Silver Creek and Moore River foreshore pathway

Tasks		Costs
1	Allowance for clearing along trail route	3,000
2	Allowance for trail surfacing where required	4,000
3	Allowance for trail directional markers	3,000
4	Allowance for trail crossing warning signage	3,000
<i>Sub-Total</i>		<i>13,000</i>
5	+ 10% Contingency	1,300
Total (not including GST)		\$14,300

Project 7 – Gingin GeoTour Project

Location:

Various locations throughout the Shire of Gingin

Concept:

Recognising the widespread nature of the attractions of any Shire, this Trails Master Plan proposes a ‘mini’ drive trail (GeoTour or GeoTrail) to take visitors to a wide range of attractions throughout the Shire of Gingin and in particular to the existing and proposed (non-motorised) trails of the Shire – as well as the numerous heritage and historic sites.

A GeoTour is similar to a ‘drive trail’ but uses a series of ‘geocaches’ placed at locations throughout the Shire to attract visitors to these locations. (Geocaches are containers hidden somewhere in a park, along a trail, near an old building, in a pile of rocks, on the top of a granite outcrop, in a hollow log or in any one of hundreds of different situations. The object of geocaching is to find the hidden containers using its GPS coordinates).

Drive trails usually feature directional signage that effectively guide users along the set route, past a number of ‘sites’ chosen for interpretation. Rather than installing numerous, and costly, directional signage, the GeoTour Project envisages the installation of a geocache at each site and utilising the resources (and mapping) of the Geocaching App (and web site) to guide users from one site to the next. Interpretive information can be included in the app in the Site Description.

This proposed project focuses on the natural history and carefully selected cultural heritage locations spread throughout the Shire of Gingin. It aims to link the existing and proposed (non-motorised) trails of the Shire as well as the numerous heritage and historic sites.

The production of a GeoTour brochure will help promote the activity and enhance the experiences of those who visit the sites.

Rationale for development:

The Shire of Gingin has a rich and colourful history with numerous stories associated with the exploration of the area, its pioneers, early transport, the earliest settlements and development of small communities and various agricultural industries.

The development of a GeoTour is a relatively low-cost option for attracting visitors (primarily existing ‘geocachers’) to a region. As noted above, a fully-fledged “drive trail” is an expensive project, due to the need to undertake site works such as gravelled car parking areas where they do not exist, the installation of picnic facilities where appropriate, the erection of directional and other signage and the provision of interpretive signage. A GeoTour requires very little in the way of infrastructure but will attract people to the same sites that may traditionally have been included on a drive trail.

With suitable promotion, the GeoTour will attract encourage new people to geocaching as a recreational hobby and consequently to the Shire and its main towns.

The GeoTour will serve to attract and keep tourists longer – as well as being of interest to local people who may not be familiar with the district’s history.

Primary user groups:

Motorists including local people and visitors to the Shire of Gingin.

Description of project:








The proposed project involves determining/confirming a range of geocache locations spread throughout the Shire of Gingin. These sites would be selected from the Municipal Inventory of Heritage Places (and including, where appropriate and approved, sites of significance to Aboriginal people).

When sites are chosen, the geocache containers are prepared, then hidden with the GPS coordinates taken. A description of each geocache needs to be written (preferably including interpretive information) and the geocache is then 'uploaded' for approval before becoming one of more than three million geocaches worldwide.







The major cost components of this project are the actual placement of the geocaches (including recording and checking of GPS coordinates), the writing and approval of site descriptions (including interpretive material) and the actual registering of caches via the Groundspeak site.

All proposed geocache locations are on public land. None are proposed on private property.

The GeoTour project will include the following elements:

-  Purchase of geocaching materials (waterproof containers, log books and pencils).
-  Assembly and actual placement of cache (including recording and checking of GPS coordinates).
-  Writing and approval of site descriptions (including interpretive material).
-  Actual registering of caches via Groundspeak site.
-  Purchase of souvenirs for successful geocachers.
-  Promotion of GeoTour.
-  Preparation and printing of brochure.

Consultations required:

-  Shire of Gingin
-  Gingin History Group
-  Land managers (such as DCBA)
-  Visitor Centres
-  Yued Nyoongar
-  Local people

Interpretation:

The sites (and possible interpretive stories) recommended for inclusion are yet to be selected. The Geocaching App (and web site) provides the opportunity to include interpretive information as well as photos of the sites.

Further information about Geocaching and GeoTrails (including the setting up of an incentive prize to attract and keep visitors longer) is contained in Appendix 1

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

Cost Estimate for Project 7: Gingin GeoTour Project

	Tasks	Costs
1	Consultation (with Shire of Gingin, Visitor Centre, Yued Nyoongar, relevant businesses and land owners).	1,800
2	Research of potential geocache sites.	1,800
3	Determination/agreement of 20 cache sites.	1,100
4	Research of 20 sites for interpretive information to be included in cache description in app.	3,300
5	Writing and approval of 20 site/cache descriptions (including interpretive material).	3,960
6	Purchasing materials (waterproof containers, paint, laminating plastic, log books, pencils, etc for 20 caches).	660
7	Preparation of 20 cache containers/contents (camouflage painting, log sheets/books, "Please read" sheets, code breaking letter etc).	440
8	Actual placement of 20 caches (including recording and checking of GPS coordinates, filming of placement for future maintenance by others).	3,960
9	Actual registering of 20 caches via geocaching.com	2,640
10	Write, design and supply A4 brochure, with map (5000 copies, folded to DL).	5,500
Total (not including GST)		\$25,160

Note 1: this proposal assumes arrangement and placement of 20 caches. Each additional cache would incur an additional cost.

Note 2: the following are not included:

- *purchasing of souvenirs for successful geocachers who complete the entire series of 20 caches*
- *arrangements with potential prize donors*

6.4 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>	<i>Cost**</i>
1	Gingin Heritage Trail redevelopment, realignment and upgrade	112,470	134,970
2	Moore River and Silver Creek Trails upgrades	212,760	255,300
3	Lancelin Coastal Path upgrades	195,500	234,600
4	Trails Marketing Program	51,000	51,000
5	Moore River Water Trail	52,700	63,240
6	Connection between Silver Creek and Moore River foreshore pathway	13,000	14,300
7	Gingin GeoTour Project	25,160	25,160
Totals		\$662,590*	\$778,570**
* Total Cost (not including GST, 10% Project Management or 10% Contingency)			
** Total Cost (not including GST, but including 10% Project Management and 10% Contingency)			

1. Note: Estimated costs are as at May 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 7: IMPLEMENTATION PROGRAM

7.1 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 Gingin – particularly local people.

As noted, there are already 13 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 Gingin 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 the towns of the Shire of Gingin – 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 10-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.

The implementation schedule set out in this Trails Master Plan has been prepared by staff of the Shire of Gingin, based on initial material provided by Transplan Pty Ltd and taking into account its own financial and staffing resources.

Council’s preferred position is to implement the recommended trails program (set out in this Trails Master Plan) project by project, as follows:

For each individual project to do the following:

-  Year 1 – Identify project manager, determine concept design in consultation with key stakeholders
-  Year 2 – Funding application
-  Year 3 – Detailed Design and Construction

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 huge cost savings, and the work to date by various groups in the community (such as the Lower Moore River Working Group) 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 Trails Master Plan ought not be considered overwhelming. There is funding available. However, it will take a concerted effort by the Shire of Gingin to apply for, and secure, this funding.

The marketing of the trails of the Shire of Gingin 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. It is necessarily weighted heavily over the first two years, as large grants will be needed to kick-start the upgrading/extension program. For example, a large grant would be required to fill and level the trailhead car parking area at Silver Creek. This project should not necessarily be considered as a trail project alone, as the car park serves several other purposes including providing access for people fishing.

Similarly, a large grant from the Department of Transport could be obtained to complete the coastal path at its north end (to provide access to the (currently) upgraded Hinchcliffe Hill Lookout.

Gingin Trails Master Plan Implementation Schedule

Project Number and Title Stages*	Project Lead									
		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9
Project 1 - Gingin Heritage Trail realignment and Upgrade										
a. Concept Planning	Assets/Operations	10000								
b. Funding Application	Corporate & Community Services		3000							
c. Implementation	Assets/Operations			112,470						
Project 2 - Moore River and Silver Creek Trail Upgrades										
a. Concept Planning	Assets/Operations		10000							
b. Funding Application	Corporate & Community Services			3000						
c. Implementation	Assets/Operations				212,760					
Project 3 - Lancelin Coastal Path Upgrades										
a. Concept Planning	Operations			10000						
b. Funding Application	Corporate & Community Services				3000					
c. Implementation	Operations					195,500				
Project 4 - Trails Marketing Program	Communications						51000			
Project 5 - Connection between Silver Creek and River Mouth										
a. Concept Planning	Assets/Operations					5000				
b. Funding Application	Corporate & Community Services						1500			
c. Implementation	Assets/Operations							13000		

Shire of Gingin Trails Master Plan

Project 6 - Moore River Water Trail										
a. Concept Planning	Assets						10000			
b. Funding Application	Corporate & Community Services							3000		
c. Implementation	Assets								52700	
Project 7 - Gingin GeoTour Project										
a. Concept Planning	Assets							5000		
b. Funding Application	Corporate & Community Services								1500	
c. Implementation	Assets									25160
Proposed Annual Expenditure		10000	13000	125470	215760	200500	62500	21000	54200	25160

*Note *: This implementation program has been prepared by the Shire of Gingin based on original material provided by Transplan Pty Ltd.*

SECTION 8: INTERPRETATION AND INTERPRETIVE SIGNAGE

8.1 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 Gingin, 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 want to learn, see, and do! They 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 Gingin 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.

8.2 EXAMPLES OF INTERPRETATION

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



Above: an example of an interpretive panel and pedestal (with cut-outs) used on City of Cambridge Heritage Trail.



Above: example of rusty steel pedestal and etched anodised aluminium panel for the Exploring Wildflower Country drive trail.



Above: the pedestals for the Derby Heritage Trail have been cut in the shape of a boab tree.



Above: the pedestals for the Wiluna Heritage Trails are cut in the shape of a bungarra.

SECTION 9: TRAIL DEVELOPMENT CONSIDERATIONS














9.1 GENERAL CONSIDERATIONS

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

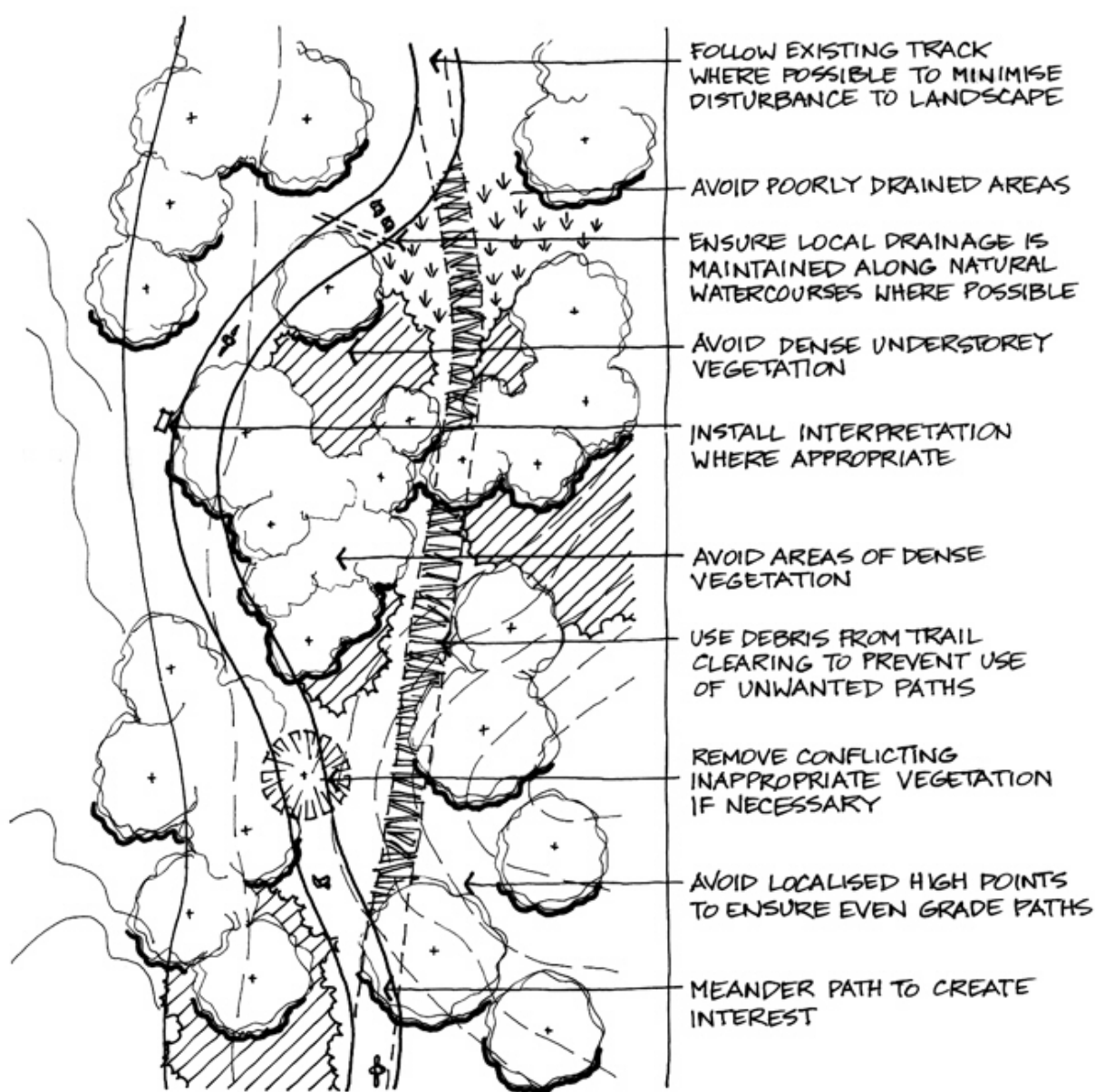
9.1.1 GENERAL CONSIDERATIONS FOR SUSTAINABLE TRAILS

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 (such as along the Moore River). 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. Relocating the trail route away from areas subject to tidal inundation is important along Riverside Trails 1 and 2 in Guilderton.

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.

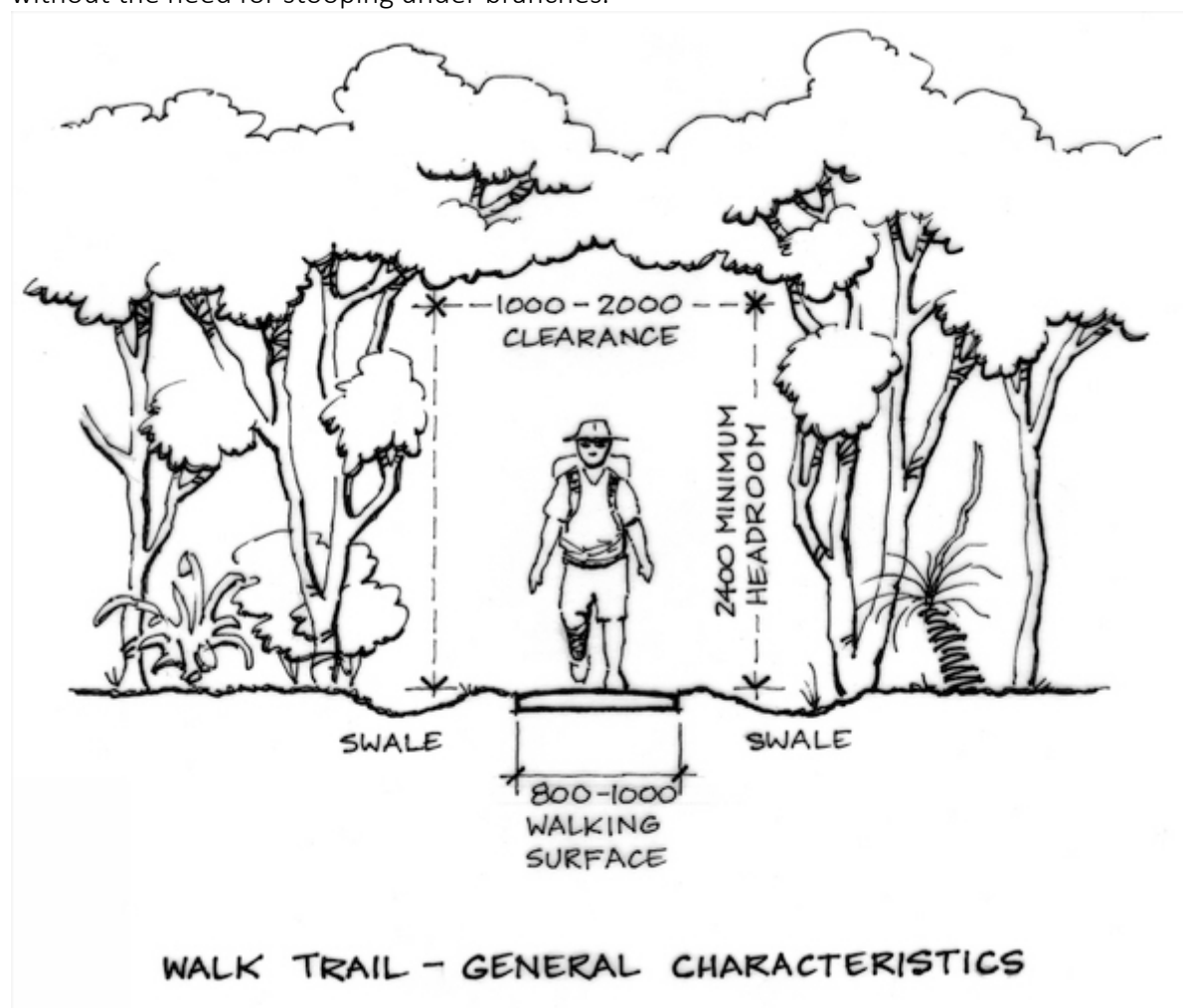
Culverts and other drainage controls should be used to direct run-off away from the trails where needed. It should be noted that some slope is desirable on shared-use trails. A perfectly level trail will hold water (ponding), creating mud holes that then become maintenance problems.

9.1.2 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 only 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.



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 (such as the Lancelin coastal path).

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. This is particularly important on the Lancelin Coastal Path.

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

9.1.3 TRAIL SURFACE MATERIAL

A smooth, crushed and compacted limestone surface is most appropriate for the proposed trail upgrading at Guilderton (with the exception of the in-town Gingin Heritage Trail which generally utilises existing footpaths). The surfaces should be firm enough in most locations to provide pleasant walking conditions and should be pleasing to the eye of walkers.

9.1.4 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.

9.2 SAFETY CONSIDERATIONS

9.2.1 ROAD CROSSINGS

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

In the case of the three priority trails highlighted in this Trails Master Plan for the Shire of Gingin, there are several road crossings where consideration is needed (along the Gingin Heritage Trail and along the Lancelin Coastal Path). The relatively low volume and speeds of motor vehicle traffic anticipated should not cause an issue.

9.3 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 Gingin. It should accord with relevant local or Australian 'standards' or practices.

It is recommended that trails in the Shire of Gingin 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 Gingin, to engender a sense of uniqueness. This also applies to the set of trail brochures that will be prepared.

As noted elsewhere, directional signage along the Gingin Heritage Trail needs to be improved, to enable inexperienced trail users to feel confident and comfortable.

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).

9.3.1 DIRECTIONAL SIGNAGE

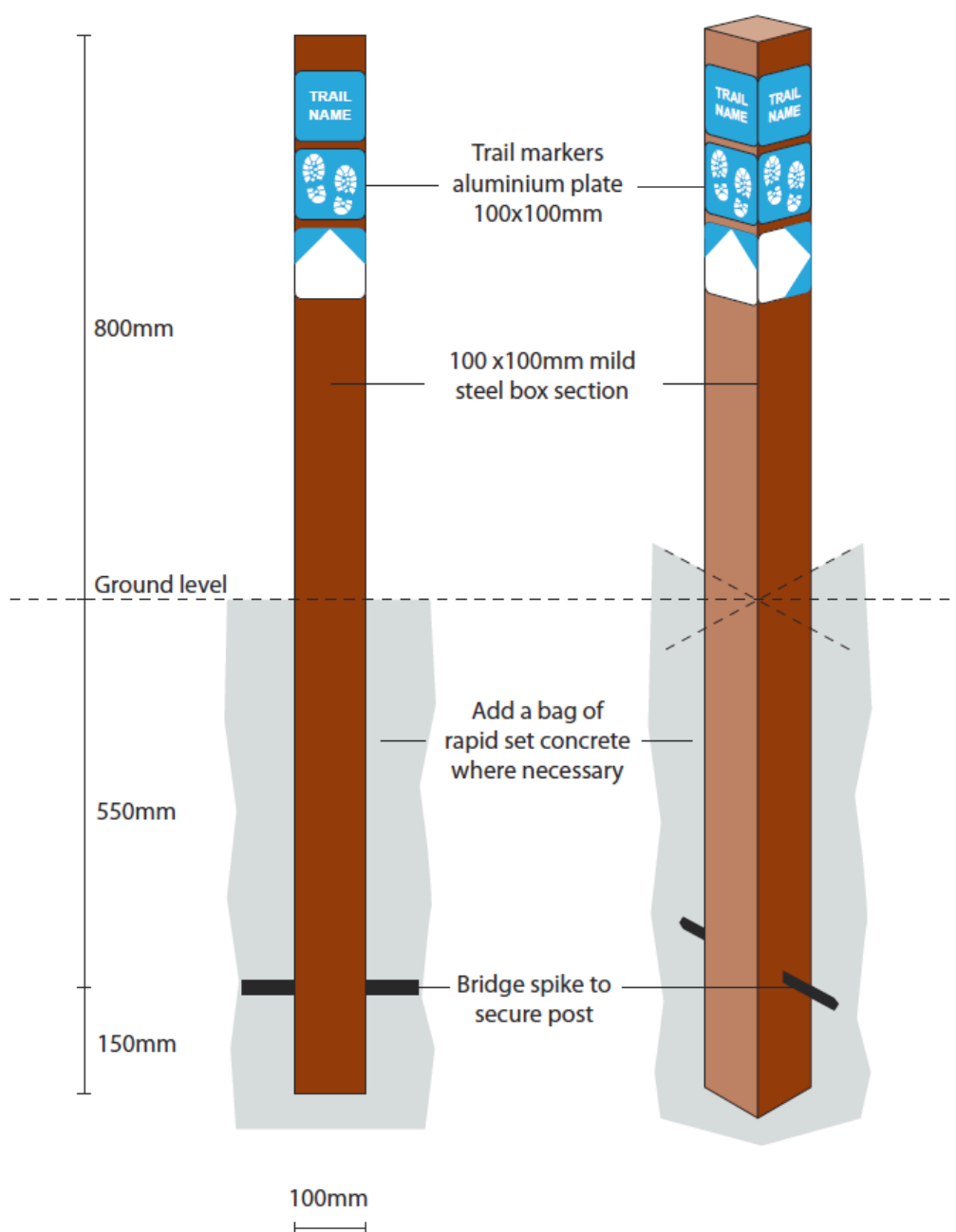
Trail markers need to be placed at regular intervals along all trails – particularly at corners and junctions. As the trails within the Shire of Gingin will attract a large number of novice

(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 125-150mm diameter, 1.5 metres in length, and buried 600mm 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.

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.

9.3.2 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.

Interpretive panels installed on the Three Bridges Trail (and the Gingin Heritage Walk) are very old and are somewhat difficult to read. Interpretive panels along the Lancelin Coastal Path are so faded they are impossible to read.

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 Gingin 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.



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.

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 local communities will be best placed to make decisions on the preferred shape of panels, when the projects are to be implemented.

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 Gingin, for example, the words “Gingin Heritage Trail” could be cut from the face, similar to that shown in the photograph for the Menzies Heritage Trail.

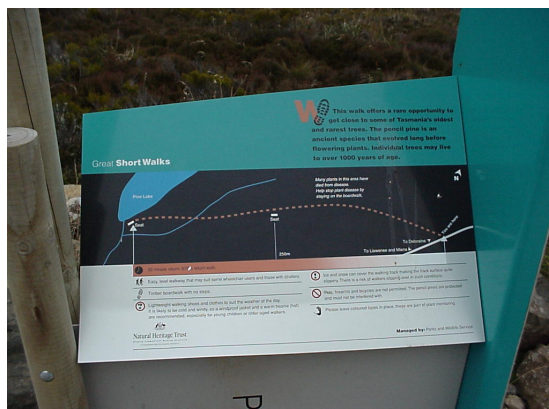
9.4 TRAILHEADS AND PARKING

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.

9.5 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.



9.6 TRAIL LOGO

It is recommended that an overall logo be devised for use on all trail signs through the Shire of Gingin, and on trail promotional material and trailhead signage. The use of a logo unique to the Shire of Gingin 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 10: TRAIL MANAGEMENT AND MAINTENANCE

10.1 TRAIL MANAGEMENT GROUP

The trail development program set out in this Trails Master Plan is reasonably substantial, and the ongoing implementation may be somewhat complex. There are many stakeholders, both private and public, all with a strong interest in this project – some are already involved while some will need to be involved in the future. Various funding programs are available for much of the design, construction, promotion and interpretation associated with the trail upgrading program.









To ensure a smooth trails development program, a Trails Management Group is often set up within a local government to oversee the implementation of a Trail Plan.

The group would typically comprise a representative from each of the following:

-  The Council.
-  Shire staff.
-  The business community.
-  Community working groups, community and progress associations.
-  Landcare organisations.
-  Aboriginal groups.
-  Others, as deemed appropriate.

In the case of the Shire of Gingin, a Trails Management Group may not be a feasible option at this point of time due to staffing capacity and resourcing constraints. As an alternative a Project Officer/Manager could be appointed to engage with relevant stakeholders during the relevant tasks required.

The following tasks would be undertaken:

-  Oversee the implementation of this Trails Master Plan.
-  Preparation of funding applications to external funding sources.
-  Actively managing the trails network.
-  Co-ordinating regular maintenance of the trails.
-  Co-ordinating community involvement in the development of the trails, trails usage and events on the trails.
-  Project management of the construction of the trails.
-  Marketing and promotion of the Gingin Trails Network (through such activities as developing maps, newsletters and other publications).
-  Preparing trail management plans.





10.2 PREPARATION OF TRAIL MAINTENANCE PLANS

Ongoing trail maintenance is a crucial component of an effective management program – yet it is often neglected until too late. Countless quality trails have literally disappeared because no one planned a maintenance program, and no one wanted to fund even essential ongoing repairs. It is therefore essential that funds be set aside in yearly budgets for maintenance of these trails - to ensure user safety and enjoyment, and to minimise liability risks for land

managers. Depending on a swathe of conditions – weather, soil types, construction standards, usage patterns and more – trail maintenance can cost up to 10% of total construction costs – or more - every year.

In all trail proposals, the opportunity exists to minimise future maintenance demands through careful planning and construction. Too often initial costs are cut in the belief that all trails require maintenance anyway, and something not done properly today can be fixed in the future. Building good trails in the first place is the very best way of minimising future problems and costs. As a second line of defence, a clear and concise Management Plan (as discussed above) with a regular maintenance program written into it will aid significantly in managing ongoing resource demands.

The goals of a Trail Maintenance Plan are to:

-  Ensure that trail users continue to experience safe and enjoyable conditions;
-  Guard against the deterioration of trail infrastructure, thereby maintaining the investment made on behalf of the community;
-  Minimise the trail manager's exposure to potential public liability claims arising from incidents which may occur along the trails; and
-  Set in place a management process to cover most foreseeable risks.

Erosion (caused by weather and unauthorised users), regrowth of vegetation, fallen trees and branches and damage to signage are likely to be the greatest maintenance activities on the trails. The plan needs to include not only the replacement of damaged facilities but also preventative maintenance and the replacement of worn out facilities. Providing these effects are attended to early, they are largely labour intensive rather than capital expensive. Calamitous events such as fire or flood will naturally generate significant rebuilding activity and consequent costs. These events are generally unmanageable and should simply be accepted as part of the longer-term reality of a trails program.

The ongoing maintenance task needs to include consideration of staffing capacity and as well as financial resourcing in particular, as other priority areas may reduce the ability of Council's staff to maintain trails. Should the trails program be implemented it may be necessary to increase staff resourcing to accommodate the increased maintenance activities.

Resourcing a maintenance program is crucial, and funds will be required on an ongoing basis to enable this essential maintenance. This matter should be addressed in the preparation of the maintenance plan. It would be short sighted to go ahead and build the trail and then baulk at the demands of managing and maintaining it.

10.3 TRAIL MAINTENANCE ACTIVITIES

The discussion that follows provides general guidance for the development of maintenance plans for each trail. It is not a substitute for specific maintenance plans for each of the trails.

Maintenance on all trails will be divided between regular inspections and simple repairs, a one (or two) person job, and quarterly programs undertaking larger jobs such as significant signage repairs or weed / vegetation control. A range of basic machinery, tools and equipment will be required for this work.

Clear records of each activity/inspection will be kept by the agency with responsibility for maintenance. A pro-forma sheet (from the Kep Track Trail Management Plan) is attached for information (see Appendix 2). Such pro-formas serve to maximise user safety and minimise liability risks. It will also provide a valuable record of works undertaken and make for efficient use of maintenance resources over time.

The activities set out in this document could be built in to other maintenance activities of the Shire of Gingin – such as regular monitoring and maintenance program for a range of other recreational facilities.

In general, Maintenance Plans are based around regular inspections, at which time simple maintenance activities should take place concurrently. More time-consuming maintenance activities should take place every six months, while detailed Hazard Inspections should occur annually. Further, the capacity to respond immediately to random incoming reports of hazards or major infrastructure failures should be built into the Plans. The following table gives a suggested schedule for general maintenance activities to achieve acceptable maintenance levels. Explanatory notes pertaining to each Activity follow the table below and should be read prior to undertaking the activity.

General Maintenance Activities

<i>Activity</i>	<i>Site</i>	<i>Frequency</i>
Undertake full inspections of all trails	Entire trail	Every six months
Check, repair or replace all trail signage, esp. road-crossings and directional markers	Entire trail	Every six months - at each Trail Inspection
Check and cut-back overhanging or intruding vegetation (not trail surface)	Entire trail	Every six months, unless obviously requiring attention at regular inspections.
Sweep or rake debris from trail surfaces, especially at road crossing points and steps	Various sites along entire trail	Every six months
Check condition of trail surface for erosion (or other) damage and arrange repairs if necessary; trim off regrowth vegetation	Entire trail	Check for erosion at each inspection. Arrange repairs immediately if acute, or schedule maintenance for six monthly work sessions if not; rake-hoe regrowth vegetation each inspection
Check structural stability of built structures such as bird hides, viewing platforms, boardwalks, interpretive signage, interpretive shelters	Various locations	Every six months
Undertake Hazard Inspection and prepare Hazard Inspection Report	Entire trail	Annually

(It should be noted that this schedule does not allow for repair works above and beyond 'normal' minor activities. For example, if a section is subject to heavy rain, and erosion control fails, additional repair works will need to be undertaken).

Trail signage

The majority of signs will occur at trailheads. Each trailhead should be carefully checked to ensure that all signage is present, and that all signs are clearly visible and legible. An inventory of locations needs to be prepared to assist in regular maintenance.

Vegetation

Undergrowth vegetation grows quickly, and over time will continue to intrude into the trail 'corridor'. Such intruding vegetation will be cut back to provide clear and safe passage - a minimum clear space 1.5 metres wide and 2.5 metres high (on walk trails), and 2.5 m wide by 3.5 m high (on shared use trails) should be provided at all times. Care will be taken to ensure that sharp ends are not left protruding into the trail as these can harm trail users. It should be noted that trailside vegetation hangs lower when wet, and allowances should be made for this when assessing whether or not to prune. "Blow-downs" - trees or limbs which have fallen across the trail - will be cleared as a part of this process. Sight lines must be kept clear either side of road crossings as a part of this process, to ensure that users can clearly see a safe distance either way at road crossings.

Trail surfaces

Many of the trail sections will require regular surface maintenance. Primary focus will be on erosion damage caused by water flowing down or across the trail and by illegal motor vehicle use. This must be repaired as soon as it is noted, or it will get worse, quickly.

Interpretive signage

Once interpretive panels have been installed along the trails, these should be checked for vandalism and cleaned if necessary. If damage is too great, replacement is essential. An inventory of locations needs to be prepared to assist in regular maintenance.

10.4 TRAIL MAINTENANCE COSTS

As a general rule, estimating the cost of maintaining a trail is difficult due to the unpredictability of events such as wild fires, ferocious storms and occasional flooding. Heavy rains and the subsequent runoff can cause considerable damage to trail infrastructure. According to a report prepared by the Rail to Trails Conservancy in the USA (*Rail-Trail Maintenance and Operation – Ensuring the Future of Your Trails – A Survey of 100 Rail-Trails, July 2005*), the cost to maintain trails is hard to determine (while this research focussed on rail trails, its findings are more widely applicable). The report provides two general answers for why it is difficult to estimate maintenance costs. First, the trail may be part of a larger budget for a single park or even an entire parks and recreation department. Specific costs for the trail are not separated out. Second, small trail groups, though run by competent and extremely dedicated volunteers, tend to be 'seat-of-the-pants' operations. Maintenance is done "as needed," funds are raised "as needed," and the people are volunteering because they love the trail, not because they love doing administrative tasks like budgeting.

Maintenance responsibility does appear to significantly affect cost. Approximately 60% of the surveyed trails reporting costs were maintained primarily by a government agency, implying paid staff and/or contractors. The other 40% of trails were primarily maintained by a non-profit or volunteer organisation. Annual costs for government-run trails were just over \$2,000 per mile (\$1,250/km). This is not much more than the overall average of \$1,500/mile

(\$940/km), but it nearly triples the average for volunteer-run trails of just under \$700 per mile (\$440/km).

Evidence of actual trail maintenance costs for individual items along a trail is scarce. However, the activities of an effective volunteer maintenance program can significantly reduce the maintenance burden on a local government.

Trail furniture (such as bench seats, trail directional marker posts and interpretation) should be installed in concrete footings. These should require minimal ongoing maintenance.

The presence of trees in particular along the Gingin Heritage Trail and the Guilderton trails means that time will need to be spent removing damaged and fallen trees and branches in the aftermath of a storm.

Replacing stolen or damaged trail signage may be required, but how much time spent on this task is guesswork.

Even though much of the basic infrastructure for the three priority trails is in place, it is difficult estimating costs involved in maintaining an upgraded trails network until every last step is in place and every trail directional marker has been installed (as it is not yet known how much of the recommended improvements will actually be implemented).

The following tables make an attempt at estimating an amount that may be required on an annual basis for maintaining each trail.

Estimate of Maintenance Costs – Gingin Heritage Trail

<i>Task</i>	<i>Frequency/Repair</i>	<i>Possible Costs</i>
Inspect and check trailhead facilities and infrastructure: <ul style="list-style-type: none"> - parking areas (check surfaces) - seating/shelter/picnic tables - trailhead signage - trailhead (map) panel 	Check every quarter. 3 trailheads at average repairs of \$500 per site	\$1,500
Check side vegetation growth and overhead vegetation and cut back where required.	Check every quarter. Allowance of 1 person day per year (for cutback)	\$800
Check interpretation along trail for damage and stability (when installed).	Check every quarter. Allowance for replacement of 2 panels per year	\$1,600
Check trail directional markers	Check every quarter. Allowance for replacement of 5 marker arrows per year	\$2,000
Inspection of trail element of the boardwalk i.e. signage, vegetation (6 times/year)	6 inspections per year. 6 person days.	\$6,000
Preparation of annual Hazard Inspection Report	1 person days.	\$1,000

Check structural stability of boardwalk and make repairs where/when required	Allowance for inspections and repairs.	\$10,000
\$22,900 excl GST (per annum)		

Note: use of volunteers and/or prison crews could substantially reduce maintenance costs. Inclusion of regular inspections as part of Council's regular maintenance program for recreational assets can also reduce costs if done as part of other inspection and maintenance programs. As this is an in-town trail, no allowance has been included for trimming vegetation which may overhang the path at any point. The assumption is that this work is a general part of Council's town maintenance programs.

Estimate of Maintenance Costs – Guilderton Riverside Trails and Silver Creek Trail

Task	Frequency	Possible Costs
Inspect and check trailhead facilities and infrastructure: <ul style="list-style-type: none"> - parking areas (check surfaces) - trailhead signage (on road) - trailhead (map) panel - trail directional marker posts 	Check every quarter. 2 trailheads at average repairs of \$500 per site	\$1,000
Allowance for repairs to trail surface and boardwalk.	4 person days per year	\$3,200
Allowance for replacement of trail directional marker logo/arrow plates (10 per year).	10 replacements per year.	\$1,000
Check side vegetation growth and overhead vegetation and cut back where required.	Check every quarter. Allowance of 1 person day per year (for cutback)	\$800
Check miscellaneous signs along trail and roads (e.g. warning signs, trail directional fingerboards, etc).	Check every quarter. Allowance for replacement of one sign per year	\$1,000
Check interpretation along trails for damage and structural stability (when installed).	Check every quarter. Allowance for replacement of 2 panels per year	\$1,600
Inspection of trail network (6 times/year)	6 inspections per year. 6 person days.	\$6,000
Preparation of annual Hazard Inspection Report	2 person days.	\$2,000
\$16,600 excl GST (per annum)		

Note: use of volunteers and/or prison crews could substantially reduce maintenance costs. Inclusion of regular inspections as part of Council's regular maintenance program for recreational assets can also reduce costs if done as part of other inspection and maintenance programs.

Estimate of Maintenance Costs – Lancelin Coastal Path

<i>Task</i>	<i>Frequency</i>	<i>Possible Costs</i>
Inspect and check trailhead facilities and infrastructure: <ul style="list-style-type: none"> - trailhead signage (on road) - trailhead (map) panel - trail directional marker posts - trail classification signage 	2 trailheads at average repairs of \$500 per site.	\$1,000
Allowance for repairs to path surface (incidental repairs to existing and new paths).	10 person days per year.	\$8,000
Allowance for replacement of trail directional marker logo/arrow plates (10 per year).	10 replacements per year.	\$1,000
Check side vegetation growth and cut back where required.	Allowance of 2 person days per year (for cutback).	\$1,600
Check and remove sand blows over path.	Allowance of 2 person days per year.	\$1,600
Check miscellaneous signs along trail and roads (e.g. warning signs, etc).	Allowance for replacement of one sign per year	\$1,000
Check interpretation along trail for damage and structural stability (when installed).	Allowance for replacement of 2 panels per year.	\$1,600
Check structural stability of proposed new boardwalk (if installed) and make repairs where/when required.	Allowance for inspections and repairs.	\$2,000
Inspection of entire path (6 times/year).	6 inspections per year. 6 person days.	\$6,000
Preparation of annual Hazard Inspection Report.	3 person days	\$3,000
Check structural stability Hinchcliffe Lookout.	Allowance for inspections and repairs.	\$2,000
\$28,800 excl GST (per annum)		

Note: use of volunteers and/or prison crews could substantially reduce maintenance costs. Inclusion of regular inspections as part of Council's regular maintenance program for recreational assets can also reduce costs if done as part of other inspection and maintenance programs. The cost above is provided for the entire Coastal Path including the sections that exist presently. Maintenance of the existing sections may already be counted within Council's annual budget. Significant budget allocation increase may be required to cover all paths and trails throughout the Shire. Council would need to assess allocation requirements accordingly.

10.5 USE OF VOLUNTEERS AND OTHER LOW-COST LABOUR SOURCES

In Australia, 'Friends of' trails groups undertake any number of tasks. It should be noted that in most trails where such groups exist, the 'friends of' groups are not the trail manager. This responsibility falls to a formal Committee of Management, a State Government agency or a local government.

Western Australia's two premier trails (the Bibbulmun Track and Munda Biddi Trail) make extensive use of volunteers in their ongoing maintenance. For example, as much as 80% of the 1,000 km long Bibbulmun Track is maintained by volunteers in a well organised Volunteer Maintenance Program – a Herculean effort in this time-poor modern environment. The Bibbulmun Track Foundation is probably the most successful 'Friends of' Group in Australia, with a paid-up membership in excess of 2,100 (in a number of categories). The Foundation is not the track manager – this job is done by the Department of Conservation, Biodiversity and Attractions. The Foundation is a not-for-profit community-based organisation established to provide support for the management, maintenance and marketing of the Bibbulmun Track.

Corporate sponsorship has made possible the Foundation's "Eyes on the Ground" maintenance volunteer program – volunteers adopt a section of the track and ensure it remains well maintained. They carry out basic maintenance activities such as pruning, clearing minor obstacles, replacing trail markers and keeping campsites clean and report regularly on conditions likely to affect walkers or the long-term future of the Track itself to the track manager. The maintenance volunteers have developed a sense of ownership of 'their' section of Track. There are also office and field activity volunteers. On these trails, volunteers adopt a section of the trail and are trained to look after it.

Tasks for volunteers will involve light maintenance including pruning, clearing debris, removing litter, minor repairs to steps, water bars, fencing and the like and monitoring and reporting on the general condition of the trail. Major maintenance tasks will be carried out by the trail manager.

Such an approach has the potential to reduce the cost of inspections and maintenance activity and help instil a custodianship role in the communities where the trails will be developed/upgraded. However, it can be difficult to rely on volunteers as they are often over committed already and are 'burning out' (and getting older).

Crews of minimum security inmates have worked extensively in trail construction and maintenance in Western Australia in the last fifteen years. This has proven to be a hugely beneficial program - to host agencies, to the Department of Corrective Services and to the inmates themselves. A prison officer and transport is usually provided, but materials, tools, and technical supervision are required. Supervised instruction for prisoners can have considerable benefits. The prisoners receive skills training, they develop an improved work ethic, they can take pride in being involved in a local project, they can take pride in a job done well and they can gain valuable experience and thereby increase future employment opportunities. It has been demonstrated in other trails projects that these types of programs help reduce recidivism amongst prisoners. They are not, and should not be, considered as a free source of labour.

SECTION 11: RESOURCES AND FUNDING OPPORTUNITIES

11.1 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 Gingin (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 Gingin 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.

11.2 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

Trailswest (Department of Sport and Recreation) – 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>

WA Bicycle Network Grants Program

The Western Australian Bicycle Network (WABN) Grants Program is an initiative of the Western Australian State Government, administered by the Department of Transport.

The WABN grants program is one of the key actions detailed in the *Western Australian Bicycle Network Plan 2014-2031* which sets out a framework for the provision of a safe and sustainable cycling network across WA.

Funding is available to local government authorities in WA, for up to 50 per cent of the total project cost, for the design and implementation of bicycle network infrastructure and programs in accordance with State Government priorities set out in the WABN Plan.

Projects are encouraged to be spread over two financial years to facilitate high quality planning and design. To enable project staging, funding may be applied for in two consecutive financial years.

Extensions to the path network at Lancelin would most likely qualify for funding under this program.

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.

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Shire of Gingin Contributions

Many of the grant programs available for trail projects require matching contributions, and it is recommended that the Shire of Gingin 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.

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Shire of Gingin *Strategic Community Plan 2017-2027*

Shire of Gingin and Yued Nyoongar People *Cultural Heritage Management Plan 2016-2019*

Shire of Gingin and the Yued Noongar People *Reconciliation Action Plan 2014 – 2023*

Shire of Gingin (October 2016) *Strategic Community Plan 2015--2025 – Review - Context and Research*

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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-caching”). 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)

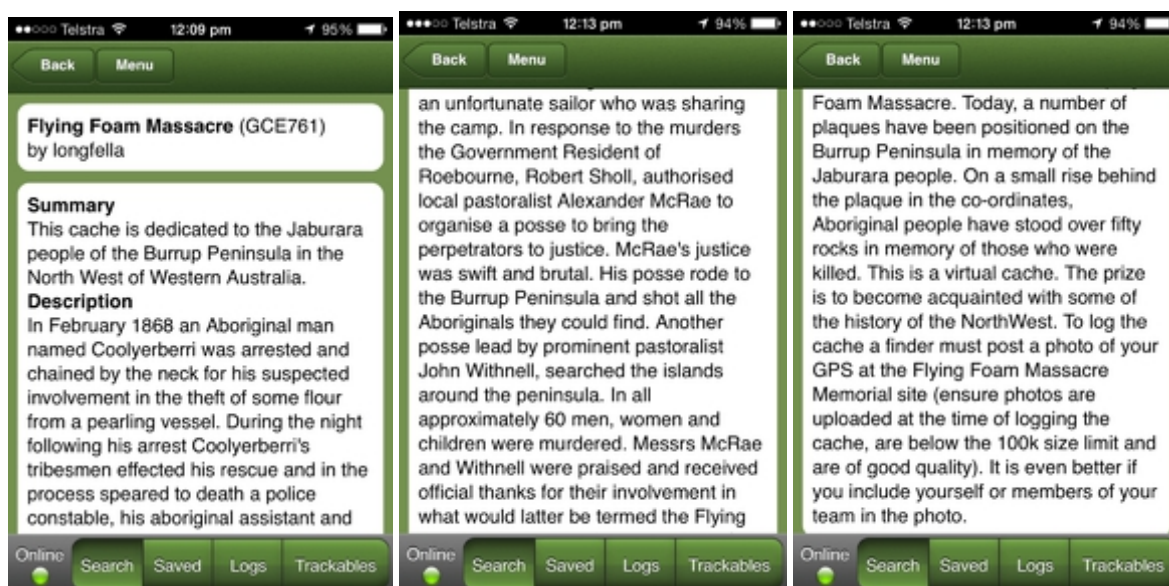
A geocaching trail (a GeoTrail) is simply a series of geocaches tied together by a common theme. There is not necessarily an itinerary or fixed route, as we would think of a traditional drive trail, but rather a series of points of interest in a self-guided goal-oriented plan. Usually, between 10 and 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 Gingin. 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:

HISTORY BEAUTY PROSPERITY

Once the secret phrase is revealed, the successful geocacher would claim the souvenir at, for example, the Gingin Visitor Centre. The souvenir could be a bottle of wine donated by a local producer or some other option.

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 Gingin GeoTour could also include interpretive information in the geocache description.

APPENDIX 2 – TRAIL MAINTENANCE PLAN PRO-FORMA CHECKLIST

(Checklist shown is taken directly from the Kep Track Trail Management Plan)

MAINTENANCE CHECKLIST EXAMPLE

The checklist that follows is an example prepared for the National Trust for ongoing maintenance of the Kep Track in the Shire of Mundaring. It is reproduced here as an example of a maintenance checklist that could be prepared for trails within the Shire of Donnybrook Balingup.

KEP TRACK (Mt Helena to Wooroloo) - MAINTENANCE CHECKLIST

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

Jan 2007/8/9		Feb 2007/8/9		Mar. 2007/8/9		Apr 2007/8/9	
May 2007/8/9		Jun 2007/8/9		July 2007/8/9		Aug 2007/8/9	
Sep 2007/8/9		Oct 2007/8/9		Nov. 2007/8/9		Dec 2007/8/9	

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 		
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 (midpoint between Old Northam Rd and Ash Rd) 		
Ash Rd crossing	<ul style="list-style-type: none"> • Check gates both sides • Check directional markers 		

	<ul style="list-style-type: none"> • 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 (south west 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?			

APPENDIX 3 – TRAIL ASSESSMENT SHEETS

Shire of Gingin Trails Master Plan – Trails Audit

Trail Name:	Three Bridges Walk (incl. Jim Gordon VC Boardwalk and Gingin Heritage Walk)
Location:	Gingin townsite
Trail Characteristics: surface (gravel; concrete; asphalt); Length and width condition? erosion? Weeds / grass invasion?	4.17km - includes a variety of trail surfaces including boardwalk (280m), footpaths, road verges, old road alignment and grass lawns. Original 'short circuit' is no longer available due to 'land ownership changes'.
Promotion: maps, guide books and track notes; web site? Promo brochure?	Map available from Visitor Information Centre.
User groups: single use or multiple use?	Walk trail but could be cycled.
Signage to trailhead: from local/regional road system	None obvious. Needs to be signage on Weld St.
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	Shade shelters, barbecues, water fountain, ample car parking, interpretation, tables, toilets nearby, phone nearby, shops nearby.
Nearby facilities: shops, public transport	Town centre shopping area only 100m away from trailhead. Trail passes through town centre.
Directional / distance signage: along trail	Directional signage along trail, but inconsistent. Some missing. Oversupply in other areas.
Other signage: (location; promotional; warning; information; advisory; fire safety; code of conduct)	Considerable amount of interpretation at trailhead and along boardwalk. Old, dilapidated interpretive signs at other significant locations.
Drainage: (culverts – clear?); rolling dips; water bars; drainage channels; rock steps.	Boardwalk through wetland area beside creek. Bridges over creek.
Interpretation: type; number; topics; need? Cultural/Aboriginal?	Considerable amount at trailhead and along boardwalk. Scattered along trail at significant buildings/sites.
On-trail furniture and structures: (bench seats; tables; viewing platforms; water fountains; boardwalks; bird hides; bird call boxes; tunnels; underpasses; bridges; boardwalks)	Long boardwalk; 3 main bridges; 2 narrow bridges in park; bench seat near bridges; picnic tables at trailhead and in park opposite.
Road crossings: (sight lines; signage; other safety matters; vehicle exclusion barriers and emergency access gates)	Several road crossings. Warning signage in place on Weld St opposite trailhead, and on Weld St at north end of trail.
Safety: for users; conflicts between user groups; fire, etc	Road or road verge walking required for long lengths. Potentially dangerous.
Vegetation: (overhead; side). Need for clearing; invasive species and weeds; re-vegetation needs.	A few areas where vegetation overhangs trail route.
Trail type: (out and back; loop; one way?)	Long loop (although shorter loop was created, but not very evident).
Grade of trail: (easy; to very difficult; AS class?)	Moderately difficult due to length. Some difficult walking on road verges (marri nuts).
Management and maintenance: Management plan? Friends of group? Community support. Who manages?	Appears well maintained. Managed by Shire of Gingin.
General comments: quality of experience; point of difference; accessibility	Moderately interesting trail, with very attractive sections and some long boring sections. Poorly placed trail directional markers, missing trail directional markers, some overhanging vegetation, marri nuts are prolific on ground and difficult to walk on (and potentially dangerous). Unnecessary number of TDM's along 'stock route' section of trail and badly positioned. Requires re-routing, better directional signage and upgraded interpretation.

Shire of Gingin Trails Master Plan – Trails Audit

Trail Name:	Nilgen Lookout Trail
Location:	Nilgen Nature Reserve – Indian Ocean Drive
Trail Characteristics: surface (gravel; concrete; asphalt); Length and width condition? erosion? Weeds / grass invasion?	170m concrete (2m wide). 610m stabilised crushed limestone (2m wide). Trimmed at edges. Very good condition.
Promotion: maps, guide books and track notes; web site? Promo brochure?	Advance warning signs on Indian Ocean Drive. No brochure or general promotional material discovered.
User groups: single use or multiple use?	Walk trail only. Accessible by wheelchair.
Signage to trailhead: from local/regional road system	Nilgen Lookout clearly marked on Indian Ocean Drive.
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	3 shelters. Large car park for cars, buses and caravans. Trailhead information. Trailhead signs. Rubbish bins. No toilet. No phone. Trail map at trailhead.
Nearby facilities: shops, public transport	None.
Directional / distance signage: along trail	None (but not needed).
Other signage: (location; promotional; warning; information; advisory; fire safety; code of conduct)	Ample information at trailhead map panel.
Drainage: (culverts – clear?); rolling dips; water bars; drainage channels; rock steps.	None.
Interpretation: type; number; topics; need? Cultural/Aboriginal?	16 small wildflower panels. Considerable information at trailhead. Several larger panels along trail at viewpoints.
On-trail furniture and structures: (bench seats; tables; viewing platforms; water fountains; boardwalks; bird hides; bird call boxes; tunnels; underpasses; bridges; boardwalks)	Several limestone block seats with panoramic views to coast and surrounding landscape.
Road crossings: (sight lines; signage; other safety matters; vehicle exclusion barriers and emergency access gates)	None (except in car parking areas).
Safety: for users; conflicts between user groups; fire, etc	No safety issues. Wide trail, edges cut back.
Vegetation: (overhead; side). Need for clearing; invasive species and weeds; re-vegetation needs.	Excellent array of wildflowers, with considerable interpretation.
Trail type: (out and back; loop; one way?)	Both; concrete trail to lookout and loop trail.
Grade of trail: (easy; to very difficult; AS class?)	Easy. Class 5 – suitable for wheelchairs.
Management and maintenance: Management plan? Friends of group? Community support. Who manages?	Department of Biodiversity, Conservation and Attractions.
General comments: quality of experience; point of difference; accessibility	Excellent experience, especially during wildflower season. Very high quality trail with abundant interpretation, trailside furniture, trailhead information and exceptional trail surfaces.

Shire of Gingin Trails Master Plan – Trails Audit

Trail Name:	Yued Bilya Djinna Track
Location:	Moore River, Indian Ocean Drive
Trail Characteristics: surface (gravel; concrete; asphalt); Length and width condition? erosion? Weeds / grass invasion?	Natural earth, cleared trail through grasses and bushland. 1.05km each way. Small loop at northern end. Runs alongside Moore River.
Promotion: maps, guide books and track notes; web site? Promo brochure?	No promotional material discovered; no trailhead sign on road or at start of trail.
User groups: single use or multiple use?	Walk only
Signage to trailhead: from local/regional road system	None on Indian Ocean Drive; none at commencement of trail.
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	Large parking area for cars, caravans and campers; numerous picnic tables (some old, several new, some covered); gas barbecue; interpretive shelter with general information; rubbish bins; toilets; caravan dump point; steps to river.
Nearby facilities: shops, public transport	None nearby (approx. 10km to Guilderton)
Directional / distance signage: along trail	Trail directional markers at regular intervals (should be more as inadequate at present); no distance markers.
Other signage: (location; promotional; warning; information; advisory; fire safety; code of conduct)	None
Drainage: (culverts – clear?); rolling dips; water bars; drainage channels; rock steps.	None
Interpretation: type; number; topics; need? Cultural/Aboriginal?	Impressive Aboriginal interpretive signage at commencement of trail and at 4 other locations along trail.
On-trail furniture and structures: (bench seats; tables; viewing platforms; water fountains; boardwalks; bird hides; bird call boxes; tunnels; underpasses; bridges; boardwalks)	None
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	Conflict unlikely between user groups.
Vegetation: (overhead; side). Need for clearing; invasive species and weeds; re-vegetation needs.	Some of trail route has recently been mowed and therefore is reasonably well defined. Other areas of trail are indistinct, and navigation is difficult.
Trail type: (out and back; loop; one way?)	Out and back (but includes small loop at northern end).
Grade of trail: (easy; to very difficult; AS class?)	Moderate (due to length and uneven surfaces).
Management and maintenance: Management plan? Friends of group? Community support. Who manages?	Lower Moore River Working Group. (Trail funded through Envirofund / Natural Heritage Trust)
General comments: quality of experience; point of difference; accessibility	Moderately interesting experience due to Aboriginal interpretation (could/should be more); more trail directional markers required as existing 'density' is inadequate and navigation is difficult in several areas. Needs promotional signage on Indian Ocean Drive and at commencement of trail (in parking area).

Shire of Gingin Trails Master Plan – Trails Audit

Trail Name:	Riverside Trail 1 (Guilderton)
Location:	Guilderton
Trail Characteristics: surface (gravel; concrete; asphalt); Length and width condition? erosion? Weeds / grass invasion?	470m one-way trail to Silver Creek (940m return). Trail surface is natural earth. Some overhanging vegetation. Some revegetation occurring.
Promotion: maps, guide books and track notes; web site? Promo brochure?	Trail is shown on various maps around Guilderton as a walk trail ("not signposted"). Also shown on Guilderton brochure/map.
User groups: single use or multiple use?	Walk only (has limestone steps in several places).
Signage to trailhead: from local/regional road system	None.
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	Ample parking area (sealed) at eastern end. Grass parking area at Silver Creek (west) end is very boggy. Map panel showing trail route and some interpretive material. Various warning signs. Fencing of reserve. Picnic tables, shelters, and toilet at Silver Creek end.
Nearby facilities: shops, public transport	Guilderton town centre is approx. 2.5km away by road. Shops and other facilities.
Directional / distance signage: along trail	None.
Other signage: (location; promotional; warning; information; advisory; fire safety; code of conduct)	Some warning signage at commencement of trail. Revegetation signs along trail.
Drainage: (culverts – clear?); rolling dips; water bars; drainage channels; rock steps.	Several sets of steps along trail.
Interpretation: type; number; topics; need? Cultural/Aboriginal?	Some on map panel at commencement of trail. None along trail.
On-trail furniture and structures: (bench seats; tables; viewing platforms; water fountains; boardwalks; bird hides; bird call boxes; tunnels; underpasses; bridges; boardwalks)	Bench seat along trail. Park facilities (including picnic tables, shaded picnic shelters and toilet) at Silver Creek trailhead.
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	Nil.
Vegetation: (overhead; side). Need for clearing; invasive species and weeds; re-vegetation needs.	Some overhanging and side vegetation require cutting back.
Trail type: (out and back; loop; one way?)	Out and back.
Grade of trail: (easy; to very difficult; AS class?)	Easy. Several sets of steps. Class 2.
Management and maintenance: Management plan? Friends of group? Community support. Who manages?	Shire of Gingin, with assistance from Lower Moore River Working Group, Moore Catchment Council and Northern Agricultural Catchment Council.
General comments: quality of experience; point of difference; accessibility	Trail provides excellent access to beaches along the Moore River, in a well wooded and shaded foreshore reserve.

Shire of Gingin Trails Master Plan – Trails Audit

Trail Name:	Riverside Trail 2 (Guilderton)
Location:	Guilderton
Trail Characteristics: surface (gravel; concrete; asphalt); Length and width condition? erosion? Weeds / grass invasion?	Over 730m one-way (1.46km return). Surface is mix of crushed limestone, natural earth, sand, limestone steps and timber boardwalk (120m). Overgrown in parts.
Promotion: maps, guide books and track notes; web site? Promo brochure?	Trail is shown on various maps around Guilderton as a walk trail ("no signage"). Also shown on Guilderton brochure/map.
User groups: single use or multiple use?	Walk only (has approx. 50 steps).
Signage to trailhead: from local/regional road system	None.
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	Ample parking area (sealed). Map panel showing trail route and some interpretive material. Various warning signs. Fencing of reserve.
Nearby facilities: shops, public transport	Guilderton town centre is approx. 2.5km away by road. Shops and other facilities.
Directional / distance signage: along trail	None.
Other signage: (location; promotional; warning; information; advisory; fire safety; code of conduct)	Some warning signage at commencement of trail.
Drainage: (culverts – clear?); rolling dips; water bars; drainage channels; rock steps.	Numerous limestone steps along trail.
Interpretation: type; number; topics; need? Cultural/Aboriginal?	Some on map panel at commencement of trail. None along trail.
On-trail furniture and structures: (bench seats; tables; viewing platforms; water fountains; boardwalks; bird hides; bird call boxes; tunnels; underpasses; bridges; boardwalks)	Lengthy (120m) boardwalk with viewing platform. Isolated bench seat towards end of trail. Many loose boards require re-fixing.
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	Nil.
Vegetation: (overhead; side). Need for clearing; invasive species and weeds; re-vegetation needs.	Trail requires maintenance to cut back large amounts of side and overhanging vegetation.
Trail type: (out and back; loop; one way?)	Out and back.
Grade of trail: (easy; to very difficult; AS class?)	Easy to moderate. Class 3.
Management and maintenance: Management plan? Friends of group? Community support. Who manages?	Shire of Gingin, with assistance from Moore Catchment Council, Lower Moore River Working Group and Northern Agricultural Catchment Council.
General comments: quality of experience; point of difference; accessibility	High potential for a quality trail. Provides access along and to beautiful areas and beaches of the Moore River. Boardwalk and viewing platform are a highlight. Requires work to restore trail to its former glory. Eastern end of trail is not obvious – could extend for hundreds of metres more. Repairs to boardwalk required. Interpretation needed.

Shire of Gingin Trails Master Plan – Trails Audit

Trail Name:	Silver Creek Trail (Guilderton)
Location:	Guilderton
Trail Characteristics: surface (gravel; concrete; asphalt); Length and width condition? erosion? Weeds / grass invasion?	Approx. 700m one way. Mostly crushed limestone with a lengthy (160m) sandy section. Trail includes a 20m boardwalk/bridge over creek.
Promotion: maps, guide books and track notes; web site? Promo brochure?	Trail is shown on various maps around Guilderton as a walk trail ("not signposted"). Also shown on Guilderton brochure/map.
User groups: single use or multiple use?	Walk only (but could be cycled).
Signage to trailhead: from local/regional road system	None.
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	Ample grassed parking area provides water craft launching area. Area includes picnic tables, sheltered picnic tables, toilet. Map panel shows trail route and some interpretive information.
Nearby facilities: shops, public transport	Guilderton town centre is approx. 2.0km away (shops and other facilities).
Directional / distance signage: along trail	None.
Other signage: (location; promotional; warning; information; advisory; fire safety; code of conduct)	Some warning signage at commencement of trail.
Drainage: (culverts – clear?); rolling dips; water bars; drainage channels; rock steps.	None evident. 20m boardwalk/bridge over creek.
Interpretation: type; number; topics; need? Cultural/Aboriginal?	Some on map panel at commencement of trail. Small sign at "Creek House" location at western end of trail.
On-trail furniture and structures: (bench seats; tables; viewing platforms; water fountains; boardwalks; bird hides; bird call boxes; tunnels; underpasses; bridges; boardwalks)	Bench seat along trail. Several picnic tables in park at end of trail. 20m boardwalk over creek.
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	Nil.
Vegetation: (overhead; side). Need for clearing; invasive species and weeds; re-vegetation needs.	No issues. Vegetation well maintained.
Trail type: (out and back; loop; one way?)	Out and back.
Grade of trail: (easy; to very difficult; AS class?)	Easy walking. Class 2
Management and maintenance: Management plan? Friends of group? Community support. Who manages?	Shire of Gingin, with assistance from Moore Catchment Council, Lower Moore River Working Group and Northern Agricultural Catchment Council.
General comments: quality of experience; point of difference; accessibility	Attractive trail along Silver Creek. Could form part of a much longer trail. Surface requires upgrading (where it is sandy). More obvious trail directional marker required at commencement of trail. Trailhead parking area is in very poor condition. Requires fill. Trail would benefit from interpretation.

Shire of Gingin Trails Master Plan – Trails Audit

Trail Name:	Lighthouse Trail (Guilderton)
Location:	Guilderton
Trail Characteristics: surface (gravel; concrete; asphalt); Length and width condition? erosion? Weeds / grass invasion?	Length of loop is 2.09km, of which 1.31km is on deep sandy 4WD tracks, 360m on crushed limestone vehicle track and 420m on a firm sandy track.
Promotion: maps, guide books and track notes; web site? Promo brochure?	Trail is shown on various maps around Guilderton as a trail with “no signage”. Also shown on Guilderton brochure/map.
User groups: single use or multiple use?	Predominantly a series of 4WD tracks that can be used for walking.
Signage to trailhead: from local/regional road system	None.
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	None.
Nearby facilities: shops, public transport	Approximately 1.0km to nearest shops and amenities in Guilderton.
Directional / distance signage: along trail	None.
Other signage: (location; promotional; warning; information; advisory; fire safety; code of conduct)	None.
Drainage: (culverts – clear?); rolling dips; water bars; drainage channels; rock steps.	None.
Interpretation: type; number; topics; need? Cultural/Aboriginal?	None.
On-trail furniture and structures: (bench seats; tables; viewing platforms; water fountains; boardwalks; bird hides; bird call boxes; tunnels; underpasses; bridges; boardwalks)	None.
Road crossings: (sight lines; signage; other safety matters; vehicle exclusion barriers and emergency access gates)	None – but tracks are obviously used by 4WD vehicles.
Safety: for users; conflicts between user groups; fire, etc	Conflict would occur between 4WD vehicles and walkers.
Vegetation: (overhead; side). Need for clearing; invasive species and weeds; re-vegetation needs.	Tracks are 3-4m wide.
Trail type: (out and back; loop; one way?)	Loop – with several potential start/end points.
Grade of trail: (easy; to very difficult; AS class?)	Difficult – due to long length of deep sand 4WD tracks.
Management and maintenance: Management plan? Friends of group? Community support. Who manages?	Not known.
General comments: quality of experience; point of difference; accessibility	Low quality experience due to long lengths of walking in deep sand. Route offers great views out over ocean and towards the lighthouse. Trail should not be promoted due to poor quality trail surface (deep grey sand).

Shire of Gingin Trails Master Plan – Trails Audit

Trail Name:	Foreshore Trail (Guilderton)
Location:	Guilderton
Trail Characteristics: surface (gravel; concrete; asphalt); Length and width condition? erosion? Weeds / grass invasion?	Length of trail is 1.33km, depending on route taken (and start/end point). Mix of concrete path, timber boardwalk (96m), timber steps and asphalt.
Promotion: maps, guide books and track notes; web site? Promo brochure?	Trail is shown on various maps around Guilderton as a walk trail (with 'no signage'). Also shown on Guilderton brochure/map.
User groups: single use or multiple use?	Walk (but much of it suitable for cycling and wheelchairs).
Signage to trailhead: from local/regional road system	None.
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	Foreshore park has many amenities including shade shelters, barbecues, grass areas, sculptures, interpretive panels, seats, rubbish bins, boat ramp, toilets, fencing, lighting etc.
Nearby facilities: shops, public transport	Shop nearby; Visitor Centre nearby; caravan park adjacent.
Directional / distance signage: along trail	None.
Other signage: (location; promotional; warning; information; advisory; fire safety; code of conduct)	Several interpretive panels (estuary, traditional custodians, ecology) and warning/advisory signs.
Drainage: (culverts – clear?); rolling dips; water bars; drainage channels; rock steps.	None.
Interpretation: type; number; topics; need? Cultural/Aboriginal?	Interpretive panels along foreshore path and at lookout gazebo.
On-trail furniture and structures: (bench seats; tables; viewing platforms; water fountains; boardwalks; bird hides; bird call boxes; tunnels; underpasses; bridges; boardwalks)	Bench seats, shade shelters, boardwalk, timber steps, hand rails, showers, water fountains, viewing platforms, barbecues.
Road crossings: (sight lines; signage; other safety matters; vehicle exclusion barriers and emergency access gates)	None – but section of mapped trail does pass along edge of (upper level) car parking area.
Safety: for users; conflicts between user groups; fire, etc	Potential conflict between trail users and motorists in car park.
Vegetation: (overhead; side). Need for clearing; invasive species and weeds; re-vegetation needs.	No clearing required.
Trail type: (out and back; loop; one way?)	Mapped as a loop although could be undertaken as an out and back.
Grade of trail: (easy; to very difficult; AS class?)	Easy – generally flat, but incorporates two flights of steps.
Management and maintenance: Management plan? Friends of group? Community support. Who manages?	Shire of Gingin has responsibility for the Estuary Park, paths, boardwalk and steps.
General comments: quality of experience; point of difference; accessibility	High quality path/trail with excellent facilities and magnificent views from along path, boardwalk and lookouts. Interpretation is interesting and plentiful.

Shire of Gingin Trails Master Plan – Trails Audit

Trail Name:	Djena Koorl-Iny Trail (Guilderton)
Location:	Guilderton
Trail Characteristics: surface (gravel; concrete; asphalt); Length and width condition? erosion? Weeds / grass invasion?	Approx. 850m along old 4WD vehicle track to northern end, with a return leg along beach. Indistinct trail route due to vegetation regrowth, but trail directional markers help.
Promotion: maps, guide books and track notes; web site? Promo brochure?	Trail is highlighted on map at trailhead, and other locations in Guilderton. Also shown on Guilderton town map/brochure.
User groups: single use or multiple use?	Walk trail only.
Signage to trailhead: from local/regional road system	None.
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	Ample parking. Trailhead sign with trail map, warning information, distance/time information.
Nearby facilities: shops, public transport	Several hundred metres to north of Guilderton which has several stores.
Directional / distance signage: along trail	Directional signage at regular intervals along old vehicle track; none on beach section.
Other signage: (location; promotional; warning; information; advisory; fire safety; code of conduct)	Warning signage at trailhead (tides, snakes).
Drainage: (culverts – clear?); rolling dips; water bars; drainage channels; rock steps.	None.
Interpretation: type; number; topics; need? Cultural/Aboriginal?	Some interpretation on trailhead signage (dunes, vegetation, Yued Nyoongar).
On-trail furniture and structures: (bench seats; tables; viewing platforms; water fountains; boardwalks; bird hides; bird call boxes; tunnels; underpasses; bridges; boardwalks)	None
Road crossings: (sight lines; signage; other safety matters; vehicle exclusion barriers and emergency access gates)	None – but some of trail loop passes through groyne car park and beach access road.
Safety: for users; conflicts between user groups; fire, etc	Potential conflict with 4WD vehicles on track and beach.
Vegetation: (overhead; side). Need for clearing; invasive species and weeds; re-vegetation needs.	Old vehicle track used for part of trail has vegetation regrowth which makes walking difficult and following trail difficult. Significant amount of revegetation occurring along the trail.
Trail type: (out and back; loop; one way?)	Loop trail approx. 1.76km.
Grade of trail: (easy; to very difficult; AS class?)	Moderate to difficult. Long trudge through loose sand on old vehicle track, and beach sand.
Management and maintenance: Management plan? Friends of group? Community support. Who manages?	Trail developed by variety of groups, notably the Northern Agricultural Catchment Council.
General comments: quality of experience; point of difference; accessibility	Lacks interpretation along the trail. Needs better directional signage at northern end and occasional directional sign along beach. Difficult walking along sandy track and large amounts of beach walking. Would benefit from an improved trail surface and interpretation along trail.

Shire of Gingin Trails Master Plan – Trails Audit

Trail Name:	Hinchcliffe Hill Lookout Trail (Lancelin)
Location:	Lancelin
Trail Characteristics: surface (gravel; concrete; asphalt); Length and width condition? erosion? Weeds / grass invasion?	Short (165m one way) gravel trail to timber lookout. Currently being upgraded significantly.
Promotion: maps, guide books and track notes; web site? Promo brochure?	Location of lookout shown on various maps and publications.
User groups: single use or multiple use?	For walkers primarily. Could be cycled. Upgrading is to enable wheelchair accessibility.
Signage to trailhead: from local/regional road system	Poorly signposted.
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	Large gravel parking area. Old, faded interpretive panel.
Nearby facilities: shops, public transport	Variety of shops and cafes approx. 2-2.5km away.
Directional / distance signage: along trail	None
Other signage: (location; promotional; warning; information; advisory; fire safety; code of conduct)	Coastal safety information in parking area.
Drainage: (culverts – clear?); rolling dips; water bars; drainage channels; rock steps.	None
Interpretation: type; number; topics; need? Cultural/Aboriginal?	Faded sign at start of trail. Can't be read.
On-trail furniture and structures: (bench seats; tables; viewing platforms; water fountains; boardwalks; bird hides; bird call boxes; tunnels; underpasses; bridges; boardwalks)	Timber viewing platform at end of trail provides panoramic views.
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.	Several locations where side vegetation is growing into trail route through old fence.
Trail type: (out and back; loop; one way?)	Out and back, although sand track continues downhill beyond viewing platform.
Grade of trail: (easy; to very difficult; AS class?)	Class 2 (easy, but probably not wheelchair accessible). Currently being upgraded.
Management and maintenance: Management plan? Friends of group? Community support. Who manages?	Shire of Gingin
General comments: quality of experience; point of difference; accessibility	Viewing platform provides outstanding panoramic views over ocean, beaches and the town of Lancelin. Could be improved by installation of interpretation. Access trail is currently being upgraded on north side; and flight of timber steps proposed for south side.

Shire of Gingin Trails Master Plan – Trails Audit

Trail Name:	Coastal Path (Lancelin)
Location:	Lancelin
Trail Characteristics: surface (gravel; concrete; asphalt); Length and width condition? erosion? Weeds / grass invasion?	Concrete path (approx. 2.3km one-way). Several locations where sand encroaches over path.
Promotion: maps, guide books and track notes; web site? Promo brochure?	Shown on various maps and information signs.
User groups: single use or multiple use?	Multi-use. Can be used by walkers, cyclists, wheelchair users, parents with prams etc.
Signage to trailhead: from local/regional road system	Minimal
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	South end (Grace Darling Park) has toilets, shelters, seats and tables, barbecues, grass, car parking
Nearby facilities: shops, public transport	Shopping centre less than 1km away
Directional / distance signage: along trail	None
Other signage: (location; promotional; warning; information; advisory; fire safety; code of conduct)	Various signage about rehabilitation of dunes and environmental matters; some very old interpretive signage; military interpretation
Drainage: (culverts – clear?); rolling dips; water bars; drainage channels; rock steps.	None noted
Interpretation: type; number; topics; need? Cultural/Aboriginal?	Some interpretation, mainly about offshore islands and sea life; some military signage
On-trail furniture and structures: (bench seats; tables; viewing platforms; water fountains; boardwalks; bird hides; bird call boxes; tunnels; underpasses; bridges; boardwalks)	Several locations where seating and shelters exist (such as at parks); gazebo just off path
Road crossings: (sight lines; signage; other safety matters; vehicle exclusion barriers and emergency access gates)	Several road crossings – none signposted; bollards in place in several locations to prevent access by motor vehicles (need to be removed or reflective tape added)
Safety: for users; conflicts between user groups; fire, etc	Minimal conflict between users as path is reasonably wide. Potential for conflict when path passes through park. Potential for conflict where beach access tracks cross path. Potential for conflict at road crossings.
Vegetation: (overhead; side). Need for clearing; invasive species and weeds; re-vegetation needs.	Several locations where vegetation intrudes into path. Sand blows are biggest problem and need to be controlled.
Trail type: (out and back; loop; one way?)	One way.
Grade of trail: (easy; to very difficult; AS class?)	Easy (Class 1) – could be undertaken by people in wheelchairs, except for access to Hinchcliffe Lookout).
Management and maintenance: Management plan? Friends of group? Community support. Who manages?	Shire of Gingin
General comments: quality of experience; point of difference; accessibility	High quality experience and popular path for local people and visitors. Several enhancements are recommended including extension at northern end (to provide an accessible path to Hinchcliffe Lookout), the installation of interpretation and trailhead and directional signage. Control of sand blows is important.

APPENDIX 4 – CONSULTATION MEETING NOTES

Shire of Gingin Trails Master Plan

Notes of Meeting: Gingin

27 March 2018
3.00 pm – 4.30pm
CRC - Gingin

Attendance:

Mike Maher	Transplan Pty Ltd
Irene Dewar	Museum & Historical Society
Sue Pedrick	Gingin Environmental Group / Chittering Landcare Centre
Mike Miller	Gingin Railway Station Tourist Info Centre
Dianne Miller	Gingin Railway Station Tourist Info Centre
Helena Moss	Gingin community
Jodie Mortadza	Shire of Gingin
Alison McVee	CRC / Visitor Centre

Matters Discussed

- Chain across Three Bridges Walk (at southern side of brook) is off-putting to potential users. Should be replaced by lockable/removable bollards. Access still needed for emergency vehicles.
- Location of signage along Three Bridges Walk is very confusing and too much of it.
- The road was used to drive cattle to stockyards (and hence became known as the stock route).
- More bench seats needed along boardwalk.
- Concrete path suggested along Brockman St to cater for residents of Marchmont Estate. If 'trail route' to remain as currently is would like to see concrete pathway to Marchmont as would have dual purpose to support local residents access to town. Concrete path would be very expensive.
- Option suggested of re-routing Three Bridges Walk Trail along Weld St (and not along Brockman St).
- Important to retain cemetery visit option for both its history and wildflowers.
- Ensure stock route history is included on a trail.
- Cut out 'rusty metal cows' along stock route as a symbol of history (similar to that shown in Mullewa).
- Could have two separate trails: an 'historical' route, and a 'natural' route.
- Removing weeds along 'stock route' and replanting with native species was suggested. Wildflower planting to enhance stock route section of trail; however need to avoid areas where cows cross reserve between paddocks.

- Signage on Three Bridges Trail and Heritage Walk Trail is old, not visible and unmaintained.
- A limestone trail along Weld St would potentially be a safer (and shorter) way of getting walkers to northern end of 'stock route'. Extra planting would provide more shade.
- Preference for crushed limestone trail rather than concrete path.
- Maintaining paths must also be a consideration, for example if trees fall down they need to be removed from site to not distract from the trail experience. In addition, if a path has honky nuts is it realistic and achievable to remove these on a regular basis?
- Acknowledgement that trails encourage visitors to stay longer, and spend money in town, and that local people will use the trails too.

Priorities are:

1. Examination of existing Town Heritage Walk, and revision of route as required. Upgrading of directional signage and interpretation.
2. Re-routing and enhancement of Three Bridges Walk Trail.
3. Development of new brochure for Town Heritage Walk Trail.

Shire of Gingin Trails Master Plan

Notes of Meeting: Guilderton

23 March 2018
9.00 am – 10.30am
Guilderton Country
Club

Attendance:

Mike Maher	Transplan Pty Ltd
Steve Collett	Lower Moore River Working Group
Coralie Maloney	Lower Moore River Working Group
Elaine McCartin	Lower Moore River Working Group
Vic McCartin	Lower Moore River Working Group
Phillip Cook	Lower Moore River Working Group
Bob Johnson	Lower Moore River Working Group
Linda Johnson	Friends of Moore River Estuary and GCA
Richard Prince	Lower Moore River Working Group
Charlie Shaw	Yued Nyoongar
Marge Shaw	Yued Nyoongar
Ferg le Jugede Segrais	
Margaret Drayton	Yued Nyoongar women
Rachel Walmsley	Moore Catchment Council
Helen Sutherland	Shire of Gingin

Apologies:

Hamish Longbottom	NACC
Annie Shaw	Yued Nyoongar
Cathy Naussedat	Guilderton Community Association

Matters Discussed

- Focus should be on repairing/enhancing/upgrading existing trails before any new trails are developed.
- Route linking Silver Creek Trail, through golf course, to join trail at foreshore near river mouth was discussed.
- Ongoing maintenance of existing trails is required and that is becoming more difficult.
- Additional interpretation along each trail is needed. Trails need to include Yued Nyoongar and European history and culture.
- Yued Nyoongar women are keen to have stories told. Yued Nyoongar artist and historians need to be included in all projects.

- Use Aboriginal Heritage funding for engagement of community. Access specific funds like NAIDOC for launching/celebrations.
- Separate space between men's and women's place with the connecting of the trails and the location of some trails.
- Ablutions needed at the groyne and on additional trails – toilet paper everywhere.
- Few people use Lighthouse Trail because of sandy surface.
- Weeding, trail surfacing and replacement of directional signs needed on Djena Koorl-iny Trail.
- Extension to boardwalk is desirable.
- Fishing platforms (and more barrier fencing) should be built, to help prevent indiscriminate access to river foreshore.
- Booklet should be developed to indicate bird viewing areas (similar to that developed for Moora).
- Ownership of the trails was questioned.
- Sustainability of the trails is important.
- Trail authentication/ recognition by government services.
- Additional signage needed to help protection of the sandbar.
- Surfacing of Silver Creek trailhead is urgently required (cars get bogged in sand).

Priorities are:

1. Upgrading/enhancing of the existing trails, including surfacing, signage (interpretive), additional barrier fencing, planting, trimming overhanging vegetation.
2. Upgrading car parking area at Silver Creek trailhead.
3. Development of a walk trails booklet.
4. Development of connecting trail between end of Silver Creek Trail and Foreshore Trail (through golf course).

Shire of Gingin Trails Master Plan

Notes of Meeting: Lancelin

27 March 2018
9.00 am – 10.30am
Shire Office -
Lancelin

Attendance:

Mike Maher	Transplan Pty Ltd
Heather Hatch	Friends of Lancelin Coast (Inc)
Anita Jarvis	Lancelin Holiday Accommodation & Tourist Information
Andrea Moss	Lancelin District Community Association
Bevan Henderson	Lancelin District Community Association
Helen Manson	Resident
Brian Manson	Resident
Mic Payne	NACC
Jan Court	Shire Councillor
Helen Sutherland	Shire of Gingin

Apologies:

Hamish Longbottom	NACC
Jan Cardy	
Annie Shaw	Yued Nyoongar

Matters Discussed

- Lancelin South development – trail/paths proposed. Hasn't happened.
- Path to the Complex mooted. Could be an important link for local people.
- Maintenance along edges of existing concrete paths needed.
- Rehabilitation of dunes is important to stop sand blowing over paths.
- Edward Island Tombolo Management Plan made recommendations for management of the area.
- Land ownership has previously prevented some sections of path from being completed.
- Access to Hinchcliffe viewing platform is required for cyclists and wheelchairs. Best achieved by constructing new paths along Beacon Road and Hinchcliffe Road.
- It was stated that a Bike Plan has been prepared for the Shire of Gingin. Shows missing links in path network in Lancelin.
- Additional interpretation is required along the foreshore path eg. whale station was once located along the beach in Lancelin; military history, town built on swamp, islands, fishing industry, shipwrecks (eg. Grace Darling).

- Signage proposed at Hinchcliffe lookout, including 'directional dial'.
- Need for consistency in provision of interpretation across the entire Shire.
- Limestone trail for cyclists and walkers to Ledge Point suggested.
- Preservation of foreshore reserves along the path/trail with new fences.
- Need to make use of Lancelin Coastal Erosion Hazard map to avoid substantial infrastructure inside setbacks.
- NACC can assist with environmental interpretation information.

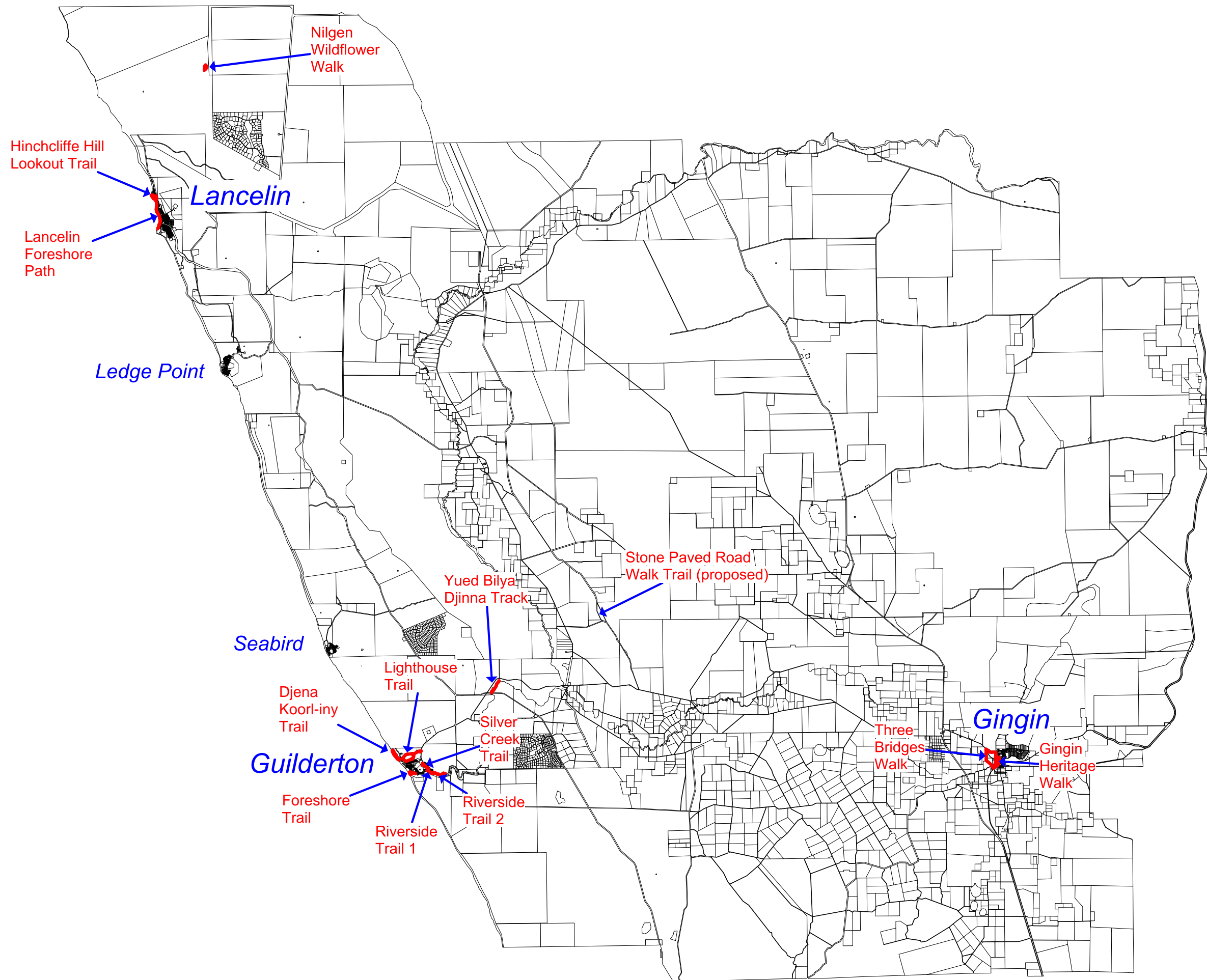
Priorities are:

1. Connection of coastal path to northern base of Hinchcliffe Hill via new paths along Beacon Rd and Hinchcliffe Rd.
2. Maintenance/upgrading/safety improvements along existing coastal path (including better fencing, surfacing improvements). Improvements to decking of existing viewing platform. Interpretation along existing path. Reducing/removal sand blows by revegetation.
3. Trail connection to the Complex – trail should be constructed along existing track. Limestone surfacing required.
4. Brochure – showing points of interest along the path (viewpoints, shelters, interpretive locations etc).

APPENDIX 5 – PLANS

Plan 1: Location of Existing Trails

Plans 2 - 6: Plans of each trail project



TRANSPAN PTY LTD

Planning and Design

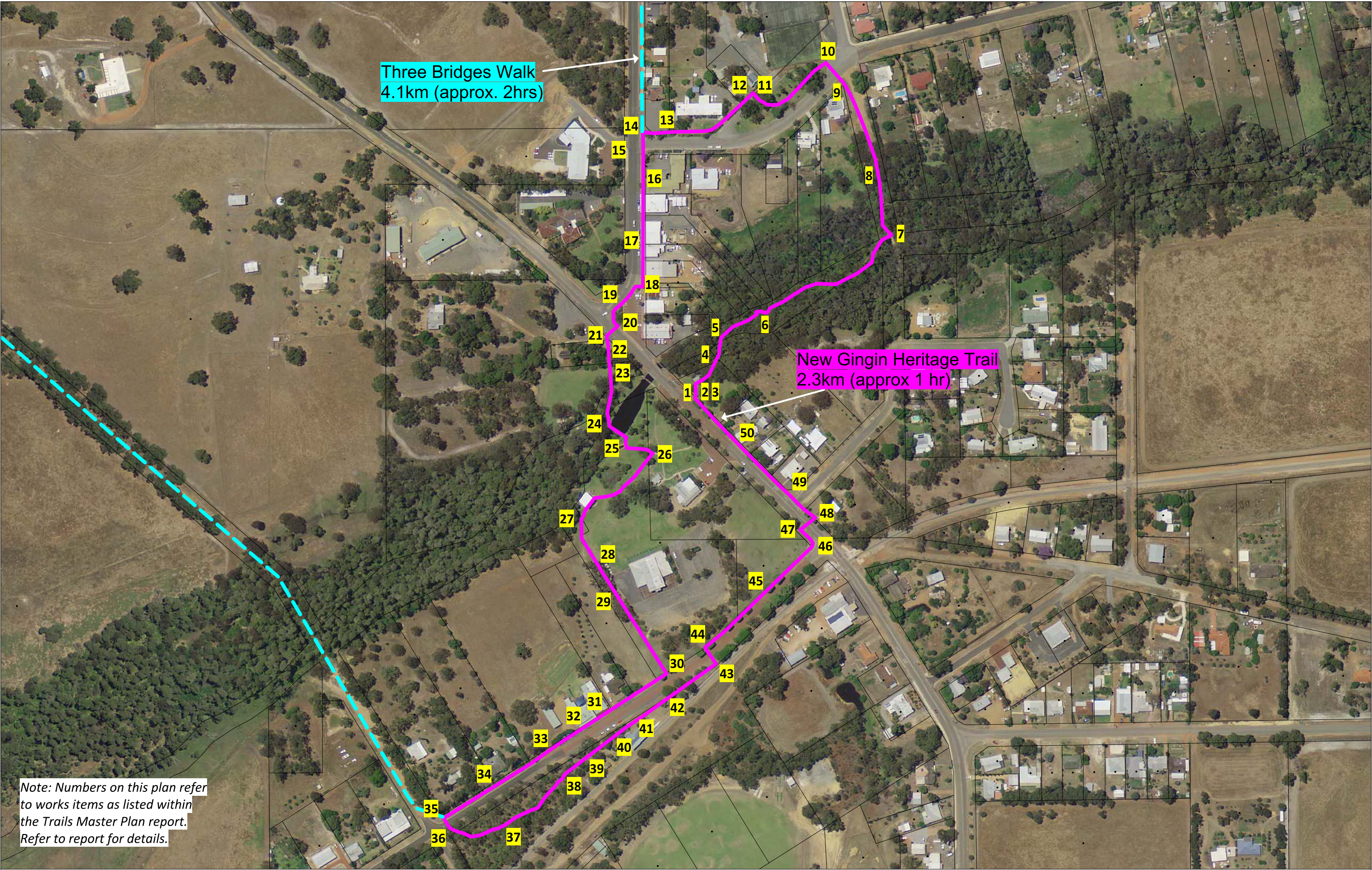


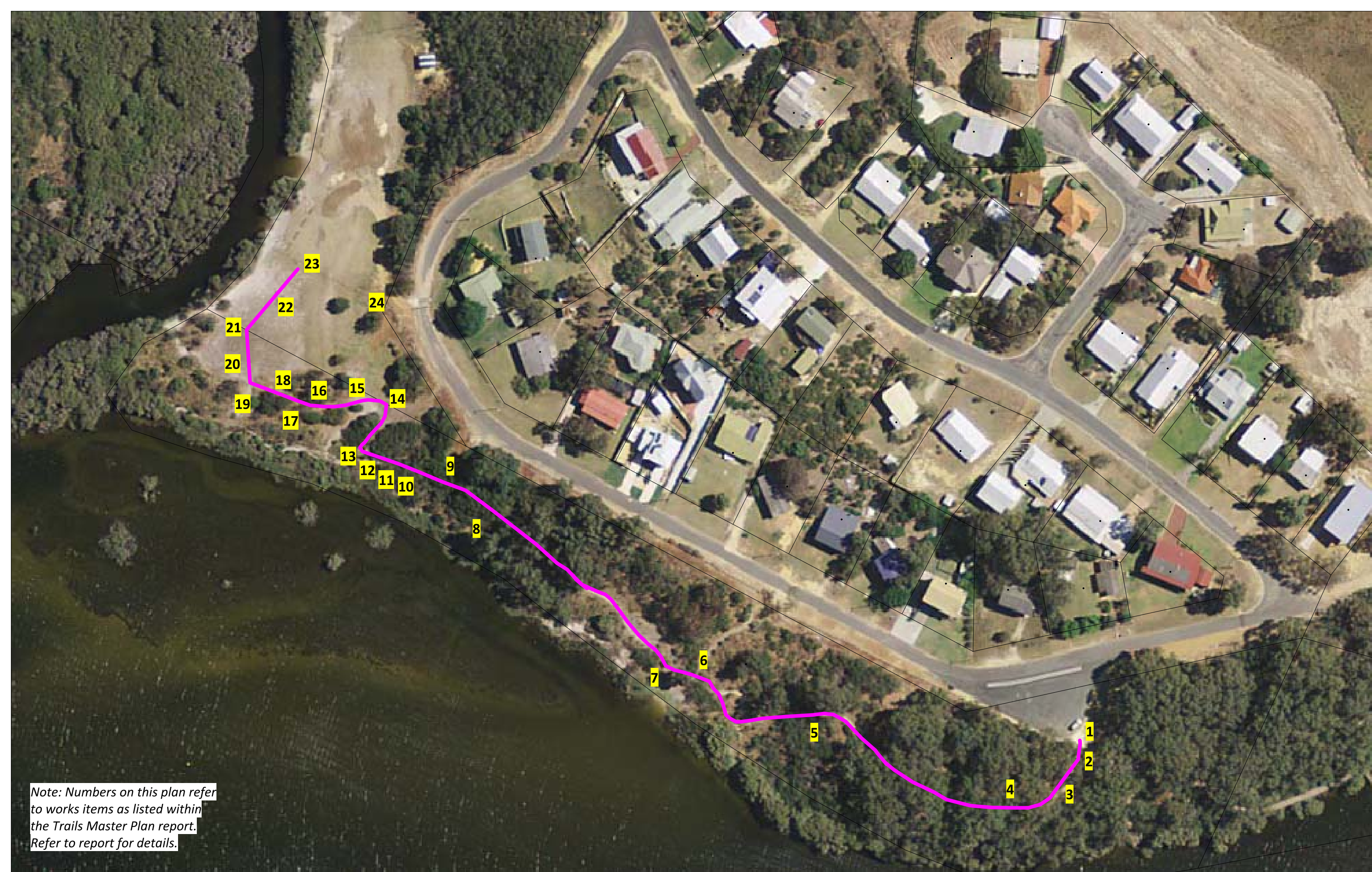
September 2018

Shire of Gingin Trails Master Plan

Plan 1: Location of Existing Trails

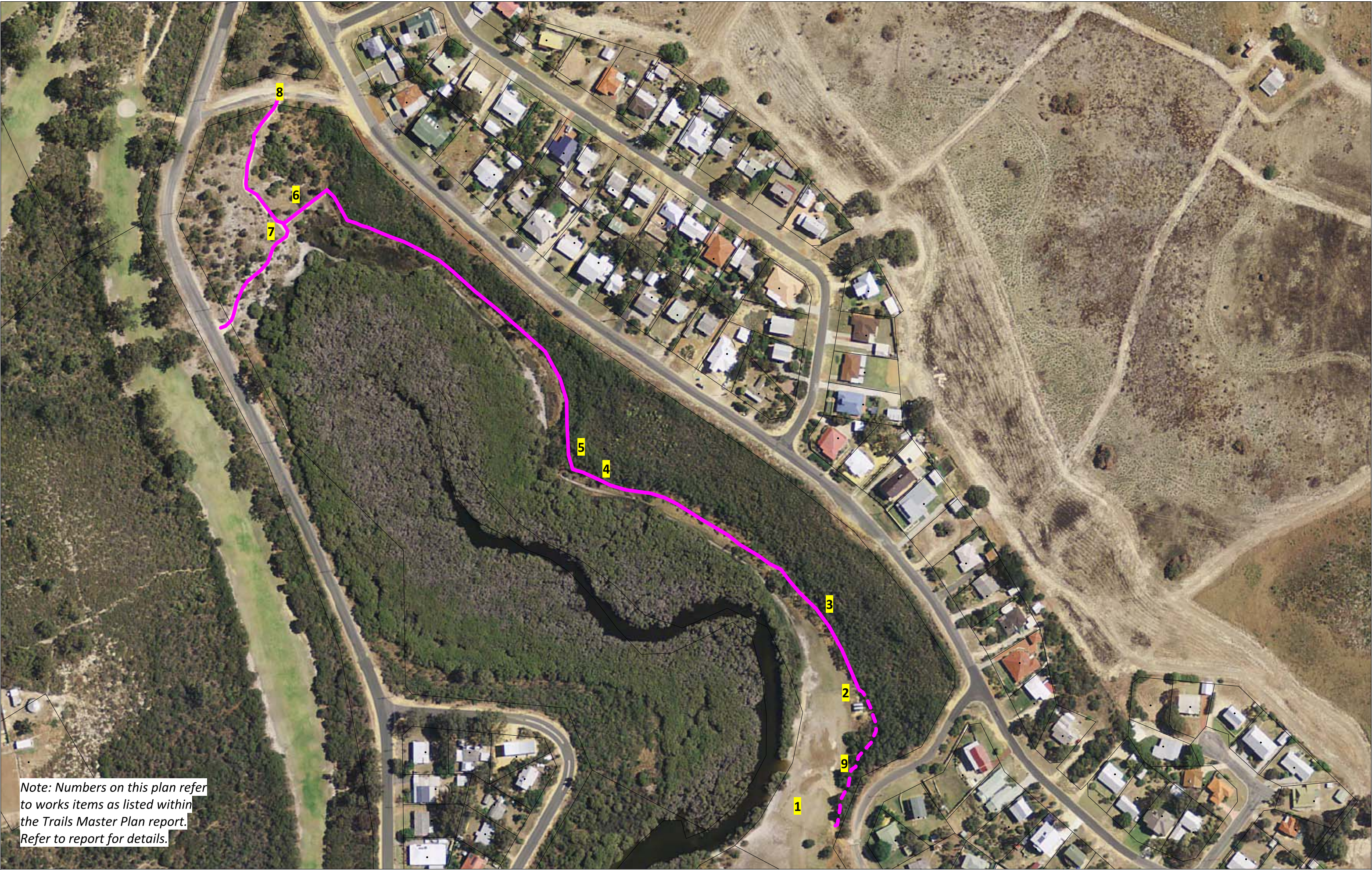








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