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SCUBA DIVERS FEDERATION OF SOUTH AUSTRALIA INC.
Working To Develop Recreational SCUBA Diving In South Australia

SOUTH AUSTRALIA RECREATIONAL TRAILS 10-YEAR MASTER PLAN **2015 – 2025**

OVER THE EDGE
destination development

SOUTH AUSTRALIA RECREATIONAL TRAILS 10-YEAR MASTER PLAN 2015 - 2025

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1. Executive Summary

Trails – a pathway for people to explore the natural world, to connect communities together with place and to enhance peoples lives through new perspectives gained as we bring humanity out-of-doors. Trails provide pathways to beautiful natural experiences as they simultaneously boost hosting economies, improve health and wellbeing of land and people as they benefit South Australian Residence and visitors alike through shared positive outdoor experiences.

The intention of this plan is to set South Australia on a path to developing a World Class Recreation Trail System in one of the great landscapes of the world. This overview will look around SA and help you design the pathway from "what ya got now" to where you see SA Trails is ten years. We will share with you some valuable tools and share some thoughts on this pathway toward these important and hopefully shared goals:

- Developing World Class Destination Trail Centers within South Australia (SA) for an intentionally targeted range of recreational users
- Developing thoughtful & sustainable community, regional and state level Trail Systems that equally uphold our world class trail standard.
- Connecting Communities, Trail Systems and Regions through access to long distance multi use recreational trails
- Enabling & empowering communities to lead the design, development and maintenance of these Trail Systems.
- To unite everyone around the "World Class Trails in SA" premise; where the *quality of the experience* is "its own" economic driver.
- To Realize the full value and potential of public land by developing access for a thoughtfully intentional and sustainable range of recreational use
- Build SA's reputation as a World Class Trail Destination for a variety of beautifully designed recreational experiences and share this with the World.
- Create & Disseminate Trail Information to your audience in cutting edge creative approaches that are simple, effective and easily interpreted by all.

All trail development in South Australia, whether of community, local, regional, state or even international significance should be planned, designed and completed to maximize the benefits towards these goals, to unite around a standard and to uphold or improve upon the world class standard of this effort; taking a strategic approach which looks to optimize economic, community and social benefits, whilst also making efficient and effective use of resources and funding. The aim of this Master Plan is to be adopted as a whole of government approach, to unify trail development across the state, thereby maximizing the potential of this Trails Plan to the benefit of the land, the people of South Australia and the economic success of this statewide trails system.

Below is a table of the recommended actions, by priority level:

Priority Level	Action	Lead Role	Time Frame	Estimated Cost
Advocacy and Capacity Building				
High	Establish a full time role with administration support within Recreation SA to deal with Trail Development and Advocacy	Recreation SA and Trails Committee	2015 - 2016	$80,000 - $100,000 per annum
Marketing and Promotion				
High	Develop a web base tool – including the following	Recreation SA to lead a team of Web Designers, Graphic Designers, and Web Hosts	2015 - 2017	Total estimated cost: Up to $90,000 initial outlay, plus $10,000 - $20,000 per annum for management
	Effective web design			$15,000 - $20,000
	Effective graphic design			$10,000 - $15,000
	Developing a data base of trail planning, design and construction professionals in SA			To be included in cost per annum of full time role within Recreation SA
	Developing a comprehensive trail database by activity			To be included in cost per annum of full time role within Recreation SA
	Graphic design and market research to develop effective branding for each activity			$10,000 - $15,000
	The collation of existing trail information and the development of additional or further trail information where required			To be included in cost per annum of full time role within Recreation SA, plus the guidance/input of a specialist consultant $30,000 - $40,000
	Ongoing moderation and administration of the web site			$10,000 - $20,000 per Annum

Trail Planning				
High	The development of a number of local level * projects (up to 5) related to communities where opportunities for partnership arise in relation to all activities **	Recreation SA in partnership with land owners and stakeholders	2015 - 2017	Please see note below table
Trail Management and Design Resources				
High	Develop Trail Classification and Grading Systems for all trail types and trail information guidance using the current horse riding and mountain biking classification systems as a starting point	Trails Consultant (following award of contract by Recreation SA)	2015 – 2017	$30,000 - $40,000
High	Undertake a desktop review of Acts, Regulations etc. which affect access, for example the restricted access to SA Water land, restrictions for horse riders on some lands etc. followed by a gap analysis exercise followed by advocating access to restricted areas where appropriate	Recreation SA	2015 - 2017	To be included in cost per annum of full time role within Recreation SA
High	Commission the review of current trail construction guidelines (standards for the construction of each element of trail construction) and to upgrade these to create a robust system, which can be	Trails Consultant (following award of contract by Recreation SA)	2015 – 2017	$30,000 - $40,000

	used by anyone involved in trail development			
High	Commission a review of the interface between recreational trails and operational forestry, with the view to producing a formal trails policy within Forestry SA; dealing with trail development, provision and management, linking into their existing systems and standards	Recreation SA	2015 - 2017	To be included in cost per annum of full time role within Recreation SA
High	Undertake a full and thorough audit of all trail systems and products of state and regional significance	Trails Consultant (following award of contract by Recreation SA)	2015 - 2017	$60,000 - $80,000
Education and Training				
High	Commission the development of guidance on how trail information should be presented in a unified manner to users by trail providers	Recreation SA	2015 - 2017	$15,000 - $25,000
SA Trail Network Development and Maintenance				
Medium	Develop a state/international prescribed trail product for canoeists/kayakers on the Coorong	Recreation SA to lead a team of Trail Designers and Contractors	2015 - 2020	Please see note below table
Medium	Develop a state level mountain biking trail product centred on prescribed trail models in the Adelaide/Mount Lofty	Recreation SA to lead a team of Trail Designers and Contractors	2015 – 2020	Please see note below Table

	region			
Medium	Develop a state level horse riding trail product centred on prescribed trail models to include facilities suitable for events in the Adelaide Hills	Recreation SA to lead a team of Designers and Contractors	2015 – 2020	Please see note below table
Medium	Develop a state level walking trail product centred on prescribed trail models at a location such Lincoln National Park	Recreation SA to lead a team of Trail Designers and Contractors	2015 – 2020	Please see note below table
Medium	Develop up to 5 prescribed snorkelling and diving trails of regional significance	Recreation SA to lead a team of Trail Designers and Contractors	2015 – 2020	Please see note below table
Low	Develop a state/international prescribed trail product on the River Murray system	Recreation SA to lead a team of Trail Designers and Contractors	By 2025	Please see note below table
Low	Develop an additional state level prescribed mountain bike facility (possibly by expanding and redeveloping the Melrose/SFR trails)	Recreation SA to lead a team of Trail Designers and Contractors	By 2025	Please see note below table
Low	Develop up to five prescribed regional mountain biking facilities related to regional population centres	Recreation SA to lead a team of Trail Designers and Contractors	By 2025	Please see note below table
Low	Develop up to five prescribed regional multi use trail systems with an emphasis on horse riding, walking and easy cycling centred on regional population centres	Recreation SA to lead a team of Trail Designers and Contractors	By 2025	Please see note below table
Low	Develop up to 4 additional interpretive dive trails of	Recreation SA to lead a team of Trail	By 2025	Please see note below table

	regional significance and package these with the existing dive trails to produce a SA diving product of state or international significance	Designers and Contractors		

Note – it is not possible at this stage to provide estimated costs for the development of trails/trail systems/centres as recommended above – please see the Trail Development Protocol which establishes at which stages estimated costs are developed for trail planning, design, construction and management. These costs will have to be established on a case by case basis.

* When referring to different levels of trail e.g. State, Regional, Local level, please see Toolkit 5 for definitions

** The development of different levels of trails, as recommended, above could be totally new developments or could be existing trails which are identified in the Trail Audit which can been upgraded, with new links created where required.

NOTE – ALL ESTIMATED COSTS ARE EXCLUSIVE OF GST

2. Introduction

2.1. Purpose and Need for a Master Plan

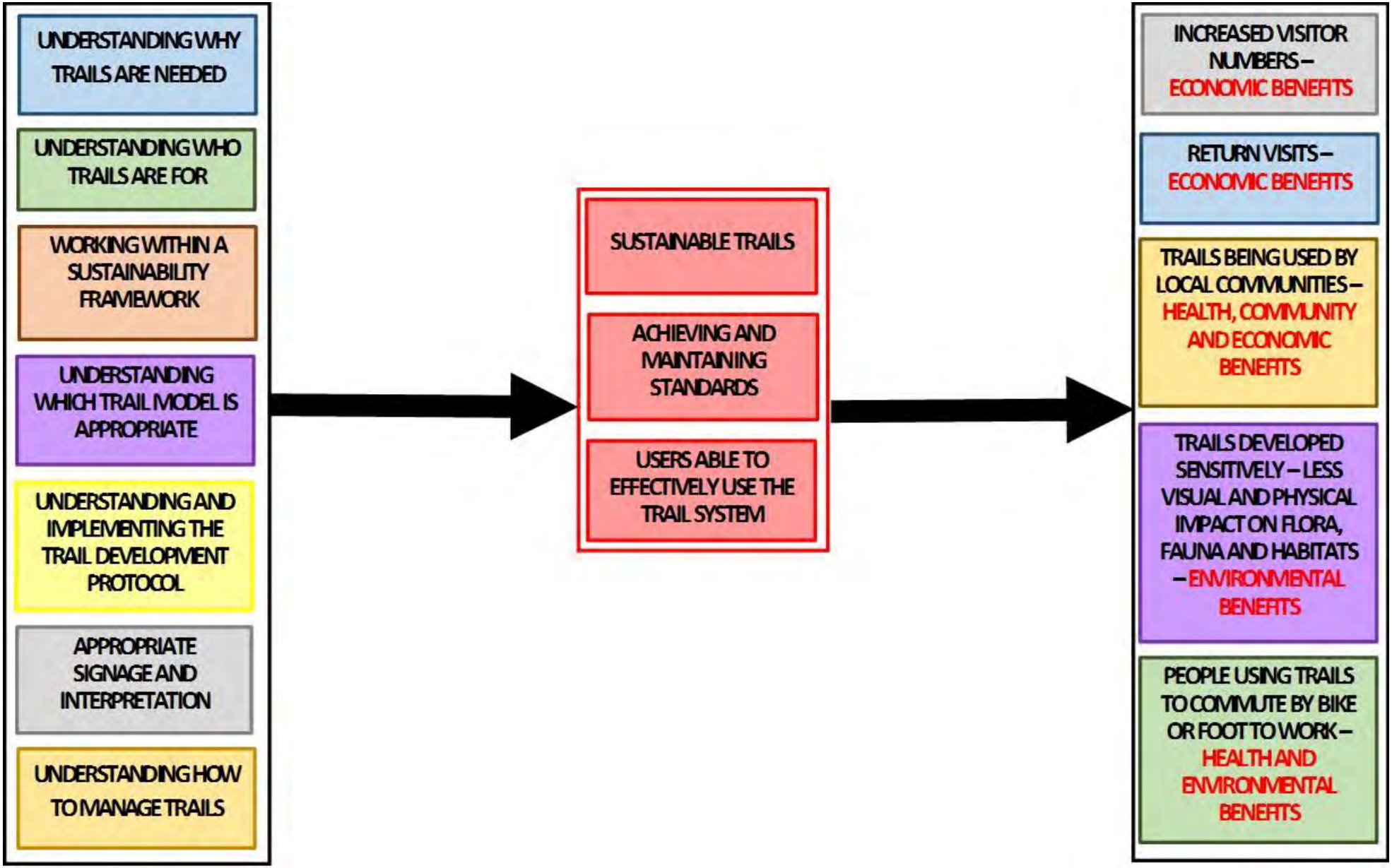
The purpose of the Master Plan is to unify trail development and provision across the state of SA. Setting the stage for a united, enthusiastic and common effort toward the goals and benefits mentioned above. By uniting leadership with users and governments and Community interests around a common beautiful picture of a common plan, the many benefits to this success can be quickly realized through these united, efficient and effectively designed movements. Benefits of this State-wide Trails Plan include Community pride, improved health, lifestyle and appreciation of precious and fragile places and carry with them a vast array of benefits to local economies, public health and the environment. It is essential therefore that there is clarity about the key outcomes desired when it comes to developing new trails or assessing existing trails.

This SA Trails Master Plan provides a framework to assist you; the leaders forth of this effort, to describe in detail this long term vision and to unite around these common goals to bring this beautiful vision of South Australia as a Trails Destination to the World. This Plan provides tools and a frame to work within, guiding the direction of trail development from policy level through to building community level trails. It outlines a planned, staged approach over the next 10 years which should encourage the securing of funds, developing the domestic trail user markets and opening the doors to international trail based tourism.

Previous tools which are available on www.southaustraliantrails.com i.e. the 'Sustainable Trail Guide', 'Recreational Trails Strategy for South Australia 2005 – 2010' and 'Directions for Recreational Trails in South Australia' describe similar recommendations to some of those made in this Master Plan. This Master Plan can be considered a more robust and detailed update to these tools.

The recommendations for developing trail classification and grading systems for all trail types should use the existing models as a starting point, though should be much more robust and concerned with the classification and grading from a trail design stance, rather than a trail user stance.

The following infographic summarizes the process to follow and the possible outcomes by implementing the master plan.



The rationale for developing trail products of differing levels/significance is to achieve a true, state wide trail hierarchy; community and local level trails will effectively manage the needs of local trail users on a daily basis, whilst they will also make specific trips to regional and state level facilities. State level facilities in particular will attract repeat visits and appeal to the wider, international markets. The distribution of these facilities needs to be carefully considered, so as to promote usage of all facilities as opposed to dispersing the market.

The South Australian Government have recently released a list of the 'Economic Priorities of SA', below is a table showing how the above recommendations can relate to these priorities.

ECONOMIC PRIORITY	RECOMMENDATION NUMBERS
Unlocking the full potential of South Australia's resources, energy and renewable assets	1, 3, 4, 5, 7, 9, 10, 11, 12, 13 , 14, 15, 16, 17, 18 and 19
Premium food and wine produced in our clean environment and exported to the world	N/A
A globally recognised leader in health research, ageing and related services and products	Trail development and their use is recognised as creating significant health benefits – 5, 10, 11, 12, 13, 14, 15, 16, 17, 18 and 19
The Knowledge State - attracting a diverse student body and commercialising our research	It is recognised that SDFSA (Scuba Diving Federation of SA) have a high level of interaction with attracting students to SA via their programmes - 14 and 19
South Australia - a growing destination choice for international and domestic travellers	6, 8, 10, 11, 12, 13, 14, 15, 16, 17, 18 and 19
Growth through innovation	1, 10, 11, 12, 13, 14, 15, 16, 17, 18 and 19
South Australia - the best place to do business	N/A
Adelaide, the heart of the vibrant state	11 and 12
Promoting South Australia's international connections and engagement	1 and 6
South Australia's small businesses have access to capital and global markets	N/A

2.2. Background

Following the delivery of the "Directions for Recreational Trails in South Australia" review undertaken by Horse SA, on behalf of trail industry members, a key direction of the paper was the proposal to shift the SATCC coordination to being an industry led forum. Therefore, Recreation SA, on behalf of the Trails Sub-group, is seeking to develop a 'State-wide Trails Master Plan' that will serve as the strategic frame of reference to guide the development and promotion of the trail sector for the next 10 years (2015 – 2025). Recreational trails are increasingly being seen as drivers for economic development, increased tourism visitation and improved public health through physical activity. In recent years the State of South Australia has realized the significant opportunities of trail-based recreation and has taken the first step to maximize the use of its significant trail networks for broader community benefits via the implementation of a state-wide trails master plan. This master plan will provide high-level recommendations and a framework within which developments should take place and the necessary mechanisms that are required to drive a robust and sustainable suite of partnerships between government, business and the community through its representative user groups.

2.3. What Are Trails For?

Trails are very powerful assets that not only provide conduits into and around landscapes and the natural world and give access to all kinds of places for all sorts of people - they also define our experiences of places and landscapes at multiple levels. Trails add huge value to places and landscapes. When trails are intentionally built they are phenomenal assets for communities, land managers and individuals and are invaluable resources that bring benefits over the long term.

Creating a sense of place and place attachment via the implementation of a trails network is achieved when the trail allows you to positively engage with the surrounding landscape, terrain and environment. This requires two key building principles; firstly, it needs to be sympathetic to the landscape and not be imposed upon it, and secondly it should reflect the terrain, landscape and context of its setting

Trails are not about destinations they are about journeys. Whether those are long epic journeys through remote places, little travelled journeys, revered, frequently travelled journeys, short journeys and/or journeys to new places. It isn't necessarily about getting from A to B, but also about the quality and nature of what happens along the way. Journeys consist of making connections between trail users and landscapes, places and habitats, however the trail is used, whether on foot, in a wheelchair, in a kayak, under water on a horse or on a bike. Trails can encourage their users to engage with places, landscapes and habitats in positive ways, which increase their value to individuals and to wider society.

Engagement is the primary function of trails and indeed their greatest value, and there are also additional important functions for trails such as:

- Managing the impacts of people and animals on sensitive landscapes and habitats
- Managing the impacts of people and animals on intensive land use
- Managing people's safety
- Creating tourism assets
- Enabling access into landscapes and habitats
- Providing recreation resources for communities

2.4. Stakeholders

Stakeholders consulted with regard to the Master Plan:

The Trails Committee (including representation from the following groups):

- Recreation SA
- Walking SA
- Bicycle SA
- Canoe SA
- Scuba Diving Federation of SA
- Horse SA

Other stakeholders - representatives from:

- The Office of Recreation and Sport (ORS)
- The Department of Environment, Water and Natural Resources
- Forestry SA
- SA Tourism Commission
- SA Water
- Onkaparinga Council
- Barossa Council
- Mount Lofty Ranges World Heritage Bid
- Community group in Robe
- Meningie Visitor Information
- Flinders Chase Visitor Information
- Over the Edge, Melrose
- Accommodation and business owners on Kangaroo Island

2.5. Summary of Consultation

In summary, the following priorities and issues were discussed with the stakeholders above (please see 8.1 Appendix 1 – Consultation Notes for further details):

- Prioritized Areas for the basis of this Master Plan:
    - Adelaide Hills
    - Kangaroo Island
    - Flinders Ranges
    - Melrose
    - Robe
    - Port Lincoln
    - River Murray and Coorong

**We realize that this selection, though developed by general consensus, may not reflect the vast amount of trails in the state of South Australia. We would like to continue to honor the desired 'project scope and depth' anticipated from the stakeholders however due to funding and strict deadlines the above stated locations were prioritized as our foci. We are keen to finish the project properly with a return visit(s) and additional funding to support such efforts to deliver you the most comprehensive 'desktop' of trails systems for the *entire* state.

- Access issues:
    - Regulations and bylaws preventing certain trail users from accessing some land
    - Barriers which have recently been removed
    - Ministerial support for developing mountain biking trails
    - Unifying land owners
    - The interface between recreational trails and operational forestry
- Existing trail provision within the state:
    - Models
    - Standards
    - Ownership
    - Trail types and users
- Protocols/Procedures for:
    - Trail planning and design
        - How to apply appropriate trail models
        - Examples of international best practise
        - Trail models/hierarchies
    - Trail construction
    - Trail management and maintenance
    - Sustainability

- Standards for:
    - Trail planning and design
    - Trail construction
    - Trail management and maintenance
    - Visitor information/signage
    - Promotion/marketing/branding
- Funding for:
    - Trail planning and design
    - Trail construction
    - Trail management and maintenance
    - Visitor information/signage
    - Promotion/marketing/branding
- Trail-Based Tourism Infrastructure
    - Web tool for businesses, communities and visitors
    - Markets/Trail users
    - Visitor infrastructure
    - Promotion/Marketing/Branding
- Economic benefit of trails
    - Business opportunities related to trails
    - Promotion/Marketing/Branding
- Pilot projects following implementation of Master Plan
    - Mount Lofty World Heritage Bid
    - Insurance/liability

2.5.1. During visits, the variety in the following became apparent *(see 8.2 Appendix 2 – Information from Areas Visited for further details):*

- The variety which exists within the state, relating to:
    - Standards of trail provision
    - Trail provision for differing trail users
    - Trail systems and models applied
    - Information made available to trail users i.e. leaflets/trailhead information/signage/web based information
    - Visitor facilities
    - Promotion/Marketing/Branding of trails
    - Trail Users and Cohorts

2.5.2. Understanding the Trail Users and Cohort-

There are many different types of trails, with varying users and trail models. It is important to understand who trails are being developed for and why. Outdoor recreation involves numerous users, groups of users and even cohorts within user groups. Trail planning and provision in South Australia heavily involves knowing the varied uses of trails as well as the ways in which user groups are spit into cohorts. Most importantly, our goal is to know what the needs and expectations of each group and segment are and be able to design targeted, exceptional trail experiences. Addressing and catering to the needs and requirements of trail users is essential in ensuring the long-term sustainable usage of trails.

Summary of Trail Users and Cohort *(See 7.3 Toolkit 3- Trail Users and Cohort for further details).* Given evidence from meetings with Stakeholders and observations from comparable international destinations it is proposed that SA trail users be broadly divided into the following groups:

- **Walkers;** the less able, casual walkers, leisure and/or occasional hikers, trail runners, bush walkers/hikers, long distance hikers/trekkers
    - All of the above cohorts use trails in differing ways and require differing kinds of trails and trail models in turn.
- **Off-road cyclists;** family and leisure cyclists, enthusiast mountain bikers, sport mountain bikers, mountain bike trail riders, gravity focused mountain bikers, off-road cycle tourers
    - This is a significant and growing user group that is making increasing demands on trails and trail provider
    - Each segment has slightly differing requirements in terms of trail systems and models but there are also numerous overlaps between segments.
- **Horse riders**; novice riders, leisure riders, long distance riders, endurance riders
    - This user group is fairly large and could be divided into numerous sub groups – but to simplify and refer directly to trail systems and models it has been divided into the key cohorts outlined above.
- **Canoeists/Kayakers**; single day recreation paddlers, competition paddlers, tourers/expeditioners
- **Aquatic users**; independent snorkelers, guided snorkelers, Independent Scuba Divers, Guided S

2.6. Scope of the Master Plan

The Master Plan explores the need for implementing certain policies/frameworks in order to provide truly sustainable trails across the state of SA and takes into consideration trails, either existing, planned or trail development opportunities, relating to the following user groups:

- Walkers
- Off-road cyclists
- Equestrians and Recreational Riders
- Canoeists/Kayakers
- Aquatic users

The Master Plan will serve two major purposes; 1. To provide a sustainable framework for the physical trails desktop and 2. Serve as the bridge between the trail systems and the actual visitor experience. This is done by the identification of gaps/opportunities and the respective offering of recommendations/suggestions in order to provide support evidence for facilitating and describing the steps which can lead the state of South Australia towards its goals in trails-based recreation environments. We have identified that there are many areas of opportunity/potential to either improve existing trail networks or develop new trails within the state. Especially whereas trail development is taking place at a number of levels within the state, i.e. state, regional, local and community trails development efforts. Currently, there is a major opportunity to unify these approaches to trails development, provision and trail information/infrastructure. The Master Plan is a tool to unify efforts on the basis of creating a consistent experience via trails system diversity & visitor infrastructure. The Master plan represents the inner-workings of a carefully planned visitor experience. Currently, we realize that one of the greatest opportunities for the state of South Australia is to create and present a multi-faceted "package," branding South Australia as *the* trails-based recreation mecca in all of Australia.

This report is split into two parts – the main body of the report and a number of detailed toolkits. The main body of the report looks at the background to the report and explores recommendations as to how South Australia can become a leader in trails-based recreation. It summarizes the concerns and opinions of stakeholders voiced during the team's visit to SA and the opportunities presented in a selection of locations. It outlines the aims and objective of the reports, explores the differing types of recreational trails, and makes recommendations on how to achieve the aims and objectives.
The toolkits are, in essence, the tools required by Recreation SA and other organizations wishing to develop trails – they give a detailed insight into the sustainability framework, differing trail systems and models, differing trail users and cohorts, examples of international best practice, the trail planning, design and development protocols and trail development hierarchies.

3. Guiding Principles of the Master Plan

The guiding principles and professional values for this report involve knowing and understanding the intended trail-user (user audience) to design sustainable environment practices and relevant & intentional trail planning and design. The aims and objectives of this Master Plan is to ensure that within the next 10 years, recreational trails in SA will be developed within a specific framework which gives priority to long term sustainability, in addition to implementing management and auditing tools for new and existing trails for continued improvement.

3.1. Core Concepts of the South Australia Master Plan: The Core Concepts of the Master Plan are key to identifying realistic and justifiable steps towards Master Plan project implementation. Implementation is the bridge between the big picture VISION of the master plan and disseminating the information to the communities that will champion the efforts to aid South Australia as a leader in outdoor recreation, trails based tourism and economic development.

- **3.1.1.** Summary of Trails Audit as a precursor to a Comprehensive Mapped System
  - **3.1.1.1.** Desktop of Existing Trails (please see 8.1 Appendix 1 – Trail Audit for further details)
  - **3.1.1.2.** Best State-wide Practise Examples
  - **3.1.1.3.** SWOT Analysis of Current Trails "Inventory"
  - **3.1.1.4.** Key Opportunities
- **3.1.2.** Existing Challenges
- **3.1.3.** Concept Map of Trails for 10 Years
- **3.1.4.** Principles for Planning Trail Projects in next 10 years

3.1.4.1. Key Principles in deciding and defining prioritized future trail developments

3.1.4.2. Key Elements of Trails Map Planning

3.1.5. Sustainability Framework Summary

3.1.6. Intentional Planning, Design Protocol

3.1.7. Trails Hierarchy and spectrum of experiences for diverse user groups

3.1.8. Intentional Trail Delivery Protocol

3.1.9. Examples of Relevant International Best Practices

3.1.1 Summary of Trail Audit

3.1.1.1. **A desktop audit** was undertaken over a selection of trails/trail systems, arranged by region. The audit did not encompass all recreational trails in South Australia, rather a cross section; identifying differing trail types, trail users and trail models (please see 8.1 Appendix 1 – Trail Audit for further details).

The very broad audit of selected trails in the differing regions highlighted a number of key opportunities, which relate to a number of factors including:

- The distribution of trail opportunities
- The strategic significance of different trails and trail systems
- The quality of trails systems relative to their strategic importance
- The scope and scale of trails and trail systems relative to their strategic importance
- The nature of trail models and how they relate to their strategic importance
- The nature of the trail systems relative to the intended users
- The lack of good quality opportunities for some users in some areas

The ***greatest concentration of trail opportunities*** are in the areas of highest population density i.e. Adelaide and the surrounding hills, the Barossa Valley and in some cases around other regional population centers. However, other areas are much less well served in particular the Limestone Coast and the River Murray and this is due in no small way to the nature of the land use in these areas and the relative lack of publicly accessible land. The distribution of ***trails opportunities appears to be decided*** by a number of factors such as local demand, the need to manage impacts and also taking advantage of natural resources to develop recreation assets. But the development of key tourism resources is also a factor in where some trails have been developed and it would seem that this is often done as a response to local landscape and other resource issues, i.e., river systems, dive sites, etc. In effect, the distribution and nature of the trails is a response to landscape opportunities and the availability of opportunities. The high concentration of trails in the Adelaide and Mount Lofty region is not just a result of high demand and a high population density, it is also a result of available areas of public lands, favorable access conditions and a high quality landscape resource.

3.1.1.2. Best State-wide Practice Examples Recognized during 2015 Site Visits -there are a number of examples of very focused and coherent trail products:

- One example is the Port Noarlunga Dive Reef Trail where the trail product is extremely focused, of the right scope and scale for the intended user. This makes this small development very effective and appropriate and ultimately sustainable.

- Flinders Chase National Park trail system on Kangaroo Island. This lives up to its status as a regional, if not state recreation and tourism resource. This trail system has a clear hierarchy ranging from very accessible to quite challenging trails, is of the appropriate scope and scale and features differing trail models depending on the status and purpose of the trails. Trail information has been centralised into a very effective brochure and the visitor centre is a one-stop shop for all trail information related to the national park. In short, it is a microcosm for how trails should be developed and provided in SA.

3.1.1.3. SWOT Analysis of Current Trails "Inventory"

STRENGTHS	WEAKNESSES
Many significant trail networks already exist within the state Some trails unlock the potential of South Australia's landscape and other resources, energy and renewable assets Premium food and wine is produced in a clean environment and exported to the World A globally recognised leader in health research, ageing and related services and products The Knowledge State - attracting a diverse student body and commercializing research South Australia - a growing destination choice for international and domestic travellers Growth through innovation South Australia - the best place to do business Adelaide, the heart of the vibrant state Promoting South Australia's international connections and engagement South Australia's small businesses have access to capital and global markets	The Nature of trail systems relative to intended users Quality of trails relative to their strategic importance Nature of trail models & how they relate to strategic importance Lack of quality opportunities for some users Some key Local trail resources aren't locally accessible Some disparity of provision between user groups & cohorts
OPPORTUNITIES	**THREATS/BARRIERS**
Developing unified standards for trail planning, design, construction, management, signage and provision could greatly facilitate and improve trail development and provision Ensuring that differing trail users and cohort are catered for w/in the state to increase trail use could boost health, community& economic benefits Applying guidelines to the selection of appropriate trail systems and models when developing new trails or amending existing trail systems could heighten effectiveness and	The number of different land owners and the lack of a unified approach to development in some cases makes trail developments of significant scope and scale difficult in some areas Access barriers for certain user groups or on certain lands is preventing trail development for these groups The sustainability of some existing trail systems is seen by some as questionable; this potentially presents a barrier to

value Making accurate, effective trail information readily available and easy to interpret for users could heighten accessibility and effectiveness A strategic, unified approach to the promotion/marketing/branding of trails could eighteen their value as recreation and tourism resources and assets A strategic unified approach to trail provision and development could make it more targeted and effective Assessing current access regulations and bylaws may identify opportunities for improved access for some recreational users There are many areas of opportunity/potential to either improve existing trail networks or develop new trails within the state "Packaging" key trail products as tourism assets could significantly boost their economic benefits Developing targeted and appropriate visitor facilities to support trail development and provision could boost their economic benefits and help support management and maintenance Forestry SA lands potentially present opportunities for high quality trail provision if the interface between recreational trails and operational forestry can be managed	further trail development Issues over the sustainable management and maintenance of trails both new and existing Issues relating to trail management and tenure Issues relating to liability

3.1.1.4. Key Opportunities

3.1.1.1.1. **Key opportunity**: *Utilize and incorporate the development of these existing trails with an intentionally designed Trail System* and the plan of trails to be built in the near future. These "existing trails" must sometimes be repaired or in some cases may not be suitable at all; but the truth that use is already established and the corridor is already disturbed, closure of these trails is not a benefit to land, users or the efficiency of this project and our efficient path forward. This would also improve the lack of trail opportunities in some of the regions that may fall aside unless included in the state-wide strategy approach. The strategic importance of differing trail systems and products is a crucial issue in their development and provision. A hierarchy of trail provision and development has become clear in the audit. This would involve all the audited trails sitting somewhere within the hierarchy outlined earlier in this report.

3.1.1.1.2. **Key Opportunity:** *Create exceptional trail-user experiences.* Belair National Park is a very important recreation and tourism resource of regional significance for both the Adelaide Hills and the city itself. The trail system is of the appropriate scope and scale and provides opportunities for a range of users including walkers, cyclists and horse riders. The trail model requires clarification and could be considered difficult to interpret thereby restricting access for some users, and this could be seen as incompatible with a trail product of this stature. Future use of this trail depends on an appropriate selection of a clear trail model to continue to encourage accessibility.

3.1.1.1.3. **Key Opportunity**: *Formalize the accessibility* to the high quality Murray River system and turn this user-experience into one of international repute. Address accessibility (in terms of user information) and the system could benefit from the establishing of a clear identity or cohesion. A trail product of this quality and scope will benefit from improved/implemented strategy to enhance the systems further development and fulfil its potential as a recreation and tourism resource. Lead trail users to and from natural and tourism resources to drive usage and strategic economic activity.

3.1.1.1.4. **Key Opportunity*:*** *Enhance existing networks by using the strategic framework*. There are examples of trail systems which are currently of great importance as regional recreation resources which could be much more effective and of higher value via identifying appropriate prescribed Route Systems (See 7 Toolkit 2 Section 7.2.2) Fox Creek Mountain Bike trail network is the most relevant example. Fox Creek is a high quality regional, if not state resource of considerable importance, however the nature of the trail system (a flexible signed network) appeals to cohorts who can read maps and navigate their way around the system or those who have local knowledge. If you have a captive audience traveling to ride at this mountain bike destination, provide them easy to read/navigate trail maps. Provide “suggested” loops based upon time, and level of difficulty (technical and elevation gain).

3.1.1.1.5. **Key Opportunity:** *Implement prescribed models centred on a single trailhead* which sets a one-way trail marked routes to unlock significant markets and lead to the market developing further by making the trail offering more accessible, easier to interpret and easier to use therefore more encouraging to a wider audience of trail users. (See 7 Toolkit 1 Section 7.2.3)

3.1.1.1.6. **Key Opportunity**: *Increase awareness of local community trail systems* numerous trail systems and networks are of local or community significance. The audit identified a number of locations where local trail resources could be made much more accessible and therefore of more value to the community. Focus access on one location and develop effective trail information and centring a more prescribed and easier to interpret trail model on that location. This could also unlock potential trail users who currently do not feel able to access trails whilst not compromising authentic trail experiences. Kiosks, trail maps at information centres and local businesses, business-sponsored signage on trails are all ways to help people out of doors and having positive trails experiences!

3.1.1.1.7. **Key Opportunity:** *Create equal opportunities for variety of trail users and cohorts.* Some disparity of provision between user groups and user cohorts does exist. Whilst trail provision in the state does to a certain extent take into account differing trail users and user cohorts, a

strategic approach to trail planning and design and a clear understanding of the needs and aspirations of all trail users can enhance these efforts. South Australia has the opportunity to truly set itself apart from any other Australian state, whilst it is clearly not possible to develop trails for everyone everywhere, trail opportunities could be available on an equal footing for all. Identify a number of locations

3.1.1.1.8. **Key Opportunity** - *Land Access, open up unprecedented access to National Parks, State lands and Private Land Access for trails*. Some of the best opportunities are in National Parks and support for human powered recreation in these lands. The cutting edge trail standards that are part of this plan can powerfully accommodate intentionally designed mountain bike trails to National Parks that honour the land and bring new visitation to the beautifully sacred places. Clearly communicate the vision of this plan to your land managers early in this detailed planning process and unite them as key stakeholders in the success of this plan. This is also the perfect opportunity to pioneer Trail Insurance programs for private land owners who have and are beautifully donating access to private lands for community enhancement through trails (see Melrose/Bartagunyah, SA). Unite SA master planning and unite your land access stakeholders through the beautiful vision of this plan and its benefits to the people of South Australia.

3.1.2. Existing Challenges- The very broad audit of selected trails in the differing regions has highlighted a number of key issues which relate to a number of factors including:

- The distribution of trail opportunities
- The strategic significance of different trails and trail systems
- The quality of trails systems relative to their strategic importance
- The scope and scale of trails and trail systems relative to their strategic importance
- The nature of trail models and how they relate to their strategic importance
- The nature of the trail systems relative to the intended users
- The lack of good quality opportunities for some users in some areas

3.1.2.1.1. There does not seem to have been any particularly strategic approach to the development of trails in the past and the lack of trail opportunities in some of the regions may be symptomatic of this. Some areas are much less well served in particular the Limestone Coast and the River Murray and this is due in no small way to the nature of the land use in these areas and the relative lack of publicly accessible land

3.1.2.1.2. Developing a hierarchy of trail provision and development has become clear in the audit with all of the trails audited sitting somewhere within the hierarchy outlined by this master plan

3.1.2.1.3. The distribution of trails opportunities is it seems decided by a number of factors such as local demand, the need to manage impacts and also taking advantage of natural resources to develop recreation assets.

3.1.2.1.4. The development of key tourism resources is also a factor in where some trails have been developed and it would seem that this is often done as a response to local landscape and other resource, for example river systems, dive sites etc.

3.1.2.1.5. Creating more accessible opportunities for the less able across the state. Access for this group is possible on some trail systems where the trails themselves meet particular criteria, but prescribed provision is very limited.

3.1.2.1.6. In addition access for horse riders is very restricted and prescribed trail accessible opportunities are very limited. Indeed horse riding trails are very few and far between but there is a growing movement towards the development of shared access trails.

3.1.2.1.7. There could be more equality of provision for certain users as outlined in the toolkits. Ensuring this requires a strategic approach to trail planning and design and a clear understanding of the needs and aspirations of all trail users.

3.1.3. Concept Map of Trails for next 10 years

Envision a map of South Australia, envision its populated areas interlaced with cool outdoor recreation opportunities via trails. From these towns begin long distance trails that tie to other trail centres that are a bit further away, near to the amazing landscapes of SA. Picture these long distance trails connecting some of the coolest destination trail centres in the world (such as you already have in the Southern Flinders). All of this connected by trails, the possibility to walk, ride or even travel aquatically via intentionally designed, purpose built trail or way around South Australia.

We realize that the actual mapping of this vision is not going to be a short or quick task to complete. Phase 1 (this document) has provided the foundational tools to begin that process of "mapping out an experience." This detailed mapping of these trails plan and assembling partners and stakeholders for design actualization is the next phase. Our team at Over the Edge, Destination Development looks forward to working with you in these next phases.

3.1.4. Principles for Planning Trail Projects in next 10 years

3.1.4.1. Key Principles in deciding and defining prioritized future trail developments:

- Solicit a "trails inventory" from communities & enthusiasts (community champions) as a foundation to build upon. Expand upon everything worth keeping to speed up this project
- Review existing trail planning efforts such as SA MTB plan (2001), Recreational Trails Strategy and SA Trail Development Guidelines (2003) to avoid repeated efforts and review progress thus far

- Review existing trail networks and seek trail 'ways' to connect these towns to regional trails hubs; these connectors should also fit and reveal our Long Distance Trail opportunities such as the Mawson which connects Adelaide, Wirrabira and Melrose and…
    - Seek ways to promote and upgrade iconic existing trail networks such as Heysen, Mawson and Kidman Trails and the new walking trail on Kangaroo Island
- Use these trails to include the "hidden gems" the roads "less travelled" that SA Tourism efforts seek to highlight and draw traffic to. Use this trails plan to bring people to the "forgotten places' and include the "forgotten People."

3.1.4.2. Key Elements of Trails Map Planning:

- Connector Trails - Seek to connect these trail centres via trails where possible. An example: ride from Wirrabira to Melrose, or use the Mawson to get to Adelaide, etc.
- Destination Centres – Build or identify existing destination centres 300-500K from major travel hubs and major populations and then connect those places with Long Distance Trails. There needs to be a vision for two more of these Destinations in SA beyond the already known projects of Melrose/Wirrabirra and Adelaide Hills, maybe north and east? A Trail Destination and a long distance trail along the Murray?
- Long Distance Trails - such as the Mawson; expand on this idea to the point that there is a long distance loop around the state. Up the Mawson, across the North toward the Murray and then a Murray River Trail (an awesome way to tie together multi-use trail with recreational waterway) a pedal to paddle option along the Murray and along the Yarra.
- Transportation- keep in mind opportunities for alternative transportation; i.e. electric shuttle transit to trail centers, and shuttles for one way trail users and seek to tie communities to trails via trails.

3.1.5. Sustainability Framework Summary *(See 6.1 Toolkit 1 – Sustainability Framework for further details)*
This sustainability framework provided in the Toolkit section of this master plan was completed to guide all future trail development and provision. Through the implementation of a sustainability framework, trail-related protocols and standards are developed to ensure that development and provision falls within its values and ideals established by those involved in steering the South Australia Master Plan.

3.1.6. Intentional & Relevant Planning Protocol *(See 6.4 Toolkit 4 – Trail Development Protocol for further details)* The Planning and Design Protocol Toolkit is attached below. All protocols included in this section (Developing Frame of Reference, Site identification, concept plans, evaluation of trail corridors, detailed trail design, delivery, construction, and management protocols) are based on the following three premises.

Trail planning is about putting the right trails, in the right places, in the right ways. Establishing this working framework involved the creation of a framework to guide and inform the planning process and selecting and assessing sites where trails might be developed. In addition, the planning process involves

developing outline concept plans and the evaluation and assessment of potential trail corridors. It includes, developing frames of reference, site identification and assessment, the development of concept plans and evaluations of proposed trail corridors.

3.1.7. Trails Hierarchy and Spectrum of Experiences for Diverse User Groups *(See 6.4 Toolkit 4 – Trail Development Protocol for further details)*

Relevant trail design is a process that ensures quality and sustainability and also ensures that trails are fit for purpose (i.e., who is the desired end-user and what is the desired user experience?) The aim of the attached detailed trail design is to formally establish *definitive* trail lines on the ground and develop prescriptive construction plans related to these. The goal to build sustainable trail systems is achieved when trail design is focused on developing prescriptive plans that can guide and inform trail construction and serve as a quality assurance system.

3.1.8. Intentional Trail Delivery Protocol *(See 6.4 Toolkit 4 – Trail Development Protocol for further details)*

Trail projects can be delivered in a number of ways and often times are. A few examples are as follows; a single stage capital project, as a phased capital project, as a partnership with community groups and/or volunteers. The delivery of any trail project is based on the following; ensuring sustainability, minimizing risk to the project, ensuring best value, and implementing standards.

3.1.9. Examples of Relevant International Best Practice In looking for examples of best practice in trail development a few locations stand out.

(See 6.5 Toolkit 6.6 – Examples of Relevant International Best Practice for further details)

4. Implementation

The SA Trails Master Plan is designed to guide the development of a World Class Trails System in SA and to see all opportunities to support this vision of a State united by trails and a common vision of encouraging people toward human-powered outdoor recreation. Essential to the success of this project is the uniting of sporting enthusiasts and sporting organizations with community leadership in places with trails potential. The key to this plan is unity around the strength of planning and the cutting edge creativity of this trails vision. This plan provides you with examples of success, with an array of tools for planning a logical and achievable trails system worthy of International attention. The plan is meant to encourage an enthusiasm to bring together a state-wide community of leadership who can help focus this vision, identify its key components and communicate it enthusiastically to the user audience who can see the potential of this plan and encourage State and Local Government to earnestly support those who embrace this vision and emerge as leaders toward the realization of this Trails vision and the vast benefits it offers to the people of South Australia.

To summarize, over the next ten years all trail development in SA, whether of community, local, regional, state or even international significance should in essence look to enhance access to trails for all whilst maximizing the benefits which can come from this. To ensure a strategic approach with takes into account a sustainability framework, development hierarchy and differing trail models, trail development should take place in the context of a trail development protocol which facilitates development at all levels. Such a protocol should make it possible for trail developments to be more effective, more sustainable and of more significance to wider society into the future.

4.1. Recommendations in Order of Priority:

It is paramount to unite all voices around common standards and a vision of trail development and provision in SA and to achieve the desired outcomes. It is essential to first establish the "common goals" of the South Australian Trail Systems. A shared vision of establishing a World Class standard via this effort by maximizing economic benefits to local Communities and creating "beautiful life experiences" that include all of the social and economic benefits trail systems can provide are just some of the positive incentives and sources of inspiration to the people of SA. Making efficient and effective use of partnerships, resources and funding will support these efforts. Being mindful of a clear hierarchy of development and provision with an emphasis on differing user groups and user cohorts, their needs and expectations will set South Australia apart as a true outdoor recreation destination.

In order to take the development of trail opportunities in SA forward a number of key steps need to be taken as follows:

4.1.1. The Foundations

- Establish a full time role with administration support within Recreation SA to deal with Trail Development and Advocacy
- Develop a sustainability framework which can guide inform and help advocate trail provision and development
- Develop unified trail planning, design and development guidelines in cooperation with all major public **landowners**
- Develop a unified state wide Trail Classification and Grading System for all trail types and users and trails
- Develop state wide guidance related to the provision of trail information
- Develop Trail Construction and Maintenance Guidelines which relate to all trails by user types and cohorts
- Develop a web based tool to share the above with potential partners
- Develop a database of trail planning, design, construction and maintenance in SA

Priority Level	Action	Lead Role	Time Frame	Estimated Cost
Advocacy and Capacity Building				
High	Establish a full time role with administration support within Recreation SA to deal with Trail Development and Advocacy	Recreation SA and Trails Committee	2015 - 2016	$80,000 - $100,000 per annum
Marketing and Promotion				
High	Develop a web base tool – including the following	Recreation SA to lead a team of Web Designers, Graphic Designers, and Web Hosts	2015 - 2017	Total estimated cost: Up to $90,000 initial outlay, plus $10,000 - $20,000 per annum for management
	Effective web design			$15,000 - $20,000
	Effective graphic design			$10,000 - $15,000
	Developing a data base of trail planning, design and construction professionals in SA			To be included in cost per annum of full time role within Recreation SA
	Developing a comprehensive trail database by activity			To be included in cost per annum of full time role within Recreation SA
	Graphic design and market research to develop effective branding for each activity			$10,000 - $15,000
	The collation of existing trail information and the development of additional or further trail information where required			To be included in cost per annum of full time role within Recreation SA, plus the guidance/input of a specialist consultant $30,000 - $40,000

	Ongoing moderation and administration of the web site			$10,000 - $20,000 per Annum
Trail Planning				
High	The development of a number of local level * projects (up to 5) related to communities where opportunities for partnership arise in relation to all activities **	Recreation SA in partnership with land owners and stakeholders	2015 - 2017	Please see note below table
Trail Management and Design Resources				
High	Develop Trail Classification and Grading Systems for all trail types and trail information guidance using the current horse riding and mountain biking classification systems as a starting point	Trails Consultant (following award of contract by Recreation SA)	2015 – 2017	$30,000 - $40,000
High	Undertake a desktop review of Acts, Regulations etc. which affect access, for example the restricted access to SA Water land, restrictions for horse riders on some lands etc. followed by a gap analysis exercise followed by advocating access to restricted areas where appropriate	Recreation SA	2015 - 2017	To be included in cost per annum of full time role within Recreation SA
High	Commission the review of current trail construction	Trails Consultant (following award of contract by	2015 – 2017	$30,000 - $40,000

	guidelines (standards for the construction of each element of trail construction) and to upgrade these to create a robust system, which can be used by anyone involved in trail development	Recreation SA)		
High	Commission a review of the interface between recreational trails and operational forestry, with the view to producing a formal trails policy within Forestry SA; dealing with trail development, provision and management, linking into their existing systems and standards	Recreation SA	2015 - 2017	To be included in cost per annum of full time role within Recreation SA
High	Undertake a full and thorough audit of all trail systems and products of state and regional significance	Trails Consultant (following award of contract by Recreation SA)	2015 - 2017	$60,000 - $80,000
Education and Training				
High	Commission the development of guidance on how trail information should be presented in a unified manner to users by trail providers	Recreation SA	2015 - 2017	$15,000 - $25,000
SA Trail Network Development and Maintenance				
Medium	Develop a	Recreation SA to lead a	2015 - 2020	Please see note below

	state/international prescribed trail product for canoeists/kayakers on the Coorong	team of Trail Designers and Contractors		table
Medium	Develop a state level mountain biking trail product centred on prescribed trail models in the Adelaide/Mount Lofty region	Recreation SA to lead a team of Trail Designers and Contractors	2015 – 2020	Please see note below Table
Medium	Develop a state level horse riding trail product centred on prescribed trail models to include facilities suitable for events in the Adelaide Hills	Recreation SA to lead a team of Designers and Contractors	2015 – 2020	Please see note below table
Medium	Develop a state level walking trail product centred on prescribed trail models at a location such Lincoln National Park	Recreation SA to lead a team of Trail Designers and Contractors	2015 – 2020	Please see note below table
Medium	Develop up to 5 prescribed snorkelling and diving trails of regional significance	Recreation SA to lead a team of Trail Designers and Contractors	2015 – 2020	Please see note below table
Low	Develop a state/international prescribed trail product on the River Murray system	Recreation SA to lead a team of Trail Designers and Contractors	By 2025	Please see note below table
Low	Develop an additional state level prescribed mountain bike facility (possibly by expanding and redeveloping the Melrose/SFR trails)	Recreation SA to lead a team of Trail Designers and Contractors	By 2025	Please see note below table
Low	Develop up to five prescribed regional	Recreation SA to lead a team of Trail	By 2025	Please see note below table

	mountain biking facilities related to regional population centres	Designers and Contractors		
Low	Develop up to five prescribed regional multi use trail systems with an emphasis on horse riding, walking and easy cycling centred on regional population centres	Recreation SA to lead a team of Trail Designers and Contractors	By 2025	Please see note below table
Low	Develop up to 4 additional interpretive dive trails of regional significance and package these with the existing dive trails to produce a SA diving product of state or international significance	Recreation SA to lead a team of Trail Designers and Contractors	By 2025	Please see note below table

Note – it is not possible at this stage to provide estimated costs for the development of trails/trail systems/centers as recommended above – please see the Trail Development Protocol which establishes at which stages estimated costs are developed for trail planning, design, construction and management. These costs will have to be established on a case by case basis.

* When referring to different levels of trail e.g. State, Regional, Local level, please see Toolkit 5 for definitions

** The development of different levels of trails, as recommended, above could be totally new developments or could be existing trails which are identified in the Trail Audit which can been upgraded, with new links created where required.

NOTE – ALL ESTIMATED COSTS ARE EXCLUSIVE OF GST

4.2. SWOT Analysis of Suggested Plan

STRENGTHS	WEAKNESSES
○ Trails Hierarchy will facilitate local accessibility and management ○ Strategic Framework will facilitate the improvement of local and community trail resources ○ Strategic Framework will bring local & community trail resources in line with sustainability framework	○ Burden of leadership is immense, communication and coordination of various agencies will prove pivotal in success of plan ○ Inventory and knowledge of existing trails in outlying areas is incomplete ○ Hierarchy of development may not satisfy all stakeholders ○ Rate of trail development may be slowed and may dissatisfy key stakeholders ○ More strategic approach may constrain more community led development
OPPORTUNITIES	**THREATS/BARRIERS**
○ Achieve some equality between trail users *& cohorts* not necessarily in terms of the amount of trail provision but in terms of trail provision relative to demand ○ ensuring that the right models are developed in the right places and taking a strategic approach to development ○ Eliminate Unsustainable trails as they are not genuine assets and sustainability should underpin all trail developments in the future ○ Realising trails as local, regional and state tourism assets is also seen as an important plank of any future trail development in SA ○ A concerned effort to acquire the knowledge of all SA trails will reveal opportunities and assets & show a clear picture of enthusiasts' needs/desires ○ A concerted effort to acquire the knowledge of these trails will afford an opportunity to form long-term partnerships with enthusiasts and the local community trail advocates	○ Land issues may constrain or prevent trail development ○ Tenure and access issues may prove too difficult to overcome ○ Funding for strategic planning may prove more difficult than local funding streams ○ All stakeholders must buy into the plan otherwise it will be very difficult to implement in a genuinely strategic way ○ Confusion- Presentations must be simple, focused, easily understood and clearly beneficial to a wide variety of perspectives and interests ○ Minimize resistance and hang ups as you seek momentum/support from the people of SA ○ Dissension- Seek and address quickly, honestly, and earnestly ANY voices of question; hear them, understand the concern and earnestly seek a solution ○ Avoiding problems, side-stepping issues or ignoring your community voices are threats to cohesiveness and success of the plan

4.2.1. Land Access Disclaimer

Use the momentum of this plan to work with agencies such as DEWNR to review unprecedented access to National Parks, state lands and private land access for trails. Some of the best opportunities are in support of human powered recreation in National Parks. The cutting edge trail standards that are part of this plan can powerfully accommodate intentionally designed multi-purpose trails to National Parks that honour the land and bring manageable visitation to the beautifully sacred places. This master plan is not intended to override Park Management Plans or Native Forest Plans but may facilitate reviewing existing park planning to create an important link trail or other iconic trail, but in places like Belair National Park, metro reserves and most parks with Conservation Zones. Clearly communicate the vision of this plan to land managers early in this detailed planning process and unite them as key stakeholders in the success of this plan. This is the perfect opportunity to pioneer Trail Insurance programs for private land owners who have and are beautifully donating access to private lands for community

enhancement through Trails (see Melrose & Bartagunyah, SA). Unite South Australian land management groups and unite your land access stakeholders through the beautiful vision of this plan and its benefits to the people of South Australia.

4.2.2. Plan to measure/evaluate Trails-based development efforts

- Installing effective visitor monitoring equipment at strategically selected sites of local, regional, state and national levels
- Developing effective visitor evaluation methodologies which help ascertain, user satisfaction, frequency of use, nature of the users (related to user groups and cohorts) at strategically selected sites of differing levels
- Develop methodologies which gather both quantitative and qualitative data on trail usage, trail users and their economic impacts

4.2.3. Recreation SA as a Trail Development and Advocacy Body

The leadership of this State-wide Trail System should be a specific independent voice. This should originate from either a position created within Recreation SA or from the funding, empowering and support of an intentionally designed and formed independent SA Trails leadership organization. Either would work to advocate, facilitate and guide trail development in a strategic way by liaising with all relevant agencies, peak bodies and funding bodies. At least one full time dedicated staff with administration support would be essential to the effectiveness of this role and thus the efficiency of this entire effort.
They would operate within the bounds of a policy document which outlines the following for a unified all agencies approach:

- The sustainability framework included in the toolkits of this document
- Trail development principles and protocols based around the sustainability framework also included in the toolkits of this document – these should be combined with the information in the previously published document 'Guidelines for the Planning, Design, Construction and Maintenance of Recreational Trails in South Australia' to provide a complete and detailed guide

Its work should also be informed by the following, which are outline in this document:

- Knowledge and understanding of differing trail models and systems, how they work and when and where are they best implemented
- Knowledge and understanding of differing trail user groups and user cohorts, their needs and their expectations
- A clear hierarchy of trail provision and development

Recreation SA would:

- Take a central strategic role in trail development and guide, agencies, user groups, peak bodies, communities and councils to ensure a coherent and focused approach to trail development
- Commission the development of a unified trail classification and grading system for differing trail types i.e. walking, cycling, horse riding, canoeing and aquatic, in partnership with user groups, peak bodies and key agencies such as DEWNR, Forestry SA and Councils pulling together all examples of current best practice both within the state and externally. The current classification for horse riding and mountain biking, as available on the TrailsSA web site, make a good starting point for this exercise, though it is recommended that these are expanded upon and that similar systems be put in place for the other activities mentioned above. The most important aspect of this would be to ensure all agencies adopt the systems and they are a truly unified effort across the State.

- Commission the development of guidance on how trail information should be presented in a unified manner to users by trail providers, also by looking at examples of current best practice both within the state and externally
- Undertake a desktop review of Acts, Regulations etc. which affect access, for example the restricted access to SA Water land, restrictions for horse riders on some lands etc., followed by a gap analysis exercise, followed by advocating access to restricted areas where appropriate
- Commission the review of current trail construction guidelines (standards for the construction of each element of trail construction) and to upgrade these to create a robust system, which can be used by anyone involved in trail development
- Commission a review of the interface between recreational trails and operational forestry, with the view to producing a formal trails policy within Forestry SA; dealing with trail development, provision and management, linking into their existing systems and standards

4.3. Strategic Approach –

4.3.1. The collective aims of the strategic approach

- Making effective use of resources for trail development, infrastructure, provision and future management
- Ensuring an effective hierarchy of development and provision
    - Developing trail products of varying level and significance will effectively manage the needs of local trail users on a daily basis, whilst also accommodating those that make specific trips to regional and state level facilities. State level facilities in particular will attract repeat visits and appeal to the wider, international markets. The distribution of these facilities needs to be carefully considered, so as to promote usage of all facilities as opposed to dispersing the market (see 7.5 Toolkit 5 – SA Trail Development Hierarchy for further details). The development of different levels of trails, as recommended, could be new developments or could be existing trails which are identified in the Trail Audit which can been upgraded, with new links created where required.
- To ensure greater economic, social and environmental benefits for communities and individuals
- To develop more access to better trails that are more accessible and sustainable for more people
- To have highest return on investment for each trails-based project

4.3.2. Short term objectives (by 2017) for strategic trail development:

This work should lead to the development of a strategically prioritised programme of works to bring all regional and state trail systems/products to a uniform level of quality and effectiveness within 10 years. Such works may be improvements to trail information, trail marking or to the trails themselves, or they may be a change in the trail model and significant trail construction.

- Undertake a full and thorough audit of all trail systems and products of state and regional significance
- Identify how these trail systems and products could be improved and/or made more market and user focused
    - Focus on the effectiveness of the trail systems/products, their accessibility, their sustainability and the appropriateness of the trail models

- Identify a number of local level projects (up to 5) related to communities where opportunities for partnership arise
    - Wirrabirra to Jamestown & Bundaleer Forests, Melrose/Mount Remarkable, Robe, Kangaroo Island, etc.
    - They should centre on the development of multi-use trail systems aimed at cyclists, walkers, canoeists, aquatic users and horse riders
    - These should centre on prescribed trail models
        - Demonstrate effective trail grading
        - Demonstrate effective trail information provision
        - Demonstrate sustainable trail management models
- Undertake a state-wide trail development process and make this process and standard available to *ALL* communities
    - Demonstrate sustainable trail development standards reflecting the world class goals of this state-wide trails plan
    - Demonstrate the application of effective differing trail models in differing situations to maintain our "cutting edge" goals

4.3.3. Medium term objectives (by 2020) strategic trail development should:

- Develop a web-based tool to provide guidance to potential partners, trail developers and trail providers
- Develop a web-based tool for prospective users to create "gateways to trail usage opportunities
- Develop a state level prescribed trail product for canoeists/kayakers on the Coorong
- Develop a state level mountain biking trail product centred on prescribed trail models in the Adelaide/Mount Lofty region
- Develop a state level horse riding trail product centred on prescribed trail models to include facilities suitable for events (possibly on FSA land) in the Adelaide Hills
- Develop a state level walking trail product centred on prescribed trail models at a location such as Lincoln National Park
- Identify and Develop up to 5 prescribed waterways to include snorkelling and diving trails of regional significance

4.3.4. Long term objectives (by 2025) strategic trail development should:

- Develop a state level prescribed trail product on the River Murray system
- Develop a state level prescribed mountain bike facility, possibly by expanding & redeveloping Melrose trails to include Mt. Remarkable and other private lands
- Develop up to 5 prescribed regional mountain biking facilities related to regional population centres, (ex. Wirrabirra to Bundaleer to Jamestown)
- Develop up to 5 prescribed, regional multi-use trail systems with an emphasis on horse riding, & walking centred on regional population centres; such as Port Lincoln and Port Augusta.
- Develop up to 4 additional interpretive dive trails of regional significance and package these with the existing dive trails to produce a SA diving product of state or international significance

5. Disseminating a Master Plan to South Australian Resident and Business Communities

5.1. Present Vision and Scope to Community:

In the expressed interest of uniting our efforts toward these common goals it will be essential to present the vision and scope of this plan to communities directly involved and those that stand to be "collaterally" affected by this project. It will be essential to create state-wide momentum through explanation of the goals and benefits of this effort. With the goal of inspiring interest from local communities and removing obstacles before they become obstacles we recommend the following strategies and encourage you to build upon these ideas and build a complete untied from to support this effort of a World Class SA Trail System. *See Section 7 Toolkit 7.7 "Disseminating a Master Plan"*

5.2. Key Steps in Disseminating Trail Planning Information:

This plan provides tools and a framework, guiding the direction of trail development from policy level through to building these trail systems. By uniting enthusiasts and community champions with local leaders and state governments in a common and clearly understood objective to create a truly World Renowned state-wide recreational trail network; this plan can lead the way to a unified trail vision, with the momentum of state-wide governmental support and the steps to empower local community leaders along with the impassioned outdoor enthusiasts to move energetically forward toward the realization of this state-wide trails vision.

5.2.1. Develop a concise and exciting presentation of the Master Plan to excite and unite the people of SA around the potential and World Class vision of this plan

5.2.2. Host a series of "Town Trail Public Forums" – to present this "clear & concise vision." The effectiveness of a public forum or "town meeting" as tool to move this forward has proven effective beyond measure. Host an opportunity in key locations; inviting people from surrounding communities and all user groups and "set the tone" of how this plan is to the benefit of the people, the communities directly involved and surrounding. Show them how this plan has an intentional view of a "win-win" scenario to the benefit of all involved from direct trail user to local small business or the infrastructure that will grow in support of this success. It has also proven to remove years of "back and forth" battles as you reveal an open and honest "full view" of the ideas and goals of this SA Trail Plan and make them aware that they have been considered within this planning and that they are being heard and understood and considered as we seek to provide all generations an opportunity to share in these benefits.

5.2.3. Gather feedback through these local meetings and refine this specific state-wide trails map with regard to feedback and information gained through this valuable process

5.2.4. Invite and Inventory local community trail interest to assist in the completion this trails inventory

- Identify "Key Opportunities" in communities with existing trails and enthusiastic local support
- Incorporate these existing resources into the plan where possible

5.2.5. Celebrate publically the adoption of this plan and its overwhelming support and rally momentum from any surrounding organizations who will support this project for reasons of public health, environmental awareness, community enhancement, etc.

- Gather support and or funding from every possible, even those seemingly unlikely partners.

5.2.6. Create & Disseminate Trail Information to your audience in cutting edge creative approaches that are simple, effective and easily interpreted by all

5.3. Promotional Opportunities:

Dissemination of this plan to the public goes hand in hand with the marketing of this Trail System. Creating a ground swell of excitement and public support is essential to the success of this project. Take this opportunity to build public awareness of the opportunities provided to them within this effort; from their personal experience as potential users to the benefits to community, environment and economy. See this as an opportunity to "describe a beautiful picture" of a state-wide trail system celebrating the landscape of South Australia. This is NOT just another press release! Host open house events with food and beverages for all. Show Off this plan and infect the public with your enthusiasm for what a beautiful plan this is and assure them that it will be completed to the highest standard and will "impress the World" with cutting edge Trail experiences for a variety of users. Hire a marketing person to help you tell this story and create a ground swell of public support. This effort to unite voices around this project are essential anchors of the efficiency and timeliness of the execution of this plan.

5.4. Web-based resource for Trail Developers and Managers:

It is recommended that a web resource be established which provides those involved in trail development and management with a range of tools to help guide and inform them. This resource should make the following information accessible to trail developers and providers in an accessible, user-friendly, and downloadable formats.

- The sustainability framework
- Information on trail users and user cohorts
- Information related to trail models
- The trail development and provision hierarchy
- The trail development protocol

Once developed on a state-wide basis the following should also be made available:

- Trail classification and grading matrices for differing trail types
- Trail construction guidelines
- "Vision of Trails" standards and guidelines that communicates the long term vision, world class standards and overarching goals of this plan

This web tool should also provide information related to examples of international and domestic best practice and case studies as well as the following:

- A data base of trail planning, design and construction professionals
- Information related to current and past trail projects within SA
- Formal project reviews where appropriate

This resource should be developed and managed by the trail advocacy and development body outlined above and will require the following:

- Effective web design
- Effective graphic design related to key documents outlined above
- Ongoing moderation and administration of the web site

5.5. Web-based tools to disseminate Information About Trails to Prospective Trail Users:

The provision of accessible and effective trail information is an essential part of the development and provision of trails in the future. In the medium term this should be done through the development of an effective web-based tool which prospective trail users can use as a gateway to trail opportunities. The web-based tool should allow trail users to choose from a range of trail based activities i.e. walking, horse riding, cycling, canoeing, aquatic, and from there navigate to information about the distribution of trail opportunities related to each activity around the state.

It should then be possible to access information on individual trail systems or trails including, how to get there, maps of the trails, pictures, distances, grades and other more specific information such as the nature of the undertaking, landscape and character, facilities etc.
It is proposed that it be broadly set up as follows:

- Home page showing each activity i.e. walking, horse riding, cycling, canoeing/kayaking, aquatic – click on one to navigate to a specific activity:
- The next page shows a map of all the trail opportunities related to that activity by region and click on a region:
- On the region page a map shows the location of all trail opportunities by particular activity and by status i.e. local, regional, state
    - This page should provide access to information such as trail updates, closures etc. safety advice, tips on safety and a code of conduct where appropriate
    - Click on a trail or trail network/system to navigate to the individual trail or trail network/system page
        - Individual trail or trail network/system page with downloadable maps (which would need to meet particular standards) and trail guides, detailed trail information and user reviews
        - From this page navigate to local campsites, accommodation providers, guiding or hire companies, restaurants, pubs and other visitor facilities
        - There should also be space for trail users to leave their own reviews of trails and local services etc.
        - There should as be links DEWNR, Forestry SA and other trail providers' websites for more information related to specific sites such as wildlife or heritage etc.

Clear identities or brands for each of the differing activities should be developed or strengthened and should dominate the shape and style of the website. However individual trail information will need to be provided by differing trail providers such as DEWNR, Forestry SA, local councils and others. Whilst this information will clearly have differing visual styles, ensuring that the information presented is done so in a coherent way will be essential. The key to this will be ensure that state wide standards for trail information are developed and implemented.
The trail advocacy and development body should also work on establishing positive connections with Tourism SA, with the aim of marketing the web based tool and state level trail developments within their state wide tourism strategy.

This web resource should also be developed and managed by the trail advocacy and development body and will require the following key steps:

- Research to develop a comprehensive trail database by activity
- Effective graphic design and market research to develop effective branding for each activity
- The collation of existing trail information
- The development of additional or further trail information where required
- Effective web design
- Ongoing administration of the web resource

6. Conclusion

Designing or planning any trail weather it involves building a new one or using existing infrastructures, should focus on connecting people to landscapes, habitats and places at all kinds of levels. Giving people positive enriching experiences in the outdoors while honoring the goals and objectives of the custodians of the land, the people and the communities affected by the project should be of paramount importance. The concepts and objectives set forth in this plan and the supporting examples of cutting edge use and "best practices" around the world; are intended to give you a tool box and a starting point to set off on the path to envisioning, designing and constructing a South Australia Trail System that will carry people into all kinds of places and landscapes. At the same time it should provide a way of enhancing communities and lifestyles by providing opportunities for all kinds of outdoor recreation and enhancing the health and wellbeing or trail users. Building a clear vision and the unity surrounding it is the first step on this path to creating world renowned cutting edge trail systems which can be used in diverse, positive and above all sustainable ways.

The following key elements and objectives are the "steps forward" in constructing the South Australia Trail System and reaching the benefits described to the people, communities, landscapes and habitats of South Australia:

6.1 **Connectivity**:

Bringing together the pieces of this vision is the essence of connectivity. Trails abound in SA; some official projects some beloved "user created" trails that see more use than National Parks. People surround every element and aspect of this vision; from users to land managers to agencies of control and funding bodies. So many voices to bring together and so many opportunities to use creative vision to unite and connect these people, these pieces of trail and this entire movement to a vision of a beautiful outcome that will connect people to places, to experiences and to each other.

6.1.1 Connecting People to places, connecting communities and supporting human powered movement Trails touching communities sets up an "open invitation" to get people moving and exploring the out-of-doors. Trails that require a journey to begin might prohibit the decision to use these resources or at the least, an "excuse" to not venture out. Trails that connect to towns not only encourage people to "test it out" and venture at a comfortable level to explore a new experience. Trails that connect communities to trail systems can also greatly reduce the need to drive to trailheads and thus mitigate parking issues and our over dependant use of fossil fuels to get to trails encouraging and providing for the chance to use trails to get from home to places, to other communities or to larger trail systems.

6.1.2 Connecting existing trail networks with the needs of the future, connecting existing resources such as user created trails with a larger vision and plan can provide planners with a view to what the users seek and what they have created for themselves. Some trails may not fit into the overall plan but it is essential to "hear the voice" of your users and to become aware of the habits, the desires and the movements or "flow" of your people. These "user created" trails are a voice and a chance to connect with your audience and effectively plan an experience that will "keep them busy" and thus become a tool in minimizing future user created pathways. See all of your audience and build a perspective of your user groups and connect these movements in a forward thinking design that you can clearly communicate to your audience. Build a ground swell of momentum and community support by connecting with your resources, your users and all of the people and agencies that will become the leadership of the success of this effort.

6.1.3 Connecting user groups, leadership ideas and existing opportunities to create a true "state-wide" comprehensive plan It is of paramount importance to connect the voices of user advocates, land advocates, community leadership, interested or concerned voices and the comprehensive view of this project. By actively seeking to connect and communicate with all of the voices involved in this vision the flow of this project and the efficiency of effort to complete it will be highly honoured by every effort to connect these views and voices BEFORE they become the "angry un-heard". It is NOT better to ask forgiveness it is best to endeavour earnestly to hear all voices and see all views from the beginning of this planning process. See all your people and see all your pieces and connect them into a united voice that can powerfully complete this vision into a reality.

6.2 Quality outdoor experience:

Every word in this document and every step that has led us here or will be accomplished from here; all add up to one common purpose, to create an experience in the life of a human being as they venture into amazing places and inspiring landscapes. Trails are merely a conduit to experiences, to engaging in a natural world and to move in the world under one's own human power.

6.2.1 Set the highest standard of trail design and construction to insure the success and reach of this plan In South Australia - The goal of these trails and the governing principle of their design and development is to create a cutting edge creatively designed trail system that will inspire people to connect with these trails; to be inspired to move to build community pride and to cherish and honour the land through building connection between human and nature. The level of experience and the power of its effect on the user is carried forward in the standard set for quality of trail construction, quality of experience to your user and the effectiveness of the leadership of this project to connect these elements efficiently with those who will construct this vision on the ground.

6.2.2 Create a quality experience that will serve South Australia and gain the attention of the nation and the World Set the vision forth clearly, set up high trail construction standards for a long term sustainable trail product and insist on a world class cutting edge creative vision of design so as to "fuel the fire" of becoming one of the great Trail Destinations in the World. The reach of your audience and the power of your international reputation rests in the quality of this vision and the experience it will provide your users. Know them, hear their voices and seek to understand what drives a cutting edge experience to your

people. Old traditional trail ideas of any kind will fall by the wayside in this closely connected international market. Seek out and insist upon cutting edge creative design and your user experience will become your marketing plans greatest asset.

6.2.3 Seek high level creative trail design to support our environment, the experience of our users and to be the standard of "cutting edge" trail design- Modern Trail design and construction techniques allow us to use quality of construction to minimize maintenance needs and to become an asset to the health of the land rather than a detraction from the natural world these trails lead us through. A high level "quality of experience" is equally a tool to minimize or eliminate "unauthorized user created trails" by thoroughly engaging your audience and gaining them as partners and leaders of this united effort and thus your partners and not problems.

6.3 Environment and Humanity:

Modern man has become increasingly unaware of their connection to the natural world. Surrounded by convenience and mechanization offering mankind every reason to never venture outside. It is our goal in Over the Edge Destination Development to honour mankind and the World we live in by connecting people to nature and to open perspectives as human beings rediscover their own natural movements in a natural world that they now see and feel and thus honour and protect in an entirely new way. Changing perspectives through encouraging people to find a beautiful outdoor experience. This is the hope of this plan and the beauty of trails; connecting people with pathways and getting people outside, alive and moving.

6.3.1 Use this opportunity to Lead people to South Australia's AMAZING undiscovered places – The connectivity of this Trail System provides an opportunity to intentionally lead people to places that they may have never before known. As you design this big picture vision of a South Australian Trail System; design the experience and quality standard of your trails AND of the places you will use these trails to lead people to. "Low hanging Fruit" and "existing trails" can offer value in moving this vision forward and expediting some efforts. But the standard of the Trail System and its reputation must not be compromised for the sake of expedience. Short cutting will only ever be seen as such. Set a high standard for the "end product" of this Trail plan and unite your partners around the vision of every movement, every trail, every user, every trailhead and infrastructure element fits perfectly into the vision and our common goals. Unite this voice from planning to trailhead to every partner and even local business near a trailhead. Connect your people with the opportunity to become a partner in this effort and to share the benefits and the rewards of building a World renowned reputation for SA Trails.

6.3.2 Develop interactive Infrastructure encouraging and supporting trail users to find awesome experience – Information, Maps, Signage and Trailhead Systems is the often overlooked anchor of your users experience. Cutting edge creative communication techniques such as trail signs that incorporate a map of the are into each intersection trail marker/sign can remove obstacles that often prevent unfamiliar users from venturing out. It is one of our common goals to use this plan to encourage people to venture out and find a new life experience. Use of cutting edge, easy to interpret trail information and signage can anchor efficiency of trailhead movements and remove obstacles to getting even our newest users to come explore these beautiful trails we envision here. Make it easy to find this adventure, to find the trail and to create a beautiful experience devoid of frustration, confusion or a feeling of being unsure or "lost". Connect your people with an experience; finding the trail or trailhead or information should NOT be the challenging part.

6.3.3 Enhancing Economies and the lives of people as people explore this state-wide trails system. – Trails do not generate economic benefits. Trails of beautiful experience bring people to places and encourage movements that have a deeply human appeal to those who use them. These beautiful movements and truly human experiences cause positive feelings in people, these feelings get shared and build "reputation" and this begins to fuel an "audience" of humans who will become aware of these trail experiences and these people will travel from far corners of the world to come experience the trails in your unique part of the World. The hosting of these people; the lodging revenues generated by having more trails than one can experience in one day becomes your economic driver and connects you with the vision of having several days' worth of "reasons to stay" in a trail system. These active people will grow hungry and must be provided with infrastructure to feed them. They will have positive experience and a resulting affinity for the region or place they have visited and will support an economy or memorabilia or gifts for those back home or just the truth that "vacation money spends easier" while you're on holiday, you spend. Help these communities see that trail users are often only active for a few hours a day on these trails and the opportunity to "support their experience" and thus build economic benefit; these opportunities exist 24 hours a day. Connect your users with the things they need, with engaging local experience and with the basic elements required of life and you will see not only an injection into local economy but an again enhanced experience for your user as they sit and sip on a coffee and talk with new friends from another corner of the world.

6.4. Conclusion of Gratitude:

We are so grateful for the opportunity to be a part of your vision and to assist in the "painting of this picture" of South Australia as a World Class Trail Destination. The pieces and the people that will make this such a huge success are all around SA. Find them, connect them in a beautiful way as you together draw a beautiful "big picture" vision of a Trail System that leads the world to find their own unique human experience in the vastly unique beauty of South Australia. Build this path, be creative and make it beautiful. Build this to last and to stand in the spotlight for decades to come. Shine a light on the amazing diversity of the SA landscape and the unique experiences that lie in wait in these connected sand inspired communities. Inspire your partners, Seek to know your users and use these trails to reveal amazing places and untold adventures to an awaiting World. Your united team of partners, your inspired enthusiast users and your clear organized vision will connect South Australia to the forefront of Trail Destinations around the World by 2025.

It is clear as we "wrap up" the master plan by assembling the ideas that *are still now* emerging to deliver to you a valuable tool that this idea has only begun the process of narrowing and detailing this plan. We cannot, and/or really, will not; rush through and try to "pretend" like we have this "plug and play" map to this cutting edge trails plan. We at Over the Edge, Destination Development love your vision and enjoy being a part of it. One of the beautiful benefits of this long drawn out revision of this plan is that our team and affiliates have looked into this idea with such beautiful intention. We are ready to take the next steps; to detail a plan and secure its relationships and build a fortress of unity before even mentioning it to the general public. Once this picture of uniting South Australia with a "cutting edge" in trails-based destination infrastructure is clearly seen and eloquently communicated you will find that ground swell of support and enthusiasm.

Thank you for letting Over the Edge Destination Development be a part of this; let us help you where we can. We believe in this vision of South Australia and we are excited about all of these ideas; please forgive that there are some inserted ideas that may have little other mention in this document, these are new, these ideas that we believe are key to you being the "cutting edge" leaders in world trails that you envision here. We applaud your efforts and hopefully we will be able to expand on all of this and continue to build this momentum.

7. Toolkits

7.1. Toolkit 1 – Sustainability Framework

Sustainable trail development and provision centers on a number of key issues that affect how trails are developed, provided and managed regardless of the users, trail system, model or type. Achieving sustainability requires a clear understanding of what sustainably actually means in terms of recreational trails and in its widest possible sense. An effective way of building sustainability into trail development and provision is to develop a sustainability framework which can then inform the trail planning, design and provision protocols.

Trails are conduits through which people can experience, interact and engage with the landscapes and habitats of SA and this is important in improving communities and individuals' knowledge and understanding of these places and this can increase the value of landscapes, habitats and places to wider society. Trails should connect people and communities to landscapes, places and habitats in positive ways that do not devalue them to any extent; rather they should add value to landscapes and habitats and enhance the sense of place wherever they are. Trails should enhance people's experiences of landscapes and habitats and must exist comfortably and appropriately within them. In addition trails must co-exist with land use in ways that enable the recreational use of any area to take place without it impacting upon the land use or vice versa. Crucially, trails must meet the needs of users without compromising the responsibilities of land owners or managers and must not affect the roles and responsibilities of any individual or agency charged with the custodianship of the landscapes, habitats and environments of SA.

It is important to support this with examples of the following:

- What are the appropriate and acceptable levels of impacts that trail development and use can have upon land use and vice versa
- What are the appropriate and acceptable levels of impacts that trail development and use can have upon landscapes and habitats
- What are the appropriate and acceptable levels of trail management and maintenance
- What are the appropriate and acceptable levels of impacts that trails and their use can have upon people and communities

7.1.1 Impacts on Land Use and Vice Versa

Recreational trails can have very significant effects on land use and vice versa, particularly where trails use land management or land use infrastructure such as farm tracks, access roads or forest roads. The primary function of such infrastructures is to facilitate effective land use such as enabling farmers to gather livestock or crops, foresters to extract timber or DEWNR to manage sensitive habitats and landscapes. The formal use of such infrastructure for formalized recreation can sometimes compromise the ways in which such tracks and roads can be used by land mangers or land users, especially where certain users such as horse riders and cyclists are concerned. Safety and liability concerns related to conflicts between operational vehicles, machinery or workers can also lead to significant management issues that affect the long term viability of recreational use relative to effective land use.

In addition, land use can impact directly upon trails and trail users. For example where recreational trails share access tracks or forest roads the operational use of these routes can very significantly affect trail surfaces, structures and their accessibility. Trails can often be damaged by land use to such an extent that they become less useable and accessible to recreational users; and in the case of prescribed routes where it is very important to maintain trails at consistent standards, this can become very difficult, costly and ultimately unsustainable.

Sustainable trails must take into account the nature of the land use, the nature and status of the trails and the nature of the trail users. The nature of the trail system and model and the nature of any management mode must take into account the nature and intensity of land use if the trails are to be sustainable. An understanding of the impacts of trails on land use and vice versa is extremely important in integrating recreation with land use and this can only be done through careful planning and consultation.

Essentially though for trails to be sustainable within the context of land use there must be negligible impacts of one on the other and this can only be achieved by assessing possible impacts on a case by case basis. This is particularly the case when planning new trails, which can have a much more significant effect on land use and management than using existing infrastructure. The development of new trails must take into account land use systems and mechanisms and through careful planning and consultation with land owners and managers they should be integrated into existing practices. New trail developments should not lead to significant changes in land use or management patterns and practices unless this is an intended consequence of trail development such as in newly designated recreation areas, nature reserves or parks.
In order to prevent trails impacting on land use/management the following key issues must be taken into account:

- What is the nature and intensity of land use wherever trails are to be developed or provided
- What are the key land use/management practices and programmes that trail development and provision might impact upon and how
- What are the key land use/management practices and programmes that might impact upon trail development and provision and on trails users
- How can recreational trails best be integrated into existing land use/management practices
- What are the acceptable levels of impacts that trails can have on the effective management and use of the land
- In what ways might land use/management impact upon the health and safety of recreational trail users

Taking these issues into account and with an understanding that the impacts of trails on land use and management and vice versa can only be understood on a site by site and case by case basis, the following key statements relate to the sustainability of trails relative to land use:

- Sustainable trails must be able to exist within the context of any prevailing land use without compromising the effectiveness or viability of that land use
- The existence of recreational trails must not increase the cost of effectively managing any area of land where they are to be found to levels that cannot be sustained
- The existence of recreational trails must not compromise the commercial viability of the land use in the areas where they are to be found
- Land use and management activities and operations must not compromise the health and safety of trail users
- Land use and management activities and operations must not affect the integrity and the viability of trails (within the context of the trail system and model)

Recreational trails must take into account all of the above and this can only be done by adopting robust and effective trail planning, design and implementation processes and protocols.

7.1.2 Impacts on Landscapes

As indicated above, trails are a very important way of getting people to engage and connect with landscapes at all kinds of levels. Whether it is a bush walker in a remote mountain range, a parent pushing a pram through a park, a horse rider on a beach or a mountain biker at Cudlee Creek, all are engaging with the landscape at some level whether consciously or not. Landscapes are therefore very important in terms of outdoor recreation and are an integral part of the experience of outdoor spaces. What trails and their associated infrastructure such as signs, information panels and trail markers look like and how they impact upon landscapes essentially define our experiences of landscapes and 'sense of place'. It is therefore essential that we understand the impacts that trails can have upon landscapes and how this can affect our perceptions of landscapes and their value.

Firstly, it is important that trails reflect and are sympathetic to the landscapes within which they are found. Whether the trail is part of an existing land management or transportation infrastructure or purpose built, their visual and physical impacts on landscapes should be considered within the context of a number of issues but primarily the following:

- The nature of the landscape itself
- The value of the landscape
- The nature of the topography
- The nature of the land use
- The users of the trail
- The status and classification of the trail

As indicated above, acceptable levels of impact should be considered within the context of the nature of the landscape itself. For instance, a wide, smooth surfaced trail with obtrusive signage and interpretation would potentially be unacceptable in a remote bush land setting, whereas in a formal landscape such as an urban park its impact could be seen as acceptable particularly if it is intended for easy access and mixed use. Similarly, trails and associated signage and information found in forests, open landscapes or coastal settings should not be imposed on the landscape in such a way that they detract from people's experiences of those landscapes; rather they should invite trail users into the landscape and allow them to experience them in a positive way. In open landscapes trails can be a very negative influence on people's experiences and perceptions of landscapes if they and associated infrastructure are imposed upon it. If landscapes are full of lumps and bumps and hollows and dips, then trails should reflect this by not having straight lines, hard edges or uniform gradients. Similarly in wooded or forest landscapes trails and any signage and trail marking should draw users into a potentially enclosed landscape in a discrete and intimate way without impacting upon its basic nature. If the landscape is flat and featureless then it may be appropriate for trails to be wider and more open to reflect the open nature of the landscape, but fundamentally the physical impact of any trail and its associated signage and trail marking should allow trail users to engage with and respond to the landscape in an authentic way.

Considering the value of landscapes to people and communities is key in assessing what level of impact is appropriate. A 'one size fits all' approach is not an appropriate way of assessing what is appropriate in terms of impacts on landscapes relative to their value; rather a much more considered and site specific approach is required to ensure that the true value of landscapes is considered and that trails and associated infrastructure have the right levels of impacts relative to this.

The landscape of SA has been shaped by millennia of indigenous habitation and settlement and by two hundred years of European settlement. The use of the land has physically shaped the landscape and is an integral part of the heritage of SA and it is essential that trails take into account both the nature of the land use and the intrinsic heritage value both native and European. The impacts of trails on landscapes should also take into account the users of the trails. For instance, in a remote back country setting where bush walkers are accessing a landscape because of its remoteness and wildness it would be very damaging to develop a trail that was overly engineered, wide and with a high visual impact and with obtrusive signs and trail marking. This would very much detract from users experiences of the landscape and of the place and negatively affect the way in which they engage with it. In a situation such as this it may be better not to develop a trail at all, but if environmental and sustainability issues do require that a trail is developed, then it should be done in a way that is appropriate in the context of both the landscape and the user.

7.1.3 Impacts on Habitats and the Environment

The issues relating to the impacts of trails on habitats and the environment are in many respects similar to those associated with impacts on landscapes. However, trails can have very significant impacts on habitats and the environment in a number of key ways as follows:

- Soil erosion and deposition
- Damage to vegetation, trees and plant life
- Disturbance and displacement of flora and fauna
- The introduction of non-indigenous materials and invasive plants
- Dieback

In agricultural areas trails and trail users can also be a factor in terms of biosecurity and the introduction of pests and diseases.

Soil erosion and deposition is a very significant issue relating to trails and this is nearly always associated with trail gradients, the trail structure and/or construction, their alignments and the nature of their users. Where trail gradients are over 50% of the gradient of slopes then some form of erosion is inevitable particularly if this is associated with inappropriate trail structures, weak soils or particular trail users such as horse riders and cyclists. Erosion is much more likely to take place on trails that have no formal built structure such as desire lines or informal paths, but it can also take place on trails of virtually any classification or type if the gradient of the trail exceeds 50% of the gradient of the slope, if the structure/construction of the trail is inappropriate, or if levels or types of use are inappropriate.

Trail erosion also leads to the deposition of eroded material and this can cause issues related to the pollution of watercourses, the contamination of water catchments and negative impacts on habitats. The deposition of silt can cause very significant damage to ecosystems and can also affect the quality of water supplies and this can be exacerbated by prevailing ground conditions, vegetation cover and soil types. For trails to be considered sustainable they must not lead to any significant erosion or deposition that leads to the degradation of habitats and the environment. However, this can only be achieved by carefully considering the potential users of any trail, the intensity of that use, how the trail might be used, the prevailing ground conditions, the nature of the vegetation cover and ultimately its alignment and structure. For example where a trail is heavily used by mountain bikers causing significant erosion and deposition, it may be wise to create an alternative route that is more sustainable or upgrade the trail in question to withstand the use it is receiving.

The development and use of trails can also have a very significant impact on vegetation cover and plant life, either through their construction or through how they are used. The construction of trails can have very significant impacts on vegetation cover and plant life, both in terms of the construction process itself and in terms of access for materials. In addition the use of trails can also have significant impacts on vegetation cover and plant life. This is particularly true in the case of trails that do not meet the needs and requirements of users, who may then create desire lines when trails become eroded or take short cuts. If trails have no formal structure or are informal routes or desire lines, then the impact on plant life in particular can be very significant as feet, tires or hooves trample, crush and break the ground cover and this can be the precursor to erosion and deposition. Sustainable trails should restrict impacts on plant life and vegetation to corridors that are no wider than that which is required in relation to the required trail type, classification and grading.

Careful assessments should be made relating to the amount of impact on vegetation and plant life that is acceptable relative to the type of habitat, its value, the classification and grading of the trail and the nature of the users. A uniform approach to what is acceptable impact should never be taken when considering the impacts of trails on vegetation and plant life and this also applies to the levels of disturbance and displacement of flora and fauna that is acceptable.

The development and use of trails can have very significant impacts on fauna such as birds, mammals/marsupials, reptiles, amphibians and even insects and the use of trails by people can lead to their disturbance and displacement. The levels of disturbance and displacement are directly related to the nature of the trails, the nature of the users, the intensity and frequency of use and the nature of the habitat. In woodlands or bush for example it is often possible to have relatively high levels of intensive recreation without causing significant disturbance or displacement of flora and fauna since the woodland environment shields and screens people from flora and fauna, absorbing sound and providing ample cover for flora and fauna. In open areas even low levels of recreational use can cause significant disturbance to, for example ground nesting birds or large mammals.

Trails should therefore minimize disturbance and displacement and this can only be done by taking into careful consideration the nature of the habitat and flora and fauna and developing appropriate trails in those particular circumstances. Trails that lead to significant disturbance and displacement of flora and fauna cannot be considered sustainable in the long term and they ultimately devalue habitats.

Similarly the development and provision of trails can also lead to the unintentional introduction of damaging non-native plant species or weeds. This is often an inadvertent consequence of building or developing new trails through the importation of materials such as stone and soil from outside of the site. However, building new trails in particular can also lead to the spreading of invasive species that are already in situ through corridor clearing, excavations and earth moving. Invasive species can also be moved into and around sites on trail users shoes, tires and hooves and this can lead to trails and their users having a negative impact on habitats and the environment.

To summarize:

- Sustainable trails should not lead to levels of soil erosion or deposition that damage habitats and the environment.
- They should not destabilise soils or slopes
- They should not damage vegetation and ground cover beyond the bounds of the required trail width or footprint
- They should not permanently or irreversibly displace flora and fauna
- They should not lead to levels of disturbance that are not sustainable in the context of the habitat and species concerned
- They should manage the impacts of recreation on flora and fauna and habitats in positive, sustainable ways

The above can only be achieved through adopting a holistic approach to the provision, planning and design of trails and by ensuring that the potential impacts of trails on habitats and the environment are widely understood.

7.1.4 Trail Management and Maintenance

Trail management and maintenance can be key issues in defining the sustainability of trails and the levels of each can have a profound effect on how trails can be developed or provided and by whom. Trail management as distinct from trail maintenance is essentially about firstly managing the needs and expectations of trail users, secondly about managing the duty of care and liability of trail providers and trail owners and thirdly about managing the conflicts between trails, trail users and land use. Trail maintenance on the other hand is centered on minimizing the impacts of trails on habitats, environments and landscapes and also about managing the impacts of trail users on the trails themselves.

Trail management can often center on managing the interface between trail users and land use and minimizing the impact of each on the other, and the level of management that is required will be dictated by the following:

- The nature and intensity of the land use
- The type of trail system or model
- The status of the trail system
- The nature and intensity of the use of the trail

Levels of management are fundamentally affected by the status of the trails, the intensity of their use, who uses them and how, viewed through the context of land use. For trail management to be sustainable the trail model must fit with the management model and the resources that are available to support it. These issues must be considered jointly when developing trails or looking at mechanisms for providing them. It is essential that these issues are looked at in a holistic way with a clear idea about the resources that are likely to be required to deliver effective trail management in the long term. The key is to make sure that both the trail and management models match the resources and that resource requirements are clearly identified and understood when planning, developing or providing trails.

It is very important to understand the maintenance requirements associated with particular trail systems and models. For instance an informal social trail network, which is made up of dirt roads and tracks used by operational land use traffic and a mix of recreational users, will have a much lower if any maintenance requirement compared to a prescribed mountain bike trail. The social trail network will require very little maintenance because the trail system is not a formalized one and there is no onus on the trail provider to maintain it at a particular standard. The mountain bike trail on the other hand must be maintained at a consistent standard to reflect the trail information that the trail provider is obliged to provide to the user and the maintenance requirements are consequently higher.

Essentially though sustainability in terms of both management and maintenance can only be quantified when considered on a case by case basis. However, it is true to say that any trail system cannot be considered truly sustainable in the long term if it is not possible for it coexist with land use, landscapes, habitats and people without requiring heavy ongoing levels of both management and maintenance which cannot be sustained. The key to achieving sustainability is to match the right trail model with the land use, landscape, habitats and users, and to match the right management model with the trails.

7.1.5 Impacts on People and Communities

Trails, by and large, are good things. They allow people of all kinds to access the natural world, have fun and keep fit. They enable people to connect and engage with landscapes and habitats in all kinds of ways, whether on foot, in a wheelchair, on a bike, on a horse or in a kayak. Trails can also impact on people and communities in a number of other ways, both negatively and positively.

Some of the positive impacts can be:

- They can improve people's quality of life by connecting them to where they live or encouraging them to engage with their local environment and landscape
- They can be valuable local and community recreation resources
- They can be an important and valuable tourism asset at a community, local, regional and even state level
- Trails can encourage participation in active outdoor recreation, thereby having beneficial effects on personal health

However some of the negative impacts are as follows:

- Trails can affect the core business of land use
- Trails can lead to conflicts between land use and recreational users
- Trails can lead to conflict between differing recreational users
- Trails can lead to conflict between 'locals' and 'outsiders'
- Trails can de-value landscapes, places and habitats
- They can impact negatively upon indigenous people

Trails are often very important recreation resources for communities at local levels in that they can be where people walk their dog each day, go for a run or go for a walk. To local communities having such a resource is a fundamentally important part of having a descent quality of life and as such, trails are of huge importance. Anything that compromises such a resource or restricts people's ability to access it would potentially have a very detrimental effect on the quality of people's lives and would devalue both the trails and peoples experiences of them. Great care is required when planning, developing or providing trails that the right trail models are applied in particular circumstances to avoid any detrimental effects on existing recreational users, particularly in valuable or important recreational spaces. In particular, trail development or provision should meet the following criteria:

- Trail development or provision should not be to the detriment of any individual, community or group
- Trail development and provision should add value to places, communities or landscapes
- Trail development and provision should not de-value places or landscapes for individuals or communities
- Trail development should primarily bring positive benefits to individuals, communities or groups

The development and provision of trails should be a positive thing that brings with it a greater understanding of the natural world by connecting people to landscapes, habitats and places, but the issues must be clearly understood if only positive impacts are to result.

7.2. Toolkit 2 – Trail Systems and Models

Recreational trails come in a variety of types and configurations which are defined by their status, the nature of the users and how they are managed. It is important to understand the differences between trail systems and how differing trail models and management models apply in differing circumstances and how this affects the development and provision of trails.

Essentially there are two broad types of trail systems, with slightly differing models applying within each system. Broadly speaking the two key trail systems are as follows:

- Social trail networks
- Prescribed route systems

7.2.1 Social Trail Networks

Social trail networks are permeable trail systems that may be accessed in any number of ways from a variety of locations with little or no formal signage or direction given on the ground. They are trail networks which are used by a variety of recreational users, which are not necessarily approved or sanctioned by the land owner or manager. Whatever their status in terms of access (sanctioned or otherwise) they are important recreational resources, often of significant value. They may be used in any combination of ways in different directions and by a variety of users and are often based around either land management infrastructures and networks, or transportation infrastructures. They can also be based around traditional access routes, desire lines or even natural corridors such as river banks, ridges, or linear features such as fences and walls. However social trail networks in SA can be characterized as falling into the following broad models:

- Dirt and gravel roads on private land with permissive or de facto access
- Dirt and gravel roads on public land with guaranteed access
- Road side verges and road reserves
- Informal paths and trails and historically established routes on public land
- Unsanctioned trails that have been developed by users on land with a variety of tenures
- Informal routes on waterways used by aquatic users
- Other easements by arrangement with e.g. power lines, pipe lines etc.
- Beaches for horse riders, walkers of all types and cyclists of some types

Social trail networks are extremely important recreation, access and tourism resources for a very wide range of users, including walkers of all kinds, cyclist of all kinds, horse riders and more specialist recreational users such as climbers, water sports enthusiasts, bird watchers, anglers etc.

Social trail networks are very valuable recreation and often tourism assets since they are often very extensive, widespread and crucially often in close proximity to communities. However they are also very often based on land use and management infrastructure and this can lead to conflicts between land use and recreational use of the network, for example, designating a forest road as a prescribed cycling trail could lead to safety and management issues relating to the operational use of that road by

vehicles. In addition, the operational use of land management infrastructure like tracks and roads can lead to significant impacts and damage to those roads, which can affect its effectiveness and viability as a recreation resource. Social trail networks are not always accessible to a range of users or are not accessible to people with limited outdoor or navigation skills or knowledge of particular networks.

Social trail networks can also be difficult to manage in relation to intensive land use or sensitive landscapes or habitats since their use is inherently unpredictable. This can be a problem in terms of managing the impact of recreation on landscapes or habitats and can impinge upon land use.
Social trail networks are therefore important in enabling informal access to the countryside; however their sometimes unplanned, somewhat chaotic nature does not encourage access by the following groups:

- The less able
- People without local knowledge or without knowledge of the network
- People with limited or no map reading skills
- People from outside the immediate areas of the trails
- Tourists

Social trail networks can sometimes be unsuited to multiple use or use by differing user groups. The types of trails which often make up social trail networks are often not purpose built trails, designed to accommodate different trail users in a sustainable way. This means that sometimes they are, by their nature, not suitable for shared use. However, this is not always the case and some social trail networks can sustainably accommodate differing trail users, providing the nature of the trails can allow for this.

Examples of social trail networks around SA are as follows:

- Forest road and track networks on Forestry Reserves for some, but not all users
- Unsanctioned user built mountain bike trails in the Adelaide Hills and around Robe
- Fire track and other trail networks around the Adelaide Hills

7.2.2 Prescribed Route Systems

Prescribed route systems differ from social trail networks in that they are based on trail marked or signed routes that are clearly defined on the ground. In addition prescribed route systems have clearly defined trailheads where trails start or finish or both.
There are innumerable models of prescribed route systems and some of these are highlighted below; but what sets them apart from social trail networks is that they are trail marked or signed and promoted in some way giving them some kind of status which can affect the duties of the trail provider.

Crucially the identity of the provider of prescribed routes can differ from that of the owner of the trail and the duties of the trail provider can vary according to the nature of the prescribed routes, their status and the nature of the land use, but generally the duty of care in relation to prescribed routes is higher than that associated with social trail networks. Whilst prescribed routes can be a very useful way of managing issues such as liability and impact on land use they can also lead to unsustainable levels of management and maintenance if not carefully planned and implemented.

Typically, prescribed route systems have been established for a number of reasons as follows:

- To improve accessibility
- To manage the impact of recreation on land use
- To manage business risk and liability
- To manage the impact of recreation on landscapes and habitats
- To manage conflict between different recreational users
- To create a recreation or tourism product or asset
- To meet legal and by-law & regulatory requirements of land managers

Developing prescribed routes can manage the impact of recreation on land use by creating routes that trail users are encouraged to use over other routes thereby introducing an element of predictability to recreational use of any area. Being able to predict with some confidence where recreational users are most likely to be concentrated enables landowners and managers to put in place effective management measures, which minimize the impacts of recreation on land use, landscapes and habitats.

Critically this also enables landowners and managers to go some way to managing health and safety, liability and business risk. However this can only be achieved by careful trail planning and effective trail design, as well as an understanding of the needs and expectations of both the landowner/manager and the intended trail user. Prescribed routes can only effectively manage the impact of recreation on land use if the intended users prefer to use them as opposed to other routes or the social trail network as a whole.

Prescribed routes can very effectively manage the impact of recreational activities on landscapes and habitats, particularly in intensively used areas. They can also be very effective in managing conflict, but these issues can only be addressed by providing routes and trails that meet the needs of users whilst also relieving pressure on sensitive areas and addressing conflict.

Developing prescribed routes can also be a very effective way of creating a tourism product by making landscapes and sites more accessible to more people and by creating an entity that can be marketed to potential visitors.
Whilst it is clear that prescribed routes do have many positive features it must be noted that there are a number of negative issues that are also synonymous with these sorts of trail systems as follows:

- Providers of prescribed routes have a higher duty of care to trail users
- Landowners and/or trail providers potentially carry greater liability
- There can be a much higher management and maintenance requirement

Because the providers of prescribed routes are in effect “inviting” the public to use a facility, there is an increased duty of care to trail users. In order to fulfil such a duty of care the providers of prescribed routes often provide trail users with information relating to the nature of the undertaking and this allows potential users to make informed decisions whether or not they should use the trail.

Crucially it is then important for trail providers to ensure that the information that they are providing to trail users is both accurate and up to date and this means that the trails must then be maintained at a standard that reflects the information provided. This can clearly be a problem if the trails require ongoing management and maintenance to keep them at a consistent standard, thereby bringing the sustainability of the trails into question.

It is therefore extremely important to develop prescribed trails that are sustainable in every sense of the word, but particularly in terms of management and maintenance, and this can only be done be adopting effective trail planning and design systems and by having an understanding of sustainability.
There are a number of prescribed route models as follows:

- Signed flexible networks (shared or single use)
- Long distance linear routes (shared or single use)
- Short linear routes (shared or single use)
- Single looped routes (and associated sub models)
- Prescribed Looped Route Networks (and associated sub models)

(i) Signed Flexible Networks:

This model applies to trails used by the following:

- Leisure/occasional walkers
- Bush walkers/hikers
- Trail runners
- Sport Mountain Bike Riders
- Mountain Bike Trail Riders
- To some extent Mountain Bike Enthusiasts
- Leisure Riders (horse riders)
- Possibly Endurance Riders

This model has the following attributes:

- Often accessible from numerous locations
- Associated with mapping at trailheads and some signage

- Signage can include numbered trail junctions, named waypoints (these are signs or markers which tell you where you are, not necessarily which direction to go) or named trails but no trail markers
- Can be designated as single or shared use
- Can be used in any direction

The positive aspects of this model are as follows:

- Enhanced accessibility
- Enhanced flexibility of use
- Longevity of use

However the negative side of these models are as follows:

- Unpredictability of use making the trail systems and its users difficult to manage
- Inaccessible to some users i.e. those without map reading skills or local knowledge
- Difficult to manage the impacts of trail users on land use, landscapes and habitat
- Where they are shared or multi use trail must meet particular criteria related to gradient, lines of sight and width if management issues and conflict are to be avoided

SA examples of this model are as follows:

- Craigburn Farm shared use trail network
- The Tom Roberts Horse Trail
- Mitcham shared use trail network
- Fox Creek mountain bike trail network
- Cleland shared use trail network

This model can consist of land management and transportation infrastructure which is adopted for recreational use or it can be made up of purpose built trails. It is in widespread use internationally, particularly in the USA in relation to mountain biking and hiking trails and can be very effective in key situations. In particular where trail systems are particularly extensive or where they have developed organically without significant planning.

(ii) Long Distance Linear Routes:

These are long multi day routes which can often be broken up into smaller sections centered on secondary trailheads and/or communities along the route. They can be iconic tourism products that are used by the following user groups:

- As a whole – Long Distance Hikers/Trekkers, Long Distance Horse Riders, Endurance Horse Riders, Canoe/Kayak Tourers, Off Road Cycle Tourers
- In part – Family/Leisure cyclists, Casual Walkers, Leisure/Occasional Hikers, Novice and Leisure Horse Riders, Kayak/Canoe Day Tourers

In addition this model will attract commercially guided groups associated with all of the key user groups and this can be related to the route as a whole or to key parts of the route.

The key features of this model can be described as follows:

- They are routes that cannot be completed in a day
- They start and finish at different locations
- They are often associated with trail information and interpretation at trailheads and access points
- They are trail marked to be used in two directions
- They are very often accessible from other secondary trailheads along the route
- They are often associated with formal campgrounds or huts and where appropriate horse yards
- They often connect communities
- They can be single or shared use
- They are primarily developed and promoted as tourism assets

The positive aspects of this model are as follows:

- They can have iconic status
- They can be very effective state, regional, and local tourism assets both in part and as a whole
- They can bring economic benefits to communities associated with the route
- They can be very valuable local recreation resources particularly for some recreational users
- They can provide important access into sensitive landscapes and habitats
- They are very prescriptive and therefore relatively easy to manage
- Can be used as a whole or in part

The negative aspects of the model are as follows:

- Their linear nature can be a drawback for some recreational users
- The market for whole routes is relatively small and often quite specialist
- They must be of very high quality to succeed as a tourism asset

SA examples of this model are as follows:

- The Heysen Trail (walking only except where legal aspects allow all users on roads and in forestry SA)
- The Kidman Trail (walking, cycling and horse riding)
- The Mawson Trail (walking, cycling ad horse riding on some sections)
- Parts of the River Murray system are in effect a long distance linear route though it is not promoted or marketed as such

This model is potentially very high value when the trails are high quality and associated with iconic landscapes and habitats such as the Lycian Way in Turkey, the Appalachian Trail in the US and kayak trails on parts of the Colorado River system in the US. However there are numerous examples internationally of ill-considered attempts at developing this model which are not market focused and not centered on trail quality and these seldom succeed.

(iii) Short Linear Routes

These are linear trail marked routes which can be completed in under a day and can be of vastly varying lengths from under a kilometre to as much as 20km. They are trail marked in two directions since they more often than not need to be done as a return journey and they are often associated with key control points such as summits, vistas, headlands, beaches etc. and sometimes campgrounds or huts.

They are often associated with the following key users:

- Casual walkers
- Leisure/occasional walkers/hikers
- Trail runners
- Bush walkers/hikers
- Kayak/canoe day tourers
- Horse riders

They can also be associated with sub aqua users in specific cases.

The key features of this model can be described as follows:

- They start and finish at the same location
- They are trail marked in two directions
- They are often associated with some level of trail information at the trailhead
- They can be very important trails in that they are often associated with important control points such as summits etc.

The positive aspects of this model are as follows:

- They can provide very important access to often iconic landscapes
- Can provide a narrow access corridor through sensitive landscapes or habitats
- Their linear nature can make them relatively easy waymark and sign

The negative aspects of this model are as follows:

- Their linear nature can put off some users
- Their two way nature can mean that the trail can come under more intense physical pressure over time than looped trails
- Managing conflict and safety can be difficult on shared use trails if the trails do not meet stringent requirements
- Incidences of users making their own informal, unsanctioned loops off the main trail

As indicated above the linear nature of this model can detract from the quality of the trail experience for some users. However this model is often associated with powerful control points and provides key access to them.

This model can sometimes be part of a wider prescribed trail system, but it is more common for it to be a single stand-alone trail marked trail.
There are numerous examples of this model all over SA including the following:

- Waterfall Gully
- Parts of the Parklands Trail in Adelaide
- The Torrens Linear trail
- Ravine Des Casoars, Kangaroo Island
- Wangarra Lookout trail in the Flinders Range
- Any short (less than 1 day itinerary) for canoeists on the River Murray system
- Numerous ‘Rail Trail’ style trails, such as the Shiraz Trail

A crucial feature of this kind of trail is that they tend to have very limited impacts on habitats and flora and fauna since they are confined to a single narrow corridor with limited scope. However this can lead to the trail coming under very heavy pressure since one trail is receiving twice the use of say a circular route. It can also lead to management problem on particularly busy trails, particularly if they are shared use. Indeed this model is only suitable for shared use under particular circumstances such as where trails are particularly wide, low gradient and have good lines of sight.

(iv) Single Looped Routes

These are looped trails which start and finish at the same location and which are not associated with other trails at the same trailhead. They can be of virtually any length from less than a kilometer to as much as 40km to 50Km. However they are most commonly prescribed routes of between a kilometer and 20km (depending on the intended users) and they can be trail marked in either one or two directions. They can be single or shared use and crucially there are two important sub models which relate to specific users as follows:

- One way single use
- Dual use trail marked in opposite directions

One way single use loops are commonly used as prescribed mountain bike trails and are very commonly found in the UK. They can be extremely effective in managing how some users and in particular mountain bikers use trails and in managing safety, conflict and environmental impacts. However to do this the trails must fully meet the needs and expectations of the intended user and they must be designed to encourage use in a particular direction.

This model can apply to walking or horse riding trails of differing levels; however it is most likely to be used exclusively for mountain bikers.
This sub model can be extremely effective in relation to making trails accessible to those who are not confident trail users or in developing particular trail products which can be promoted or marketed.

Dual use loops which are trail marked in opposite directions for differing users is a sub model which can be extremely effective where cyclists and walkers, walkers and horse riders or horse riders and cyclists share trails. Essentially this model is where there is a prescribed route which is trail marked in different directions for different users e.g. where cyclists are trail marked in one direction and horse riders in another, or walkers in one direction and horse riders in another etc.
This can be a successful model in terms of managing potential conflict between users and managing safety. However this model only works where the trails meet very particular requirements and specifications and it is unlikely to be successfully applied to pre-existing social trail networks, indeed it can be said that it is most likely to be successful where purpose designed and built trails are used.

This sub model can also be extremely successful in terms of increasing accessibility to trails and in terms of management; but it requires very careful planning, design and implementation to be successful.
With the above sub models in mind the basic model of this type (Single Looped Routes) can be characterized as follows:

- They start and finish in the same place

- They are often associated with trailhead information
- They may in the case of longer routes by associated with campgrounds or huts, though this is more common with linear trails
- They can be single use or dual use or shared use
- They can be trail marked for one way use
- Thy can be trail marked for use in either direction
- They can be trail marked for use in differing directions for differing users

Single Looped Routes and associated sub models are often associated with the following key users:

- Casual walkers
- Leisure/occasional hikers
- Trail runners
- Family cyclists
- Enthusiast mountain bikers
- Sport mountain bikers
- Mountain bike trail riders
- Novice riders (horse riders)
- Leisure riders (horse riders)

In specialist cases this model could also be applied to sub aqua trails.

The positive aspects of this model and associated sub models are as follows:

- Their use is predictable and therefore relatively easy to manage
- They are potentially accessible to a wide range of trail users, particularly people with limited outdoor skills or confidence
- Their prescribed nature makes it possible to manage recreational users impacts on land use, landscape and habitats
- They can be branded and marketed as recreational or tourism products

The negative aspects of this model and associated sub models are as follows:

- Their prescribed nature increases the trail providers duty of care towards the trail user

- They can become subject to intense user pressure leading to physical impacts on the trail themselves
- Management and maintenance can become problematic if the trails do not meet particular requirements

The above model is a very commonly used one in SA particularly in Forest Reserves and National Parks where there are often shared use or walking trails. In SA this model is often implemented in separate location within a given area with a number of looped trails each centered on separate trailheads.

SA examples including the following:

- Jenkins Nature Walk, Mount Crawford
- The planned loop of the Parklands Trail in Adelaide
- Bunyeroo and Wilcolo Creeks Trail, Flinders Range
- Portnoarlunga Reef Aquatic Reserve Diving and Snorkelling Trails

(v) Prescribed Looped Route Networks

This model is where number of looped routes are centered on the same trailhead and there are a two of sub models associated with this wider model as follows:

- Multiple independent loops centred on one trailhead
- Stacked loop system centred on one trailhead

The multiple independent loop sub model can be characterized as follows:

- A number of looped routes all centred on the same trailhead
- They can be trail marked for use either one way or in two directions
- They can be single use or shared use
- They are often associated with a trail hierarchy i.e. a variety of classifications, lengths and levels of accessibility
- Each loop may be independent of the others but there can often be some connectivity between loops
- Differing users may be trail marked in different directions

The positive aspects of this sub model are as follows:

- A number of loops can be centred on one trailhead

- Trail hierarchies can allow for greater accessibility across a range of abilities etc.
- Centring the network on one trailhead makes information provision and interpretation very effective
- Focusing the trail network on a single trailhead can enable income to be generated from trail users via parking fees etc. or access to the trails can be charged for is appropriate
- This sub model can often be associated with visitor support facilities such as coffee shops, hire facilities etc. which can also generate income
- Independent loops give the trail systems more flexibility and greater longevity
- Where there is connectivity between independent loops the longevity of the trail system can be greatly increased

The negative aspects of this sub model are as follows:

- Higher level of duty of care for trail providers
- Management issues can develop around busy trailheads if they do not meet key requirements
- Trail design must be extremely effective to ensure that trail users actually choose to access the trails from 'official' trailheads and not from elsewhere (this can be particularly problematic where there may be an access or parking charge)
- Trails must fully meet the needs and expectations of the intended trail users if that are to be effective
- Access to the trails from secondary trailheads is not desirable since this may complicate trail management
- On two way trails trail marking can become extremely cumbersome and complicated, however this is simplified significantly on one way systems

Stacked loop systems can be characterized as follows:

- A number of loops centred on one trailhead
- Loops are not independent of each other with each accessed from the other
- They can be shared or single use
- They can be trail marked one way or two way
- They are often associated with a trail hierarchy and a variety of trail types and classifications

The positive aspects of this sub model are as follows:

- Focusing the trail system on one trailhead allows for effective visitor management and possibly income recovery if required
- This system can also be associated with visitor support facilities
- Trail hierarchies allow for a range of trail users to access trails at differing levels

The negative aspects of this sub model are as follows:

- It has slightly less flexibility that the previous sub model
- This can affect the long term appeal of the trail system
- It the trails are shared use they must meet particular requirements in terms of gradients, widths and lines of sight to be sustainable in the long term

It is worth noting that both of the sub models outlined above can be very useful in the strategic development of access and trails in that they can be implemented on a strategic level very effectively. The development of both sub models at key locations can be a very effective use of resources and can have significant outputs in terms of visitation and trail use. Crucially both of these sub models allow for effective visitor monitoring and evaluation which can be key factors in measuring outputs and trends from trail use.

Where trails associated with these sub models are trail marked for use in one direction it can be very effective in managing the way in which the trails are used and it can successfully manage issues such as risk, liability and impacts on landscapes and habitats. It can be particularly effective in relation to managing mountain bike or off road cycling trails and can also produce a very attractive and easy to use trail product.

Where they are trail marked two way it can be more difficult to manage conflict and safety unless the trails meet particular requirements in terms of gradients, widths and lines of sight particularly where trails are shared or multiple use.

There are examples of these sub models in a number of locations in SA, particularly in National parks such as Flinders Chase where they are centered on high quality visitor facilities and they provide a very valuable recreation and tourism resource. Internationally both sub models are in widespread use particularly in relation to mountain bike trails in the UK, Ireland and Czech Republic (here also known as the Trail Centre model), and elsewhere related to walking and hiking trails.

Given the right kinds of trails and effective trail configurations the key user groups that both sub models are associated with are as follows:

- Casual walkers
- Leisure walkers
- Occasional walkers/hikers
- Bushwalkers/hikers
- Family cyclists
- Leisure cyclists
- Enthusiast mountain bikers
- Sport mountain bikers
- Trail riding mountain bikers

- Novice riders (horse riders)
- Leisure riders (horse riders)
- Endurance (horse riders)

Given the above it is clear that both of these sub models are potentially very powerful recreation resources which can be accessible to a very wide range of potential users. However the nature, scope and scale of the trail systems concerned must be appropriate to the users.

7.2.3 Which System and Which Model?

It is clear that both social trail networks and the differing models of prescribed trails have both positive and negative issues that affect their development and provision. It is therefore very important to understand the key issues affecting each when considering developing or providing trails and to do so within the context of a clear sustainability framework.

(i) Social Trail Networks

Positive Attributes	Negative Issues	Users
• Physically accessible • Widespread • Close to communities • Low levels of duty of care for providers • Allow for informal access	• Variable quality • Need local knowledge/map reading/navigation skills to access • Can be difficult to manage users • Can impact negatively on land use and land use can impact on trails • Often associated with land management or land use infrastructure which can lead to conflict between recreation and land use or management	Walkers with an emphasis on the following (depending on the nature of the trails): • Leisure and/or occasional hikers • Trail runners • Bush walkers/hikers • Long distance hikers/trekkers Cyclists, with an emphasis on the following depending on the nature of the trails: • Enthusiast Mountain Bikers • Sport Mountain Bike Riders • Mountain Bike Trail Riders • Gravity Focused Mountain Bikers Horse Riding • Leisure riders

		• Long distance riders • Endurance Riders Kayaker/canoeists • Day tourers • Multi day tourers

(ii) Signed Flexible Networks

Positive Attributes	Negative Issues	Users
• Enhanced flexibility • Enhanced physical access to any given area • Longevity of use	• Unpredictable use • Potentially difficult to manage • Inaccessible to some users • Trails must meet particular requirements if shared use	• Leisure/occasional walkers • Bush walkers/hikers • Trail runners • Sport Mountain Bike Riders • Mountain Bike Trail Riders • To some extent Mountain Bike Enthusiasts • Leisure Riders (Horse Riders) • Possibly Endurance Riders

(iii) Long Distance Linear Routes

Positive Attributes	Negative Issues	Users
• Can have iconic status • They can be effective state, regional or local tourism and recreation resources • They can produce significant economic benefits • Parts of the trail can be seen as local recreation resources • They can provide important access into potentially sensitive landscapes and habitats • They can be relatively easy to manage	• The linear nature of the trail can put off some users • Markets for whole trails are relatively small • They must be of very high quality to succeed as a tourism product	As a whole • Long Distance Hikers/Trekkers • Endurance Horse Rider • Canoe/Kayak Tourers • Off Road Cycle Tourers In part • Family/Leisure cyclists • Casual Walkers • Leisure/Occasional Hikers

		• Novice and Leisure Horse Riders • Kayak/Canoe Day Single Day Recreational Paddlers

(iv) Short Linear Routes

Positive Attributes	Negative Issues	Users
• They can be very important access to key landscapes • They can provide important access to sensitive habitats and landscapes • They are relatively easy to sign and waymark • Can be branded as tourism or recreation assets	• The linear nature of the trails can put off some users • They can come under intense physical and user pressure • Trails must meet particular criteria if they are shared or multi use in order to be considered sustainable	• Casual walkers • Leisure/occasional walkers/hikers • Trail runners • Bush walkers/hikers • Kayak/canoe Day tourers • Horse riders of all types where other opportunities are unavailable

(v) Single Looped Routes

Positive Attributes	Negative Issues	Users
• Predictable use making management relatively easier • Can be very accessible to a range of users • Impacts on landscape, land use and habitats can be managed • Can be branded as recreation or tourism assets	• Can become subject to intense user pressure • Trails must meet particular criteria if they are shared or multi use in order to be considered sustainable	• Casual walkers • Leisure/occasional hikers • Trail runners • Family cyclists • Enthusiast mountain bikers • Sport mountain bikers • Novice riders (horse riders) • Leisure riders (horse riders)

(vi) Prescribed Loop Networks (Independent loops Centred on One Trailhead)

Positive Attributes	Negative Issues	Users
• Often involve trail hierarchies • Can potentially cater for a range of abilities • Accessibility can be greatly enhanced • Single trailhead makes it easier to manage visitors and trail users • Single trailhead makes it possible to recover income if required • A number of loops can be focused on one trailhead • Can be a very effective model for strategic trail development	• Management at trailheads can be problematic (particularly if cycling is involved) • Very effective trail design is essential if management is to be sustainable or if trails are shared use • On two way trails trail marking can be cumbersome (this is simplified greatly on one way trails)	• Casual walkers • Leisure walkers • Occasional walkers/hikers • Bushwalkers/hikers • Family cyclists • Leisure cyclists • Enthusiast mountain bikers • Sport mountain bikers • Trail riding mountain bikers • Novice riders (horse riders) • Leisure riders (horse riders) • Endurance (horse riders)

(vii) Prescribed Loop Networks (Stacked Loop Systems)

Positive Attributes	Negative Issues	Users
• Often involve trail hierarchies • Can potentially cater for a range of abilities • Accessibility can be greatly enhanced • Single trailhead makes it easier to manage visitors and trail users • Single trailhead makes it possible to recover income if required • A number of loops can be focused on one trailhead	• Less flexible that independent loops centred on one trailhead • Can have less long term appeal than independent loops • Signage can be cumbersome if two way (greatly simplified if one way)	• Casual walkers • Leisure walkers • Occasional walkers/hikers • Bushwalkers/hikers • Family cyclists • Leisure cyclists • Enthusiast mountain bikers • Sport mountain bikers • Trail riding mountain bikers • Novice riders (horse riders) • Leisure riders (horse riders) • Endurance (horse riders)

With the above negative issues and positive attributes in mind it is essential that any trail system or model be developed and provided within the context of a clear sustainability framework that informs and guides trail provision and development. It is also essential that the right trail model is developed for the right users and with the right aims and objectives in mind.

Having some understanding of differing trail models, user groups and cohorts as well as an understanding of what sustainability means is essential, as is an understanding of what robust and effective trail planning should involve.

7.3. Toolkit 3 – Trail Users and Cohorts

Outdoor recreation is a complex business and involves numerous users, groups of users and even cohorts within user groups.

When considering trail planning and provision it is very important to at least broadly understand the ways in which users differ and the ways in which user groups are spit into cohorts. It is very important to understand how each user group differs from the next, how it is split into cohorts and what the needs and expectations of each group and segment actually are. This is vital since meeting the needs and requirements of trail users is essential in ensuring the long term sustainability of trails.

Trail users can broadly be divided into the following groups:

- Walkers
- Off road cyclists
- Horse riders
- Aquatic users

7.3.1 Walkers

This user group can divided into the following cohorts:

- The less able
- Casual walkers
- Leisure/occasional walkers/hikers
- Trail runners
- Bush walkers/hikers
- Long distance walkers/trekkers

All of the above cohorts use trails in differing ways and require differing kinds of trails in turn.

(i) The Less Able

This cohort consists of trail users whose access to trails is limited or constrained by physical or mental issues. It also consists of those users who do not necessarily want to access trails other than those that are accessible to all. This cohort therefore consists of the following groups:

- People with limited or no navigational or map reading skills
- People with limited levels of confidence in terms of accessing the countryside
- People with limited physical mobility
- People with impaired vision
- People with learning difficulties
- Elderly people
- Very young children

This cohort requires trails that are genuinely accessible to all users including people using wheelchairs and children in buggies. Such trails should have even, stable and consistent surfaces and should be not less than 1500mm wide to enable users to move along the trail side by side. This may be essential in enabling certain users to use the trail, for example where a trail user needs a carer to walk alongside them or they need a guide dog. Trails aimed at this cohort also have gradients of not more than 5% throughout and the trail should not include any features such as steps, level changes, dips or mounds.

This cohort generally require trails that fit within low categories and the most suitable trail model is a prescribed route of some kind (preferably circular) with supporting facilities such as toilets and easy access parking. They also require trails with little or no elevation change or that are largely flat and which are obvious and easy to follow throughout. In addition this cohort often requires specialist purpose built trails to meet their needs.

(ii) Casual Walkers

This is a very diverse group and is most likely the single largest cohort in the pedestrian user group. It consists of people of all ages and physical abilities and essentially encompasses anyone that uses trails in a casual way for low key informal recreation in settings such as urban parks, national parks, forest reserves and woodlands. The key characteristics of this group are:

- Limited or no navigational skills
- Low levels of confidence in terms of accessing trails and the countryside
- If using social trail networks they are most likely to use trails that are known to them and close to home
- Most likely to use prescribed trails in other settings
- Low levels of fitness

Users that fall within this cohort are as follows:

- Dog walkers
- Joggers
- Families with young children
- People of all ages including young children and the elderly

This cohort use a range of trail types including dirt roads and tracks, purpose built trails and prescribed trails. They require low category easily accessible trails and generally do routes of between 30 minutes and 1 hour duration and are very likely to do the same routes on a regular basis (particularly dog walkers). This cohort are most likely to do routes that do not involve significant elevation change and will use social trail networks that they are familiar with close to home and prescribed routes in areas that they are not familiar with. As outlined above, this group is characterized as having low levels of confidence and skill in the outdoors and are therefore most likely to use routes that are either well known to them or routes that are prescribed and trail marked in some way. Crucially this cohort requires trails that are obvious on the ground and easy to follow and therefore by and large require trails with some formal built structure.

(iii) Leisure Walkers and/or Occasional Walkers/Hikers

This is a large cohort and is essentially those people that are not committed or hardened walkers but who occasionally walk a range of routes in a variety of settings ranging from bush and forest to coastal areas. This cohort can broadly be characterized as follows:

- Some but generally low levels of navigational skill
- Some but limited confidence levels in relation to the outdoors
- A very wide range of fitness levels, but generally quite low
- Will use both prescribed routes and social trail networks

This cohort are not committed or regular walkers, but do occasionally walk on routes that are quite challenging such as key or iconic mountain walks, or walks to particular landscape features such as headlands etc. but for the most part they walk at low levels for between 1 and 4 hours.

They will make special journeys to go and walk certain routes or trails and may use some social tail networks but are more likely to use prescribed routes. This group will make use of guidebooks and other material to plan routes on social trail networks and often in groups. This group will use a wide variety of trail classifications including some quite challenging trails including gravel tracks and roads, desire lines and informal paths and routes may involve significant elevation change. However, this cohort requires trails that are clear on the ground and easy to follow, but this does not necessarily mean that they have any formal built structure.

In addition this cohort are very likely to use prescribed routes of the appropriate length and nature and may very occasionally undertake day long walks on iconic routes or trails.

(iv) Bush Walkers

This is the 'hard core' of this user group and consists of hardened walkers who primarily walk in wild sometimes remote settings on challenging routes with difficult trails and considerable elevation change. In relative terms it is a very small cohort but it is very significant in that they are accessing some of the most sensitive and fragile landscapes and habitats and this group's impact can therefore be quite significant relative to its size.

This group can be characterized as follows:

- High levels of outdoor skill and expertise
- High levels of map reading and navigation skill
- Want challenging routes in remote and wild settings
- Walk and least once a week
- Will make special journeys to access particular route or trails
- Specifically want to access high ground

This group are primarily looking for a 'wilderness' or 'adventure' experience in a wild setting and are looking for routes that access key landscapes and features such as summits, headlands, ridges and remote coastlines and they do not necessarily need trails with any obvious line on the ground or formal structure indeed many bush walkers are able to move around wild places without using any trail at all. However the reality is that the majority of this group do use a variety of trails such as forest roads and tracks to access wild landscapes and then mostly follow well established informal paths and desire lines to access key control points.

(vi) Trail Runners

This cohort can be described as runners using trails for recreation, training and occasionally competitive events. They are invariably relatively fit with good levels of outdoor skill and confidence and will use both social trail networks and prescribed routes. The majority of this cohort's use of trails is close to home where they are used for anything between 20minutes and two hours duration and they will use a very wide variety of trail types and classifications.

This group also undertake special trips to use iconic trails or routes or to take part in competitive events. As trail users they are self-sufficient and able to navigate around networks and use routes with no discernible formal trail.

(vii) Long Distance Walkers

This cohort is effectively bush walkers making special trips to undertake iconic long distance routes over two days or more and they use similar trail types and categories.

7.3.2 Off-Road Cyclists

This is significant and growing user group that is making increasing demands on trails and trail providers and it is divided into the following key cohorts:

- Family and Leisure Cyclists
- Sport Riders
- Trail Riders
- Enthusiast Mountain Bikers
- Gravity Focused Mountain Bikers (Downhillers and Freeriders)

Each segment has slightly differing requirements in terms of trail systems and models but there are also numerous overlaps between segments.

(i) Family/Leisure Cyclists

This is the largest cohort in terms of volume and includes cyclists of all ages and abilities using any type of bicycle in an off road setting (in this context 'off road' means traffic free rather than off tarmac)

This group includes the very young and the elderly and encompasses bicycles with stabilisers, tag-a-longs, trailers, child seats and wheel sizes ranging from 12 inches to 29 inches. Typically this cohort rides in family groups with children under the supervision of adults and bicycles used by this group may not necessarily be 'off road' bikes and can include, hybrids, touring bikes, BMX bikes and children's 'toy' bikes.

This group often include cyclists of very limited abilities who are unable to fully control their machines, particularly on downhill gradients or on uneven or loose surfaces.

This cohort can be characterised as follows:

- Little or no navigation or map reading skill
- Little or no outdoor skills
- Limited confidence
- Low levels of bike handling skill
- Ride infrequently
- Require very accessible and technically easy trails

This group require traffic free trails in a controlled and safe environment and they are more likely to use prescribed routes than social trail networks. Prescribed routes used by this cohort are often associated with facilities such as toilets; car parking, bike hire and children's play areas and routes will commonly be between 30 minutes and 2 hours long with little or no elevation change.

This cohort require low category trails which have even, compact and stable surfaces, gradients of not more than 5% and widths of not less than 2m. This is essential given that this cohort often ride with tag-alongs, trailers or stabilisers.

This group will use suitable trails close to home or may make special journeys to make use of specific trail products, particularly where trail products are associated with facilities such as bike hire, visitor centres, cafes and toilets. Typically routes may take in gravel roads and purpose built trails. They will nearly always be at low elevations and are commonly not in wild environments. In addition, this cohort is much more likely to use prescribed routes over social trail networks.

(ii) Enthusiast Mountain Bikers

Enthusiasts are purely recreational mountain bikers who are not involved in competitive events and have very widely varying levels of fitness and technical skill but crucially this group are generally not skilled outdoor people and do not possess the ability or confidence to plan their own routes in new areas and are most likely to make use of purpose built trails.

This cohort can be characterised as follows:

- Variable but generally low levels of outdoor skills
- Low levels of map reading and navigation skill
- Variable but generally moderate bike handling skills
- Variable fitness levels
- Ride at least once a week
- Seek accessible riding
- Prefer purpose built trails
- Want technical but not too challenging trails

Of all the off road cycling cohorts Enthusiast Mountain Bikers are the most likely to make relatively frequent weekend trips to different areas to go riding, often to do specific routes or trails. Trails can be anything from forest road and tracks and farm tracks to narrow ‘singletrack’ trails and purpose built trails and are most likely to be in lowland or forest settings.

This cohort may make use of social trail networks close to home but are more likely to use prescribed routes. They are also very likely to use guidebooks or routes that have been posted on internet forums and the routes are generally between 1 and 3 hours duration with considerable elevation change and on a variety of trails.

(iii) Sport Riders

This cohort are essentially competitive mountain bikers involved primarily in cross country mountain bike racing of varying sorts or training for racing and are nearly always members of cycling clubs. They are also actively involved in other forms of competitive cycling such as cyclo-cross, time-trialling and road racing and are both fit and highly skilled.

This cohort can be characterised as follows:

- High fitness levels
- Technically proficient
- Competitive
- Limited outdoor and navigation skills
- Ride at least three times a week
- Will make regular use of the same routes
- Members of clubs
- Want difficult and technically challenging trails

This cohort is rather small in number but is quite influential in terms of trail advocacy and development and is also represented by Governing Bodies.

Trails used by this cohort can be anything from forest roads and tracks, user built unsanctioned 'singletrack' trails and purpose built trails, but generally in accessible settings. Routes can be anything from 30 minutes duration to 4 hours and are most likely to be made up of social trail networks but this cohort will also use prescribed routes or purpose built trails where they are suitable.

In addition, this group are very likely to develop their own singletrack trails either as part of race courses or to develop training venues. Such unsanctioned trail building is most likely to take place close to population centers and the trails themselves are generally technically challenging.

(iv) Trail Riders

Trail riders are skilled outdoor enthusiasts with an understanding of navigation and access issues and are often involved in other outdoor activities such as bush walking, climbing, orienteering, kayaking etc. They also have the skills necessary to plan their own rides, which are typically of between two and five hour's duration and between 25 and 60km in length.

They typically ride on a very wide variety of trails including dirt road, tracks and unsanctioned paths and trails.

The journeying or adventurous aspect of mountain biking is often of more importance to trail riders than technical challenge and the choice of routes reflects this. Whilst trail riders appreciate technically challenging routes or trails, the aesthetic aspect of a ride is often of greater importance.

This cohort can be characterised as follows:

- Skilled outdoor enthusiast
- Skilled in navigation and map reading
- High fitness levels
- Technically proficient
- Ride at least one a week

- Want long challenging riders

This group will mostly use social trail networks but will also make use of purpose built trails where suitable.

(v) Gravity Focused Riders (Downhillers and Freeriders)

This is a very small cohort of the off road cyclist user group, but it is very significant in terms of its impact on trails and their management.

This cohort are essentially mountain bikers who seek out very challenging trails on highly specialised bikes and who largely develop their own trails in unsanctioned 'underground' ways. Their activities are generally centred on specific locations and trails, where they repeatedly use the same trails or features in a concentrated way.

They therefore do not need any specific outdoor or navigational skills and are often unaware of access or other outdoor/countryside issues.

This cohort can be characterised as follows:

- Low levels of outdoor skill
- Very high levels of technical bike handling skills
- Low levels of fitness
- Most likely to be male between the ages of 14 and 25

Gravity focused riders will generally primarily use purpose built and often unsanctioned specialist trails of very high categories, often with numerous specialist features such as jumps and drops added. They will, however, make use of social trail networks to access such specialist trails and it is most common to find these in a peri-urban or urban fringe setting.

7.3.3 Horse Riders

This user group can be divided into the following cohorts:

- Novice Riders
- Leisure Riders
- Long Distance Riders
- Endurance Riders

This user group can be divided into numerous sub groups – but to simplify and refer directly to trail systems and models it has been divided into the key cohorts outlined above.

(i) Novice Riders

This is a very broad group which can be characterised as follows:

- Limited outdoor skills
- Limited navigation and map reading skills
- Low levels of horsemanship
- Low confidence levels
- Very occasional riders
- This is the cohort least likely to own their own horse
- Most likely to ride in groups (guided or instructed)

This cohort is quite a large part of this user group and represents those who mostly do not own their own horse but ride in groups at riding schools or trekking centres. Also included in this group are people who do own their own horses but have relatively low levels of expertise and confidence and who do not ride on a regular basis.

This group will often ride on private land and on low category trails but often do not use trails at all since they do not necessarily use particular routes. However, routes that are used tend to be made up of dirt roads and tracks, farm tracks and other trails and they are also quite likely to be routes agreed with private land owners or parts of social trail networks.

Routes will tend to be of between 1 and 2 hours duration and feature low gradient and low category trails to facilitate their use by this group. Typically this cohort requires trails that are easy to follow with no technical or challenging features, with good lines of sight and high and wide clearances. This group for the most part will not trot, canter or gallop and they do not require features such as jumps.

Crucially though this cohort make fairly limited use of publicly accessible trail systems because of low levels of confidence or expertise, they are far more likely to be riding in groups that are under instruction or are guided in some way. A large proportion of this cohort are also likely to be using formal riding centres whilst on trips away from home, or using riding schools or stables close to home.

(ii) Leisure Riders

This cohort encompasses a wide range of riders but can be characterised as follows:

- Variable but generally moderate levels of outdoor skills
- Largely horse owners
- Variable but generally good levels of horsemanship
- Variable but generally good levels of confidence
- Variable but generally low levels of navigational skill

- Ride at least once a week

This cohort is very large and includes all kinds of riders with a wide variety of skills and expertise. They are very likely to be riding trails that are close to home on routes that are well known to them and they may do the same routes on a regular basis.

The types of trail used include dirt roads and tracks, farm tracks and other trails. Good horsemanship skills means that this group can use a much wider variety of trails and do not necessarily require trails with formal structures and they are much more likely to trot canter or gallop than Novice Riders. This cohort can also use jumps and specialist 'canter corridors' or 'gallops' and they also make use of areas such as beaches for cantering or galloping.

This group will use social trail networks close to home or routes that are prescribed in some way either by trail marking or through a permit system. Whilst this cohort will largely ride close to home or even directly from their homes, they will also transport horses to particular locations to access particular trails such as specifically promoted horse riding trails. Prescribed routes for this cohort require certain key facilities in particular parking areas that can accommodate horse floats and trucks and drinking water. Routes can be anything from 1 hour to 3 hours duration or up to one day and routes will often be used repeatedly. Routes can also be quite concentrated and contrived within relatively small areas.

(iii) Long Distance Riders

- High levels of outdoor skills
- Horse owners
- High levels of horsemanship
- Highly confident
- Good navigational skills
- Ride at least twice a week
- Undertake long rides involving camping with a horse, using a back-up vehicle or packhorse
- Will mostly ride alone or in small groups

This is a small cohort that has the ability and confidence to ride a very wide range of trails including forest roads and tracks, farm tracks, permissive routes and paths. They can ride trails of a very wide variety of classifications and do not necessarily require trails with any formal structure and can therefore ride over fields, through bush and on beaches. They are able to plan their own routes and are much more likely to use social trail networks over prescribed routes and undertake multi day rides. They are essentially self-contained riders with the skill and confidence to undertake virtually any route or trail that is open to horses and will seek out remote challenging trails of all kinds.

(iv) Endurance Riders (Competition)

This cohort encompasses skilled riders with high levels of horsemanship, fitness, navigational and outdoor skill who undertake long challenging rides in difficult terrain as part of training or competition. They can be characterised as follows:

- High levels of outdoor skill
- Horse owners
- High levels of horsemanship
- Highly confident
- Good navigational skills on signed routes
- Ride at least twice a week
- Undertake long rides
- Will mostly ride alone or in small groups
- Travel light compared to a long distance rider
- Use a central campsite during competitions

This is a small cohort that has the ability and confidence to ride a very wide range of trails including forest roads and tracks, farm tracks, permissive routes and paths. They can ride trails of a very wide variety of classifications and do not necessarily require trails with any formal structure and can therefore ride over fields, through bush and on beaches.

This group undertake rides of between 2 and 6 hours, although the rides would be measured in distance (KM) as opposed to time, and ride both close to home and will make special journeys to do particular events. The competitive event runs out of a central campsite where ride organisers, catering, veterinarians and support staff are based.

7.3.4 Canoeists/Kayakers

This user group can be divided into the following cohorts:

- Single day recreation paddlers
- Competition paddlers
- Tourers/Expeditioners

(i) Single day recreation paddlers

These are paddlers with a wide range of ages, abilities, technical knowhow and fitness, using a variety of craft on single day leisure/recreation excursions. This cohort may be self-contained or may use guiding or hire services. This cohort is very likely to make use of prescribed trails, guide books or recommended itineraries.

(ii) Competition paddlers

Fit, competent paddlers using specialist craft, using trails during training, exercise or competition. These paddlers may use prescribed trails, particularly if associated with formalized access and egress points.

(iii) Tourers/Expeditioners

These can be either self-contained or guided individuals or groups.

Self-contained individuals or groups will tend to have reasonable levels of fitness, technical ability and outdoor expertise. Guided groups or individuals may be less so. This cohort is very likely to make use of prescribed trails, guide books or recommended itineraries and facilities including camp grounds and formalized access and egress points.

This cohort will undertake overnight and multi-day expeditions for recreation, competition, commercial enterprise or education.

7.3.5 Aquatic Users

This user group can be split into the following cohorts:

- Independent Snorkelers
- Guided Snorkelers
- Independent Scuba Divers
- Guided Scuba Divers

(i) Independent Snorkelers

This is a large cohort of very mixed abilities, who will generally require safe, accessible and non-threatening snorkeling opportunities in relatively sheltered, calm, shallow water, often close to land. They are quite likely to access snorkeling opportunities directly from the shore, rather than from a boat.

(ii) Guided Snorkelers

This cohort also features a range of expertise and abilities but may access less accessible snorkeling opportunities, in more exposed, open water situations, since they are under the supervision of guides. They may make use of snorkeling opportunities in deeper water, either from the shore or from boats.

(iii) Independent Scuba Divers

These are highly skilled, proficient divers, able to access a range of diving opportunities including reefs and wreck sites in both inshore and offshore situations. They are likely to operate in deep water in exposed situations and may be self-contained in terms of access to boats etc. This cohort often has local knowledge, which enables them to make informed decisions in terms of dive locations, durations and types.

(iv) Guided Scuba Divers

These are also skilled practitioners who are able to access deep water in exposed situation, at locations such as reefs and wreck sites. However, they may lack the local knowledge which enables them to take advantage of diving opportunities in a particular location. They are therefore most likely to engage a guide who will arrange itineraries, dive locations and access to boats etc.

7.4. Toolkit 4 – Trail Development Protocol

7.4.1 Developing a Frame Of Reference

The first step in any trail planning, design and development process is the need to develop a clear frame of reference which guides and informs the project throughout.

What is a Frame of Reference?
A frame of reference is a framework which informs the trail planning process and establishes and clarifies the key issues highlighted below:

- What will the status of the trails be and how will they be managed?
- What are the aims and objectives of the trail development?
- What is the scope and scale of the trail development?
- Who will be the trail users i.e. which user groups and user cohorts are the intended users
- What is the most appropriate trail model given the above?
- What management model will be applied to the trails?
- How will the trails be delivered

Why Do We Need Frames of Reference?
The development of clear frames of reference is essential in ensuring trail sustainability and in delivering the right trail products in the right places and in the right ways.

Having a clear frame of reference ensures that there is clarity in relation to the key issues that affect and inform the development of the trail in particular the planning and design stage and it can ensure that the trail development stays on the right track. Not having a clear frame of reference can mean that there is confusion in relation to important issues and this can undermine the delivery of a project and the long term sustainability of the trails. A clear frame of reference is also important in ensuring that all stakeholders and partners buy into any project and understand the way in which it *needs* to be delivered.

How Do You Develop a Frame of Reference?
This can only be done by formal and effective consultation with all relevant stakeholders and partners. It is crucial that all partners and stakeholders understand the trail planning and design process and that they also understand and buy into key sustainability criteria.
An effective way of developing a Frame of Reference and for that matter developing and delivering any trail project is to establish a Steering Group which can be made up of some or all of the following:

- A nominated Project Manager or Coordinator
- Key land management agency staff at the relevant level (commensurate with the scope and scale of the project)
- Key Stakeholders which can include:
  - Local community groups
  - User groups
  - Special interest groups such as “Friends Of” groups
- Project partners (such as ORS/Tourism Authorities, Local Government, DEWNR)
- Funding bodies

Such a steering group should develop a frame of reference write it down and formally commit to it. This process can be greatly assisted by the involvement of a specialist trail planner.

(i) Status of the Trails
Establishing and agreeing the status of the trails is vitally important in informing the trail system and model, how they are designed and how they are built (if this part of the trail development). It is also important to establish and agree the mechanisms through which the trails are to be managed and where resources for carrying out management are to come from.

Establishing the status of the trails means tying down the following key issues:

- Who will be the trail owner (this may be one or multiple land owners or agencies)

- Who will be the trail provider or operator (this may be one or multiple land owners or agencies)

The trail owner is the entity that owns the physical structure of the trails and is usually the owner of the land that the trail is on. The trail provider is the entity that manages and maintains the trail, any associated signage, trail marking or interpretation and carries liability for the health and safety of trail users.

Trail owners and trail providers can be the same entity but in some cases they can be different, for example, DEWNR may own trails on their land but a local authority, club or community group may be responsible for managing and maintaining the trails and are therefore the trail providers.

These issues must be clarified before any trail planning or design takes place in order to make sure that the nature of the trails is compatible with the nature, capacities and capabilities of the trail owners and trail providers.

In addition, it is very important to establish what resources might be available for trail management and maintenance since this can significantly affect the nature, configuration and accessibility of the trails.

All of the above issues must inform and shape the planning, design and construction (where appropriate) of trails and it is essential that the trails are compatible with their status. If they are not compatible management and maintenance can become a problem and the sustainability of the trails compromised.

(ii) Aims and Objectives

Establishing the aims and objectives of any trail development is essential in ensuring that the right trails are established in the right ways and that this results in the right outcomes. Without very clear aims and objectives that all stakeholders agree on and buy into, trail developments can become unsustainable, ill-informed and ultimately unsuccessful.

Aims and objectives can include the following:

- Creating a tourism facility of Federal, State or regional importance
- Creating a local and regional recreation resource
- Managing the impact of recreation on land use
- Managing the environmental and landscape impacts of recreation
- Managing conflict, safety and liability
- Managing business risk
- Creating a commercially viable recreation or tourism product

It is essential that aims and objectives are clear, concise and agreed by all stakeholders and partners. This enables the trail planning, design and construction process to be focused on achieving those aims and objectives and ensures that projects are successful.

(iii) Scope and Scale

Establishing the intended scope and scale means tying down both the significance and the size of the project and this is essential if the right outcomes and aims and objectives are to be achieved.

Establishing the scope and scale of any trail development involves answering the following key questions:

- What is the significance of the trail development both to local and wider communities in terms of economic and social impacts
- What is the significance of the trail development in terms of wider recreation and access issues
- Will the development have impacts that are felt state wide, regionally, locally, at community levels or all of these
- How many people and communities is the development likely to affect

Establishing the scope and scale within the context of the above is essential in ensuring that trail systems of the right types, size, scale and extent are established in the right areas and locations. Getting this wrong can lead to trail developments that have more negative impacts than positive and this ultimately affects sustainability in the widest sense.

(iv) Trail Users and User Cohorts

The nature of the intended trail users and cohorts must be established during the development of the frame of reference. This is essential in ensuring the trail system model and types are compatible with the needs and expectations of the intended users.

The trail users and cohorts have a direct effect on the kinds of trails that are to be developed and the model which is to be implemented and it is essential that this issue is clarified during the frame of reference process. This is because differing users have differing needs and expectations as do differing cohorts of user groups. Crucially, differing user groups and cohorts raise differing management issues and this must be related to the right trail system or model and to the appropriate management model.

It is very important to marry the appropriate trail system/model to the intended user group and cohorts or any trail development is likely to be unsustainable in the long term.

(v) Trail System/Model

Establishing the appropriate trail models and types is essential in informing the trail planning and design process.

This should be done in the context of the trail systems and models outlined above since each model is associated with differing issues associated with management, facilities, income generation and the nature of the trails on the ground.

It is essential that the nature of the trail model be established as part of the frame of reference since this will directly and heavily influence all parts of the trail planning, design and construction/delivery process.

In particular the nature of the trail model will have a very significant bearing on the location, configuration and design of trails on the ground and will influence the location, nature and extent of issues such as visitor facilities, signage, trail marking and trail information.

The trail model must be agreed with all stakeholders at an early stage for the trail planning and design process to take place in an effective and efficient manner.

(vi) **Management Model**

Management models must look at the following key issues:

- What are the likely management requirements in the context of the trail users, trail types and trail model
- How will the trails be managed and what resources will be required
- What will the management mechanisms be
- How many trail inspections per year are required as a minimum (again linked to trail users, types and the trail model)
- How many trail inspections will be carried out per year (linked to trail users, trail types and trail model)
- How will trail maintenance be prioritised and carried out
- How will records be kept

The above must be matched to a sustainable and appropriate management model and this should be linked to the following key issues:

- The status of the trails
- Who will be responsible for the trails (who will be the trail provider)
- The scope and scale of the trail development
- The nature of the trail system and the trail model
- The nature of the trail users and cohorts
- What resources will be required
- Where will resources come from i.e. will management be funded centrally, will the trail development need to be cash neutral, will the trail development need to generate income to cover management

Any management model must be tailored to fit the issues outlined above and it is essential that the management model be established at the start of any project. This is very important in that the shape of the management model will inform all aspects of the trail planning and development process.

(vii) Standards

Standards relating to key parts of the trail development process are a very important part of the frame of reference. Standards relating to the following issues should be established:

- Sustainability standards/framework
- Planning standards/protocols
- Design standards/protocols
- Construction standards (where appropriate)

All standards that are established agreed or developed should serve as a clear benchmark for all aspects of the development and standards should be applied in a consistent manner

The sustainability framework should serve to inform the whole of the trail development process and underpin every other aspect of the trail development. In addition the process by which the trails are going to be planned and designed should be agreed at the outset so that all partners and stakeholders fully understand and buy into it. This can greatly facilitate the trail development process particularly in relation to consultation etc.

(viii) Delivery

Agreeing the way in which the delivery of any project is to take place is again essential in informing the planning and design process.

Trail projects can be delivered in a number of ways:

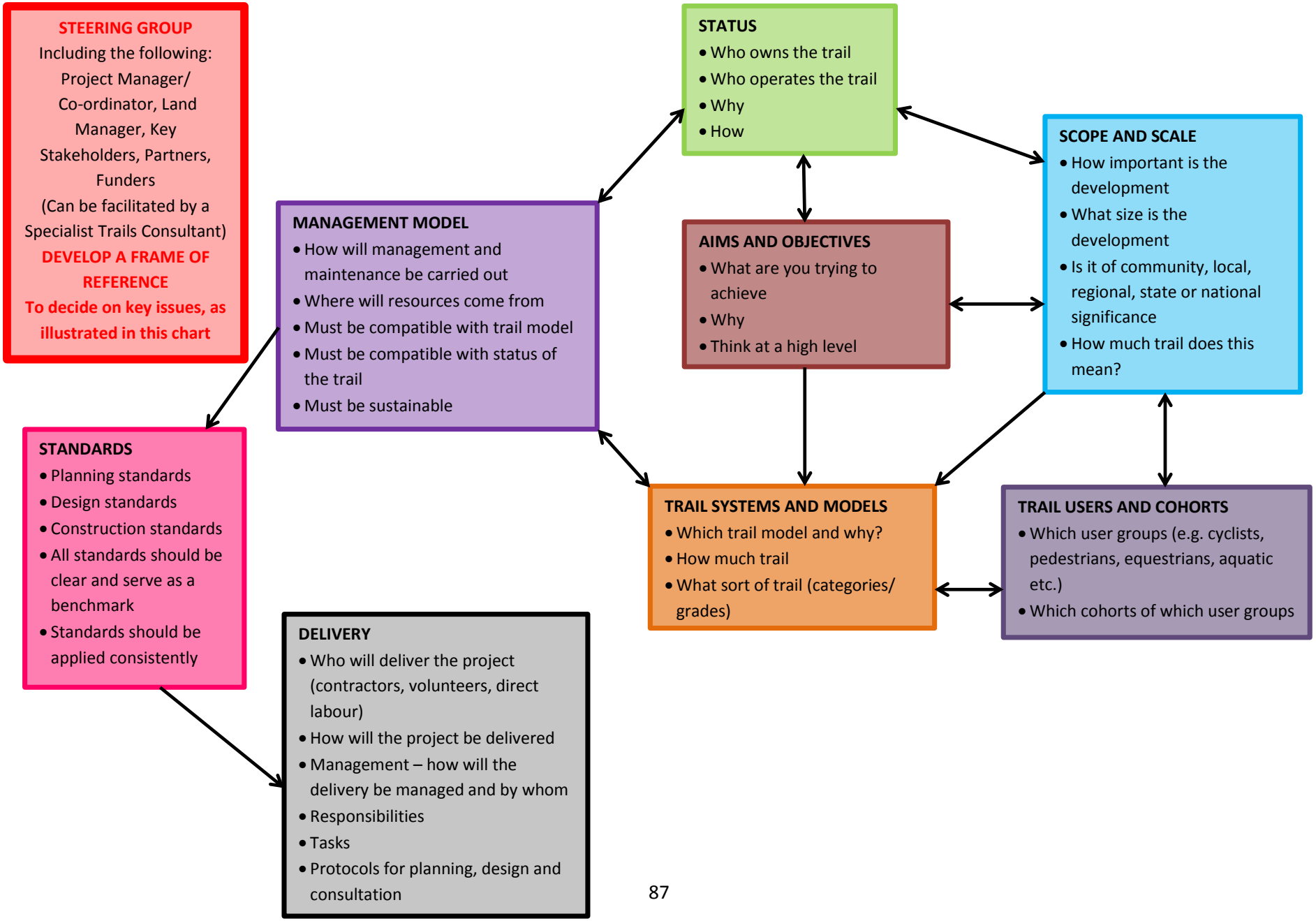
- Capital projects put out to tender and taking place over a fixed timescale
- Capital projects split into phases with each phase put out to tender separately
- Projects only partly capital funded with remainder made up by volunteers or with resources provided by partners
- Projects to be delivered by volunteers and partners with no capital funding

Clearly each of the above ways of delivering projects raises differing issues which can affect the way in which trail planning and design take place on the ground and the structures surrounding individual projects.

Establishing at an early stage how a project is to be delivered will therefore have a very strong bearing on issues such as exactly how trail design takes place, the level of detail required in construction specifications (where applicable) and when trail design work needs to take place (where applicable).

Failing to clarify how delivery is to take place can lead to resources being wasted or not used to their fullest capacity and to deadlines not being met.

The diagram below illustrates how the key issues established by the frame of reference relate to each other:


STEERING GROUP
Including the following: Project Manager/ Co-ordinator, Land Manager, Key Stakeholders, Partners, Funders
(Can be facilitated by a Specialist Trails Consultant)
DEVELOP A FRAME OF REFERENCE
To decide on key issues, as illustrated in this chart
STATUS
• Who owns the trail
• Who operates the trail
• Why
• How
SCOPE AND SCALE
• How important is the development
• What size is the development
• Is it of community, local, regional, state or national significance
• How much trail does this mean?
MANAGEMENT MODEL
• How will management and maintenance be carried out
• Where will resources come from
• Must be compatible with trail model
• Must be compatible with status of the trail
• Must be sustainable
AIMS AND OBJECTIVES
• What are you trying to achieve
• Why
• Think at a high level
STANDARDS
• Planning standards
• Design standards
• Construction standards
• All standards should be clear and serve as a benchmark
• Standards should be applied consistently
TRAIL SYSTEMS AND MODELS
• Which trail model and why?
• How much trail
• What sort of trail (categories/ grades)
TRAIL USERS AND COHORTS
• Which user groups (e.g. cyclists, pedestrians, equestrians, aquatic etc.)
• Which cohorts of which user groups
DELIVERY
• Who will deliver the project (contractors, volunteers, direct labour)
• How will the project be delivered
• Management – how will the delivery be managed and by whom
• Responsibilities
• Tasks
• Protocols for planning, design and consultation

7.4.2. Site Identification and Assessment

Following the establishment of a clear frame of reference the next part of the planning process is identifying and assessing potential sites where trails could be developed in order to build up a detailed picture of any issues which might influence the planning and design process.

Site assessments require very extensive field work and consultation with local managers and stakeholders and should look at key issues that might affect sustainable trail development and provision, such as:

- Location
  - Proximity to population centres
  - Proximity to communities
  - Relationships to transportation links and other physical links to communities

- Access
  - Nature of access
  - Extent of access
  - Status of access
  - Distribution of access

- Land Use
  - Tenure
  - Nature of land use
  - Intensity of land use
  - Land use and management practices
  - Land use and management patterns

- Landscape
  - Nature and character of the landscape
  - Quality and value of the landscape
  - Topography
  - Landforms

- Ground Conditions
  - Vegetation cover
  - Soils
  - Drainage/hydrology

- Existing Recreational Use
  - Intensity of recreational use
  - Distribution of recreational use
  - Impacts of recreational use
  - Type of use and user groups and cohorts
  - Nature and effectiveness of existing trails
  - Sustainability of existing recreational use

- Constraints, Conflicts and Sensitivities
  - Tenure
  - Aboriginal Representative Groups/heritage
  - Land use
  - Access
  - Landscape
  - Habitat

- Opportunities
  - Landscape
  - Ground conditions
  - Location
  - Access
  - Land use
  - Existing public facilities for trail heads

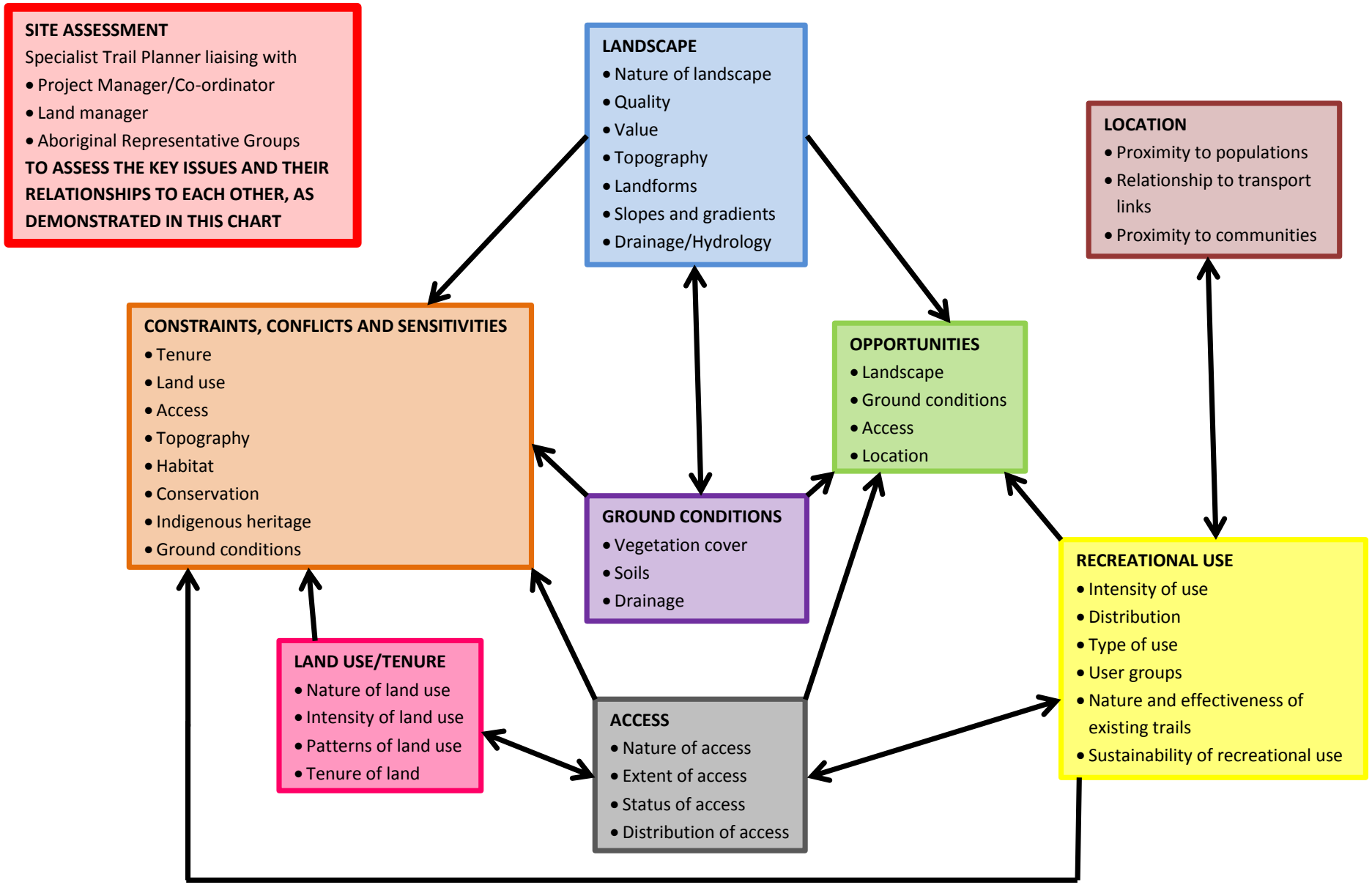
Looking at the above issues in detail enables a clear picture of a site to be developed and this, coupled with an agreed frame of reference informs the development of an effective concept plan.

Site Assessments should be carried out by suitably qualified individuals such as professional trail planners working closely with key parties as follows:

- Land managers at appropriate levels
- Local Government
- Key stakeholders
  - Local user groups
  - Community groups
  - Special interest groups
- Aboriginal Representative Groups and heritage stakeholders

The findings of any site assessment should be presented formally to the Steering Group overseeing and guiding each project and formal approval to continue to the next part of the process should be secured. At this stage it may be more appropriate to abandon particular sites and assess others, depending upon the findings of the site assessment.

The diagram below illustrates how the key issues assessed within the site assessment relate to each other:


SITE ASSESSMENT
Specialist Trail Planner liaising with
• Project Manager/Co-ordinator
• Land manager
• Aboriginal Representative Groups
TO ASSESS THE KEY ISSUES AND THEIR RELATIONSHIPS TO EACH OTHER, AS DEMONSTRATED IN THIS CHART
LANDSCAPE
• Nature of landscape
• Quality
• Value
• Topography
• Landforms
• Slopes and gradients
• Drainage/Hydrology
LOCATION
• Proximity to populations
• Relationship to transport links
• Proximity to communities
CONSTRAINTS, CONFLICTS AND SENSITIVITIES
• Tenure
• Land use
• Access
• Topography
• Habitat
• Conservation
• Indigenous heritage
• Ground conditions
OPPORTUNITIES
• Landscape
• Ground conditions
• Access
• Location
GROUND CONDITIONS
• Vegetation cover
• Soils
• Drainage
RECREATIONAL USE
• Intensity of use
• Distribution
• Type of use
• User groups
• Nature and effectiveness of existing trails
• Sustainability of recreational use
LAND USE/TENURE
• Nature of land use
• Intensity of land use
• Patterns of land use
• Tenure of land
ACCESS
• Nature of access
• Extent of access
• Status of access
• Distribution of access

7.4.3 Concept Plans

The purpose of the concept plan is to illustrate what any possible trail system might look like at any given site and to identify key strategic priorities. In addition, concept plans form a crucial formal consultation tool which can be presented to partners and stakeholders.

Concept plans can be developed by Specialist Trail Planners or similarly qualified or experienced professionals and should outline the following:

- The nature of the possible trail model
- The types of trail (by classification)
- The location of possible trailheads/access points
- The nature of trailheads including the location and nature of car parking and support facilities if appropriate
- The configuration of the possible trail system
- The location of possible trail corridors whether existing trails or new build trails
- The locations for interpretation/information if appropriate
- Broad estimated costs for trail design, construction, signage, interpretation and ongoing management
- Broad estimated costs of any supporting facilities such as car parks, trailheads etc. where appropriate

The concept plan must provide sufficient information to clearly illustrate the possible trail system and to enable effective consultation to take place.

Concept plans should consist of clear, concise documents centered mainly on maps and should be broken down into numbered trail corridors and trail loops, dependent on the nature of the trail model agreed as part of the frame of reference. This enables more effective consultation to take place with key stakeholders and partners and can assist in establishing priorities for development.

The development of concept plans must be a collaborative process, which involves stakeholders and partners. It is during this stage that the configuration, layout and nature of trail systems and networks can be changed or tweaked to meet the needs of trail providers and to fit with the agreed frame of reference.

The process should include effective ongoing consultation between Specialist Trail Planners and the following:

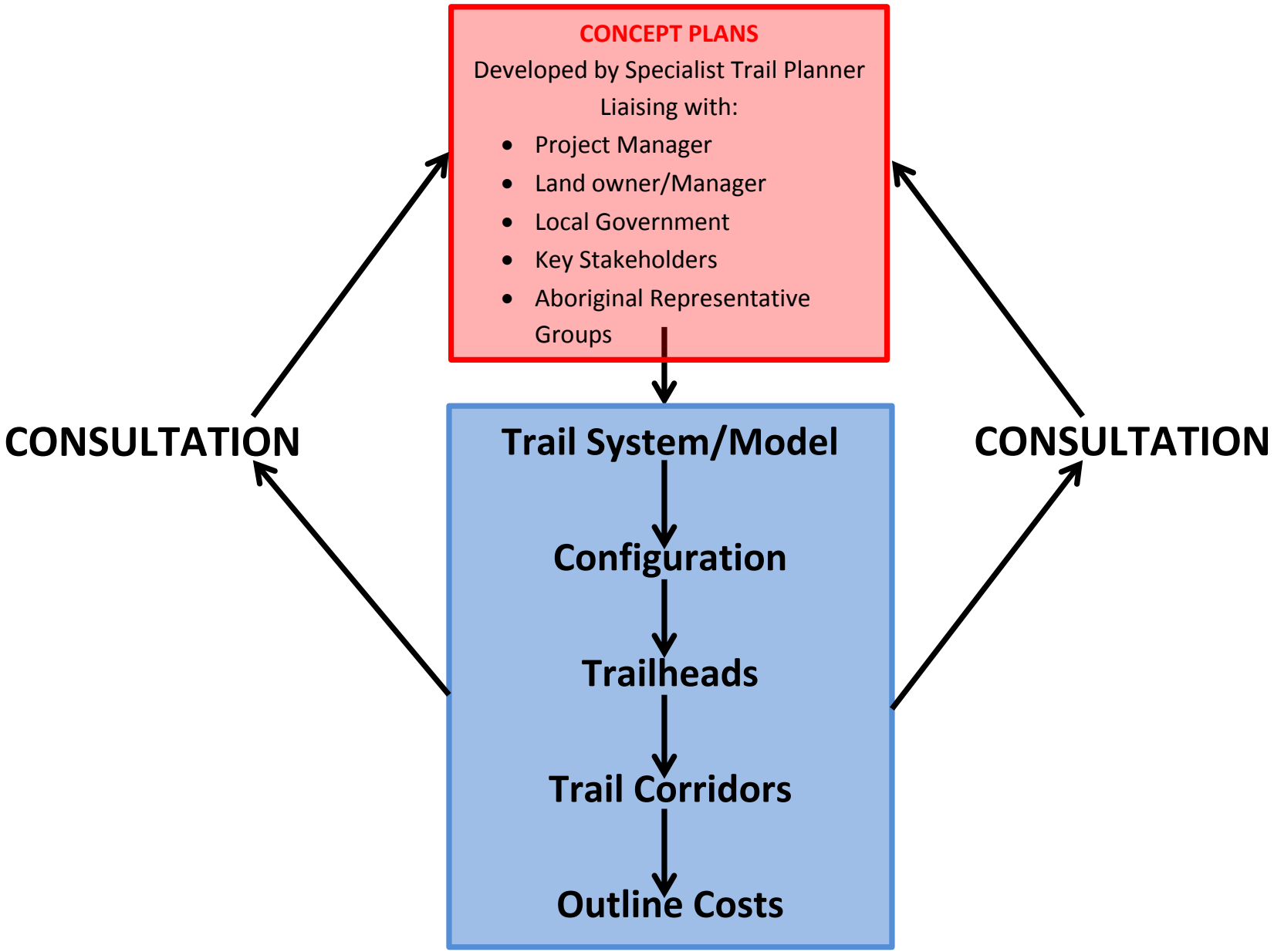
- Project Manager
- Landowners/managers at the appropriate levels
- Local Government at appropriate levels
- Key Stakeholders such as community groups, “Friends Of” groups etc.
- Aboriginal Representative Groups

Concept plans and supporting site assessment findings should be presented formally to the following:

- Land management bodies at a minimum of regional level
- Local Government officers at policy making level
- Aboriginal Representative Groups

Concept plans must be formally approved by the above before continuing on the next stage. It may be necessary to change concept plans at this stage to secure approval but changes must be consistent with the frame of reference and the sustainability framework.

The diagram below illustrates the concept plan process:


CONCEPT PLANS
Developed by Specialist Trail Planner
Liaising with:
Project Manager
Land owner/Manager
Local Government
Key Stakeholders
Aboriginal Representative Groups
CONSULTATION
Trail System/Model
Configuration
Trailheads
Trail Corridors
Outline Costs
CONSULTATION

7.4.4 Evaluating Trail Corridors

The purpose of this work is to formally establish and agree the location of trail corridors with land owners and managers and other stakeholders prior to them becoming a part of the final trail system or prior to more detailed (and time consuming) work taking place.

Evaluating each corridor in turn (whether an existing trail or a new build one) is essential in establishing weather it is appropriate in the context of the sustainability framework and the frame of reference.

It is also essential in estimating design costs and broadly estimating construction and management costs as well as identifying appropriate ways in which trails can be developed. Without carrying out corridor evaluation it is very difficult to accurately estimate trail design costs, and this can undermine the trail design process which is of the utmost importance.

Corridor evaluation is particularly important in the development of new purpose built trails in that it ensures effective consultation which in turn enables trail to be developed in sustainable ways.

In relation to existing trails corridor evaluation ensures that a robust view is taken of each component part of the trail and that this can be done in the context of both the sustainability framework and frame of reference.

Corridor evaluations should examine the following key issues in relation to existing trails:

- **Trail Category** – what category or grade is the trail that is proposed within the trail corridor, what category is the existing trail and is this compatible with the proposed corridor
- **Purpose** – what is the purpose of the trail corridor e.g. is it a linking trail, does it avoid constraints, does it improve the trail product does it access key control points etc.
- **Strategic Value** – how important is the proposed trail corridor to the integrity of the proposed trail model as a whole?
- **Condition** – what is the condition of the existing trail and is it compatible with the proposed trail model
- **Remedial Action** – what remedial actions if any are required in order to bring the existing trail up to the required standard/category
- **Constraints** – what issues might constrain the way in which remedial action can take place
- **Mitigation** – what mitigation measures are required to deliver the required remedial actions
- **Estimated Costs** – what are the estimated costs of developing remediation plans and delivering remedial actions
- **Estimated Management Costs** – what are the estimated costs of managing and maintaining the existing trail as part of the proposed trail model

Corridor evaluations in the context of new purpose built trails should look at the following key issues:

- **Trail Category** – what category or grade is the trail that is proposed within the trail corridor
- **Purpose** – what is the purpose of the trail corridor e.g. is it a linking trail, does it avoid constraints, does it improve the trail product etc.
- **Strategic Value** – how important is the proposed trail corridor to the integrity of the proposed trail model as a whole?
- **Topography** – what is the nature of the topography within the proposed trail corridor and how might this affect the development of a sustainable trail?
- **Ground Conditions** – what are the prevailing ground conditions within the trail corridor and how might these affect the development of a sustainable trail?
- **Constraints** – what are the nature and extent of any constraints (e.g. land use and management issues, landscape, habitat, conservation issues) and how might these affect the development of a sustainable trail?
- **Mitigation** – What mitigation measures are required to deliver a sustainable trail given the above issues?
- **Estimated Design Costs** – what are the estimated costs of establishing and marking definitive trail lines and of developing construction prescriptions?
- **Estimated Construction Costs –** what are the estimated construction costs relative to the constraints, mitigation measure, ground conditions and topography?
- **Estimated Management Costs** – what are the estimated costs of managing and maintaining any trail that might be developed within the corridor?

Corridor Evaluations should be carried out by suitably experienced and qualified persons (preferably the same as those involved in site assessment and concept planning), in consultation with the following:

- Project Manager
- Land managers at a level compatible with the scope and scale of the trail development
- Local Government officers at a level compatible with the scope and scale of the trail development
- Traditional owners
- Other key stakeholders such as friends of groups, clubs, user groups etc.

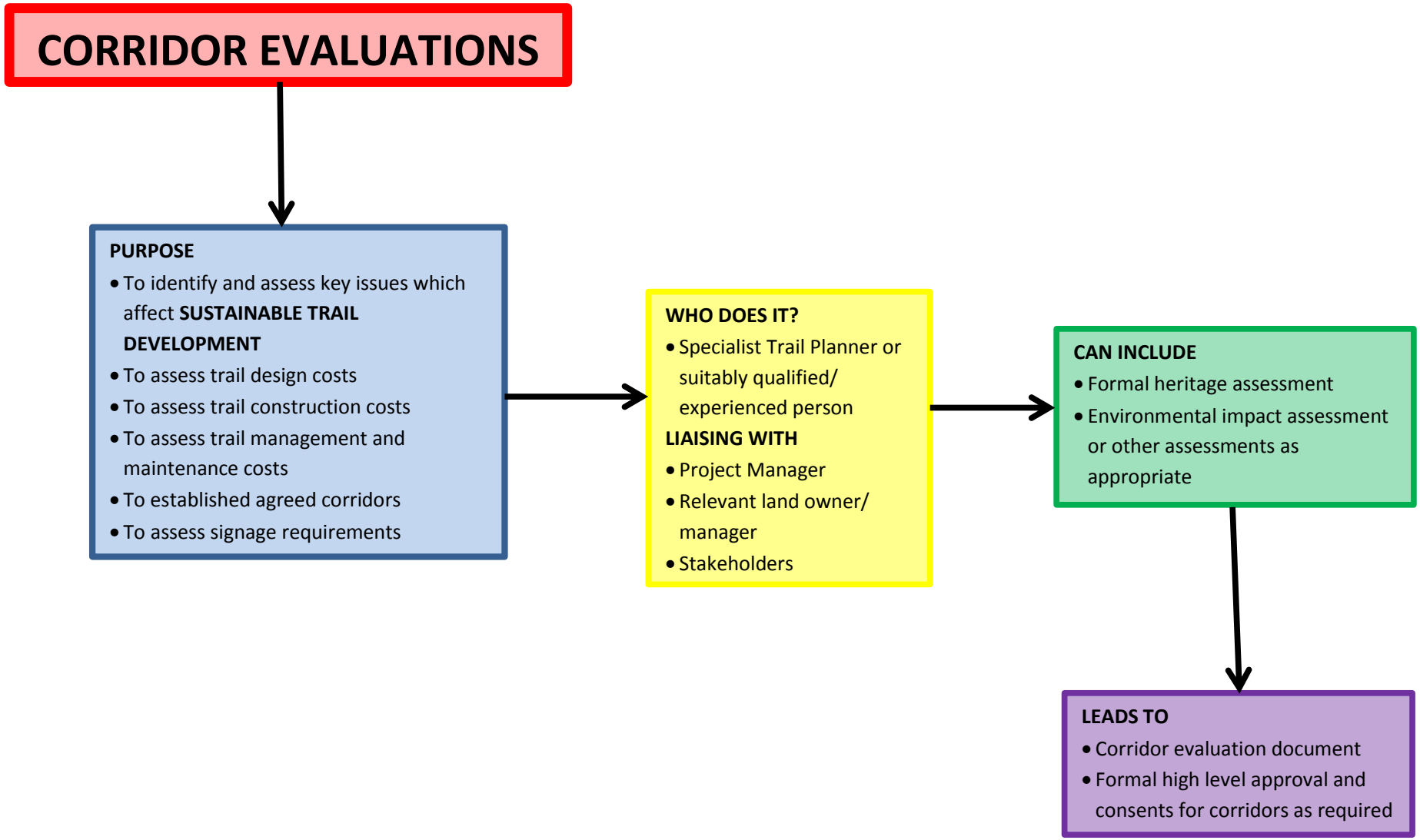
Corridor evaluations can be used as part of an environmental impact assessment if required or as part of any process where gaining formal consents may be required.

The corridor evaluation should be presented in the form of a consultation document which can be used to secure approvals/permissions to proceed with trail design. The Corridor Evaluation document should in particular feed into any DEWNR approvals matrices and the following formal consultees:

- DEWNR (Local, District and Regional Levels)
- Aboriginal representative stakeholders if required

All trail corridors should be formally agreed and signed off before the next stage is undertaken.

The diagram below illustrates the corridor evaluation process:


CORRIDOR EVALUATIONS
PURPOSE
• To identify and assess key issues which affect SUSTAINABLE TRAIL DEVELOPMENT
• To assess trail design costs
• To assess trail construction costs
• To assess trail management and maintenance costs
• To established agreed corridors
• To assess signage requirements
WHO DOES IT?
• Specialist Trail Planner or suitably qualified/ experienced person
LIAISING WITH
• Project Manager
• Relevant land owner/ manager
• Stakeholders
CAN INCLUDE
• Formal heritage assessment
• Environmental impact assessment or other assessments as appropriate
LEADS TO
• Corridor evaluation document
• Formal high level approval and consents for corridors as required

7.4.5 Detailed Trail Design

(i) Using or Upgrading Existing Trails

Detailed design is essential in ensuring that trails are developed in ways which are appropriate, sustainable and cost effective. If trail development is centered on making use of existing trail infrastructures, upgrading existing trails and developing signage detailed design should take into account the following:

- The trail management model as outlined in the frame of reference
- Trail construction standards
- Trail classification and grading
- The sustainability framework
- The constraints related to each trail corridor

Design must lead to detailed prescriptive plans which outline the following:

- The nature of the work to be completed
- How the work is to be undertaken
- Bills of quantifies where appropriate
- Schedules of work

(ii) New Build Trails

The purpose of this work is to establish definitive trail lines on the ground and to develop prescriptive construction plans which enable construction work to be carried out in ways that are consistent with the frame of reference, the corridor evaluations and the sustainability framework. Prescriptive plans and definitive lines also enable construction works to be accurately monitored and evaluated and enable construction standards to be consistently applied. Trail design is a professional discipline which requires a detailed understanding of trail sustainability, trail use and users, construction techniques and long term management. In order to carry out effective trail design, any trail designer must be provided with the following:

- The agreed frame of reference
- Site assessment information
- Corridor evaluations
- Formally agreed trail corridors

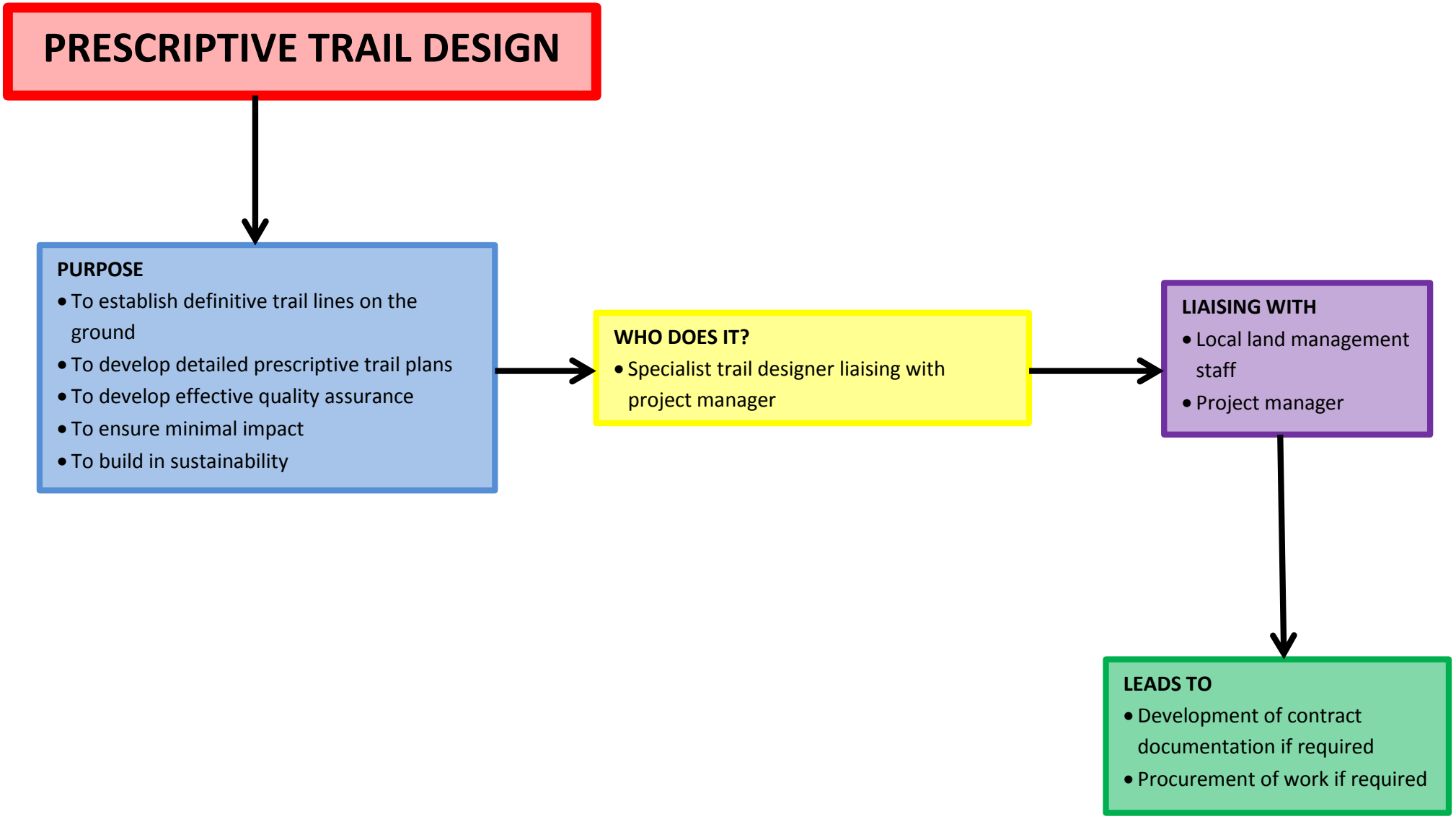
Detailed trail design is essential in ensuring the trails are built in the right ways, in the right places, for the right reasons and it should be a process that ensures quality and sustainability and also ensures that trails are fit for purpose. The aim of detailed trail design should be to formally establish *definitive* trail lines on the ground and develop prescriptive construction plans related to these. It is essential if sustainability is to be achieved in the widest sense that trail design be focused on developing prescriptive plans that can guide and inform trail construction and serve as a quality assurance system. This is applicable whichever way the project is to be delivered, whether it is a capital project that is put out to tender or carried out by volunteers, the design process should be the same. Crucially trail design should make it possible to accurately identify construction costs, resource and material requirements and timescales and this can have a direct bearing on how trails are delivered and by whom.

Detailed trail design must take into account the following:

- The trail management model as outlined in the frame of reference
- Trail construction standards
- Trail classification and grading
- Sustainability framework

It is absolutely essential that trail design leads to the following outcomes:

- Clearly identifiable definitive trail lines
- Prescriptive construction plans
- Bills of quantities
- Schedules of work


PRESCRIPTIVE TRAIL DESIGN
PURPOSE
• To establish definitive trail lines on the ground
• To develop detailed prescriptive trail plans
• To develop effective quality assurance
• To ensure minimal impact
• To build in sustainability
WHO DOES IT?
• Specialist trail designer liaising with project manager
LIAISING WITH
• Local land management staff
• Project manager
LEADS TO
• Development of contract documentation if required
• Procurement of work if required

7.4.6 Delivery

Trail projects can be delivered in a number of ways as follows:

- As a single stage capital project
- As a phased capital project
- As a partnership with community groups and/or volunteers

The delivery of any trail project should center on the following:

- Ensuring sustainability
- Minimising risk to the project
- Ensuring best value
- Implementing standards

The process outlined above is tailored to ensure that these issues are properly dealt with. However, there are a number of key resources that are required to deliver any project as follows:

- Formalised partnerships with land owners/managers and stakeholders
- Professional trail planning services
- Professional trail design services
- Trail construction resources
- Project management resources

(i) Partnerships

Partnerships are often the foundation upon which any trail development project is built. Partnerships are important in accessing land, finances, expertise and resources. However, any partnership must formally establish the following:

- Roles and responsibilities
- Resource requirements
- The processes to be followed

Without clarity on these issues, it is very difficult to take any trail development project forwards within the process outlined above. Partnerships and relationships should be formally agreed prior to any trail planning, design or construction work going ahead.

(ii) Professional Services

The trail planning and design protocol outlined above requires the input of professional specialists at key stages. It is vital that anyone involved in the delivery of any trails project understand the value and role of these services.

Specialist trail planners should be used during the planning stages as outlines above, whilst specialist trail designers should undertake detailed trail design and these services can sometimes be offered by the same individuals/companies. Specialist trail planning and design services are required at the following stages:

- Site identification and assessment (Trail Planner)
- Development of concept plans (Trail Planner)
- Corridor evaluation(Trail Planner)
- Development of detailed trail construction plans (Trail Designer)
- Site/works supervision (Trail Designer)

In addition, a specialist trail planner can also be a great asset in the development of frames of reference. Any specialist engaged to undertake the work outlined above should do so within a clear brief which has been informed by the above process.

In implementing the trail planning and design process which is outlined above, it is essential that trail construction plans are carried out to the required specification and standard. It is important for trail designers to be able to measure and assess trail construction works in relation to their design and it is essential that trail construction standards are implemented by people with relevant experience, knowledge and understanding of them. With this in mind, trail designers should have a role in site supervision during trail construction.

7.4.7 Construction

Whether the project is a capital funded project which is put out to tender or one undertaken by volunteers, it is essential that trail construction work be carried out within the following framework:

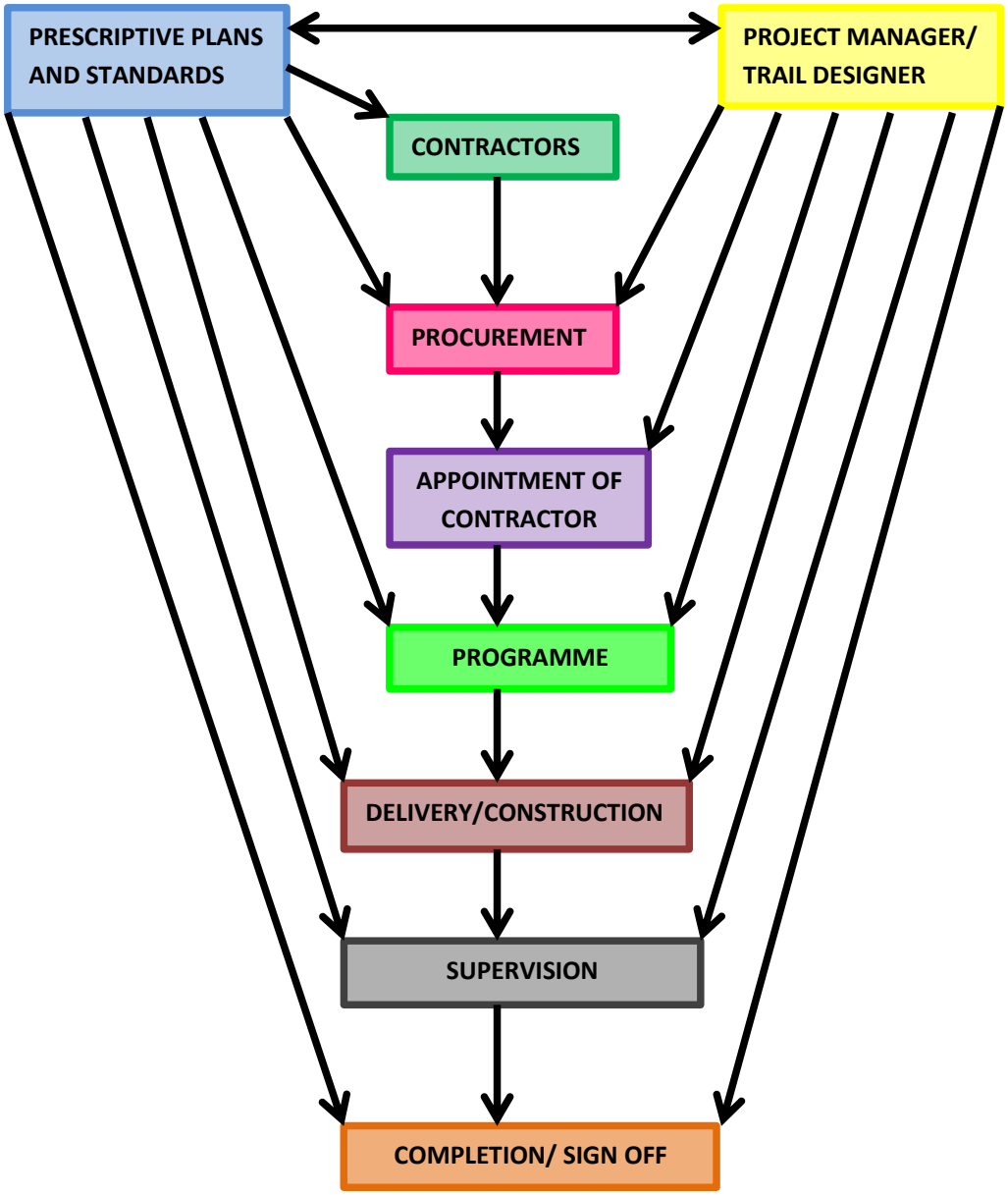
- Prescriptive plans
- Definitive trail lines
- Effective site supervision of work

- Effective and consistent implementation of standards

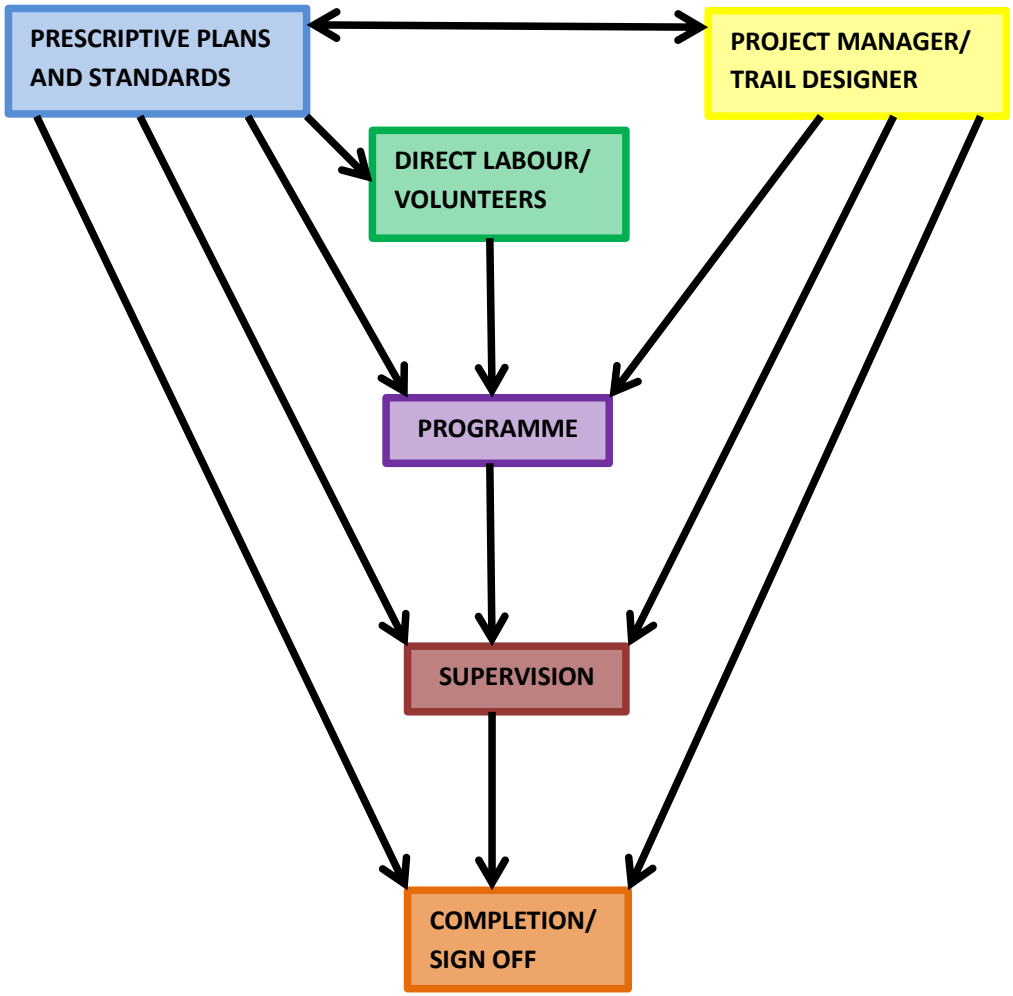
This ensures a consistency of approach which is compatible with the frame of reference and the sustainability framework.

The following diagrams illustrate the construction process, firstly when using contractors, and secondly when using direct labor and/or volunteers:

TRAIL CONSTRUCTION USING CONTRACTORS



TRAIL CONSTRUCTION USING DIRECT LABOUR AND/OR VOLUNTEERS



7.4.8 Management

The final part of any trail project involves the development of effective management systems. These must take into account the following:

- The nature of the trails themselves (classification and grading)
- The nature of the trail users
- The status of the trails (who is the trail owner and who is the trail provider?)
- The management resources available

These issues should have been clarified and established during the development of the frame of reference and all parts of the trail planning, design and construction process should have been informed by this. It is essential that trails are developed within a framework which is compatible with these issues. Once trails have been developed, the following key processes must be followed:

- The development of a management policy
- The development of a trails inventory
- The development of risk assessments

These are essentially the component parts of an effective trails management plan, which is an essential part of providing trails in a sustainable way.

(i) Management Policies

This is essentially a policy statement which outlines the following (these are affected by and proportionate to the status of the trails and the nature of the trail model):
:

- The duty of care of the trail provider towards the trail users
- How the trail provider is to fulfil this duty of care
- The protocols to be followed in fulfilling this duty of care
- The standards which are to be applied to trail management
- How trail management , inspection and maintenance is to be carried out

(ii) Trails Inventories

The purpose of this is to establish a base line standard for all of the component parts of the trail in order to inform and guide effective trail management and maintenance. The trail inventory should establish the following:

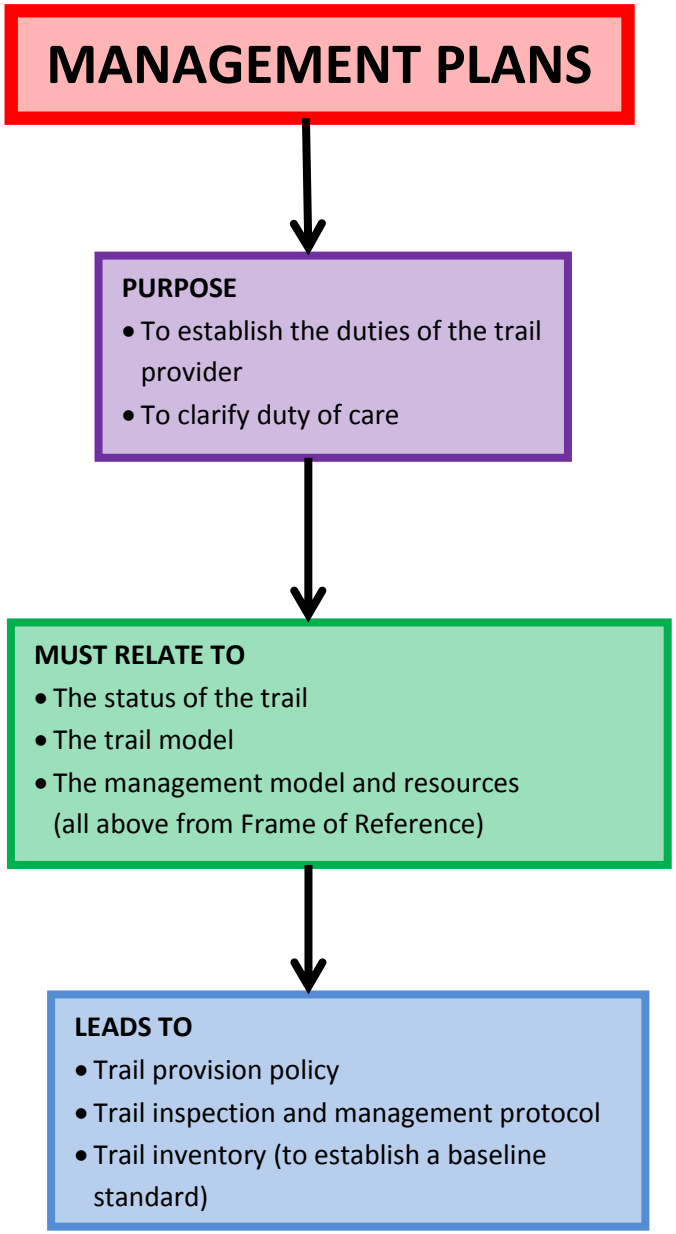
- A base line standard for the trails themselves, relative to the trail classification and grading and trail construction standards
- A base line standard for trail marking and signage relative to trail system, type and model
- A base line standard for trail information relative to the trail system, type and model within the context of the trail providers duty of care

(iii) Risk Assessment

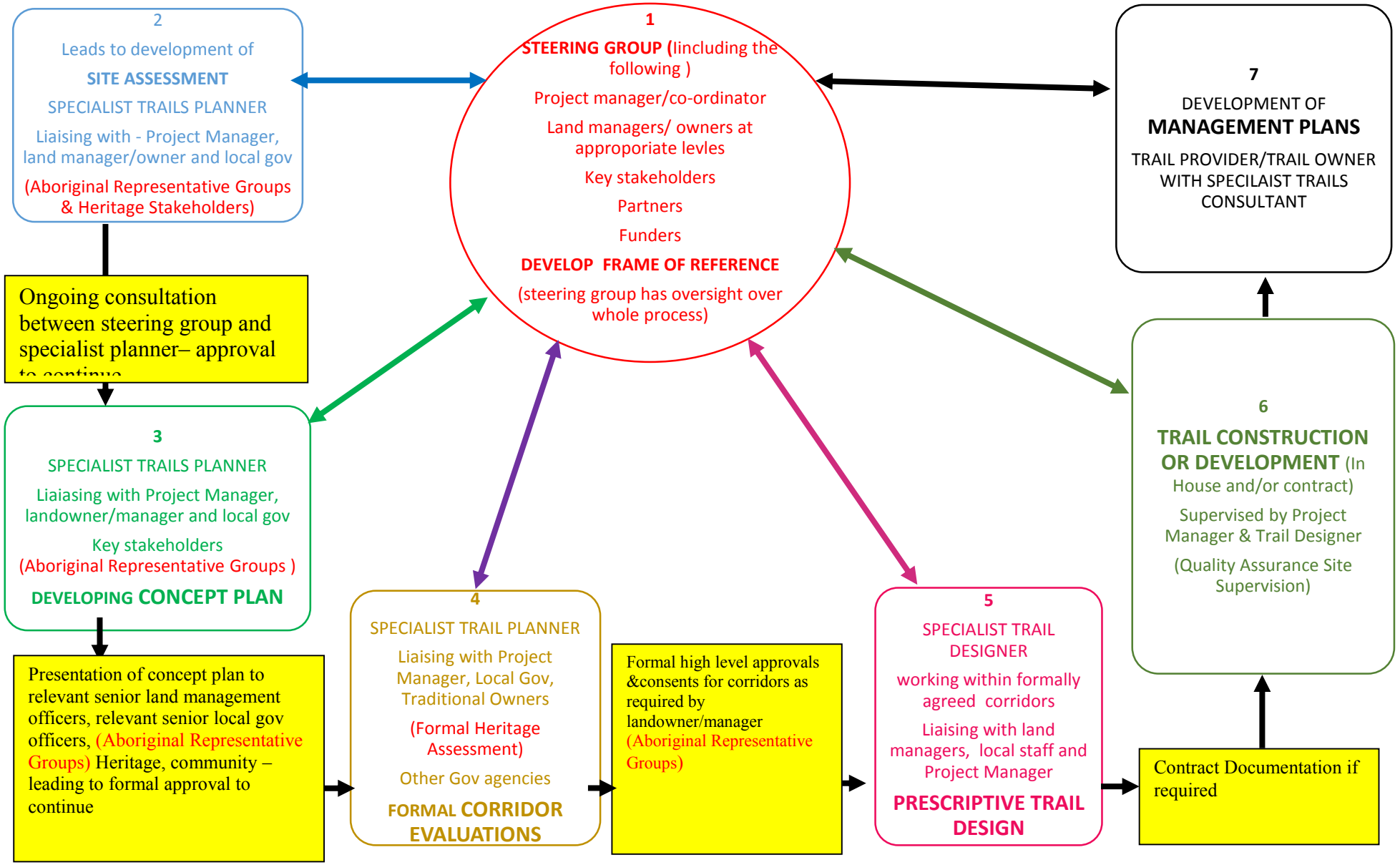
The purpose of this is to identify potential risks arising from the development and provision of trails. This should center on identifying and assessing particular risks and developing measures to mitigate against these risks. Risk assessments should look at potential risks to trail users, land managers and land owners. This forms an important part of the management protocol, and the trail inspection management and maintenance protocols should be directly linked to the risk assessment.

All of the above should be developed by individuals who have an understanding of trail management, provision and development within the context of the trail system and model. The development of an effective management plan is inextricably linked to the frame of reference put in place at the start of the trail planning process and the shape of both the management plan and the trails themselves should be influenced by issues which are discussed and resolved at that early stage.

The development of an effective management plan should not be seen as a 'bolt on' to the trail planning and development process. It is essential that the trail system and model are compatible with the management model and resources which are to be available. The corridor evaluation process which helps identify and quantify management requirements is therefore of the utmost importance. The diagram below illustrates the management process:


MANAGEMENT PLANS
PURPOSE
• To establish the duties of the trail provider
• To clarify duty of care
MUST RELATE TO
• The status of the trail
• The trail model
• The management model and resources (all above from Frame of Reference)
LEADS TO
• Trail provision policy
• Trail inspection and management protocol
• Trail inventory (to establish a baseline standard)

7.4.9 Summary of Trail Planning, Design and Delivery Protocol



7.5. Toolkit 5 – SA Trail Development Hierarchy

Trail development should, where possible, take place in a strategic way where developments are within the context of trail development and provision as a whole. In order to be strategic, trail development and provision should be within a hierarchy of provision as follows:

- State
- Regional
- Local
- Community

7.5.1 State Level Trails

State level trail resources refer to trail networks or products which are of state significance in terms of their scope and scale, economic impacts, importance as recreational and tourism assets and their significance in relation to overall trail provision within the state.

They are trail developments which are of the highest profile and aimed at the largest possible market and intended to be at the peak of trails based tourism and recreational activity. They can be a primary driver for attracting out of state or overseas visitors and must be of the highest possible value and quality. They must appeal to domestic and overseas trail users and should be stand-alone attractions or destinations in their own rights. With this in mind they must be of sufficient scope and scale to allow for use over a week-long stay as a minimum and be the primary reason for a visitor's visit to the state/country.

The scope, scale and nature of state level trail resources vary according to the intended users and user cohorts, as does the trail model. Examples of state level trail resources in SA are the iconic Heysen trail, a long distance linear trail marked walking trail, or a multi-day canoe trail on the River Murray. However, they can also be a network of trails for a variety of users centered on one location such as a National Park. Crucially though, trail resources of state significance should be prescribed models, as outlined earlier in this document and social trail networks would not be appropriate in this context. In addition, high quality and effective trailhead facilities such as parking, toilets, orientation, information, interpretation and refreshments are extremely important components of any state level trail resource and should be viewed as an integral part of any state level trail product. Services such as boat, bike or horse hire are also very important components of any state level facility aimed at canoeists, cyclists or horse riders.

The spatial distribution of state level trail resources should be very carefully considered, particularly in relation to resources relating to the same activity such as walking or off road cycling. This is important since trail resources of this significance can have powerful effects on the markets and individual trail resources may compete with each other in some circumstances and this is not a desirable outcome. State level trail resources should also provide stimuli to increased participation in recreational activities by providing high profile, high quality and accessible opportunities for people to take part in outdoor recreation.

The following table relates the considerations above to a state level facility:

STATE LEVEL FACILITY REQUIREMENTS TABLE

	TRAIL MODEL	MAXIMUM DISTANCE OF TRAILHEAD FROM POPULATION CENTRE OF REGIONAL SIGNIFICANCE	MINIMUM TOTAL LENGTH OF TRAIL MARKED TRAIL	MINIMUM DISTANCE FROM ANOTHER STATE LEVEL CENTRE AIMED AT SAME USER COHORT	MAXIMUM DISTANCE OF TRAILHEAD FROM AIRPORT	MAXIMUM DISTANCE OF TRAILHEAD FROM MAJOR HIGHWAY	MAXIMUM DISTANCE OF TRAILHEAD FROM SURFACED ROAD	REQUIRED VISITOR SERVICES
WALKERS	Prescribed	50km	60km	80km	100km	20km	1km	• Orientation • Interpretation and trail information • Parking • Toilets • Refreshments
OFF ROAD CYCLISTS	Prescribed	50km	100km	100km	100km	20km	1km	• Orientation • Interpretation and trail information • Parking • Toilets • Refreshments • Showers • Bike hire
HORSE RIDERS	Prescribed	50km	80km	100km	100km	20km	5km	• Orientation • Interpretation and trail information • Parking for horse floats

								• Watering facilities • Toilets • Possible horse hire or guiding services
CANOEISTS/ KAYAKERS	Prescribed	50km	100km	100km	200km	20km	5km	• Orientation • Interpretation and trail information • Parking • Toilets • Boat Hire • Showers • Refreshments
AQUATIC USERS	Prescribed	50km	10km	100km	200km	20km	1km	• Orientation • Interpretation and trail information • Parking • Toilets • Showers • Hire facilities • Guide services • Safety services • Refreshments

NB. 'Trailhead' also refers to access/egress points for Canoeists and Aquatic Users

7.5.2 Regional Level Trails

Regional level trail resources refers to trail networks or products which are of regional significance and value in terms of their scope and scale, economic impacts, importance as recreational and tourism assets and their significance in relation to overall trail provision within the state.

As stand-alone resources they can be important regional recreational and tourism assets and when combined with other regional scale trail resources they can be seen as state recreation or tourism assets or resources. Primarily though they can be seen as key recreational resources which have significant regional impacts on participation in particular activities and they can be very important in managing the impacts of particular trail activities on land use, landscape and habitats.

Whilst primarily resources for domestic markets and users, regional trail assets can be very important in attracting overseas visitors, particularly when they are combined to form a product of state significance. A good example of this is the Seven Stanes in South Scotland where seven virtually stand-alone day visit or regional mountain bike trail systems have been developed and marketed to create one national level destination of great value and significance.

The scope scale and nature of regional trail resources can vary according to the intended users as can the nature of the trail model, but in tourism terms they should stand alone as individual short break destinations. They can be a single linear or looped trail marked long distance hike or trek such as that proposed in Flinders Chase National Park on Kangaroo Island, a hike to the summit of a particular peak such as St Mary's Peak or to an important landmark such as Wilpena Pound, or a network of trails associated with a particularly important National Park such as Belair. The Waterfall Gully Hike to Mount Lofty can be also be considered an important regional trail resource, which, whilst it is a relatively short linear route it is of enormous strategic importance as a trail resource for the whole of the Adelaide region and is of great significance as a recreational resource. However, it and can also be viewed as a regional tourism asset.

Crucially, to function as regional trail resource, trail models should be prescribed in some way since this makes them easier to access, easier to use and also easier to promote or market. Social trail networks are not appropriate regional trail models since they are by definition more difficult to access and have more limited markets. The distribution and locations of regional trail resources of similar types and models relative to each other must also be carefully considered since they can have significant effects on each other in terms of the displacement and distribution of users. Essentially, strategic decisions must be made in terms of how many regional level trails resources of particular types any given regional area can sustainably accommodate. Crucially though, regional level trail resources can have very significant effects on levels of participation in particular activities, particularly if they are strategically sited relative to population centers.

The following table relates the considerations above to a regional level facility:

REGIONAL LEVEL FACILITY REQUIREMENTS TABLE

	TRAIL MODEL	MAXIMUM DISTANCE OF TRAILHEAD FROM POPULATION CENTRE OF REGIONAL SIGNIFICANCE	MINIMUM TOTAL LENGTH OF TRAIL MARKED TRAIL	MINIMUM DISTANCE FROM ANOTHER REGIONAL LEVEL CENTRE AIMED AT SAME USER COHORT	MAXIMUM DISTANCE OF TRAILHEAD FROM MAJOR HIGHWAY	MAXIMUM DISTANCE OF TRAILHEAD FROM SURFACED ROAD	REQUIRED VISITOR SERVICES
WALKERS	Prescribed	30km	30km	50km	10km	5km	• Orientation • Interpretation and trail information • Parking

							• Toilets
OFF ROAD CYCLISTS	Prescribed	30km	50km	50km	10km	5km	• Orientation • Interpretation and trail information • Parking • Toilets • Possibly refreshments • Bike hire
HORSE RIDERS	Prescribed	30km	30km	50km	10km	5km	• Orientation • Interpretation and trail information • Parking for horse floats • Watering facilities • Toilets • Possible horse hire or guiding services
CANOEISTS/ KAYAKERS	Prescribed	30km	50km	50km	20km	5km	• Orientation • Interpretation and trail information • Parking • Toilets • Boat Hire • Showers • Possibly refreshments
AQUATIC USERS	Prescribed	30km	5km	N/A	20km	1km	• Orientation • Interpretation and trail information • Parking • Toilets • Showers

							• Hire facilities • Guide services • Safety services • Refreshments

NB. 'Trailhead' also refers to access/egress points for Canoeists and Aquatic Users

7.5.3 Local Level Trails

Local level trails are trail resources which have greatest relevance and impacts in local areas. They are by their very nature closely associated with communities, often in urban or urban fringe settings and can often be very accessible from adjacent communities. Their scope and scale and nature are such that their immediate impacts are as local recreation resources rather than tourism assets. However they can sometimes be considered of regional importance when looked at collectively with other nearby local or regional trail resources.

Local level trails are incredibly important in terms of recreation provision within the state in that they primarily provide trail opportunities that are close to local populations and are often very accessible both in physical terms and in terms of user accessibility. They can be of huge value in terms of fostering and encouraging participation in particular recreational activities and they can also be very important tools in managing the impacts of recreation on land use, landscape, habitats and heritage.

Local trail resources can be either prescribed models or social trail networks; however they are far more effective when they are prescribed in some way. This is particularly the case where local areas are subject to intensive recreational pressure from a number of users such as walkers, cyclists and horse riders and where this issue needs to be managed in some way.

Crucially, local trail resources are likely to come under very intensive user pressure since they are by their nature associated with communities and trail models must take this into account.

Examples of local trail resources in SA are the shared use trails network for walkers, cyclist and horse riders at Craigburn Farm, the user developed mountain bike trails in Robe, the shared use trails for walkers and cyclists at Cobbler Creek and the shared use trails for walkers, cyclist and horse riders in the Kuitpo Forest Reserve.
The following table relates the considerations above to a local level facility:

LOCAL LEVEL FACILITY REQUIREMENTS TABLE

	TRAIL MODEL	MAXIMUM DISTANCE OF TRAILHEAD FROM LOCAL POPULATION CENTRE	MAXIMUM TOTAL LENGTH OF TRAIL MARKED TRAIL	MINIMUM DISTANCE FROM ANOTHER LOCAL LEVEL CENTRE AIMED AT SAME USER COHORT	MAXIMUM DISTANCE OF TRAILHEAD FROM A MAIN ROAD	MAXIMUM DISTANCE OF TRAILHEAD FROM SURFACED ROAD	REQUIRED VISITOR SERVICES
WALKERS	Prescribed	10km	20km	30km	5km	1km	• Orientation • Interpretation and trail information • Parking
OFF ROAD CYCLISTS	Prescribed	10km	30km	30km	5km	1km	• Orientation • Interpretation and trail information • Parking
HORSE RIDERS	Prescribed	30km	30km	30km	5km	1km	• Orientation • Interpretation and trail information • Parking for horse floats • Watering facilities
CANOEISTS/ KAYAKERS	Prescribed	30km	20km	30km	10km	1km	• Orientation • Interpretation and trail information • Parking
AQUATIC USERS	Prescribed	10km	2km	N/A	5km	1km	• Orientation • Interpretation and trail information

							• Parking

NB. 'Trailhead' also refers to access/egress points for Canoeists and Aquatic Users

7.5.4 Community Level Trails

Community trails are resources that are of most significance to local communities as recreational assets. They are trails that are immediately adjacent to communities and which can be very intensively and regularly used by a wide range of users and which can be of very great value to those communities. They can be of particular value in terms of contributing to health and wellbeing, encouraging physical activity and in allowing people to connect with their local surroundings in positive ways.

As a result of their proximity to where people live, community trails can be subject to very intensive user pressure and the areas where they are located can often be quite sensitive in terms of landscape and habitat value. Community trails can be the most intensively used trail resources and as such need to be sustainable in every sense of the word.

The nature of the trail models associated with community trails must be carefully considered on a site by site basis since this can have a massive effect on their effectiveness and sustainability. In some cases prescribed trail models are most suitable since these make it possible to manage differing users and manage impacts. However since community trails are often subject to intensive repeated us a social trail network may be more suitable in some cases, but there is no hard and fast rule. Examples of community trails can be found wherever there are social trail networks available adjacent to communities and where there are prescribed trails in urban and suburban parks. In addition some user and in particular mountain bikers are very likely to develop unsanctioned trails which can over time become important community recreation resources.

The following table relates the considerations above to a community level facility:

COMMUNITY LEVEL FACILITY REQUIREMENTS TABLE

	TRAIL MODEL	MAXIMUM DISTANCE OF TRAILHEAD FROM LOCAL COMMUNITIES	MAXIMUM TOTAL LENGTH OF TRAIL MARKED TRAIL	MAXIMUM DISTANCE OF TRAILHEAD FROM A MAIN ROAD	MAXIMUM DISTANCE OF TRAILHEAD FROM SURFACED ROAD	REQUIRED VISITOR SERVICES
WALKERS	Prescribed or Social	Accessible on foot	10km	5km	1km	• Orientation • Interpretation and trail information • Parking
OFF ROAD CYCLISTS	Prescribed or Social	Accessible by bike	20km	5km	1km	• Orientation • Interpretation and trail information

						• Parking
HORSE RIDERS	Prescribed or Social	10km	20km	5km	1km	• Orientation • Interpretation and trail information • Parking for horse floats • Watering facilities
CANOEISTS/ KAYAKERS	Prescribed	10km	10km	10km	1km	• Orientation • Interpretation and trail information • Parking
AQUATIC USERS	N/A	N/A	N/A	N/A	N/A	N/A

NB. 'Trailhead' also refers to access/egress points for Canoeists and Aquatic Users

7.6. Toolkit 6 – Examples of International Best Practise

7.6.1 Example Overview

An example of Interdisciplinary Leadership in Strategic Trail Development and a web-based user interface:
Seven Stanes, located in Southern Scotland and probably the most successful strategic trail development of off-road cycling trails ever undertaken. This has seen the development of a major national if not international destination by combining sites of regional importance coupled with very effective branding and marketing. Crucially though the success of the Seven Stanes has depended primarily on the development of the right trail models which are targeted at key parts of the off road cycling market.

An example of Best Practice in Sport-specific Web-based Promotion via consistent information infrastructure:
Northern Ireland canoe & kayak trails using both inland waterways such as loughs and rivers and stretches of coastline. The development has centered on establishing six inland trails and three coastal with each trail standing alone as a regional facility and also includes the wider promotion of canoeing and kayaking within the province.

An example of Sustainable Trail Management and point-to-point trails driving economic activity:
The Czech Republic and Poland built a system of trails centered on a number of communities using a hitherto unused (in central Europe) model of prescribed trails. This example shows how well structured and robust trail planning and design protocols coupled with clear sustainability frameworks can enable trails to be developed in sensitive areas. It also demonstrates how trails can be planned, designed and built to target particular trail user cohorts for particular ends.

An example of encouraging multiple users on sustainable trails in fragile environments:
Northern Ireland looks at the development of a multi-use trail network within a very valuable and sensitive heritage landscape at a site called Castle Ward. This example demonstrates how differing recreational users can be sustainably accommodated within a constrained site if the right trail models are applied. It also demonstrates how an effective trail planning and design process can ensure effective consultation and get the right trails in the right places.

An example of clear, communication and trail hierarchy system implementation in a complicated land access situation:
A trail system in Wales where the strategic development of trails enabled access into a very sensitive habitat and landscape to be both developed and managed at the same time in a way that proactively informs the trail-user of changing terrain and therefore helping to guide their desired experience.

7.6.2 The Seven Stanes, Scotland

The Seven Stanes project was a joint venture between the Forestry Commission Scotland (FCS), Visit Scotland (VS, the public sector tourism agency for Scotland) and Scottish Borders Leader (SBL), a community development company funded by the European Leader Fund and local authorities). It has been one of the most successful trail development projects ever undertaken anywhere with visitation figures now in the region of 400,000 a year and economic impacts estimated at around £20 million per year.

The project has focused on the development of a major mountain biking destination in Southern Scotland of national or international significance through the establishment of seven smaller destinations each of regional significance. Each regional destination functions at the very least as a day visit or short break (two to three days) destination in its own right with one key site (Glentress and Innerleathen) serving as the most iconic "jewel in the crown" facility where most activity and visitation is concentrated.

The trail model associated with the seven Stanes centres on prescribed one way loops of varying lengths and difficulties centered on high quality visitor facilities with clear trail hierarchies developed at each site. In addition gravity focused facilities have been developed at key sites such as downhill tracks and freeride areas and in other locations skills parks have been developed.

A total of 382km of trails have been developed across the seven sites and a total of 25 looped trails of differing classifications have been developed along with 4 downhill tracks. These are centered on a classification and grading system of five categories as follows:

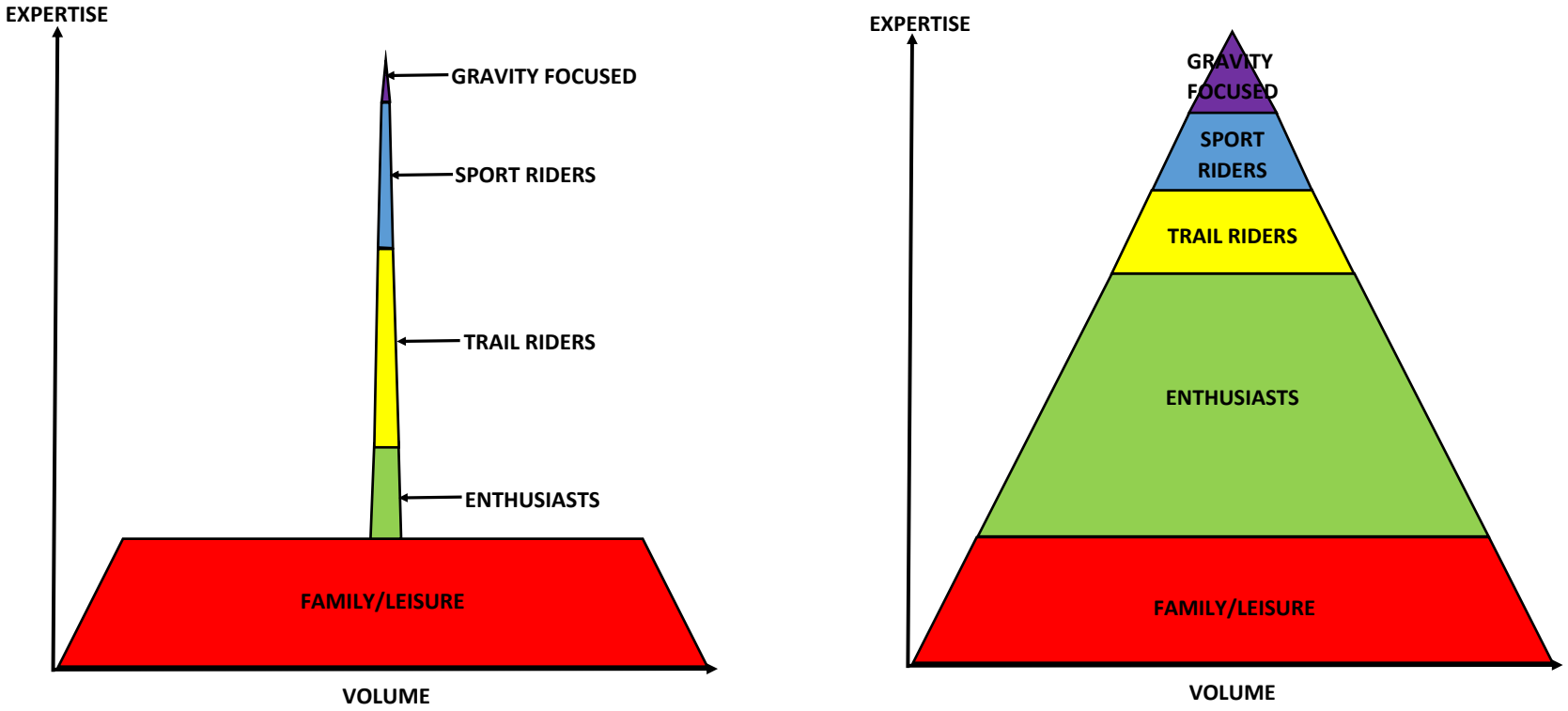
- Green (Easy)
- Blue (Moderate)
- Red (Difficult)
- Back (Severe)
- Orange (Extreme)

The spread of trail development across the categories is as follows:

- Green – 7 x looped trails, 51km in total
- Blue – 8 x looped trails, 97km in total
- Red – 7 x looped trails, 146km in total
- Black – 3 x looped trails, 74km in total

- Orange – 4 x DH tracks, 14km in total

It is clear from the above that the majority of the trail product associated with the Seven Stanes is relatively accessible being mostly in the Green to Red categories. This has been fundamental in the success of this project in that it accesses by far the largest potential market. In addition the fact that the trail model is prescribed and easy to access makes the whole trail product accessible and available to a wider user cohort than other mountain biking products around the world. This has resulted in significant growth in the mountain biking market in the UK as can be seen from the illustration below:



The above illustration shows the off road cycling market in the UK prior to and following the development of the trail center model for mountain biking. Note the very large volume of Family/Leisure Riders with low levels of expertise and low volumes of riders with higher levels of expertise in the left hand illustration, also note the very significant growth in the size of the Enthusiast market which now forms the greater part of the market as a whole

Whilst the core of the trail product across the Seven Stanes is relatively accessible, it also incorporates key elements which are less accessible and at the more challenging end of the classification spectrum in particular Black and Orange trails. Whilst these form a relatively lower percentage of the overall trail product they are seen as

particularly important elements in that they provide opportunities for user cohorts at the higher end of the spectrum. This is important in giving the overall Seven Stanes product credibility with the market as a whole and in providing key iconic trails which are important elements in marketing. In particular the Glentress Black trail is promoted at the "the best ride in Britain" and the Innerleathen downhill is promoted as the longest downhill in the UK.

In addition to a very effective trail product which is strategically positioned to access particular user cohorts, the other key component of the Seven Stanes success has been the way that trail models are focused on very effective visitor facilities. These include, parking and trail information, but also facilities which generate revenue such coffee shops/cafés, coin operated bike washes and bike shops and bike hire. There are parking charges at all of the trailheads but access to and use of the trails is free so the main revenue streams are from parking and visitor services. Revenue from parking and visitor services is very significant across the seven sites but is mostly concentrated at Glentress. Indeed Glentress has the highest level of visitor facilities and the highest capacity and this location is seen as the hub for all of the Seven Stanes.

A key component of the success of this development has been the way that it has been marketed. This has focused on the development of a single strong brand which has become very recognizable to the off road cycling market and the brand runs right across all seven sites. The brand is promoted via an excellent website where trail maps can be downloaded and where information on the trails is easily accessible and it also runs through all interpretive material and signage.

Most relevant to the South Australia Master Plan:
This project demonstrates how linking the right trail models to key user cohorts can have a dramatic effect on the viability and success of any trail product. The success of this project is based upon providing an authentic experience It also shows how taking a strategic approach to trail development and marketing can have significant and very positive outcomes on a particular audience.

Most importantly though the Seven Stanes success has been as a result of the following:

- Accessible trail models with prescribed loops of differing lengths and difficulty
- Trails which have the right balance between authenticity and accessibility
- A trail model which is focused on high quality visitor facilities
- A trail product which is aimed at a wide range of user cohorts but which is mostly focused on the Enthusiast market
- A trail product which is perceived as "authentic" by key parts of the mountain biking market
- The development of trail products which have stimulated sustainable growth in the mountain biking market
- A strong brand linked to a reputation for high quality trail experiences and visitor facilities
- Joined up marketing

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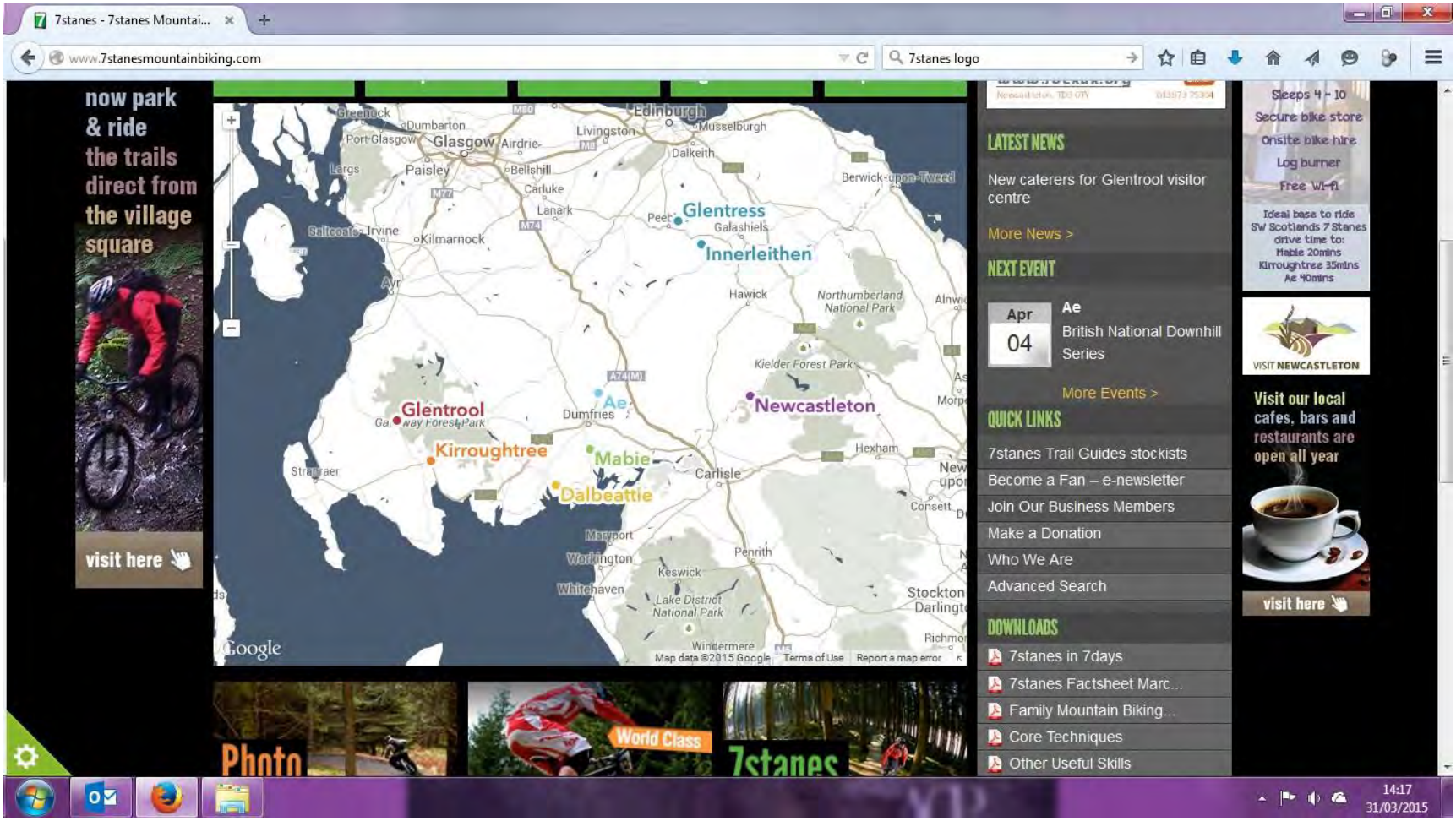
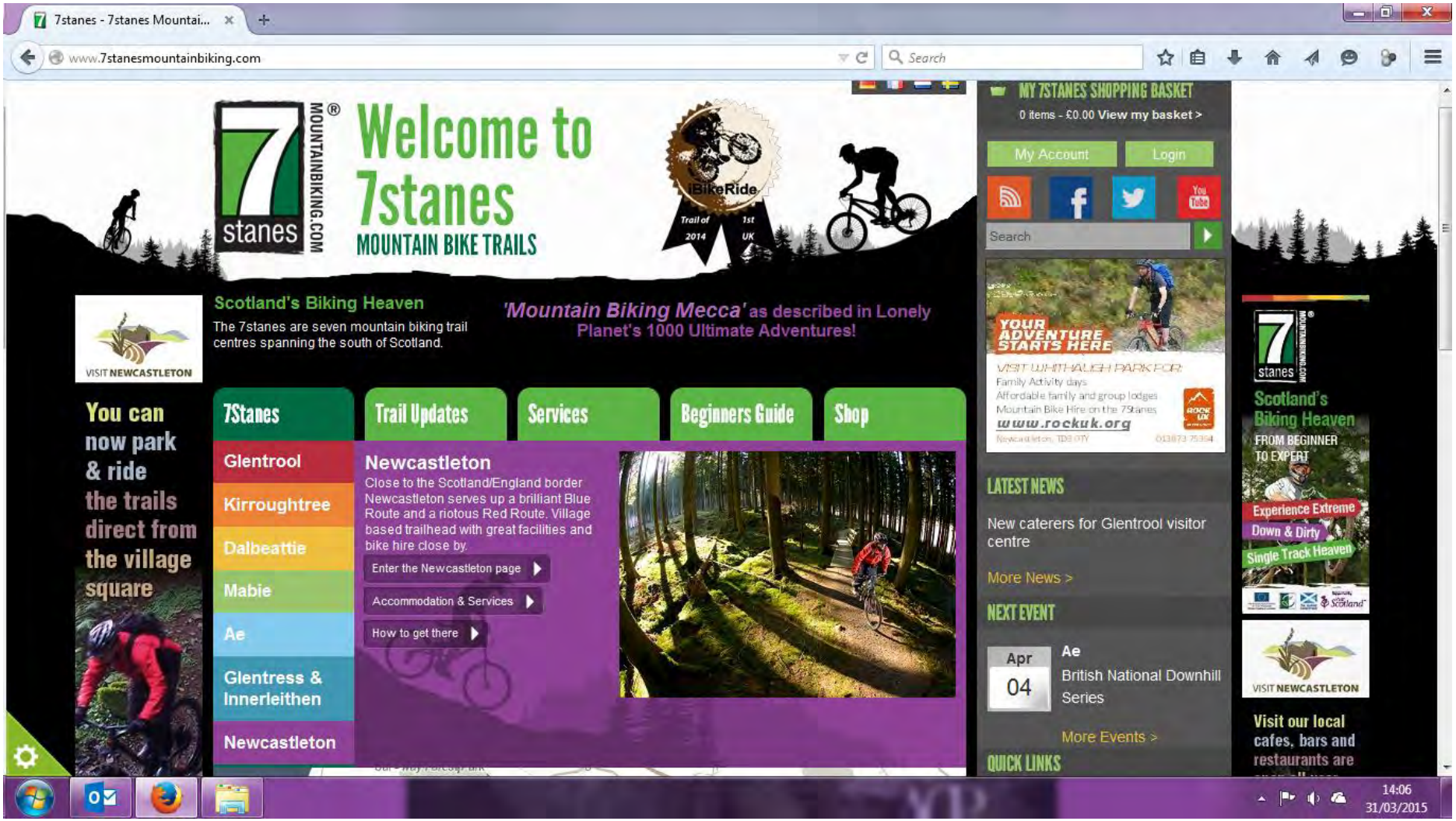
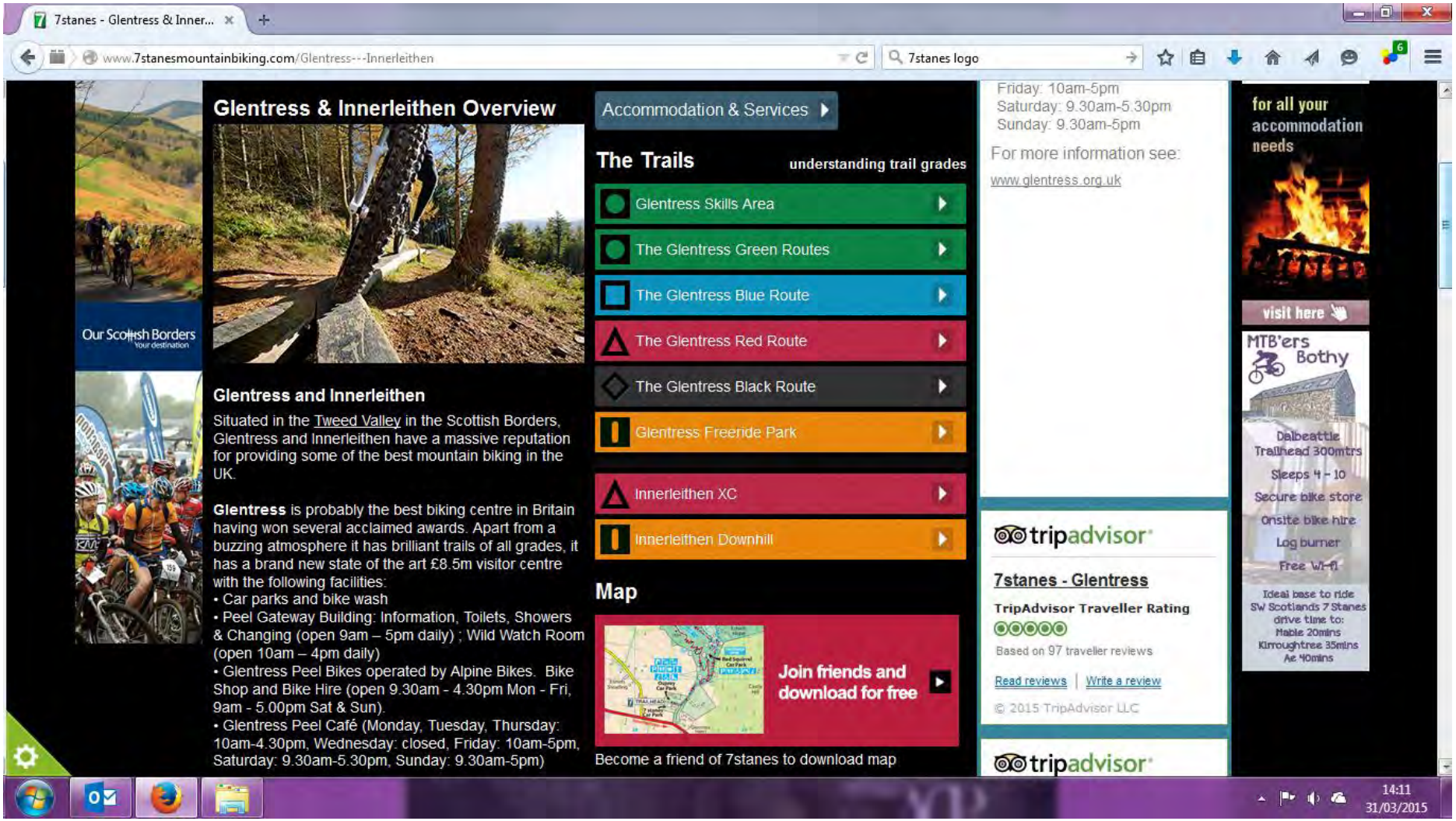


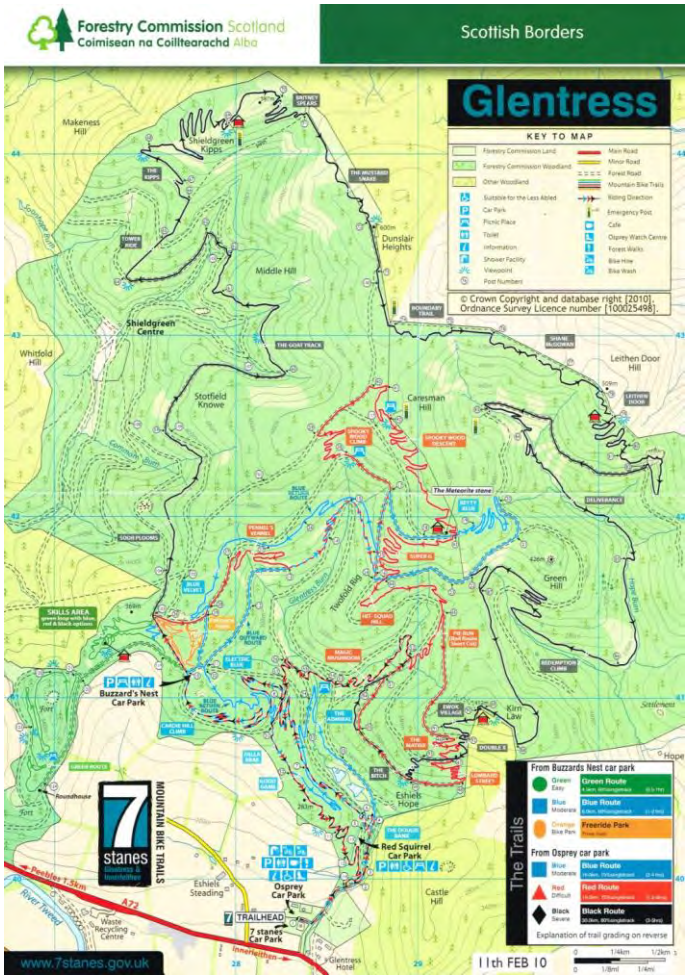
The above picture shows the home page for the Seven Stanes website showing the locations of each of the “Stanes” or riding locations – this web site is an example of a very effective web tool, the likes of which could be adopted by SA.



This picture shows how the seven sites have been developed and are marketed as one product with a clear brand and identity. It also shows how easy it is to find out about each of the centers by clicking on to each location.



This picture shows the Glentress and Innerleithen page from the website. Here it is possible to click on each trail and access information on each one and download maps.



The map on the left shows the trail system at Glentress. Note the Black trail which is seen as the iconic trail of the Seven Stanes. Also note the trail configuration which in this case is a classic stacked lop system. The picture on the right shows a trail which is typical of the Seven Stanes, i.e. wide, with a smooth surface and very accessible to a wide user profile.

Finally the cost of ongoing management and maintenance of the trails and the website is met by the generation of very significant income streams from each of the trailheads. Car parking charges, coin operated bike washes, cafes and coffee shops, bike hire franchises and events all generate surpluses which more than cover the costs of running the trail product as a whole.

7.6.3 Canoe NI, Northern Ireland

This was an initiative spearheaded by Outdoor Recreation Northern Ireland (ORNI), which is a cross agency body responsible for the strategic development of outdoor recreation across the province, local authorities and the Northern Ireland Environment Agency (NIEA). The project involved the development of six inland canoe trails and three coastal and centered on establishing Northern Ireland as a destination for canoeists and kayakers through the development of a number of trails, each with regional significance. When combined the regional trails are considered to have national or possibly international significance (i.e. for visitors from the rest of the UK and the Republic of Ireland).

One of the key drivers behind creating the canoe trails was to make Northern Ireland's waters more accessible to a wider range of users by prescribing key routes, establishing formal access and egress points and developing support facilities such as parking, signage, campgrounds and bothies (huts). Its other aim was to create a destination for canoeists by developing first a coherent trail product which could be marketed and branded and secondly by providing accessible information on all kayak and canoe opportunities in the province. Central to this has been the development of an excellent web site www.canoeni.com where detailed information on each trail can be accessed including possible itineraries, accommodation, camping facilities and bothies. In addition maps of each trail can be downloaded as can detailed information concerning tides and conditions along with detailed trail guides.

There is also information available on the website which differentiates between flat water opportunities and other types of paddling such as coastal paddling, white water and kayak surfing locations. The prescribed trails in effect create a kind of hierarchy of paddling opportunities with the trails the most accessible and prescribed and the less formal white water the least. This makes it possible for potential trail users to make informed decisions on the kind of paddling they wish to do and how they wish to use each trail. It also makes the Canoe Ni product extremely flexible in that each trail marked trail can function as local, regional or national level facilities, with the website functioning as one stop shop for all canoe and kayaking activities in the province.

Crucially each of the nine trails is promoted in its entirety as a regional level facility but more local level itinerates are also promoted and publicized and the trails are set up to facilitate this. In particular on the inland trails, access and egress points are distributed in such a way as to make the trails extremely flexible and easy to access and takes into account the needs of day tourers as much as long distance tourers.

The trail product can broadly be described as follows:

Inland trails on rivers, sea loughs, and freshwater lough systems:

- River Foyle and estuary – 53km
- Lough Neagh – 150km
- Strangford Lough inlet – 120km
- Blackwater River – 20km
- Lough Erne lough system – 50km

Coastal waters:

- North east Coast (Magilligan Point to Waterfoot) – 120km

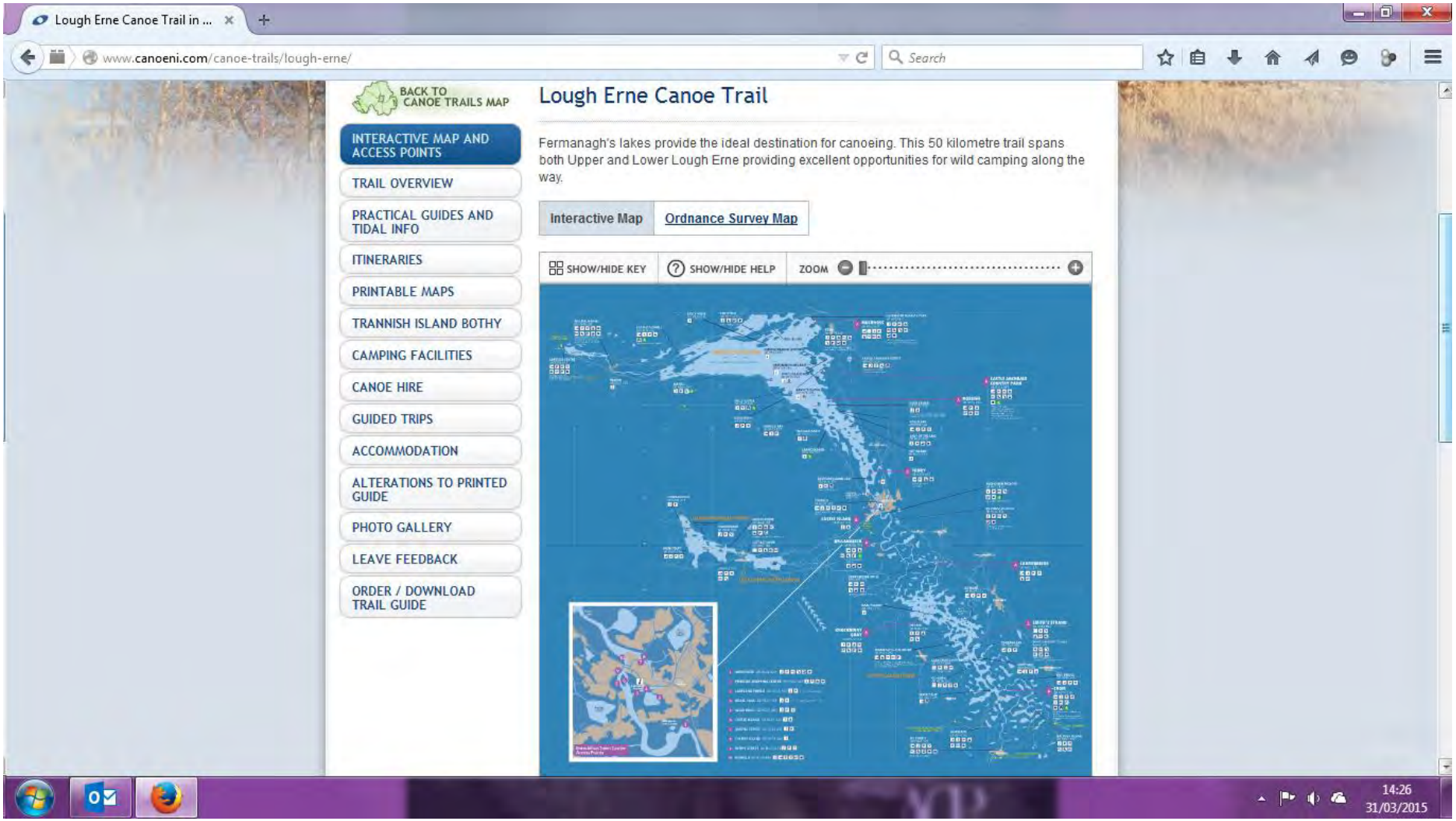
- East Coast (Waterfoot to Strangford) – 110km
- South east Coast (Strangford to Warrenpoint) – 90km

Crucially all of the inland trails can be split into itineraries of as little as 5km whilst the coastal trails can be split into sections of around 10 to 15km.

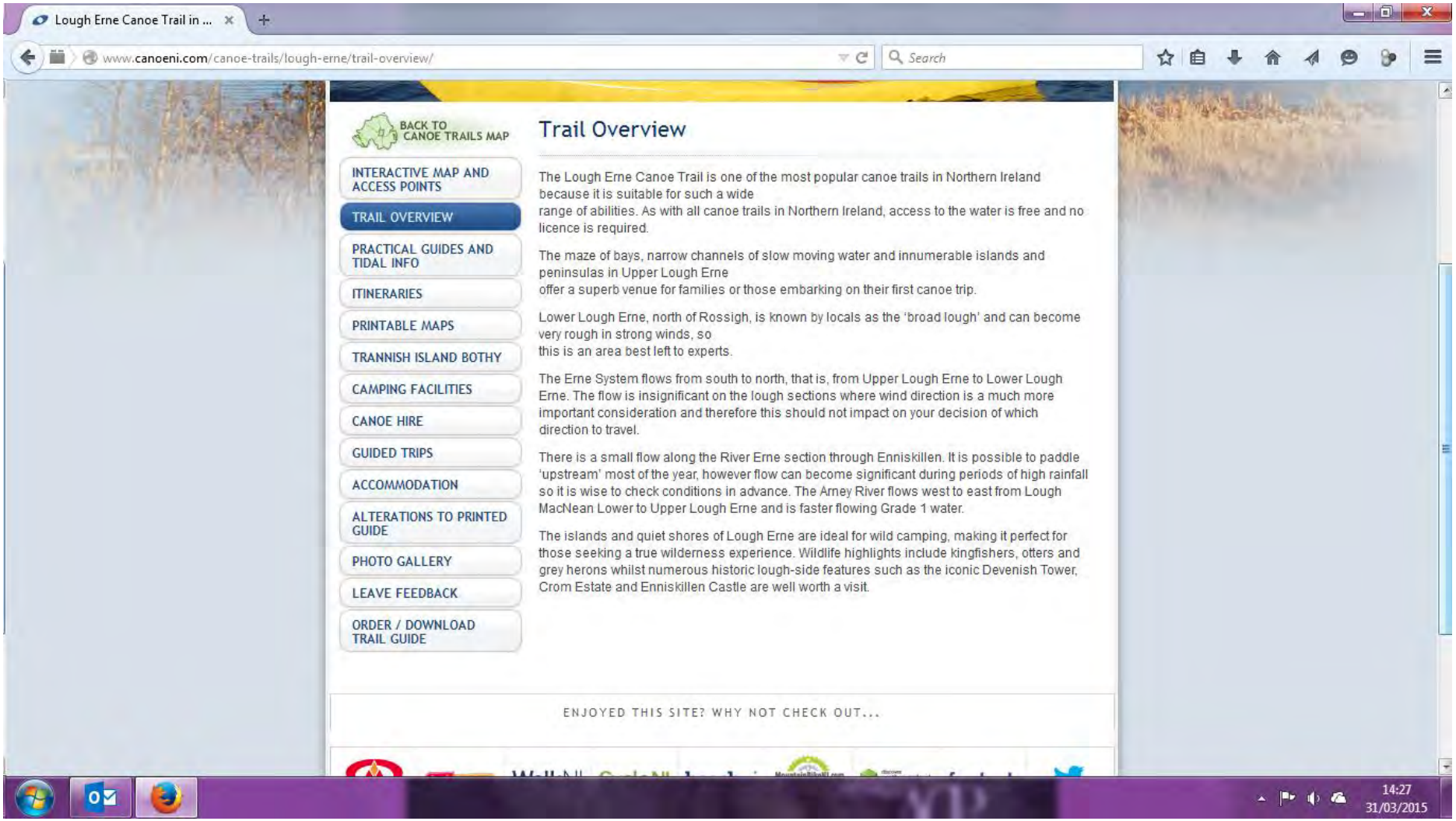
Most Relevant to the South Australia Master Plan:
This initiative shows how a very effective trail product can be developed which has impacts at local, regional and national level. This has been achieved by ensuring that the trail model is as flexible and accessible as possible and that key features of the trail product are well developed. In particular very effective trail information and guidance centered on a very user friendly website backed up with high quality on site interpretation and signage.

In addition the project shows how the key prescribed elements can be very useful marketing tools for a wider canoeing product and how a very effective website can serve as a one stop shop for all canoe related information.

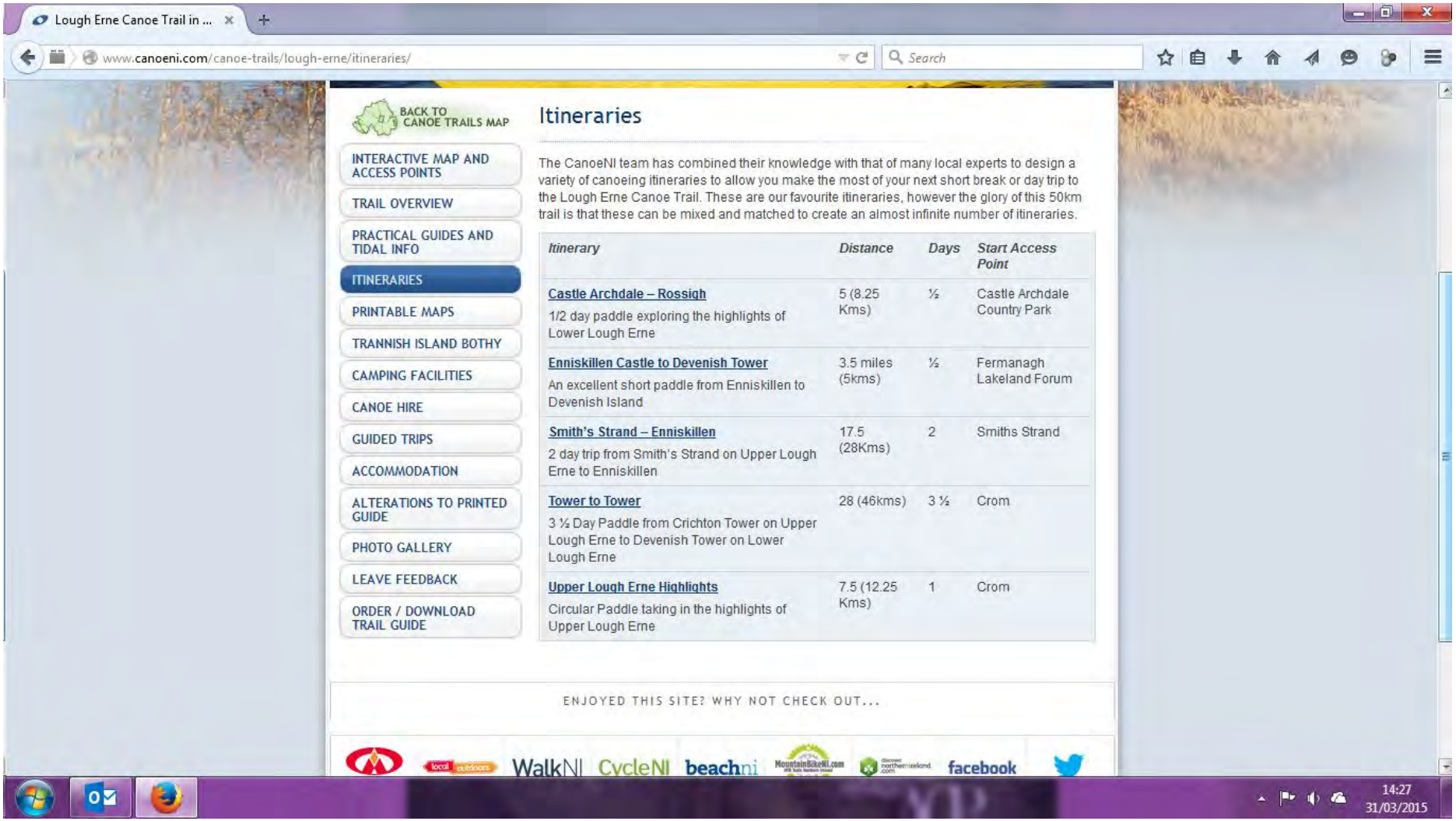
The above picture shows the Canoe NI home page showing the locations of all of the canoe trails. Each highlighted trail can be clicked on and users can be navigated to the relevant web pages for more detailed in information.



This picture shows the overview map of the Lough Erne canoe trail. It is possible to zoom into each part of the trail and print off more detailed maps. This page also links into a more detailed topographical map which can also be downloaded.



The above picture shows the trail overview page for the Lough Erne canoe trail. Note the navigation links which allow users to access key information including, practical information, itineraries and printable maps. This is available for all of the prescribed trails.



This picture shows examples of typical itineraries. Note the varying lengths which is one of the key strengths of this trail product.

7.6.4 Singletreck Pod Smrkem, Czech Republic and Poland

This project involved the development of an off-road cycling trail system which straddled the border between the Czech Republic and Poland close to the border with southern Germany. The project was undertaken by the Czech Mountain Biking Association (CEMBA), and two regional governments in both the Czech Republic and Poland and the State Forest organizations of both the Czech Republic and Poland. The aim of the project was to develop a new trail model for the region which stimulated increased participation in off road cycling, added value to public lands and produced a regional tourism and recreational resource.

A total of 100km of trails have been developed on state forest land on either side of the border with part of the development in a National Park on the Czech side. The trail model is very much a departure for both countries from previous trail provision in that it involves purpose built trails and prescribed routes centered on formal trailheads. This is very different from the provision of largely informal social trail networks with only minor prescribed elements.

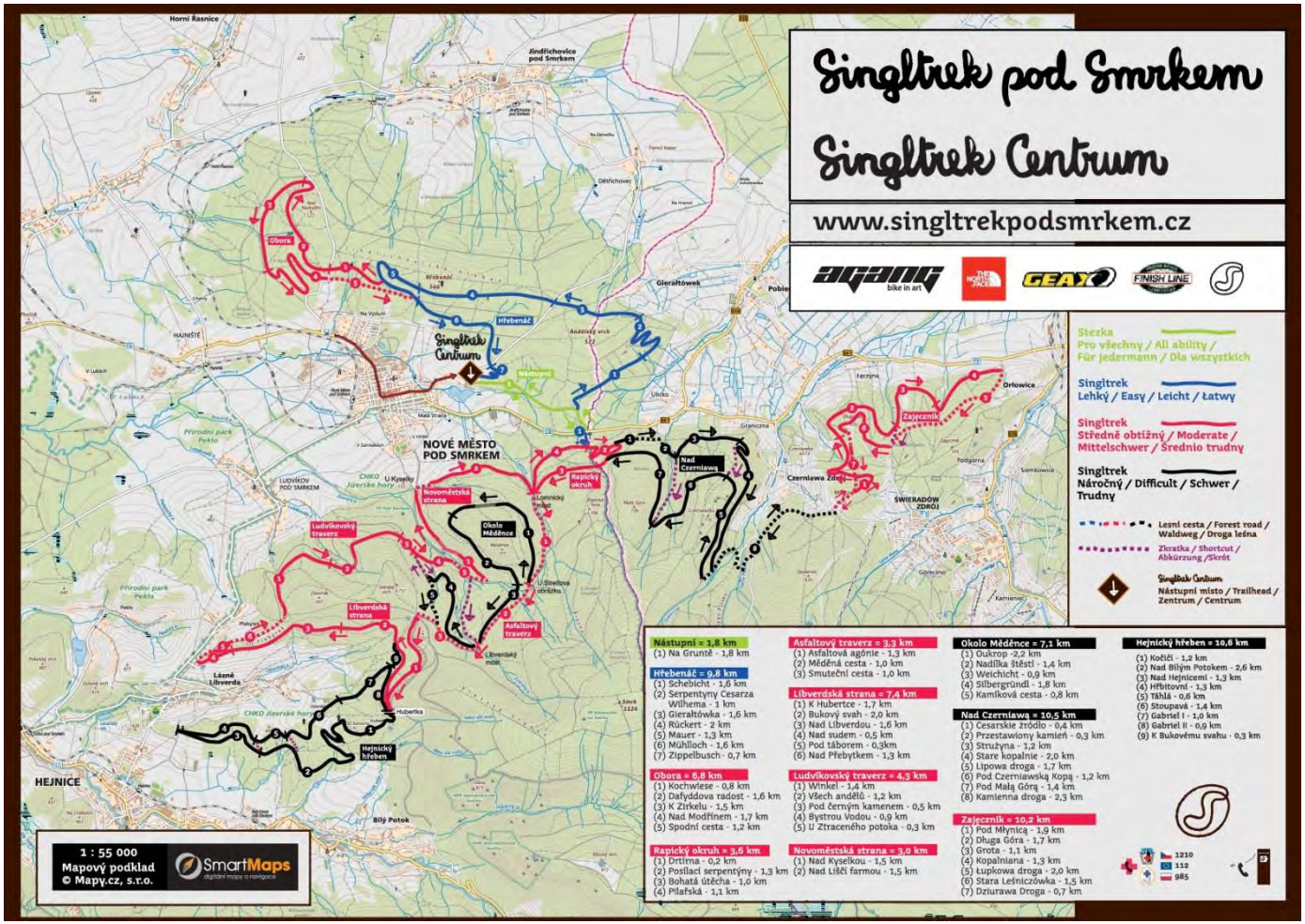
The trail system consists of 10 loops ranging from 2 km to 10km long centered on two stacked loop systems both focused on a single trailhead. The trailhead features parking, showers, toilets, café and bike hire and is adjacent to a significant regional population center called Nova Mesto Pod Smrkem. It is possible to access the trails directly from the town but the trailhead is particularly attractive to trail users and is the most heavily used location for starting and finishing rides.

The trail system also features a very clear hierarchy of trails from Green (easy), Blue (moderate), Red (difficult), Black (severe). The vast majority of the trail system falls within the green to Red range which makes it particularly accessible to a wide range of users. Crucially though, whilst this trail model functions very well as a prescribed system of stacked loops centered on a single trailhead, it is has also been designed to be accessed from three other locations, one within Poland and two communities within the Czech Republic. This is to enable people from those communities to access the trail directly and to spread any economic benefits from trail users to those communities.
The key to enabling this has been developing a trail model which has a predictable directional flow of users and which has been specifically designed to allow for multiple access points. This was also seen as necessary since the trail system is within a very permeable area and enabling controlled and managed access to the trail network was crucial.

In addition, the trails have been developed within an area of great landscape; habitat and heritage value and minimizing visual and physical impacts were seen as of paramount importance. The development of the trails therefore took place within a clear frame of reference which underlined the need to minimize these impacts and clearly defined the kinds of trails and trail models than were to be implemented.

The trail planning and design process involved a clear stepped process which ensured detailed consultation with stakeholders and statutory bodies at each step and which was underpinned by a clear sustainability framework. This process enabled trails to be developed in very sensitive areas and to be built using appropriate techniques. Most importantly the trails are largely very accessible singletrack style trails with low gradients good lines of sight and robust surfaces. This is seen as very important since the areas where the trails have been developed are heavily used by pedestrian users of all types and whilst the trails are not promoted as shared use, pedestrian use of the trails is seen as inevitable. The trails have therefore been designed and built with this in mind to ensure that future conflicts are minimized.

Most Relevant to South Australia Master Plan:
This project is a very good example of effective trail planning and design in practice and shows the importance of developing a clear frame of reference. In this case the frame of reference has had a profound effect on the nature of the trail model, the nature of the trails themselves and the configuration of the trail system to lead users to desired destinations.
Of notable importance, the ongoing management and maintenance of the trail system is the responsibility of CEMBA with resources supplied by the regional governments in the form of people on unemployment retraining schemes. CEMBA operate trailhead facilities where there is a small parking charge and where revenue is generated from a café and bike hire. However maintenance requirements are *very low* due to the nature of the trails which were developed within the context of a low key management model.
www.singletrekpodsmrkem.cz



The above map shows the configuration of the trail system at Singltrek pod Smrkem. It is centered upon a formal trailhead at Nove Mesto but it is also possible to access the trails for Lazne Libverda (Czech Republic) and Swieradow Zdroj (Poland). This enables what is a prescribed system to also function as a semi prescribed semi social trail network.

The above pictures show examples of the purpose built trails at Singltreck Pod Smrkem. The pictures show how low key and low impact the trails are which has been a key factor in the development of this trail product.

7.6.5 Castle Ward, Northern Ireland

Castle Ward is a National Trust Property in County Down Northern Ireland. The National Trust is a charity which owns and manages heritage properties and landscapes all over the UK with an emphasis on the preservation of their heritage value. Many of the properties which the National Trust own can be described as historic country house domains with historic houses and other built heritage as well as important landscapes and habitats. Most National Trust properties are open to the public but the National Trust does not see itself as primarily a provider of public recreation, rather they see themselves as custodians of national heritage. However in Northern Ireland access to areas for outdoor recreation are limited by private land ownership and access laws and in this context National Trust properties in NI are by default important recreation resources.

Castle Ward is no exception and prior to trail development it was already used for recreation by walkers, trail runners and cyclists as well as more low key actives such as picnicking. The Castle Ward Estate is around 350 hectares with a mix of landscapes including formal gardens, parklands, woodlands, conifer plantations, foreshore and heathland. It also includes historic buildings including the original castle dating back to 1570, the "new" house dating to 1850 and numerous agricultural buildings dating back to the 16th century. The landscape of the whole estate was designed and built in the 1720's and is an example of Enlightenment Period landscape design and as such the whole landscape is of very considerable heritage value.

The aims of the trails project at Castle Ward were the following:

- To manage unsanctioned recreation within the domain
- To reduce the impacts of unsanctioned recreation on the domain landscape and habitats
- To increase the value of the estate as a recreational resource
- To connect people to and enable people to engage with the heritage landscape

The project aimed to provide recreational opportunities for the following users:

- The less able i.e. wheelchair users, people with mobility issues, people with limited vision, the elderly, very young children etc.
- Walkers i.e. casual walkers, leisure/occasional walkers, trail runners
- Horse riders i.e. novice riders, leisure riders
- Off road cyclists i.e. family riders, leisure riders

In order to sustainably accommodate all of the above users a very holistic approach had to be taken to the planning and design of the trail system. Firstly an assessment of the existing (somewhat limited) trail system was carried out within the context of a wider assessment of the site. This found that much of the existing trail system was not fit for purpose particularly given the wish to extend trail use to cyclists, horse riders and the less able. It was also found that a radical reconfiguring of the visitor access and parking was required to enable a sustainable trail system to be developed.

The trail development therefore centered on the establishment of a new trailhead and car park, the decommissioning of old facilities and the alignment of a new trail system with the repositioned trailhead. This allowed trails to be developed which were suited to multiple user groups and which accessed the key landscape and heritage control points within the estate.

The trail model that was established can best be described as follows:

- A prescribed stacked loop system centred on one trailhead for walkers and cyclists and a separate trailhead for horse riders
- Trail marked as one way
- Essentially a shared use system with all users on some trails, walkers and cyclists on selected trails, cyclists and horse riders on others and horse riders and walkers on others
- Where cyclists and horse riders share trails they are trail marked in opposite directions
- There is a very clear and pronounced trail hierarchy including all ability (Category 1, minimum width 2m, max gradient 2%), Category 2 (max gradient 5%, minimum width 1m) and Category 3 (max gradient 5%, minimum width 800mm)

The stacked loop nature of the trail model means that parts of the trail hierarchy are used all users with horses excluded from some parts of the inners loops. In addition parts of the Hoof Trail (horse riders) are not open to cyclists.

The key to making this work and enable light touch management of the trail system is the much prescribed nature of the trail network and a key issue was firstly establishing a fixed access point to the trails which all trail users need to use. This allows visitors to be well managed and the flow of trail users onto and off the trail system to be managed in a low key unobtrusive way. Secondly, and most important was making the trail model extremely prescribed in terms of direction of flow but designing the trails so that users prefer to use it in the prescribed way.

Finally, though the detailed design of the trails had to take into account very significant landscape, heritage and habitat issues, trail construction had to be very sensitively done. The key was to separate the design of the trails from the construction with much investment and time put into trail planning and the development of detailed and prescriptive trail construction plans with site specific mitigation measures included.

This allowed the trails to be built in ways that were appropriate to the site and ensured that effective works monitoring and standards implementation could take place and this was a key factor in delivering the trails in a sustainable manner.

Most Relevant to South Australia Master Plan:
This example demonstrates how taking a holistic approach to trail planning and design can enable sustainable trails to be developed in very constrained and difficult circumstances. It also demonstrates how the implementation of the correct and most appropriate trail models can be of the utmost importance not only to land and resource management but also to encourage positive shared trails experiences from a peaceful picnic to an interaction between a horseback rider and an off road cyclist.

The above pictures show the character of Castle Ward, which is a landscape of great heritage and historical value. The trails that were developed here had to be extremely sympathetic to the nature of the landscape and could not detract from it in any way. Developing very prescriptive construction plans and careful design and consolation were the key to the implementation of the trails at this location.

The above picture shows one of the key parts of the trail system at Castle Ward where specific construction techniques have been used to reduce the visual impact of the trail. In this case a slid stone sub structure was laid down with surfacing stone mixed with compost, sand and a seed mix of robust golf course grass. This was laid and compacted and has resulted in a very robust low impact surface.

The picture above left shows part of the horse riders trail through a sensitive area of woodland. Prescriptive construction plans and careful design allowed for this trail to be developed with only very limited impacts.

The picture above right shows a trail which is shared between walkers and cyclists which was once a 4m wide forest track with a gradient of up to 15%. This has been modified to reduce cyclist speeds whilst allowing for good lines of sight. This kind of intervention has been key in enabling a shared use trail system to be developed at this location.

7.6.6 Cwm Idwal, Wales

Cwm Idwal is a National Nature Reserve located in the heart of the Snowdonia National Park in northwest Wales. The Snowdonia National Park is one of the most important recreation and tourism resources in the UK receiving in the region of 4 million visitors a year and Cwm Idwal is one of the most sensitive and valuable parts of the national park.

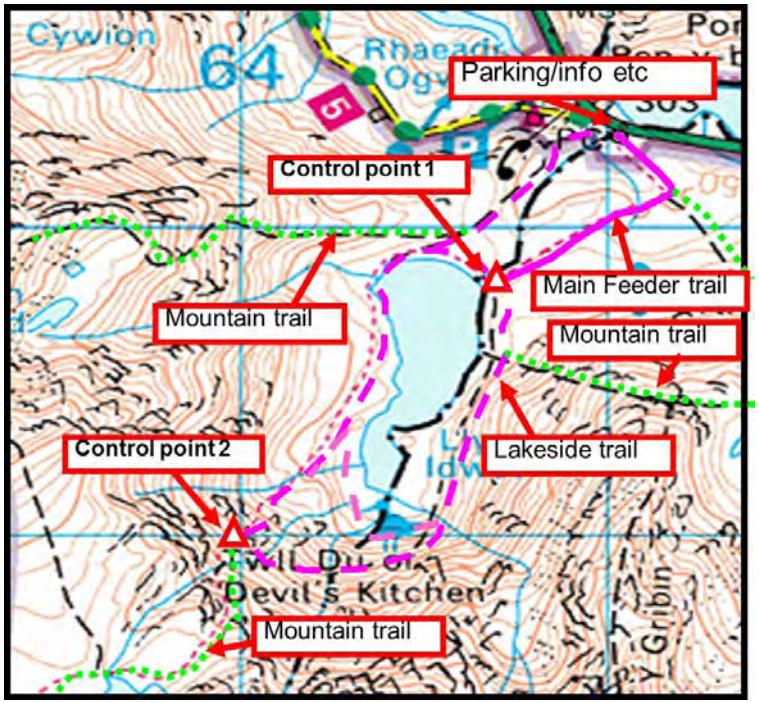
The National Nature Reserve at Cwm Idwal is of international importance for arctic alpine flora and as an example of a glacial and peri-glacial landscape and includes species of plant not found anywhere else in the world. However, it is also of huge importance as a recreation area since it provides access to iconic walks, climbs and scrambles of national importance and is in effect a strategic gateway into the mountain landscape.

As a mountain gateway Cwm Idwal provides key access for a variety of users using a very clear hierarchy of trails which are linked to key control points. The trail network at Cwm Idwal is not prescribed in any way and can best be described as a social trail network centered on a single trailhead. The trailhead includes toilets, parking and refreshments along with a ranger post and information panels relating to mountain safety, weather, emergency procedure, clothing and equipment and it serves as a strategic central management point and gateway for recreation in the whole area.

Most Relevant to the South Australia Master Plan:

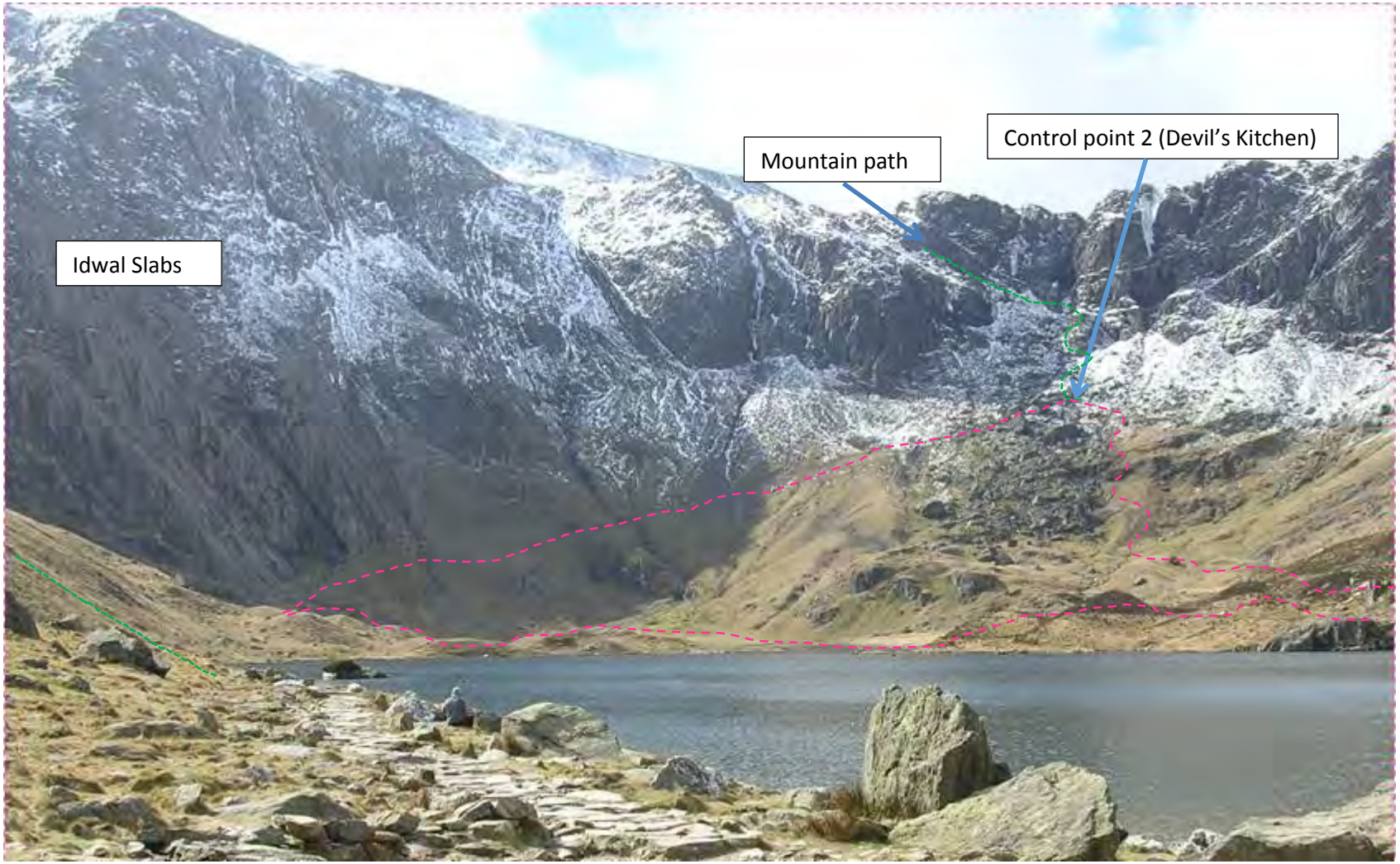
The key to the effectiveness of Cwm Idwal as a mountain gateway is how the trails themselves manage the way that users can access the landscape by providing a very clear hierarchy. Essentially, a low category trail links the trailhead to the most powerful control point i.e. a view of the whole area and a lake and at this point the nature of the trails changes significantly. At this point the trails become noticeably more difficult and less accessible and it is at this point that the majority of visitors turn back to the trailhead. Also at this location the terrain and topography become much more dramatic and challenging and this also discourages some users from proceeding further. From this location the trails themselves relate directly to key control points such as the iconic Twll Du or Devil's Kitchen and important climbing cliffs such as the Idwal Slabs and well-made paths link into these locations. However, these paths are of a much more challenging nature than the main access trail. Crucially though, whilst the trails around the national nature reserve allow people to access the area in a sustainable way (due to very robust and well-made trails), they also allow very strategically important arterial routes to important trails linking into the high mountains.

The location of the trailhead and the alignment of the trails have allowed access to the potentially sensitive high mountain areas to be carefully managed along key corridors. The key has been the siting of the gateway relative to the main control points within the landscape which has allowed sustainable and relatively low impact trails to be developed within a clear hierarchy.



The above let picture shows the main feeder trail leading from the trailhead to the first control point. This is quite wide and very robustly built to allow for particularly heavy usage.

The illustration above right shows the configuration of the trails. Note the very clear hierarchy around the lake and the mountain trails leading off from the main trails.



The above picture shows how the trails relate to the control points within the landscape and how the trail hierarchy responds to the differing terrain and topography. This is a key component of how this example works in terms of managing the way that people can access, interact and also impact upon the landscape.

7.7. Toolkit 7 – Disseminating a Master Plan

7.1.1 Foundations of a successful Master Plan

The path to success in this vision of South Australia trails requires supporting the leadership of local communities in these efforts to empower this vision and realize this potential in a timely manner. It involves uniting the voices in planning and building a statewide collaboration of governments, regional development boards and champion agencies and individuals. This vision of connecting communities to trails and encouraging people to experience new places begins in connecting leadership with local voices and communicating with the public to create a "ground swell" of enthusiastic support. This plan supports the common goals of enhancing public health both physically and mentally through out-of-doors activity as well as the desire to use good planning to honor the land, its habitats and the indigenous populations of Australia. The powerful vision partnered with a strong execution will manifest abundant and far reaching rewards in community self-esteem, appreciation of environment, economic stimulation and invigorating humanity towards adventure in the beautiful abundant landscapes of South Australia.

7.7.2 Summary

This SA Trails Master Plan is designed to help clarify the vision of developing a World Class Trails System in SA and to see the opportunities to support this vision of a State united by trails and a common vision of encouraging people toward outdoor recreation. Essential to the success of this project is the uniting of sporting enthusiasts and organizations with community leadership in places with trails potential. The representatives of this plan must build strong support within regional development boards who can unite these community leaders via providing direction, funding and the essential strong support of local and state government. The key to this plan is unity around the strength of planning and the cutting edge creativity of this trails vision. We hope that it arms you with enthusiasm to bring together a state-wide community of leadership who can help focus this vision, identify its key components and communicate it enthusiastically to the user audience. We hope the examples in this plan can assist in building the enthusiasm of regional development boards who can see the potential of this plan and encourage government agencies to earnestly support those who embrace this vision and emerge as leaders toward the realization of this trails vision and the vast benefits it offers to the people of South Australia.

7.7.3 Key Steps in Disseminating Trail Planning Information

The South Australian Master Plan provides examples of success, with an array of tools for planning a logical and achievable trails system worthy of International attention. But how do you get this information and vision in the hands of the people in a way they can work with? The key steps below identify ways this can be done. It begins by uniting enthusiasts and community champions with local leaders and state governments in a common and clearly understood objective to create a World renowned statewide recreational trail network. The momentum of statewide governmental support empowers local community leaders along with the impassioned outdoor enthusiasts to energetically move forward toward the actualization of the statewide trails vision.

- Develop a concise and exciting presentation of the Master Plan to excite and unite the people of SA around the potential and World Class vision of this plan
    - Host a series of "town meetings" in key Communities; present this "clear & concise vision", encouraging local support through communication of the vast potential of community, lifestyle and economic benefits.
    - Gather feedback through these local meetings and refine this specific state-wide trails map with regard to feedback and information gained through this valuable process.
- Develop a clear and concise presentation of this refined vision and establish unity surrounding this plan within Local & State Government Agencies.
    - Secure enthusiastic support from Government including a strong partnership with Regional Economic Development Boards.

- Invite and Inventory local community trail interests to compliment the completion this trails inventory
    - Identify “Key Opportunities” in communities with existing trails and enthusiastic local support
    - Incorporate these existing resources into the plan where possible
- Develop Trail Standards that can be universally embraced and serve the purpose of insuring concepts are manifested in trail designs and successfully carry forth the objectives of creating a world class experience leading to world renowned results
    - Enable & empower communities to lead the design, development and maintenance of these trail systems in harmony with these guidelines and objectives
- Focus the community and regional plans into a state-wide proposal of a master planned trail system
    - Encourage local “ride from home” trail opportunities in and around communities wherever possible
    - Support Regional Trail Centres with 50K plus of trails within an hour drive of any regional populous or within 100K of any significant population and seek opportunity for a potential World Class Trail Destinations 300-500K further from population centres or travel hubs.
    - Connect community trails to regional enthusiast trail centres using long distance multi-use recreational trails.
        - This design model supports community lifestyle and garners support of regional centres to host the traveling enthusiasts and the destinations that serve those seeking a longer term travel i.e., events and National/International tourism
    - Discussion and exploration of this “local” to multi-use long distance idea will guide specific designs of a *connected*, creative and cohesive state-wide trail system
- Bring the refined plans with united support of communities, enthusiasts and regional leadership back to government/high-level agencies/leaders
    - Request high-level support and funding toward the timely initiation, long-term vision and successful completion of the pieces to complete the state-wide project
- Continue to seek cutting edge leadership in trail design
    - Build a network of Certified Trail Stewards who will becomes the leadership team of Trail construction, maintenance and the quality control of this project
- Celebrate publically the adoption of this plan and its overwhelming support and rally momentum from any surrounding organizations who will support this project for reasons of public health, environmental awareness, community enhancement, etc.
    - Gather support and or funding from every possible, even those seemingly unlikely partners
- Continue to make available and intentionally disseminate trail information to audiences in cutting edge creative approaches that are simple, effective and easily interpreted by all
- Build SA’s reputation as a World Class Trail Destination for a variety of beautifully designed recreational experiences and share this with the World

7.7.4 Goal of the Master Plan

To be adopted as a whole of government approach, to unify trail development across the state, thereby maximizing the potential of this Trails Plan to the benefit of the land, the people of South Australia and the economic success of this statewide trails system.

7.7.5 Conclusion

It is a beautifully noble undertaking for South Australia to endeavor to leap to the front of the world trails scene. There is no doubt that the vastly diverse landscape of SA should be shared internationally. South Australia is prime for a cutting edge trails vision. We face critical junctures in our modern days as we see humanity spending their

days sitting in chairs and dismissing the natural world as “out there.” We see humanity’s detachment from their natural surroundings as a direct cause of our abuse of these natural eco-systems, an abuse that cannot continue and our only hope is getting people moving outside and doing so burning calories and not fossil fuels. The net investment in this SA Trails Plan are your people and the benefits to them in health, mindset, emissions and economy. The goal is to change lifestyles and mindsets; if we encourage people to think “I’m going to walk/ride there and not drive” we have succeeded. If access to the water-based tourism concepts can be accomplished by an eco-friendly shuttle operation that if someone can fly into Adelaide and take a shuttle to a hiking/biking destination, we have pioneered a recreational mecca. We at Destination Development are excited to be a part of this project and we believe you have a bold and beautiful plan.

8. Appendices

8.1 Appendix 1 – Consultation Notes

8.1.1. Trails Committee Meeting, Thursday 29th January 2015

- No current horse trail plan in place - everything as it stands is multi use
- No riding allowed in National Parks
- Riding permitted in Forestry with permits along tracks
- Scuba - some underwater trails already developed, with interpretation of history etc. of shipwrecks and other points of interest and nodes to follow
- Kayak and Canoes - require formalised access and egress points, they have social trail networks rather than prescribed trails at the moment - they would like to work towards developing coastal trails and more formalised multi day trips - some of which are already established unofficially. Currently no recognised coastal trails. Current provision is on still water, mostly multi day trips. Access and egress can be an issue if you have to cross private land, no restrictions known on public land. Allowed to launch off beaches. Formalised camping grounds are provided for the canoe trails - signage can disappear in high water and some of the camp grounds can become flooded.
- Equestrian businesses do exist - such as trails on private land, riding schools etc. but not that many due to the liability issues now in place - much increased business risk. Not uncommon for riders to box horses and travel long distances to more accessible areas.
- Scuba diving - at entry level, must have qualification before diving, then advised to dive within your limits - scuba diving SA have equipment they hire out including shark shields etc. They have installed pickets and interpretation in some areas, which make the dive more interesting - making connections with the history and heritage and location - these are accessible to all divers. Large scuba diving community/clubs/high tourism value. Scuba SA want to continue planning, maintenance of existing trails, historical integrity, documentation/interpretation, ethical behaviour/code of conduct.
- International students in education in SA is a big boost for the economy - Scuba SA is a not for profit organisation, however the work they're doing is improving provision and the 'hook' to bring the international students to SA - adding value to tourism and accessibility.
- Walking - local prescribed routes through to social trail networks currently available. ORS fund trail development on public land and have agreements with some private land owners.

- Kidman trail - multi use trail, long distance made up of forest roads and forestry tracks with camp sites for all and horses with MOU's with private land owners. Community management agreement with ORS. App for users to report any damage to trail etc. Volunteers work along the route on minor repairs and inspections - contractors have to undertake larger works.
- Many prescribed walking trails and lots of horses use roads.
- Walking trails are ranked e.g. easy, moderate, difficult etc.
- Heritage important - both indigenous and European
- Mount Gambia - underground caves
- Worth finding out from DEWNR the rate of conservation/non conservation in the marine environment - maps of sanctuary zones available from DEWNR
- Canoe/kayak - would like a suite of strategies, particularly with private land owners, provision of camp sites, particularly on the Murray, which could link in with a strategy for other disciplines - huge cross section of people who paddle - provision of more information would attract more people - interpretation/formalised access/access and egress points and camp sites with rubbish management/codes of conduct etc. but can be onerous to manage with formalised audits at regular intervals of facilities.
- Standards vs guidelines - some Local Authorities not keen to enforce standards, rather apply guidelines to works.
- No known liability claims from recreation - however there is sometimes 'knee jerk' reaction to an incident which can lead to temporary or permanent closures of sections of trail
- Web tool - business to consumer and business to business - agencies focusing on local community participation as well as tourism - consideration to be given as to how these tools could be used - one asset to find recreational information with branding and management of the sector as a whole.
- Regional strategies need to sit under the umbrella of the master plan including issues of management and maintenance.
- No access to reservoirs still used for human consumption - reservoirs no longer used for human consumption are now being considered e.g. for fishing, but still not recreation as a whole
- Map of reservoirs no longer used for human consumption from SA Water
- Some DEWNR properties being put out for expression of interest by commercial ventures

8.1.2. Stephanie Johnston, Mount Lofty World Heritage Bid

- Mount Lofty contains distinctive food, wine and tourism area
- UNESCO World Heritage Bid seeks to internationally recognize the agricultural landscape as being of ‘outstanding universal value’
- To protect and preserve the area
- All types of trails form an integral part of connecting people from the city to rural areas

8.1.3. Office of Recreation and Sport, Thursday 29th January 2015

- ORS - Organizing body for trail structures and funding body supplying grants etc.
- Consideration needs to be given to who the audience of the report is
- Councils etc. applying for grants would need to be going through the steps and meeting the criteria
- A pilot project to go through the steps of the report after completion would be a very good idea
- A broader product than is existing is required in order to increase the types of user
- Need to look at where trail connections can be made and where the status of existing trails can be changed
- 10 year forward plan
- Are there trail users who aren't provided for now?
- What will the trends be in 5 years' time?
- Unlocking potential in other recreation areas
- Hubs/supporting facilities
- Economic driver - this can't be ignored - the report should be used to drive funding for trails
- 'Growing SA as a destination of choice for national and international travelers'
- Consider how this master plan will drive economic development
- Great progress has been made in the last 18 months in allowing the development of trails regarding MTB trails - the barriers which were in place by land managers have shifted
- Consider management issues
- Commercial elements
- DEWNR - their concern regarding opening more trails is whether they can manage the existing trails
- Horse riding - worth looking at other connections - developments on private land?
- Intensive horse ownership in large parts of the state
- Riding needs to be pitched in a positive way
- Opportunities and recommendations for horse riding to come from the master plan and presented positively
- How many people are currently using the trails
- What could make a market explode? Which element of the market?
- ORS have a number of trails, maintained to a certain level, but no money to promote
- Which experiences are missing?

8.1.4. Department of Environment, Water and Natural Resources, Friday 30th January 2015

- SA Water and reservoir land - fenced, 10ft high - 4x4 tracks can be driven on by SA Water and their contractors, but no walking or recreation on the land, even in areas where the reservoirs have been decommissioned for over 10 years.
- The strategy including the Mount Lofty tender is a government policy remit now - so SA Water will be less able to ignore the issue

- Existing trail corridors - can be stuck with them and have to try to make them more sustainable by putting a surface on the trail
- Public consultation regarding realignment of the waterfall gully - 95% opted to keep the line as it was rather than reduce the gradient
- DEWNR funding trail development and maintenance - state government funding is paying contractors - some of the contractors involved don't have the ability to carry out the work as required to Australian standards. In the long term looking to engage a trail manager to be in control of a maintenance team etc.
- SA trails strategy for parks 7 years ago - individual trail parks project funding
- People and parks visitor strategy – some trails related - 1. Mount Lofty tender, 2. Create more accessible trails
- New trails developed are prescriptive - within the last 3 years
- Through an act of 1972, bikes were not allowed on vehicle tracks within the parks - experimented recently with allowing access for bikes
- Most newly developed trails are shared use - for walkers and cyclists, except black diamond bike trails
- Most parks not suitable for DH shuttling
- Horse riding allowed on permitted trails, but there aren't many horse riders - positive things need to be brought to the table
- Social trail networks in some parks, not maintained. Other parks with historical links have had their social trail networks updated/realigned and signage installed
- Minister supporting MTB trails
- Pilot projects - using degraded areas that aren't of such significance to gage what does and doesn't work, trying to stick to basic trail development principles
- Most parks have 'friends' groups - these used to be opposed to the development of trails, some have come around - involve these groups in the planning and design stage of trails and throughout construction - becoming more supportive, though may be resistant at the start.
- Robust planning, design and consultation process in place already
- 'Co-design' - greater engagement with communities for information and ideas
- General guidelines and specifications - tailored to each job, written for each section of trail - definitive line not always defined - corridor and principles defined and trail contractor given some 'artistic freedom'
- Weekly site inspections, fortnightly meetings with contractors
- Tender process quite select - some open tenders, or can go direct to contractors in some cases, assessed on method statement
- The process has been tightened over the years - have a number of contractors they can trust and rely on
- Some definitive lines chainaged and prescribed, others more general
- 300 parks, estimated 4000km of trail
- Strava routes useful to check out
- Things to improve on - management and maintenance
- MOU with SAMBA for maintenance in some places

8.1.5. Rebecca Deans, Recreation SA, Thursday 5th February 2015

- Want to be able to go to tourism and say this is what we want out of trails in the next 10 years, and this is how we need to go about it
- Not how to go about building trails, but the processes around where trails should be developed and how - would like something to use as a tool to be able to move forward with
- Web site plan - so anyone who wants to develop a trail can access this tool and see what the need to consider
- With regards to the web site - recommendations as to what the content should be, not to actually design the web site - planning and design process, management and maintenance systems, promotion etc.
- Don't want us to spend all out time on a desktop audit - we'll need to clarify which ones are best to focus on - possibly the promoted established trails?
- The fact the trail information is disjointed from one organization to the other is definitely something to be making recommendations about
- The requirement by ORS for a suite of tools to use for funding applications is not what is to come out of this plan, but a next step to be funded – possibly a recommendation to be made in this plan?
- SA Water - framework of recommendations which Rec SA can take to the minister and to SA Water to approach opening up the land of SA Water - still go ahead and try to meet with SA Water
- Advocacy tool
- So much good stuff happening overseas - can we embrace this and make use of what we already have, not just about building new trails
- Need to get tourism involved in the trails development aspect - they used to be engaged, but due to lack of funds they are less involved in 'adventure tourism' now - want this report to be a tool to take to different funders in both tourism and community health etc.
- Building partnerships when developing trails to create sustainability - business to community and business to business
- Overseas promotion - how?
- Branding exercise - as a separate output leading from a recommendation in this plan
- Applying trail models needs to be on the recommendations for the web based tool, but not necessarily as part of the master plan
- Tourism - what are their priorities? How are they getting people to come to the state now? What are they looking for?
- How to apply the trail models etc. to trails which already exist - where can they be improved and what can be changed to get them to fit better with desired models?
- How do we coordinate all the separate land owners to bring these models together and make them work as a product? Do you need to employ someone to work on this as an umbrella approach? Issues such as liability, politics, management and maintenance. Firstly the overall systems should be looked at, irrespective of the tenure - then making a joined up approach for all the land owners. Provide a recommendation and how we do it.
- Costings - for the list of recommendations i.e. web based tool, assessment of current systems, branding etc.

- Standards - a recommendation to develop standards
- Has to be about sustainability

8.1.6. Andrew Queisser, Onkaparinga Council, Friday 6th February 2015

- No sanctioned MTB trails as such yet in this region - areas where trails are unsanctioned, such as 80 acres - community not engaged in the same way as they were at Mitcham and the biodiversity issues used against them still, as opposed to Mitcham where the community was on board and the biodiversity issues were dealt with head on
- A document that can be used so the local council can respond to communities or clubs wanting to develop trails, and a tool to help them work out what is appropriate in each region
- If different agencies/land owners can all provide different things, rather than a blanket approach - each region has different things it can offer e.g. this region has the river and sea - existing canoe trails and scuba trails - coastal canoe trail possible
- A tool that's quite descriptive and accessible so it's easier to make sense of what is appropriate for the region
- Site selection criteria and frame of reference guidance suitable for this process
- Local government only have a limit of funding - if all towns etc. within a region are chasing funding for the same types of product it makes it less likely anything will be developed - however, if it's tailored to different types of recreation/products, then the region as a whole can benefit
- This area has a high level of road cycling
- How to incorporate all different recreational trails into a tourism and health product
- This council know how much it costs for development of trails (e.g. shared used trails) and the 'asset life cycle cost' for management and maintenance over the future years - not all councils do this - they will spend money on trails and then not have money to manage them in the future
- Recreational trail strategy for the council encompasses all existing trails and development plans for the future
- The council looking at how they can improve the experiences available e.g. road cyclists, how can we make it a safer and more enjoyable experience, e.g. signage, wider cyclist lanes etc.
- Recognition of the differing markets and cohorts within trail user groups very important
- Basic trail planning here - land access, water, environment, links to the strategy, links to destinations etc.
- Links to local authority policy and strategy and state government
- A reference tools box for community groups
- At a higher level the site selection criteria would be useful - if the existing local government strategies don't specify a certain type of trail, but the mayor asks for it, these strategies can be over ruled. The master plan can feed into future reviews of government strategies - a flow chart type site selection overview - working at differing levels - does the area have the right assets to develop the type of trails required? Site selection/frame of reference?

- Travel regional linkages important - does it link into other regional government or state government facility?
- Needs to be considered at a higher level, but make sure it's not unusable by lower levels
- Experience, destinations, connections, asset lifespan costs and understanding
- Recreational trails network strategy on the Onkepringa web site - wording
- Applying differing models where appropriate - what's suitable in one place is not suitable everywhere else
- Needs to be an understanding of the different opinions/experience/issues of those who don't support development of certain types of trail as well as the supportive people - understand the considerations of the detractors
- Local government recreation forum or 68 local councils - contact for details about any trail developments, any collaborations between councils and DEWNR, ORS, road reserves, SA Water etc.
- More information on design standards, construction methodologies and protocols would be useful
- The council doesn't have specifications for building singletrack trails - formalizing the process - would be a support for raising funds

8.1.7 Andrew Moylan, Forestry SA, Friday 6th February 2015

- No specific standards developed for MTB trails signage here yet - walking trails have established standards, but working on developing standards for MTB trail signage - not easy to get agreements between all the various agencies at even a state wide basis let alone an Australia wide basis
- Been working with Nick Bowman, IMBA Australia and Bicycle SA on bringing unsanctioned trails up to IMBA standards
- Working with group 'Human Projectiles' to develop new trails at Fox Creek
- Worked on developing/upgrading walking trails - new signage and launch plans, but then all destroyed by fire before launch
- The last fire has given them a blank canvass to work with
- Trails are generally established here once the tree crop is established, rather than establishing trails at clear fell stage - slightly different to when there's been a fire
- Have been working towards getting grants etc. to plan and develop properly
- Andrew's background in trails and his enthusiasm for installing trails has been key in changing Forestry's attitude - has been trying to train the rangers in this attitude
- Standards, both with regards to signage and design and construction are key
- Happy that we've been employed with regards to Dafydd's experience in land management and operational forestry etc. - other consultants which have been brought in to do this type of work have all come up with the same type of responses, without any experience or understanding of operational land management
- About 10 years ago - an insurance risk assessors assessed the site (Fox Creek), and were happy with it mostly, just not some north shore built structures - so they've been able to continue developing trails

- Forestry has lost over 50% of their staff in the state in the last year
- Forest operations on a compartment basis not coups
- Most timber goes directly saw mills - sold by per cubic meter
- Lots of timber in Mount Lofty is felled to waste, as the transport costs to get it to the mills is too expensive
- One of the downhill trails in the forest was brought closer to the edge of the compartment in order to keep an eye on development there - although it was agreed previously that following clear fell it would be redeveloped following guidelines to minimize impact on forestry etc.
- No clear guidelines established to manage the interface between established trails and felling/forest management - this would be useful in the report
- What would help within forestry in this report? - Information about managing the interface between trails and forestry, extension of trails into plantation areas - working with harvesting manager was possible, although his predecessor would not have worked - it has depended on who is in which position. Opportunity now is very good for both developing trails and getting access into the parks etc.
- Need to be looking at trails and recreation on a commercial level. There is a remit for Forestry to provide recreational access and conservation
- Many of the existing national parks were previously Forestry owned
- The report recommendations for forestry would need to link into the existing Forestry systems and standards
- Open space and recreation value high for the Mount Lofty area; that's why there's still so much forest located there
- Lots of visitors to the forests and lots of different activates and conservation lobby groups
- No formal trails policy within forestry - would be good if this master plan set the basis for forming a policy

8.1.8 Craig Grocke, Barossa Council, Wednesday 11th February 2015

- Interested in trails in tourism terms
- Food and wine region - people want other things to do while here, or another way to experience the food and wine
- Existing trail developed due to demand for recreational trails by local community - tarmac shared use trail
- Limited budget determined the route of this existing trail - leaflets we're produced quite quickly to get the information out to the public
- One length of trail more difficult due to the gradient, but overall easy - families and commuters using the trail
- 'Bike hub' - tire pump, lockers, bike lock up, vending machine - not manned - open automatically at 6am, closes automatically at 10pm - directly across the road from the main visitor center, who hire out bikes
- Some bike hire available in some of the B&B's including electric bikes
- Some wineries also have hire bikes
- The trail encompasses lots of different wineries and recreational activities along the way
- Off the main trail, there are suggested other routes on quiet roads
- Demand by local businesses for additional shared use paths to pass their businesses

- Trying to get sponsorship from wealthy business owners in the area - trying to make them enthusiastic and involved
- Potential for future rail trail extension due to non-use of a stretch of track, to link more communities
- Long term strategy is to use the existing trail as a spine, with loops coming off the trail
- Market and model identified
- An interest and demand for off road cycling trails - already have some unsanctioned trails in a forest area - forestry know it's there, but have no money to make it official trail or promote it - as long as they make sure impacts aren't too great and no large structures, they're pretty much left alone - it's an MTB club/group responsible
- 10 - 15 road cycling events per year - 'Tour Down Under' visits every year - maps have been created for the most popular road routes
- MTB and off road cycling hasn't yet been developed, but is something which may happen in the future
- Further product development - getting local businesses to pull together and make provision for trail users - thinking smartly about the future - allowing people to ride around the town/wineries, make purchases - get all items centralized, packaged up and delivered home
- Cycling food, music and wine events and more challenging events - keen to develop further ideas along these lines
- Council has been investigating taking over the lease of some of the SA Water land for non-motorized water sports - only used for irrigation now - this land would also be great for MTB trail development
- For the future, developing destination for SA with Clare, Southern Flinders etc.
- Council responsible for the management and maintenance of the entire existing path - split into 2 councils
- Some of the wineries already host large cycling events - there is a possibility that some of these land owners may be open to developing off road cycling trails on their land - depending on management models etc.
- The council is involved in the World Heritage Bid for Mount Lofty
- Visitor infrastructure at a very high quality already exists here, which isn't available in many other areas of SA
- Cycle tourism strategy in place - and have achieved quite a few things on that - needs to be revisited to update it - need to look at whether it stays as just a cycle tourism strategy, or a region wide recreational trail strategy
- Limited access to singular walking trails in the area
- Public and private partnerships - pooling resources to develop things such as the leaflet and other promotion
- Case studies/economic evaluation and analysis on the agenda

8.1.9 David Lake, SA Tourism Commission, Thursday 12th February 2015

- How are trails marketed in SA?
- No trail specific marketing - a good outcome of this would be to have all the trails promoted in one place
- southaustralia.com - has some information, but in a broader context, nothing specific

- Promotion takes place by region - so it depends what's available within the regions
- In terms of international marketing - will tailor more specifically for those markets - aligning products and regions to particular markets
- Could a trails destination be marketed as a trail specific location? Waiting to see the outcome from the Mount Lofty study in terms of how they would market that as a destination - to see if it would be specifically tailored or marketed in the broader sense
- SA not well known for nature tourism - other areas/states in Australia more associated with this
- Best known for food and wine - other products are marketed in the context of these
- Tourism definitely needs to be considered within this report
- In terms of marketing, driving trails were developed last year and are promoted - to draw people down a route and into the communities along the way - trails have to have an economic benefit on the local communities, that's where tourism and trails would interact
- Agrees - trails need to be developed which will become peoples primary reason for visiting the area
- Models of existing trails down to the agencies putting those trails in - models have been flawed - not consumer centered processes by the agencies
- Consumer research - if there is a tourism aspect in the frame of reference - market testing
- What is the appetite for commercial tour operators to utilize the product?
- If there isn't the research directly available - possible to source the information from other areas - i.e. international case studies, MTB Wales first research
- Pilot project a possibility to research numbers etc.
- Business opportunities which can come out of developing trail needs to be established - the traditional thinking within the land management agencies is that trails are a community asset - a switch in thinking would be required to see them as a tourism asset
- Not come across a trails hub as a town, but maybe in the sense of accommodation where commercial operators take people on tours and all return to a high level facility each night
- Kangaroo Island - the new wilderness trail is something Tourism SA has been working on for a few years - keen to get a multi-day walking trail into KI - KI one of the big 'hooks' for SA, though with one of the lowest visitor numbers due to the cost of getting there - feasibility work looking at 4 options - route selected, looking at getting an operator to provide high quality accommodation along the trail, or a vehicle pick up/drop off to take people to the trail/accommodation each day - making KI into a trails hub and promotion of local produce - discussion taking place whether a commercial tour operator will be given exclusive access for the first few years to allow them to become established?
- Tourism do want to do more with the nature based/national park assets
- Government keen to utilize these assets
- River Murray - feasibility study - 5 x 1 day walks along the river Murray, approx. 65km, heritage - facilitating the opportunity for a commercial operator to come in and organize - possibly house boats, from high end to hostel range
- What are the economic benefits for the local communities? If commercial tour operators or house boat operators don't display an interest, it's a possible indicator it's not the right product

- Walk the Yorke - trail around the Yorke Peninsula - community asset, but quite a high level of intrastate visitor numbers - lots of holiday homes - Yorke Peninsula web site will have more information - visitor facility for DEWNR land put out to commercial tender last year - working out the details and contracts now - possibly short term contract to begin with to allow both parties to see if it's successful
- Mount Lofty - waiting to see what's in the report - waiting to see if there's any interest expressed by commercial operator for any aspect
- Lots of trails have been established historically for other reasons and then agencies will try to shoe horn the trails into a tourist product, which doesn't always work
- Huts to Heysen - Rawsley Park owners asking to provide huts to offers a bigger accommodation product - where does the broader economic benefit go?

8.1.10. Office of Recreation and Sport, Thursday 12th February 2015

- Outlined the framework suggested for the report
- Examples of different locations will be vital to bring the report to life - our objectivity a positive in this
- Hierarchy - planning, design and infrastructure
- Providing reasoning for why funding should be provided to develop the trails - one over the other
- Standards - again, what is the base standard is lower - is that ok, or how can we improve those opportunities to make them appropriate
- Not duplicating reports which have already been published
- Needs to work on a variety of levels - from Community trail development through to high level strategy work

8.1.11. Trails Committee, Thursday 12th February 2015

- DEWNR - not recognizing the inconsistency between the things they're doing well and the things they're not doing so well
- Run through of the outline design of the report
- Greenways act was discussed in relation to horse riding laws, though the Greenways act is an access act and not specific to horse riding, walking, or cycling
- All forestry assets will be up for tender in the next 2 year - need a recommendation in this report to ensure that recreation and trails are maintained as a clause etc.
- Most horse riding clubs make use of trails on private land
- Government insurance supporting trails on private land? If the trails are developed using the protocols recommended - could there be a recommendation for the government insurance to cover private land owners' trails?
- Government insurance not possible for horse riding - liability issues too high
- Scuba club has its own insurance per person for personal insurance and a student rate etc. - so each individual is insured personally and a different insurance can be purchased quite cheaply for diving abroad - asked for an email briefly explaining the process

- Would be very rare for a tourist to come and dive without going through a commercial diving company or club
- If they dive with the club - a one-time dive membership is $11 which covers them for insurance - have to see their qualification - increasing fee for more trips - this allows them to hire their equipment too
- Signage for scuba trails are being massively improved
- To create a scuba trail - DEWNR, DPTI and local councils would need to be consulted
- Make a recommendation to review access to lands for all of the disciplines - looking at categories of public lands and what the access issues are for each group
- Needs to present an opportunity for government or review current bylaws and barriers etc. - lots of evidence and case studies available now, how can the process be quicker to overcome these barriers
- Case studies in the context of SA in the report - how these can be used within the context of the report to enable groups etc. to go about these processes and development
- Move away from government speak - needs to be a clear concise narrative
- Recommendation - that an expert group can give branding and marketing advice in conjunction with the other elements of the trail development protocol
- Audit protocol - could be part of site assessment process, needs standards and trail classification and grading system for each of the disciplines - audit of the model as well as the condition of the trails, in order to enable people to make decisions about how to make these trails fit the appropriate model
- Needs to define who and how someone takes ownership of the frame of reference to enforce it?
- Should sit above the government agencies and be an overarching guide to best practice for community - pitched at that level, but needs the level of credibility with government
- Cultural heritage statement
- Economic development statement - tourism? Visitor numbers? DEWNR park numbers? Maybe a recommendation for an economic research
- Robust argument as to why standards over guidelines and recommend the development of the standards and the same classification and grading system
- Standards - what if a community group can't meet those standards? Are there steps to meet those standards - highlight what is current best practice and facilitate people to do the best that they can - ideally the standards would go hand in hand with this report, but too large a job for this project
- Standards to be cross agency if possible - policy context whereby funding can be provided to meet the standards - 'better trails not more trails'
- Recommendation for the web site - more information about the canoe trails - danger in giving too much information etc.

8.1.12 Email from SA Water Following Telephone Discussion

Further to our phone conversation, please find attached below a brief summary of SA Water's Public Access Policy. SA Water would welcome being kept informed of your project's progress and would be happy to meet up in the future should the need arise.

SA Water's current management of reservoirs in South Australia is founded first and foremost on water quality protection. To facilitate this protection as well as enhance service delivery and minimise risk, SA Water has a public access and land use policy which restricts recreational access. SA Water's approach to public access to reservoirs has been guided by, and is consistent with, expert state and national literature including the Australian Drinking Water Guidelines, the Planning Strategy for the Outer Metropolitan Adelaide Region 2007 and the Cooperative Research Centre (CRC) for Water Quality report: Understanding the Impacts of Recreational Access on Drinking Water Catchments and Storages in Australia (2006). This policy is broadly in line with the level of protection of drinking water supplies managed by interstate water authorities. As mentioned, while there are portions of established trails that traverse through SA Water Land (including the Mawson Trail and Heysen Trail), these are largely a legacy of former land uses and policy directions. SA Water also has a limited number of 'gazetted areas' for public access including Whispering Wall, Mt Bold Dam Wall etc., which have a reputation for their unique engineering design.

Given the above policy position, SA Water generally do not permit ongoing/long-term access to SA Water land for the purposes of walking trails or the like.

Please contact me if you have any further queries.

Thanks very much

Dave

DAVID LOVEDER
Land and Fire Management Officer
SA Water

8.2 Appendix 2 – Notes on Areas Visited

8.2.1 Adelaide Hills

- Huge social trail network for walking and cycling - limited access for horses
- Trails immediately adjacent to large centres of population and transportation links
- Significant topography and elevation change
- Steep side slopes
- Highly featured terrain
- Some prescribed elements, primarily on the national parks lands
- Considerable inconsistency between national parks and council lands in relation to trail information, waymarking and the nature of trail models
- Some areas of fully prescribed trails e.g. waterfall gully which are very successful in terms of visitor numbers, trail model seems to have been well considered and thought out
- In other areas, trail models seem 'cobbled together' with little thought to who the trail users might be and how they might use it
- National parks are developing a network of semi prescribed shared use trails (bikes and walkers) - this is in effect creating a shared use social trail network of some significance and extent within the Adelaide Hills
- A number of semi prescribed mountain bike trails have been developed at a couple of locations (dual directional, named and waymarked trails) fully prescribed waymarked loops would be much more appropriate in this context, particularly given the peri-urban locations, intensity of use and potential management difficulties - possibly use as an example in trail models section
- Fox Creek - very extensive purpose built network of mountain bike trails with superb topography and ground conditions - trail system semi prescribed, forestry people considering redeveloping along trail centre lines i.e. unidirectional prescribed loops centred on a single trail head. Forestry people recognise the potential management value in this.
- Adelaide parks - potential for developing multi use singletrack trails which could form an important part of any Adelaide Hills product i.e. could be important in helping to develop and grow the off road cycling market in SA

8.2.2 Kangaroo Island

- Trails on KI not exploiting the tourism income
- Need an iconic trail product
- Very seasonal tourism market
- Not currently a trails destination
- Potential trails hub by developing trails which would be people's primary reason to visit and promotion of existing trails

- To diversify the tourism offer on the island to increase the tourism season
- Developing the new 50km of trail in Flinders Chase park could be iconic - a good idea but with limited markets
- More day hikes/walks to increase tourism products
- Trail branding - unified trail product for the island
- Walking trails and a small % of entry level cycling trails and facilities
- Flinders chase park - very high quality facility with access to varying levels of walks
- Potential for longer walks and circular walks at Flinders
- Trail product - where should this be marketed?
- Link in with the Sealink marketing
- Consistency in approach to branding and marketing
- DEWNR, Councils and communities together

8.2.3 Flinders Ranges

- Remote outback area with incredibly stunning scenery
- Dramatic topography, unique landscape
- Limited formal trail network, though very extensive bush walking opportunities
- Formal trail opportunities are limited to prescribed walking trails which are well signed but very poorly promoted - some more prescribed and accessible walking trails could be a useful addition to the trail product here, in particular around the excellent Wilpena visitor centre
- Currently trail opportunities are quite demanding and include both the Mawson and Heysen trails and a number of prescribed hikes - shorter more accessible prescribed routes should be considered in order to give visitors an accessible flavour of the unique landscape
- The dramatic landscape and topography potentially offer the opportunity for world class MTB product, however the remote setting may preclude this

8.2.4 Melrose

- Significant MTB destination
- Large and extremely sustainable trail network on private lands adjacent to national park
- Great potential for further development, particularly if more prescribed trail model is developed
- Excellent support facilities in the town
- Trails can easily be centered on the town without any significant management difficulties
- Management/business model may need to be refined to support larger trail system

8.2.5 Robe

- Very seasonal tourist resort
- Small resident population of 1500
- Massive seasonal increase - school summer holidays
- Active mountain bike association
- Small network of hand built trails right next to the town in scrub land on council land
- Significant amount of council, forestry and DEWNR land within 20km of the town
- Interesting topography - not great elevation change but rolling and very featured
- Favorable ground conditions for low impact trail construction
- Possible regional level MTB facility
- Master plan for up to 35km of singletrack around the town already in place
- Larger master plan for the Great Ocean Road to connect all the towns in the pipeline
- To develop a regional level facility - look at public lands within the 20km radius of the town, but very serious thought would need to be given to the nature o f the trail model and the trail management model
- The most important thing is to develop a robust Frame of Reference with stakeholders to maximize benefits and minimize risks
- Potential for a short kayaking trail on Drain L

8.2.6 Port Lincoln

- Prescribed route network within national parks which is neither one thing or another
- Friends of the Parks have been responsible for provision of information
- No real thought has been given to the nature of the trail model or the users
- Most of the prescribed routes are quite long
- Space for more accessible prescribed routes within the parks
- Some potential for off road cycling though careful consideration would need to be given to trail model and design
- Plentiful support facilities available within the town

8.2.6 River Murray and Coorong

- Murray is ripe for a multi-day trail along its length
- Must be able to have shorter trips too

- Possible additional trails along tributaries
- Focus on small towns along the river and tributaries as hubs
- Break the trail into sections which reflect the differing nature of the river and within these sections could be broken up into day trips
- Development of trails would focus on information and interpretation and infrastructure such as camp ground, formalized access and egress point - with built in flexibility
- The Coorong and Albert and Alexandrina Lakes - treat as one trail product with Meningie as a hub
- Potentially an iconic paddling product for the state
- Wilderness paddle
- Relatively flexible
- Northern end of trail - structures there to support the trail already i.e. camping sites
- Which direction the trail should be paddled, prevailing winds etc.
- Trail doesn't have to be prescriptive - present the facilities and information about how to paddle in certain winds etc.
- Lake Albert and Alexandrina - could link into aboriginal settlement as another hub
- Nature of trail product here needs to be carefully considered
- May be the potential to develop a multi-day equestrian trail on the mainland side of the Coorong - using an existing track which would require some upgrade work, that could link into existing campsites, but maybe considerable added infrastructure would be required for feeding/watering horses and further campsites

8.3 Appendix 3 – Trail Audit

This is a desktop based study of some of the current recreational trails provision in the state of South Australia, based on maps, brochures and some site visits. Maps and brochures have been made available via the DEWNR, Trails SA, Walking SA, Over the Edge Sports and Forestry SA web sites. The audit has been carried out in the context of the intended trail users and cohorts, trail models and trail status and is set out by region.
This is not meant to be a complete audit of all recreational trails in South Australia, rather a cross section of the types of trails available, identifying differing trail types, trail users and trail models.

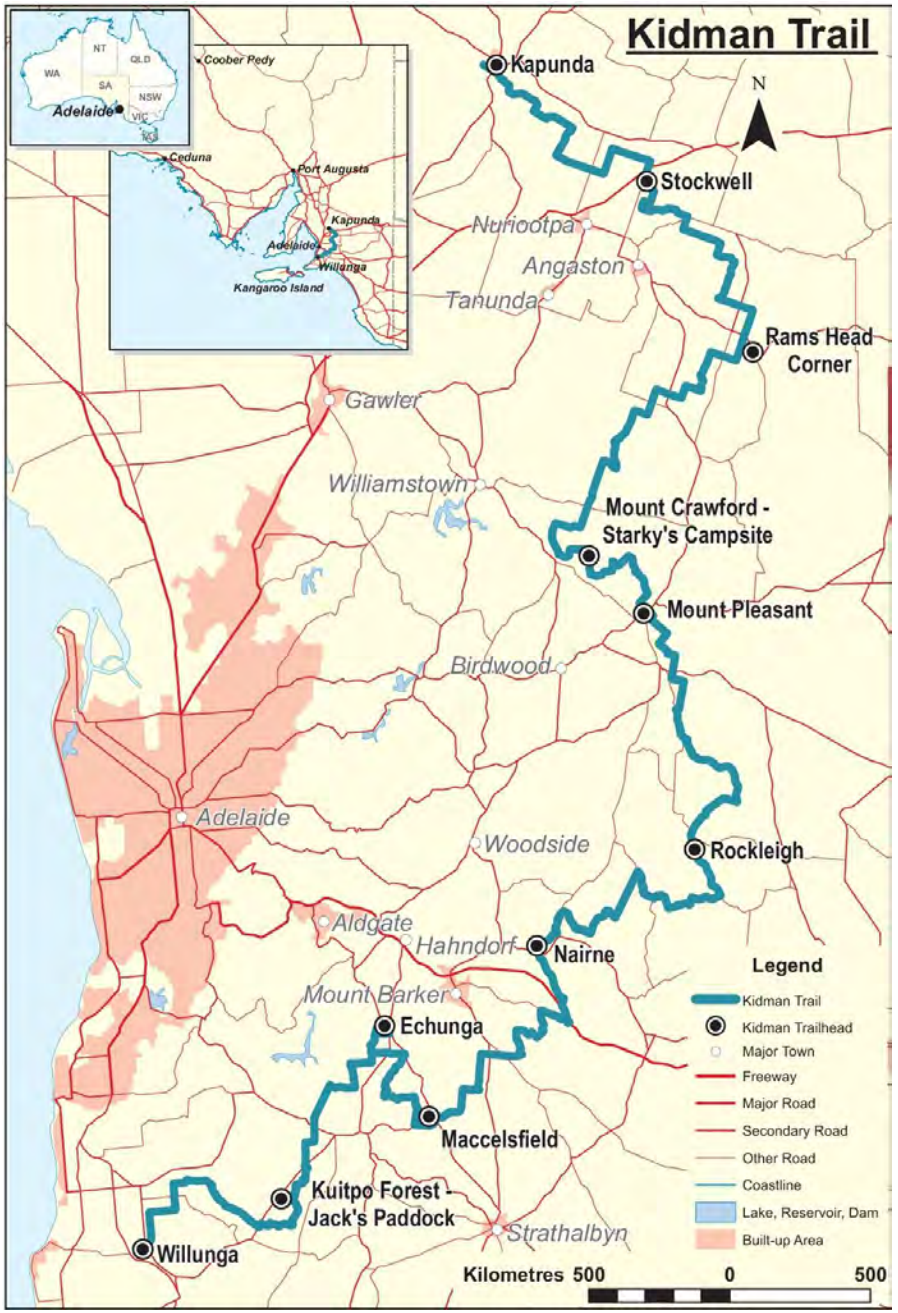
8.3.1 Long Distance Trails

i). The Heysen Trail

INTENDED USERS/ USER COHORTS	• This is a long distance iconic walking trail and is seen as SA's flagship trail product • Its primary function is as a tourism product when viewed as a whole but it also serves an important regional and local recreational role in its numerous sections • It is primarily aimed at long distance trekkers as whole product but also attracts leisure/occasional hikers and bush walkers/hikers in parts, particularly where the main trail feeds into and provides access to other trail networks
TRAIL MODEL	• This is a classic example of a prescribed long distance linear route • The route is clearly trail marked throughout with frequent interpretation and orientations points
STATUS	• As indicated above this trail is seen as a flagship trail product for SA and as such can be viewed as a high value trail of state significance • However in sections, particularly where associated with communities, it can also be viewed as a very important regional and local recreation resource since it often provides access to other trail systems
COMMENTS	• Its extreme length makes it likely that the majority of the use of this trail is in shorter sections and that it is only done in its entirety by a small proportion of users • Whilst it is of considerable value as a tourism resource as a whole, its use in smaller sections and as an access to other trail systems makes it of considerable value as a recreation resource too • Whilst a linear trail this trail is quite flexible in that it can be used as a whole, or in parts of varying lengths making it attractive to numerous user cohorts

(I) The Kidman Trail

INTENDED USERS/ USER COHORTS	• Horse riders i.e. long distance riders and endurance riders as a whole product or in long sections, leisure riders in short sections, novice riders in short sections • Walkers i.e. long distance trekkers as a whole product, casual walkers and leisure/occasional hikers in shorter sections • Cyclists i.e. off road cycle tourers as a whole product, family/leisure cyclists in parts
TRAIL MODEL	• This is a classic prescribed linear long distance trail
STATUS	• For horse riders this trail is of state significance due to limited opportunities elsewhere and can be seen as the state's flagship horse riding trail • For the other users highlighted above this trail is of regional significance
COMMENTS	• This trail is of great strategic importance to horse riders since it provides not only a long distance trail but also innumerable opportunities for shorter itineraries for a range of user cohorts • For horse riders this trail therefore works as both a state recreation and tourism product and as a key regional and community recreation resource

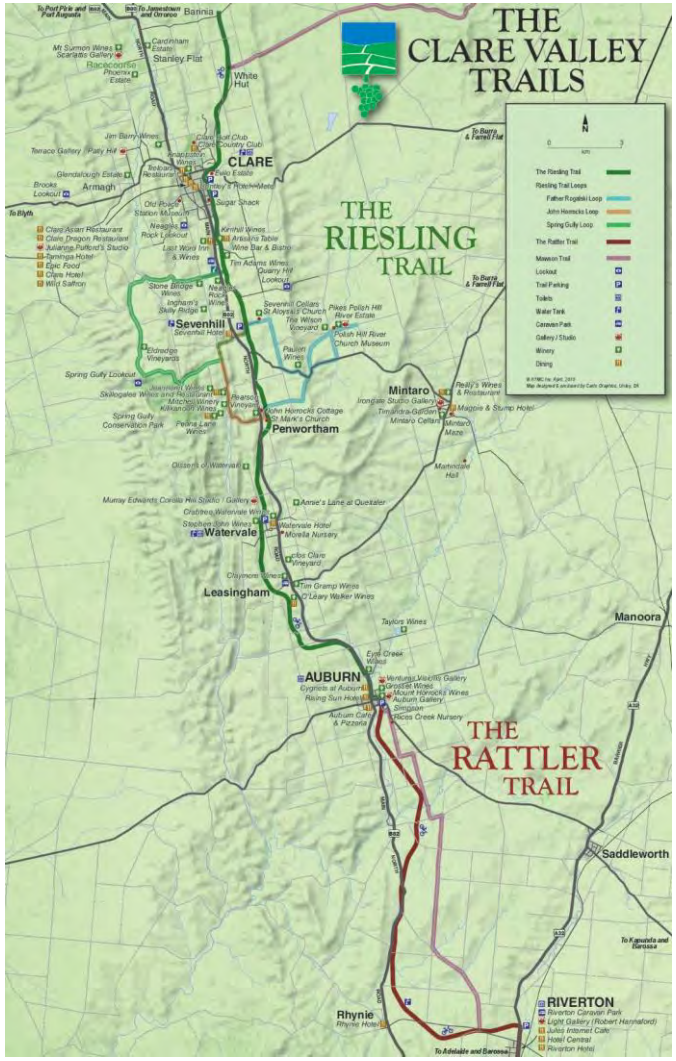


(II) The Mawson Trail

INTENDED USERS/ USER COHORTS	• Off road cycle tourers • Trail riders (mountain bikers) • Sport Riders (mountain bikers) This trail is also open to walkers of differing types as follows: • Casual walkers • Occasional walkers/hikers • Some sections are open to horse riding
TRAIL MODEL	• A classic example of a prescribed linear route
STATUS	• This seen as SA's flagship off road cycling trail product and as such is of state significance • However it can easily be split into numerous smaller sections and as such provides a number of important regional and local recreational resources
COMMENTS	• Whilst an important tourism asset of state importance this trail also serves to provide important access to other adjoining trail systems used by both cyclists and walkers

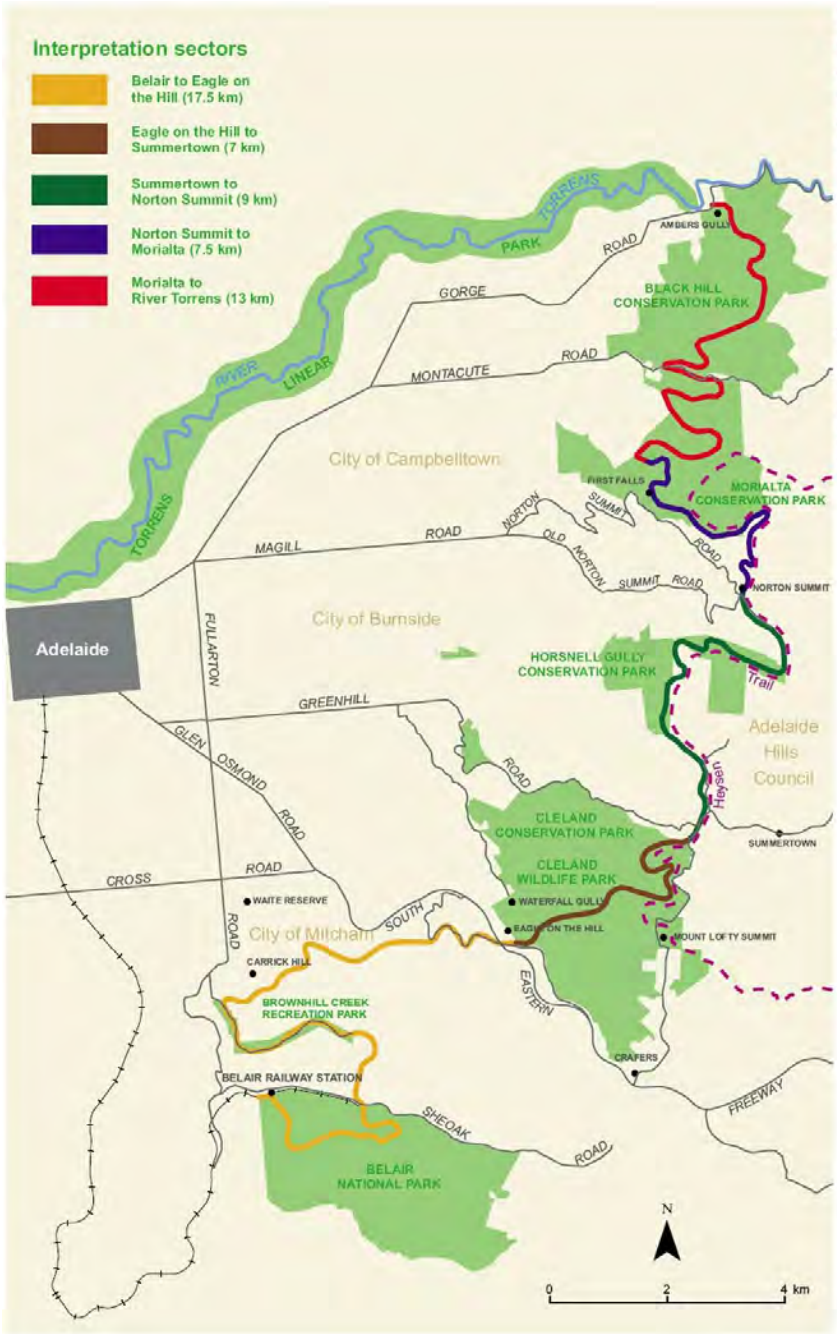
(III) The Riesling and Rattler Trails

INTENDED USERS/ USER COHORTS	• As a whole – off road cycle tourers, trail riders (cyclists) • In parts – the less able, casual walkers, family/leisure cyclists
TRAIL MODEL	• As a whole the two trails can be seen as a single long distance linear route • However the linear trail also provides access to prescribed single loops of varying lengths and degrees of difficulty
STATUS	• These trails as whole can be seen as a regional tourism and recreation resource of considerable value • However it can be split into numerous short sections which are extremely attractive to a range of users in particular family/leisure cyclists and the less able and this in itself makes if of great significance as a regional and local recreation resource
COMMENTS	• This trail product is greatly enhanced by its accessibility across user cohorts and by its relationship with key visitor attractions along the route such as vineyards and restaurants • The availability of bike hire also greatly enhance the appeal of the trail product as a whole

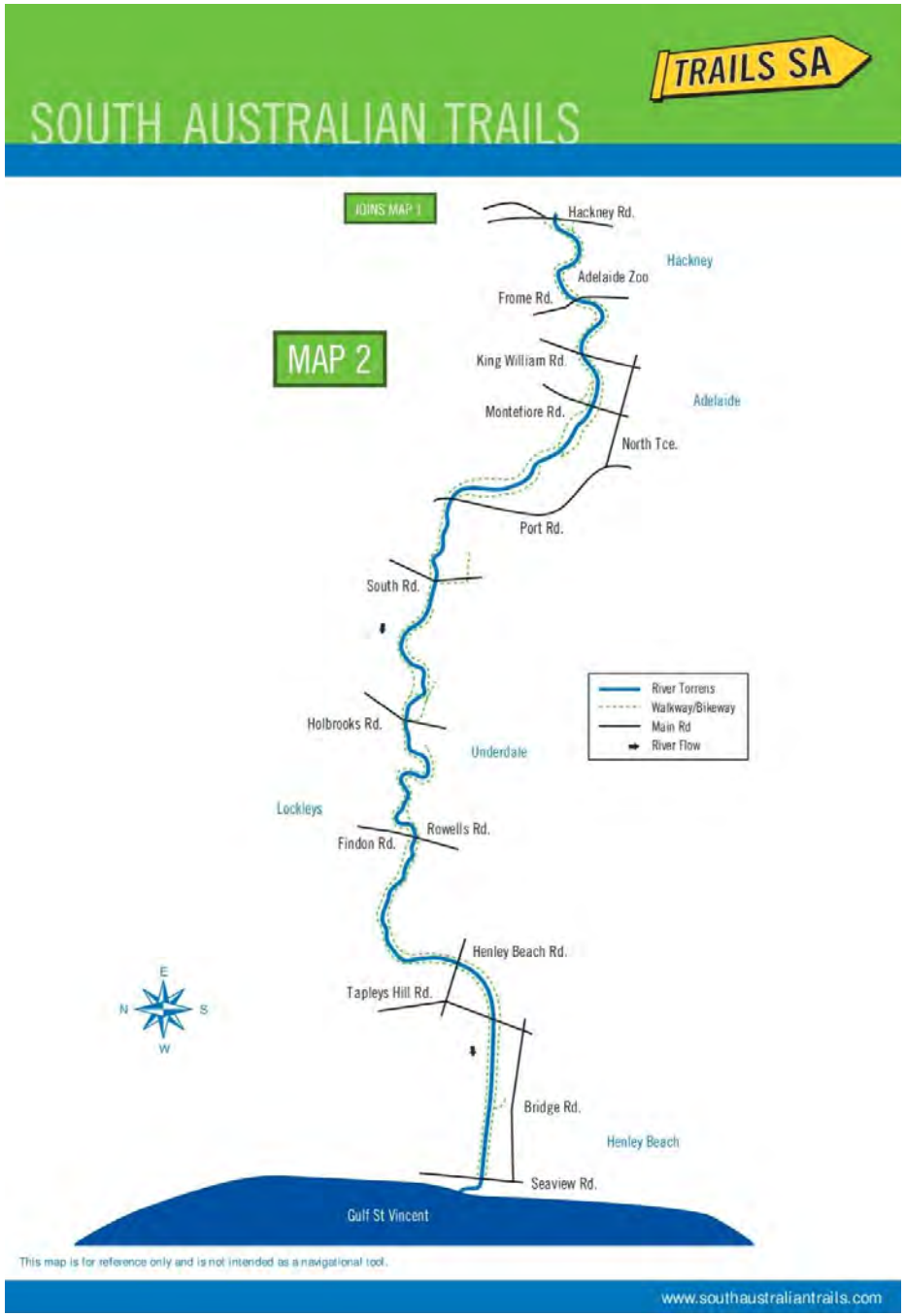


(IV) The Yurrebilla Trail

INTENDED USERS/ USER COHORTS	• This is a walking trail imped at the following • As a whole – long distance hikers/trekkers, bush walker • In sections – Leisure/occasional walkers/hikers
TRAIL MODEL	• This is a linear prescribed long distance route which can be divided into five shorter linear sections • This trail also links into several other prescribed trail systems in national parks
STATUS	• As whole this trail is of regional significance as a tourism and recreation product • In its component sections it can be viewed as an important regional and local recreational resource for the city of Adelaide and its surroundings
COMMENTS	• This is a good quality hiking trail which links a number of key national parks • Its position on the edge of Adelaide and its accessibility makes it of particular strategic importance as a recreation resource



8.3.2 Adelaide



(i) The Torrens Trail

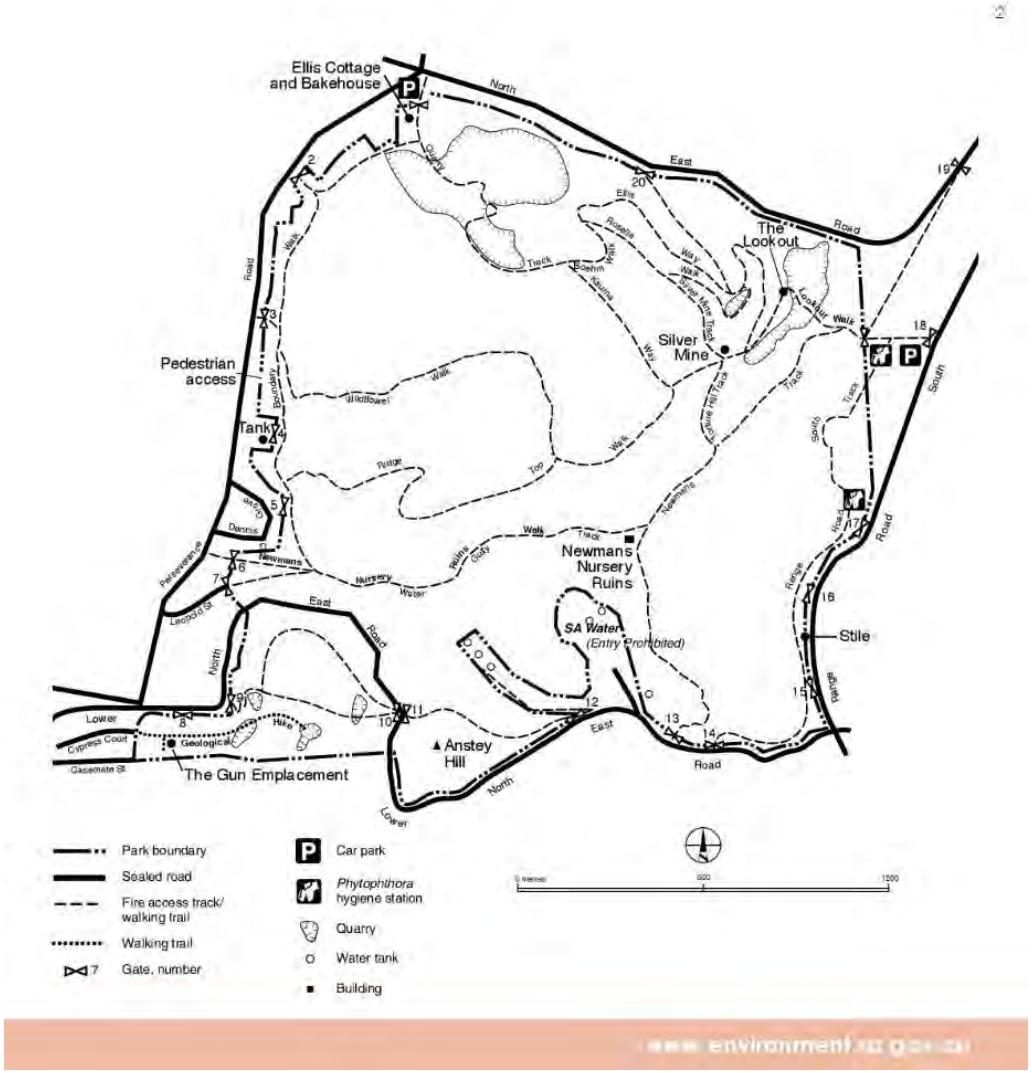
INTENDED USERS/ USER COHORTS	• Family/leisure cyclists • Commuter cyclists • The less able • Casual walkers • Runners
TRAIL MODEL	• A prescribed linear route in an urban and suburban environment
STATUS	• This trail serves as a very important recreation resource of the city of Adelaide and all of the communities it passes through • It provides accessible recreation for a wide range of users and for a very significant population • It is also an important tourism asset particularly in the context of the free bike scheme
COMMENTS	• This is a hugely important trail which greatly enhances the lives of people who have access to it • It provides an accessible high quality trail opportunity which is of great strategic importance

(ii) Adelaide Parklands Trail

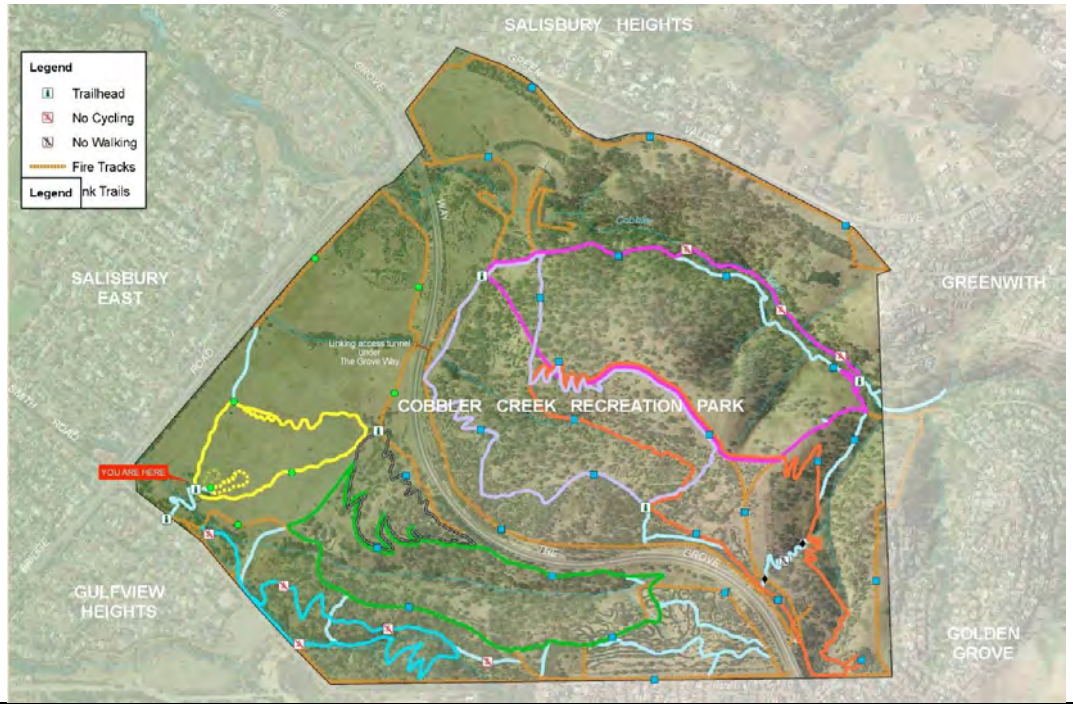
INTENDED USERS/ USER COHORTS	• Family/leisure cyclists • Commuter cyclists • The less able • Casual walkers • Runners
TRAIL MODEL	• A prescribed loop trail in a city park setting
STATUS	• This trail serves as a very important recreation resource of the city of Adelaide • It provides accessible recreation for a wide range of users and for a very significant population • It is also an important tourism asset particularly in the context of the free bike scheme
COMMENTS	• This loop is currently incomplete • This is a hugely important trail which greatly enhances the lives of people who have access to it, even more so when it is complete • It provides an accessible high quality trail opportunity which is of great strategic importance

(iii) Anstey Hill Trails

INTENDED USERS/ USER COHORTS	• Casual walkers • Leisure/occasional walkers • Bush walkers/hikers, trail runners
TRAIL MODEL	• A series of prescribed walks including loops and linear routes many of which are interlinked to also provide what is in effect a trail network which works as a social trail network
STATUS	• This is a local and community level trail resource
COMMENTS	• This is an important recreation resource for both the local area and community • However the linear nature of many of the trail marked walks does detract somewhat from the quality of the trail product overall



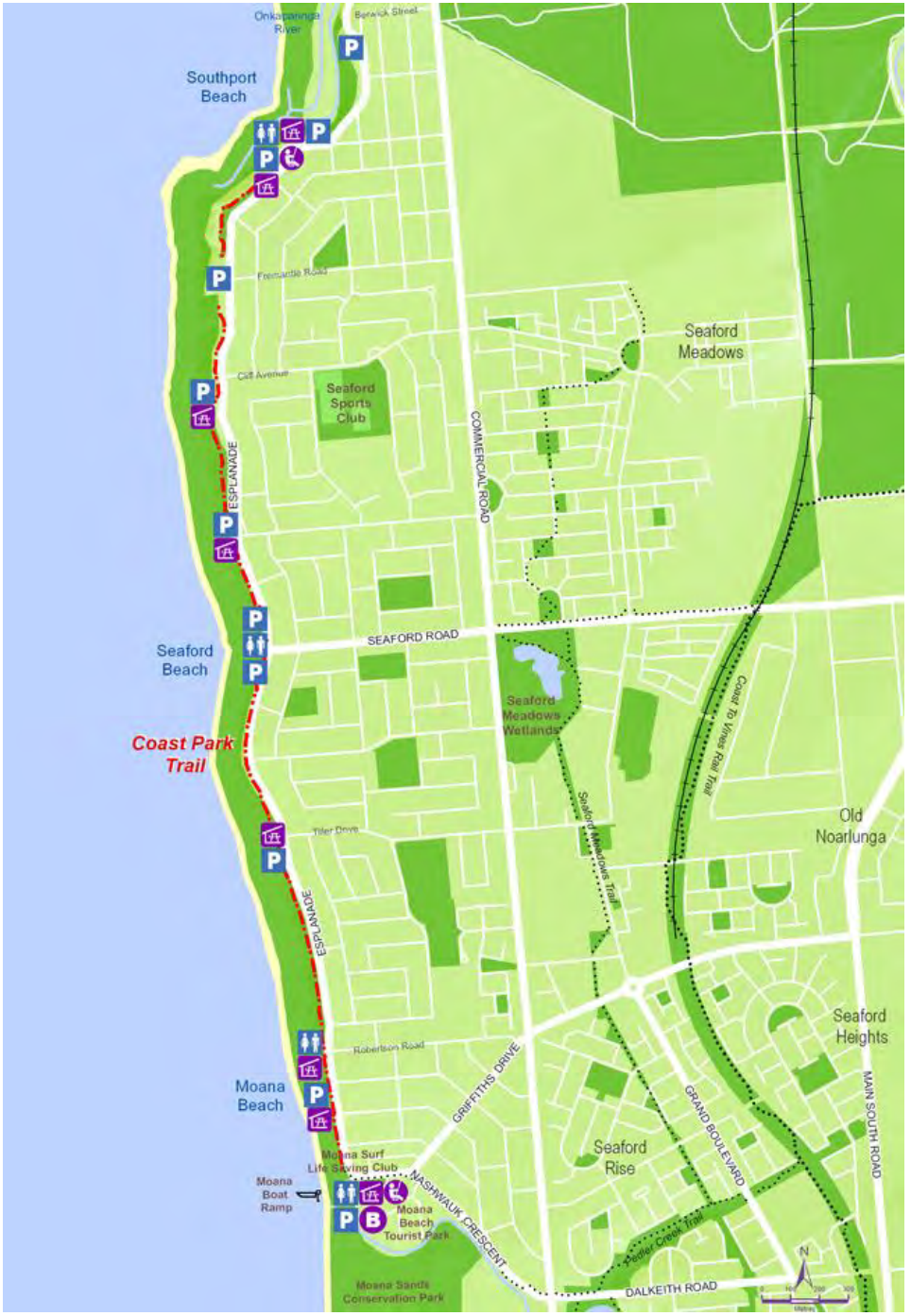
(iv) Cobbler Creek Trails



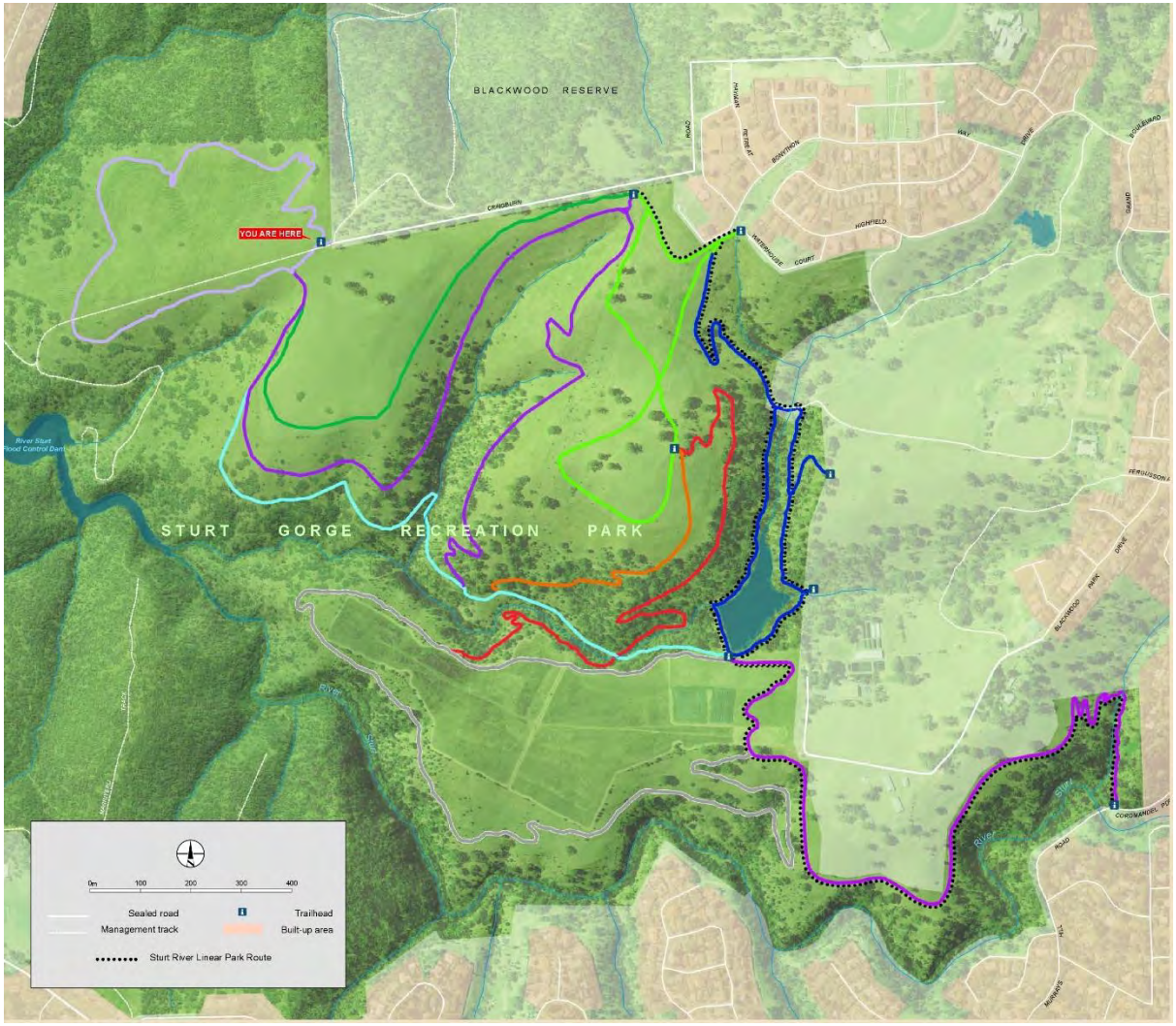
INTENDED USERS/ USER COHORTS	• Walkers including – casual walkers, leisure/occasional walkers/hikers, bush walkers, trail runners • Cyclists including, enthusiast mountain bikers, sport mountain bikers, trail rider mountain bikers
TRAIL MODEL	• This is signed flexible network open to both cyclists and walkers • However some elements of the trail network have been prescribed as loops to facilitate access • The trails are open to be used in either direction by all users
STATUS	• This is a key local and community recreation resource for walkers of all abilities due to its proximity to significant local populations • This is an important local and community recreation resource for mountain bikers, however it could be viewed as being of regional significance if the trail network were more prescribed and accessible
COMMENTS	• As a signed flexible network this trail network is less accessible and more difficult to interpret than a more prescribed system. • This makes it potentially less accessible and more difficult to manage conflicts between cyclists and walkers and does detract a little from the potential value of the trail system as a whole

(v) Coast Park Trail – From Port Noarlunga to Moana

INTENDED USERS/ USER COHORTS	• Walkers – casual walkers, leisure/occasional hikers, trail runners • Cyclists – Family/leisure cyclists • Horse riders – novice riders, leisure riders
TRAIL MODEL	• Short linear route which is accessible from a number of trailheads along its length
STATUS	• This is local and community level recreation resource of some value and significance
COMMENTS	• Whilst this is a linear route it is very flexible since it can be accessed from a number of points and used to differing extents • This has a significant effect on its overall value as a recreation resource

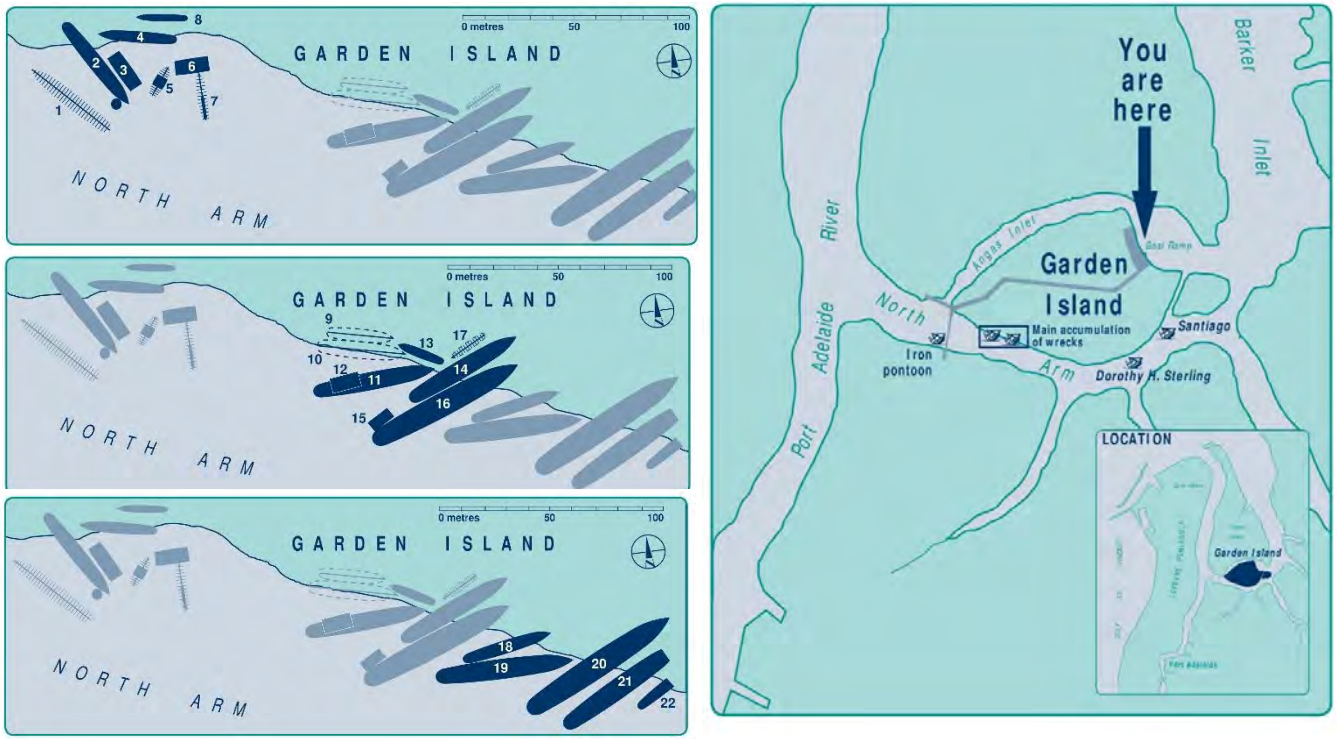


(vi) Craigburn Farm Trails



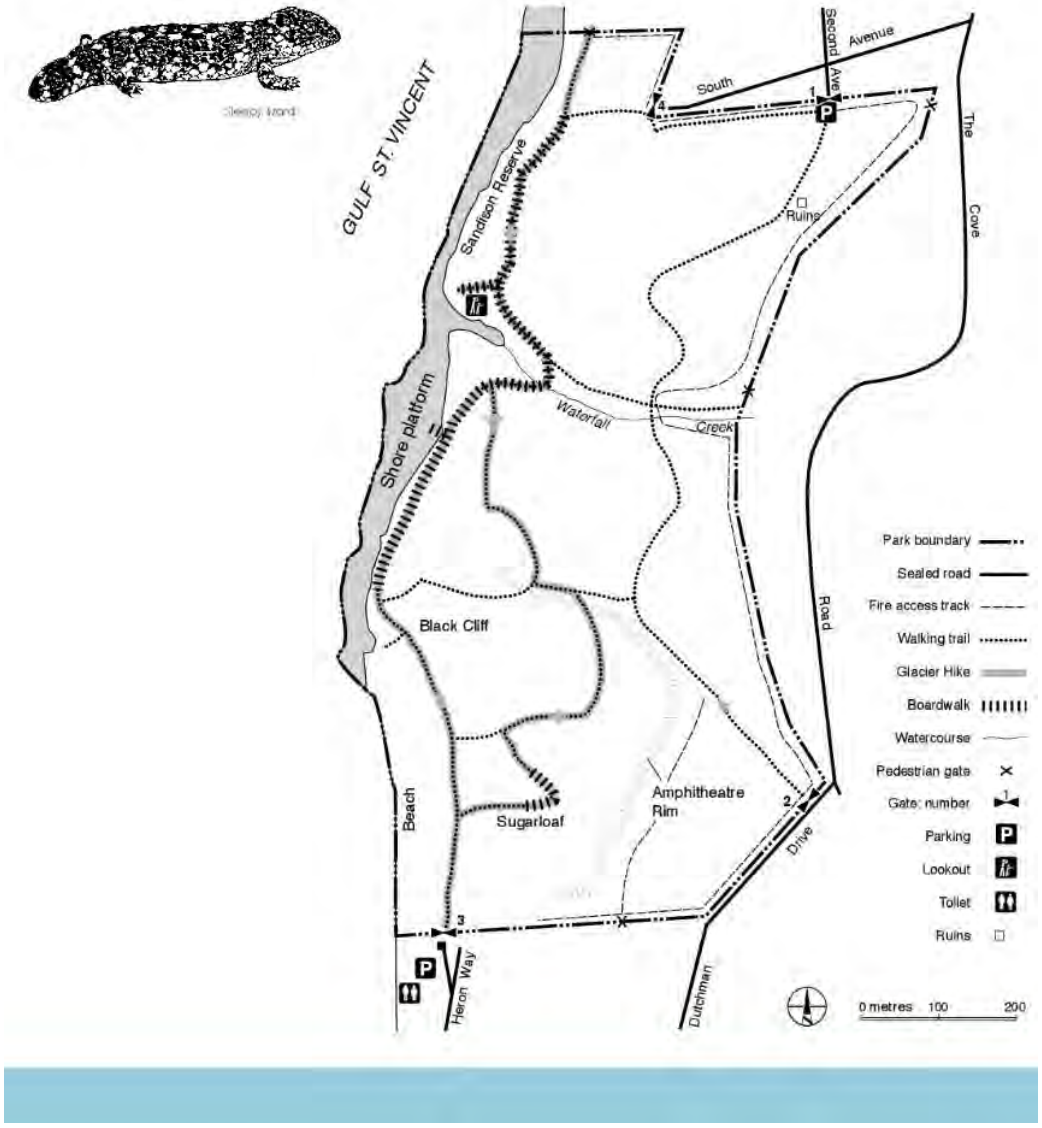
INTENDED USERS/ USER COHORTS	• Cyclists – enthusiast mountain bikers, sport mountain bikers, trail rider mountain bikers • Horse riders – leisure riders • Walkers – Casual walkers, leisure/occasional hikers, trail runners
TRAIL MODEL	• This is a signed flexible shared use network which can be used in any direction by all users
STATUS	• For walkers this network is of local and community significance as a recreation asset • For mountain bikers this is a local and community recreation asset and its scope and scale prevents it from becoming of more strategic significance • For horse riders this network can be seen as a local and community recreation resource
COMMENTS	• A more prescribed system particularly relating to mountain bikes may make this network of more significance • The nature of the trails would seem to deter some local horse riders due to the sites popularity with mountain bikers and perceived issues with safety and conflict

(vii) Garden Island Heritage Trail – Ships Graveyard



INTENDED USERS/ USER COHORTS	• Single day recreation paddlers (one day trip between 1 to 6 hours)
TRAIL MODEL	• A linear prescribed route to be done as a return trip with extensive interpretation
STATUS	• This is a recreation and tourism asset of state significance due primarily to its heritage and historic value • This trail operates as a recreational resource for independent paddlers and as a tourism resource for tour operators etc.
COMMENTS	• This is unique trail product of considerable value and whilst of not particularly extensive scope and scale it does have a particularly unique character which increases its strategic value

(viii) Hallet Cove Trails

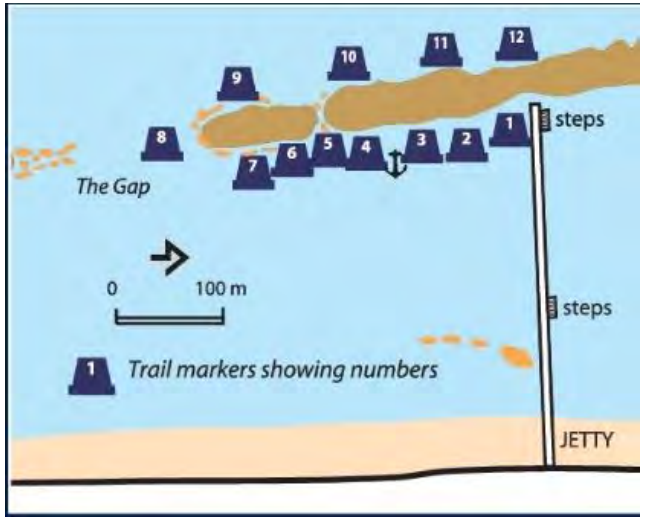


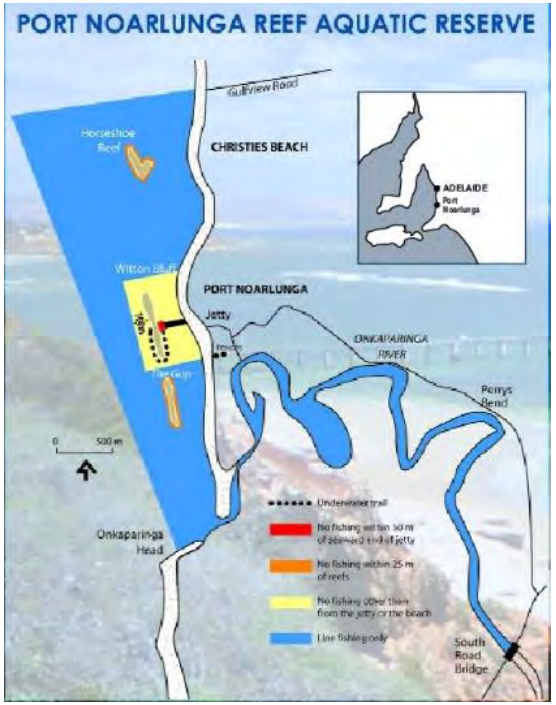
INTENDED USERS/ USER COHORTS	• Casual walkers • Leisure/occasional hikers • Trail runners
TRAIL MODEL	• A social trail network with some prescribed elements which can be accessed from a number of locations
STATUS	• This very much a local and community recreation resource
COMMENTS	• This trail system would appear to function well as a local and community recreation resource, however a more prescribed system may make it more accessible to a wider cohort of users i.e. those with limited knowledge or confidence in the outdoors

(ix) Mitcham Trails

INTENDED USERS/ USER COHORTS	• Walkers – casual walkers, occasional hikers, trail runners • Cyclists – Family/leisure rides, enthusiast mountain bikers, sport mountain bikers, trail riders mountain bikers, gravity focussed mountain bikers • Horse riding is permitted on some trails
TRAIL MODEL	• A signed flexible shared use network which can be accessed from a number of locations • Some minor prescribed elements such as downhill mountain bike trails and short technical mountain bike loops
STATUS	• A local and community recreation resource for walkers due to its proximity to significant populations • A local and community resource for mountain bikers which could be of considerably more significance if the mountain biking elements were to be more prescribed and accessible
COMMENTS	• This is an important recreational resource for both walkers and mountain bikers • A more prescribed trail system may make it more significant and manage conflict between users more successfully

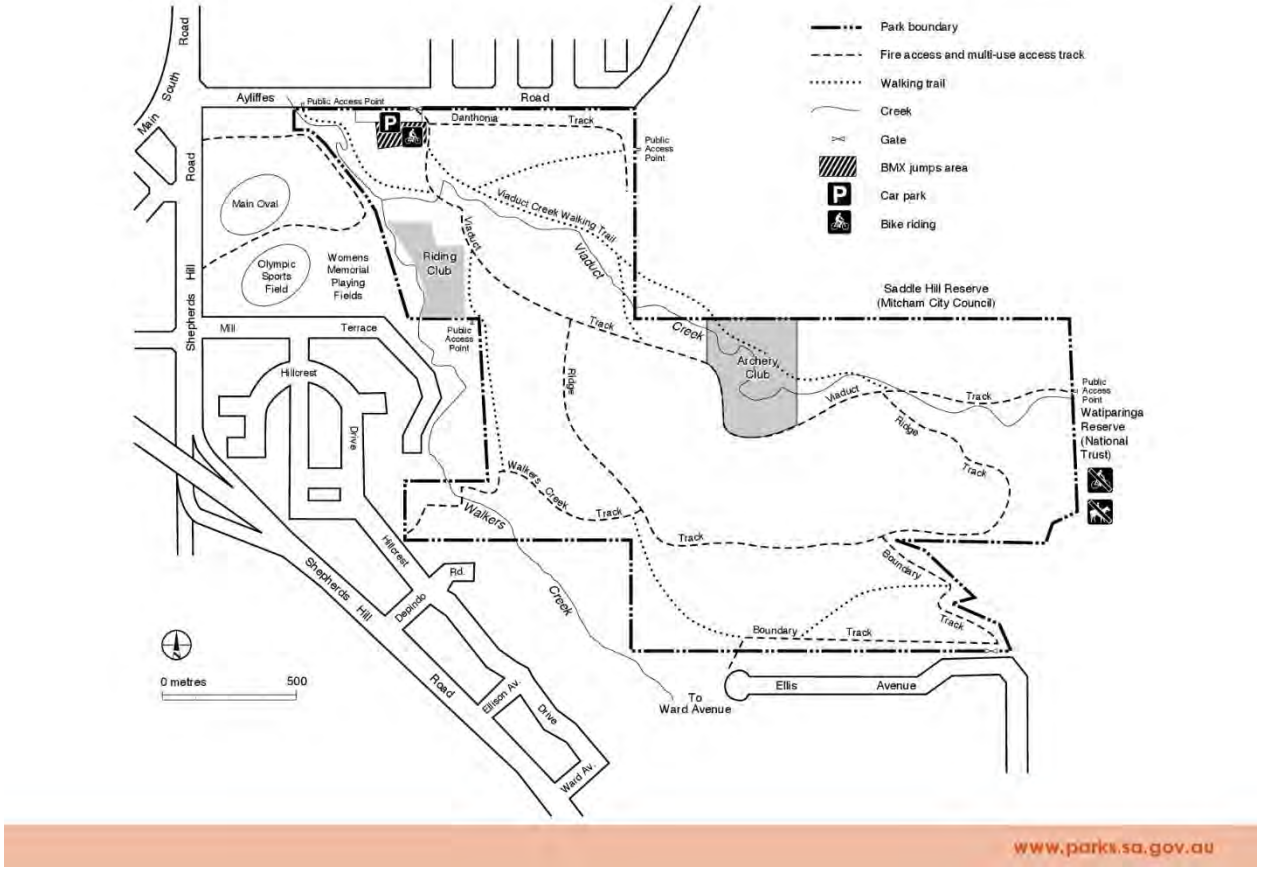
(x) Port Noarlunga Dive Trail





INTENDED USERS/ USER COHORTS	• This trail is aimed at aquatic users i.e. scuba divers and snorkelers either as independent users or in guided or instructed groups
TRAIL MODEL	• This is a prescribed circular loop with interpretation and trail marking
STATUS	• This is a recreation and tourism resource of regional and local significance
COMMENTS	• This is an excellent model which opens up the aquatic and reef environment to a range of users from • It also provides a very important tourism resource which compliments the overall tourism offering in the area

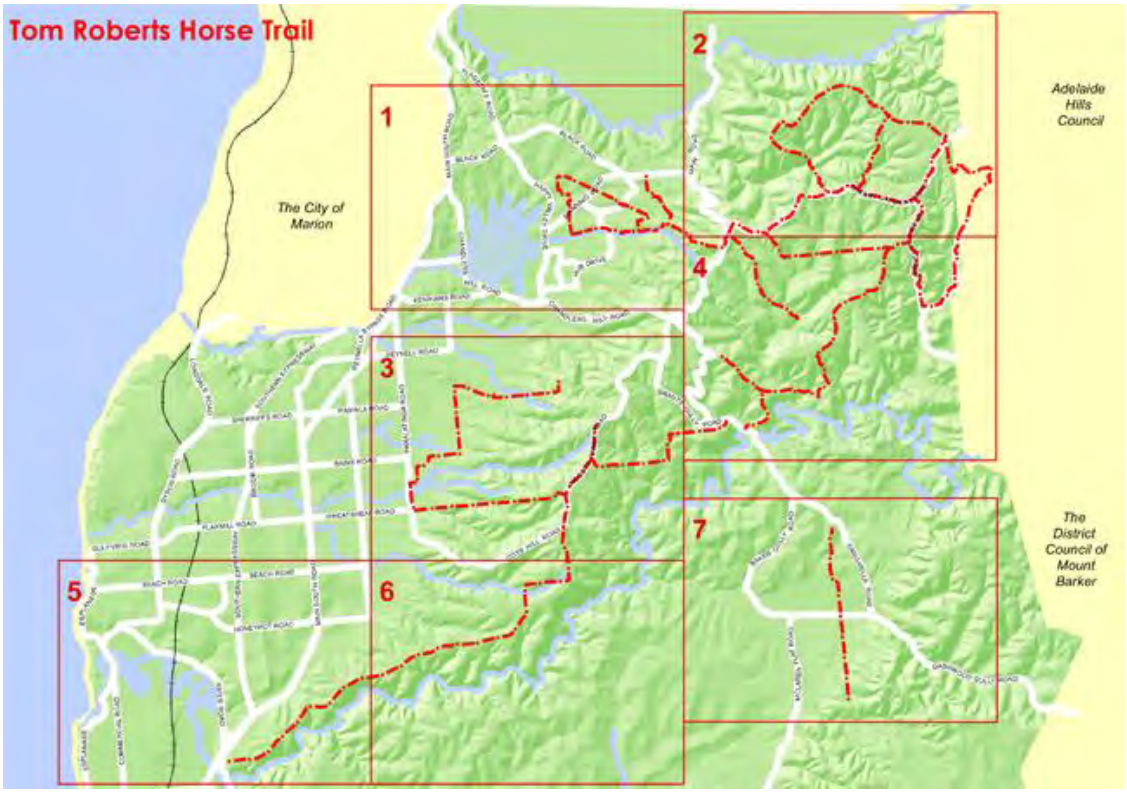
(xi) Shepherds Hill Trails



INTENDED USERS/ USER COHORTS	• Walkers – casual walkers, occasional hikers, trail runners • Horse riders – leisure riders • Cyclists – Family and leisure riders, sport mountain bikers, trail rider mountain bikers, enthusiast mountain bikers, gravity focussed mountain bikers
TRAIL MODEL	• A signed flexible network with some more prescribed elements such as short linear trails and short loops • There is also a dirt jump area
STATUS	• This is very much a recreation resource of local and community significance for all users
COMMENTS	• Elements of this network are multi use in an attempt to accommodate differing users • A more prescribed system of trails for mountain bikers in particular could more successfully manage potential conflict

(xii) The Tom Roberts Horse Trail

INTENDED USERS/ USER COHORTS	• Horse riders – novice riders, leisure riders, endurance riders • Cyclists – family/leisure riders, enthusiast mountain bikers, sport mountain bikers, trail rider mountain bikers • Walkers – Casual walkers, leisure/occasional hikers, trail runners
TRAIL MODEL	• This is a signed flexible network of some scope and scale and varying degrees of accessibility/difficulty • The trail is accessible from a number of trailheads though trail information is not available at all of the trailheads • This system also provides access to other trail systems in the surrounding area
STATUS	• This is a recreation resource of considerable regional significance which provides horse riders in particular with valuable access to an extensive trail system
COMMENTS	• This is trail system of considerable scope and scale which is of great strategic significance for the Adelaide area. • It provides a range of users with access to a wide ranging trail system but is of particular importance to horse riders since other trail opportunities are less available in the region

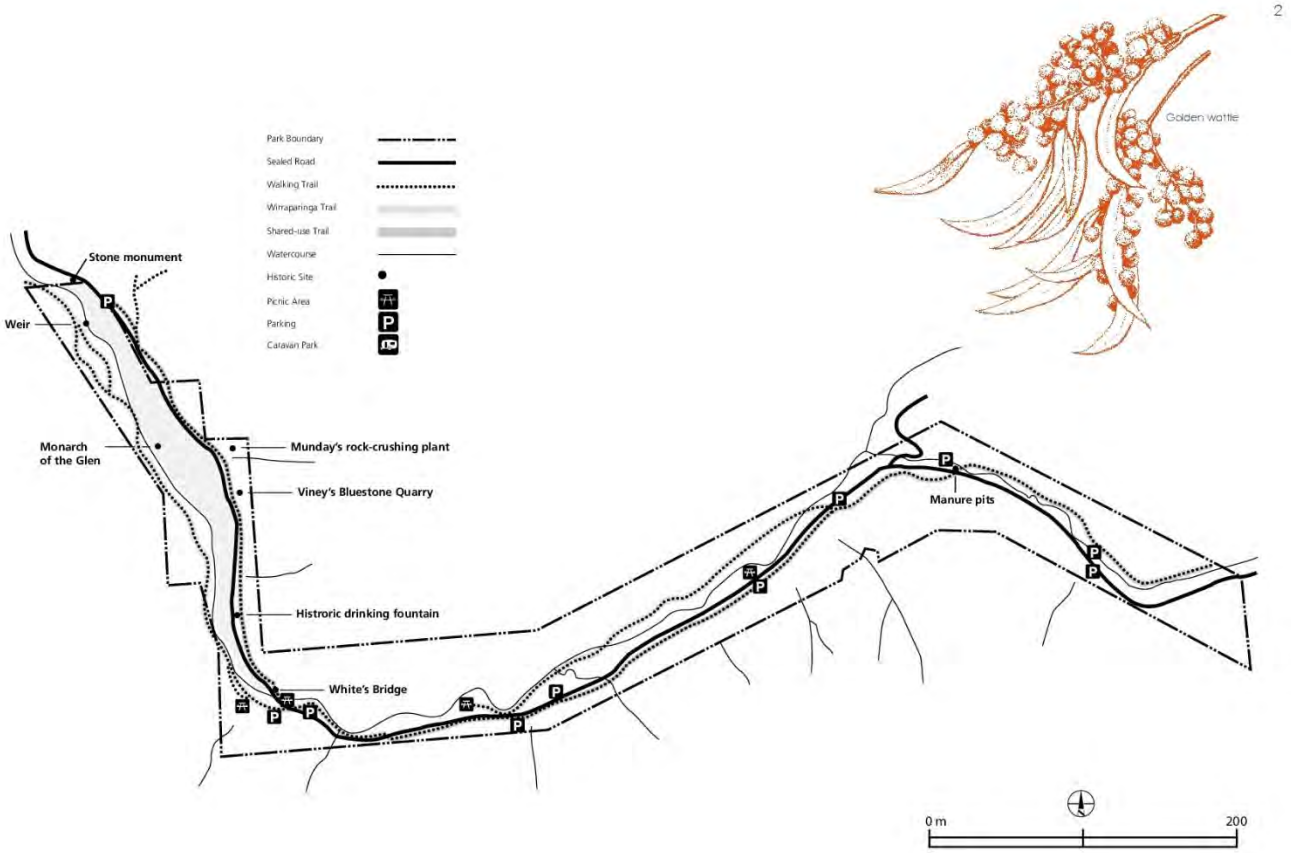


8.3.3 The Adelaide Hills

(i) Belair Trails

INTENDED USERS/ USER COHORTS	• Walkers – casual walkers, occasional/leisure hikers, bush walkers, trail runners • Horse riders – leisure riders • Cyclists – Enthusiast mountain bikers, sport rider mountain bikers, trail rider mountain bikers
TRAIL MODEL	• A combination of a prescribed loop network with a clear trail hierarchy and a signed flexible network of shared use trails which can be used in either direction • The trail system is centred on a number of minor trailheads within the core area of the national park
STATUS	• This is a recreation and tourism asset of considerable regional significance • It is one of the most important recreation resources in the Adelaide hills
COMMENTS	• This is a very high value and well known trail network of major strategic importance. • The walking elements of the network are work well and are very easy to access within a very clear hierarchy. • However the shared use trails are somewhat confusing and difficult for first time visitors to access and do not make multiple use of the park particularly easy • A more prescribed and rationalised trail system aimed at horse riders and cyclists separately could more add considerably more value to the site and trail system as a whole

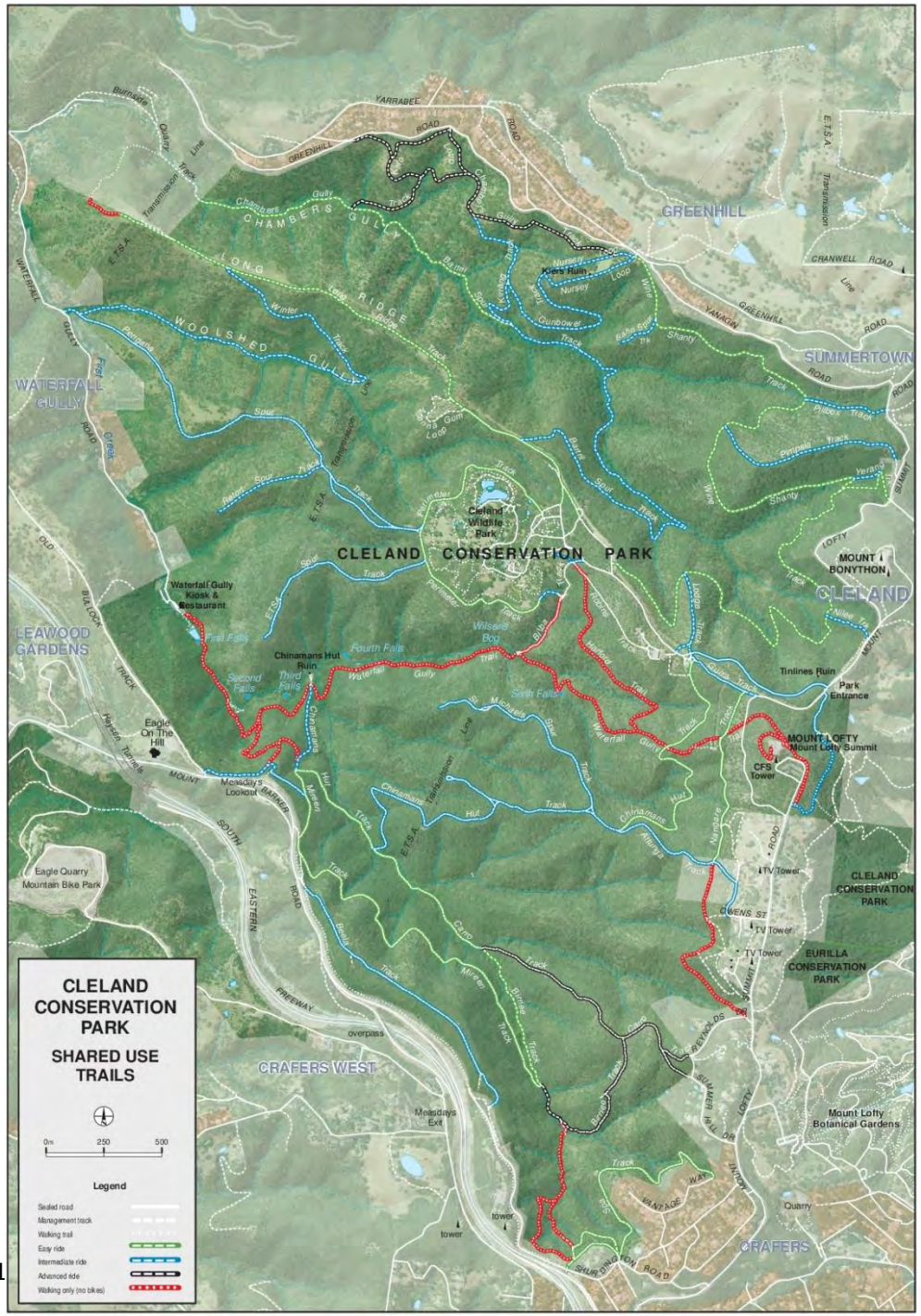
(ii) Brownhill Creek Trails



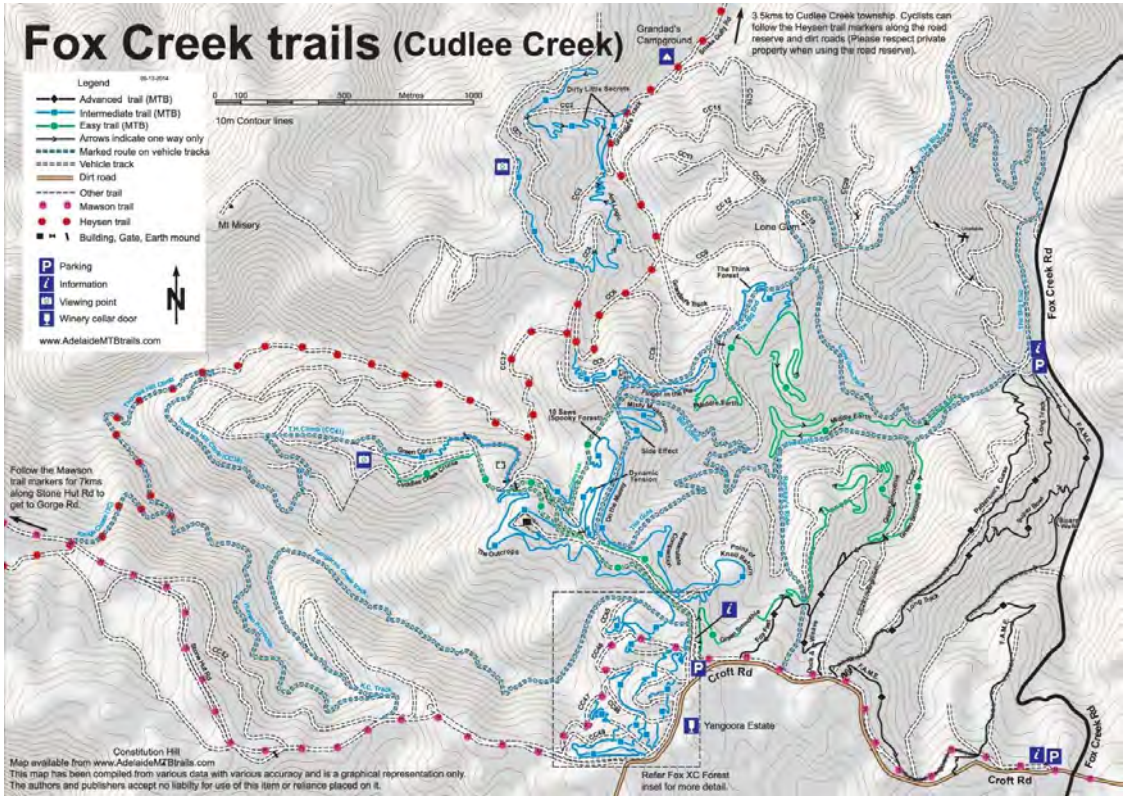
INTENDED USERS/ USER COHORTS	• Casual walkers, trail runners • Family/leisure cyclists • Horse riding is permitted on the multi-use trail and public horse riding arena
TRAIL MODEL	• A single linear route with multiple access points along its length
STATUS	• This is an important local and community recreation resource • This trail also provides access by bike or on foot to Belair national Park and as such is of some strategic recreational importance
COMMENTS	• This trail, whilst linear can be accessed from a number of locations making it quite flexible and accessible and this increases its strategic importance

(iii) Cleland Trails

INTENDED USERS/ USER COHORTS	• Walkers – casual walkers, leisure/occasional hikers, bush walkers, trail runners • Cyclists – enthusiast mountain bikers, sport mountain bikers, trail rider mountain bikers
TRAIL MODEL	• This is signed flexible network with some more prescribed elements such as single looped trails or linear trails • The majority of the trail system is shared use between bikes and walkers though some key sections are for walkers only • The trail system is accessible from a number of key location and can be used in any direction
STATUS	• The wider trail network is of local significance as a recreation resource • However key elements such as the waterfall gully are trails of very considerable regional recreational and tourism significance • Indeed the waterfall gully trail has a particular iconic status for SA
COMMENTS	• This is a very extensive trail system which as it stands is of largely local significance. • However the scope and scale of the trail system means that more prescribed and user focussed trails could increase its significance to that of regional if not state importance

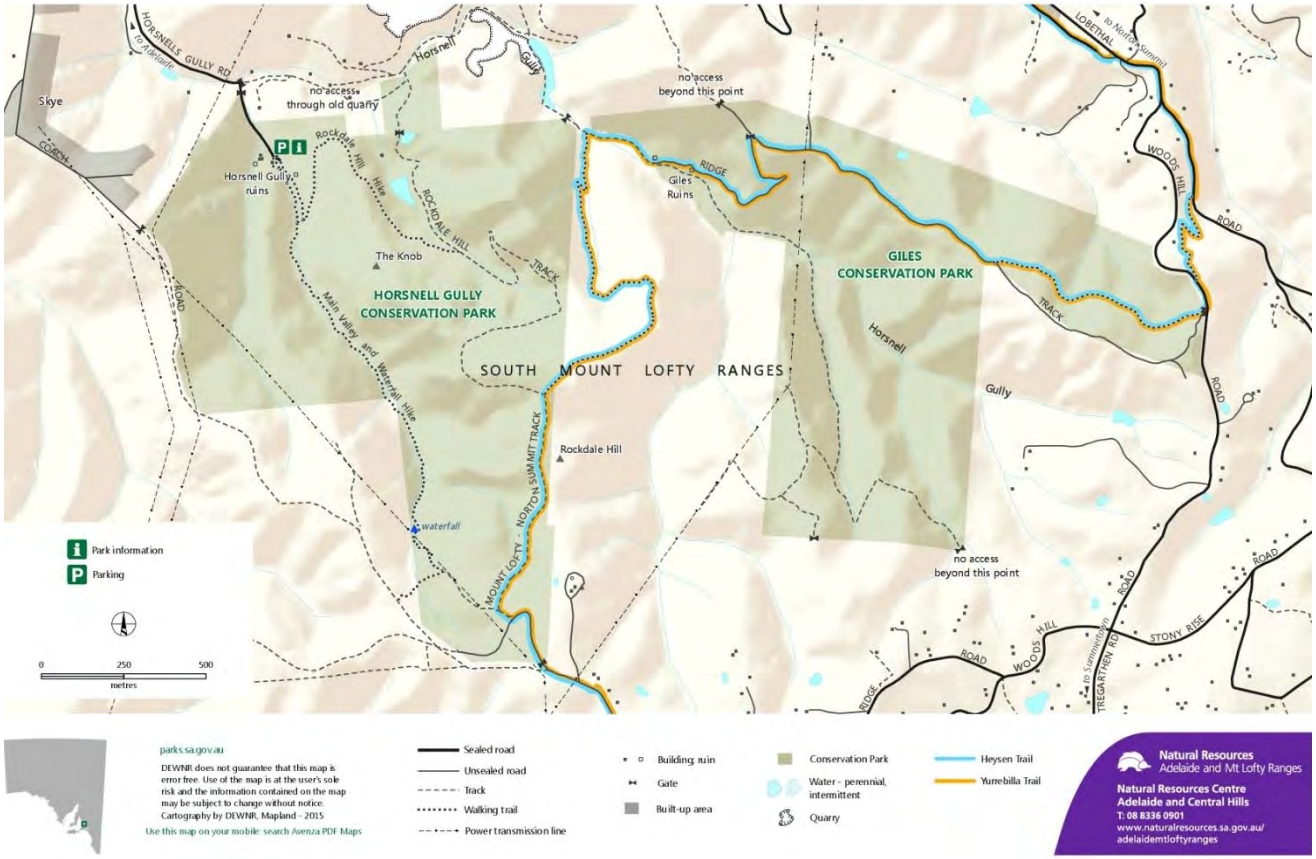


(iv) Fox Creek Trails



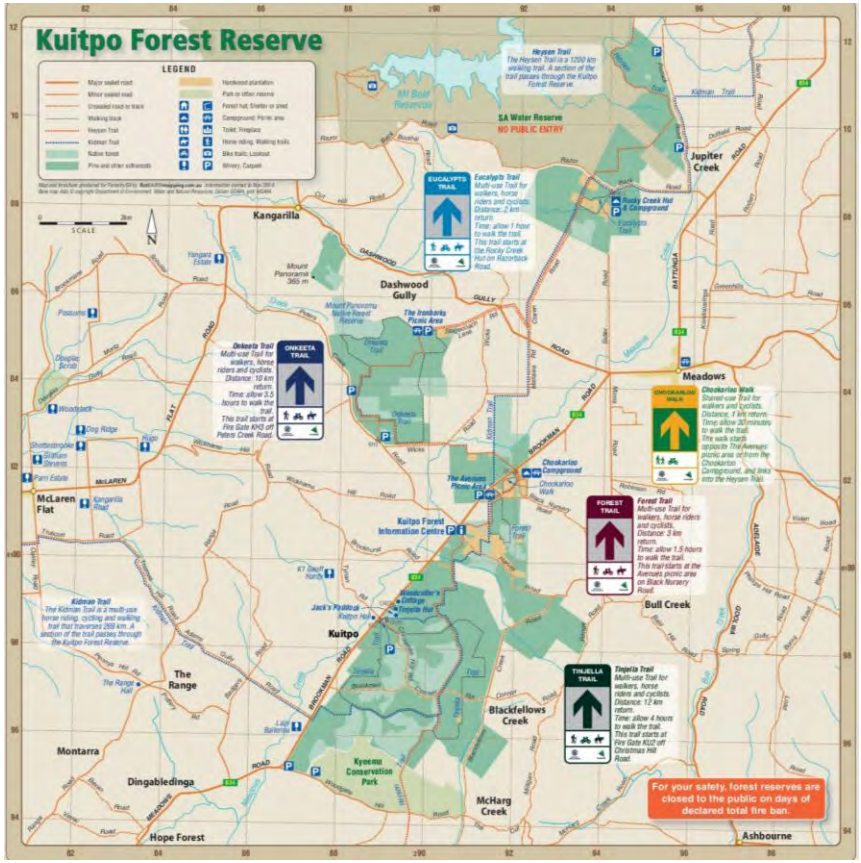
INTENDED USERS/ USER COHORTS	• Enthusiast mountain bikers • Sport riders • Trail riders • Gravity focussed mountain bikers
TRAIL MODEL	• This is signed flexible network with some more prescribed linear elements i.e. downhill tracks • The trail system is currently focussed on two key trailheads
STATUS	• This is a very significant mountain bike trail system of considerable regional significance • It is the most significant mountain bike trail resource within the Adelaide Hills and is one of the most significant within SA
COMMENTS	• This trail network is made up of purpose designed and built trails which are very user focussed • However the nature of the trail model means that it can be difficult to access and interpret particularly for first time visitors • Should the nature of the trail model be changed to a more prescribed trail marked loop system the value of the network as a recreational and tourism resource could be very significantly increased

(v) Horsnell Gully and Giles Trails



INTENDED USERS/ USER COHORTS	• Leisure/occasional walkers • Bushwalkers • Trail runners
TRAIL MODEL	• Long distance liners route (Heysen/Yerrabilla trails passes through the parks) • Linear route (Main valley and Waterfall Hike • Circular prescribed loop
STATUS	• This is very much a local and community recreation resource • However the trails are quite challenging and not particularly accessible • More accessible trails would considerably increase the value of this site as a recreational resource for the community
COMMENTS	• As a stand-alone facility these trails are a local a and community recreation resource • However they form part of a wider social trail network in the Adelaide Hills/Mount Lofty area which is of very considerable regional recreational value and significance

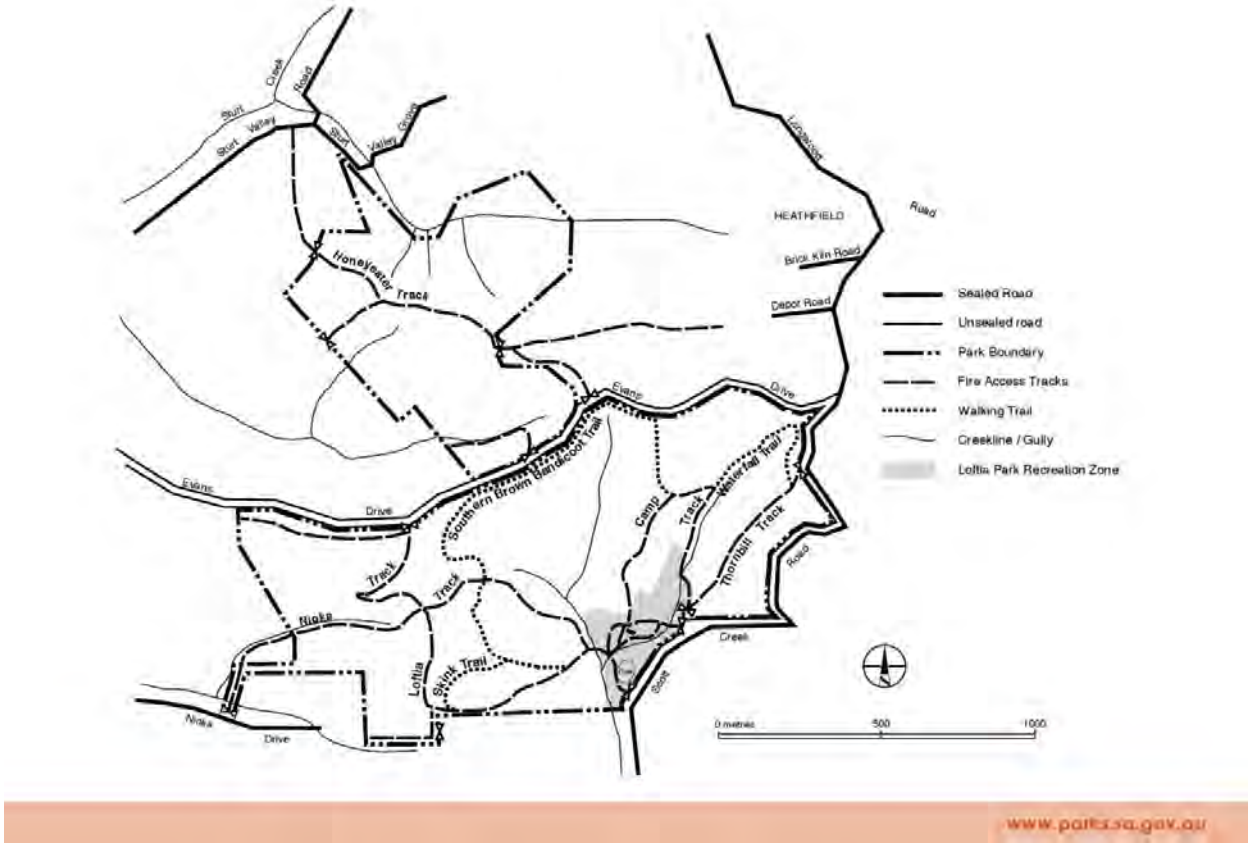
(vi) Kuitpo Trails



INTENDED USERS/ USER COHORTS	• Walkers – causal walkers, leisure/occasional hikers, trail runners, long distance trekkers • Horse riders – leisure riders, endurance riders • Cyclists – family/leisure riders
TRAIL MODEL	• This is a collection of five prescribed looped routes centred on four separate trailheads distributed around the reserve • There is clear hierarchy of trails ranging from 1km to 12km in length and all have moderate gradients • All but one of the trails are open to walkers, horse riders and cyclists and are clearly trail marked • In addition both the Heysen and Kidman Trails pass through the park and the trail marked trails can be accessed from theses trails.
STATUS	• As a walking resource these trails are of no more than local significance. • As a cycling resource they are of potentially regional significance since they provide very accessible traffic free riding for family and leisure riders on looped trails and such trail products are not widespread in the region • They also provide horse riders with a regional resource which whilst limited in its scope and scale nevertheless provides riding opportunities that are scarce within the region
COMMENTS	• This is an important trail system for horse riders in particular, but its fragmented nature makes it quite difficult to access particularly for first time users. • A trail system focussed on a single well-appointed trailhead could make this a very important recreation resource

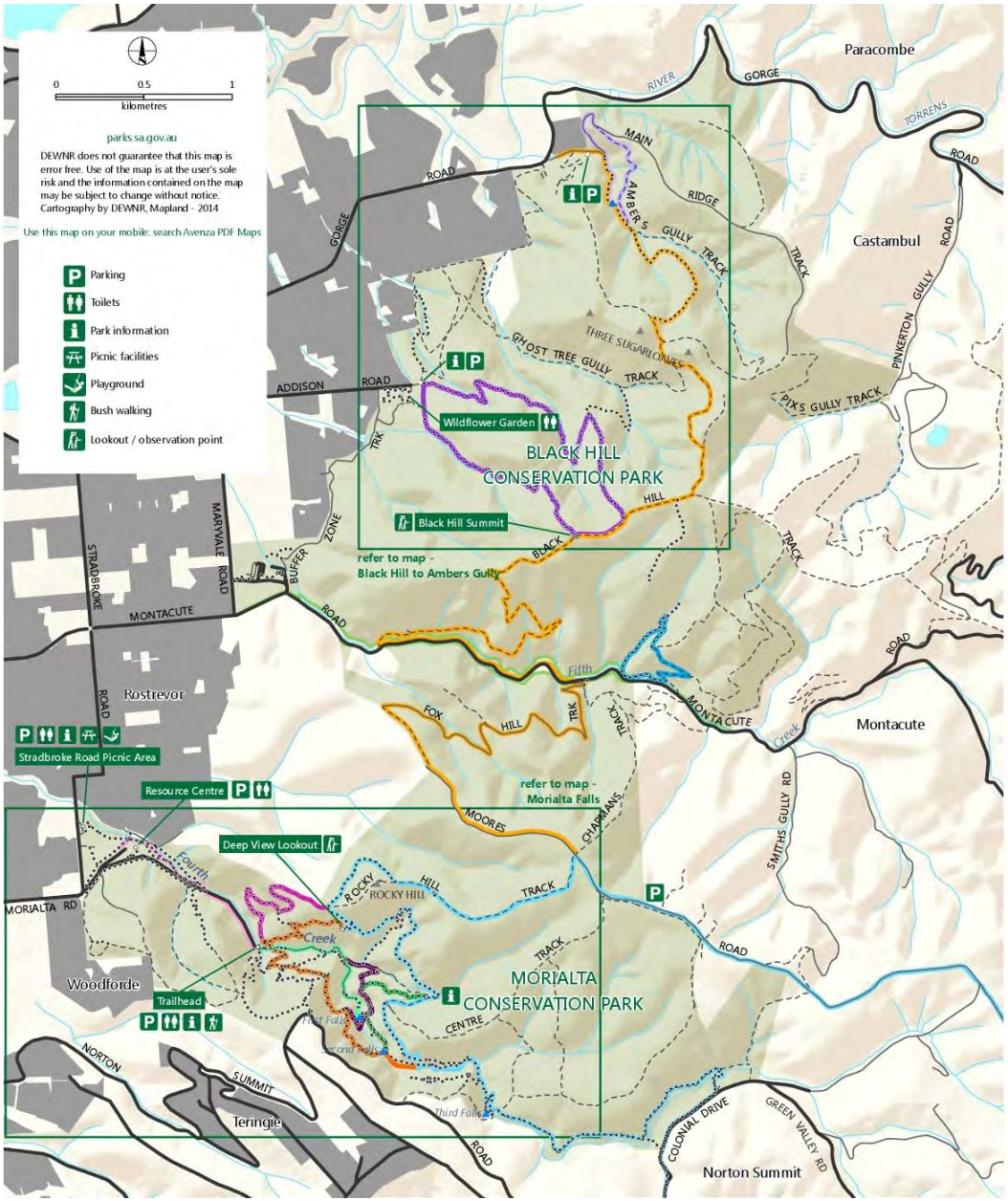
(vii) Mark Oliphant Trails

INTENDED USERS/ USER COHORTS	• Casual walkers • Leisure/occasional hikers • Trail runners
TRAIL MODEL	• A prescribed loop network with five looped walks ranging from 30 minutes to 3 hours in length • All of the prescribed trails start and finish at a trailhead located with a designated recreation zone
STATUS	• This is a significant trail network of local and community importance • The prescribed looped nature of the trails make them particularly accessible and therefore potentially valuable as a recreation resource
COMMENTS	• Whilst this is a prescribed trail system the information associated with it quite poor • Better more accessible trail information would add considerable value to this trail resource

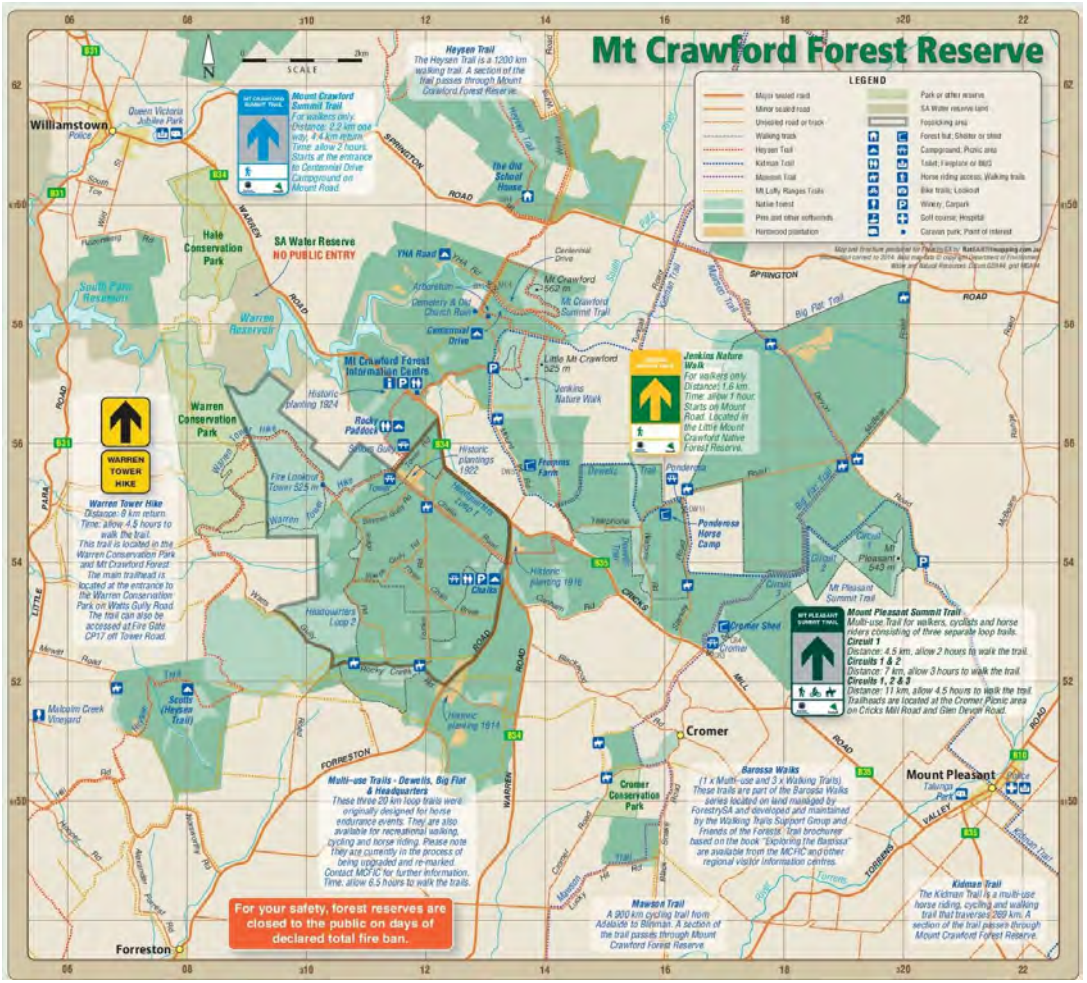


(viii) Morialta and Black Hill Trails

INTENDED USERS/ USER COHORTS	• Casual walkers • Leisure/occasional hikers • Bushwalkers • Trail runners
TRAIL MODEL	• This is essentially a prescribed loop network though with one linear trail • The trails within Morialta Conservation Park are all centred on a single trailhead with parking, toilets and trail information as are the trails within Black Hill Conservation Park • There is a very clear trail hierarchy here with trails ranging from 30 minutes duration to 4 hours
STATUS	• Whilst these trails do not have a particularly large scope and scale they are of both local and regional significance due to their proximity to populations and their popularity with users • These trails are therefore local and regional recreation resources of considerable significance
COMMENTS	• This is high quality trail product which is centred on a strong natural control points such as lookouts, gorges and waterfalls • Its prescriptive mostly looped nature and the fact that it is focused on effective trailheads makes it both accessible and effective

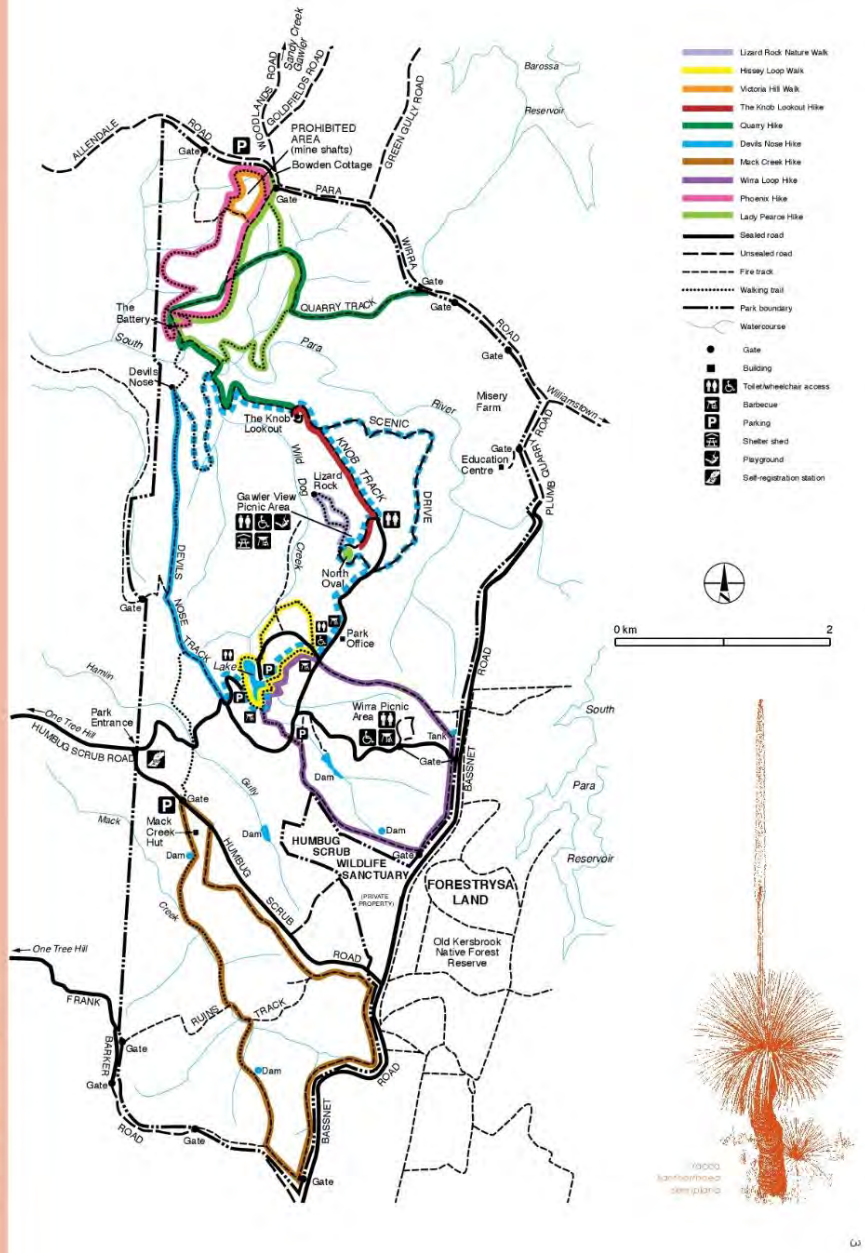


(ix) Mount Crawford East Trails



INTENDED USERS/ USER COHORTS	• Walkers – casual walkers, leisure/occasional walkers, bush walkers, trail runners • Cyclists – Family/leisure riders, enthusiast mountain bikers, trail rider mountain bikers • Horse riders – novice riders, leisure riders
TRAIL MODEL	• This is series of prescribed single loops and linear walking only trails centred on two separate trailheads • A third trailhead features a small stacked loop system of three shared use trails which are open to cyclists, walkers and horse riders of differing lengths • Each trailhead features parking and trail information
STATUS	• When viewed in isolation this trail system would seem to be of local significance • However this forest reserve also features numerous good quality visitor and recreation facilities such as camp sites, picnic areas and a horse camp • When viewed in the context of these facilities the trail system could be said to be of regional significance as a recreation and tourism resource since they form part of a greater tourism product
COMMENTS	• The fragmented nature of this trail system i.e. dispersed around a number of trailheads does make it difficult to interpret and possibly access • A more focussed and coherent trail product would potentially be of considerable value at this site

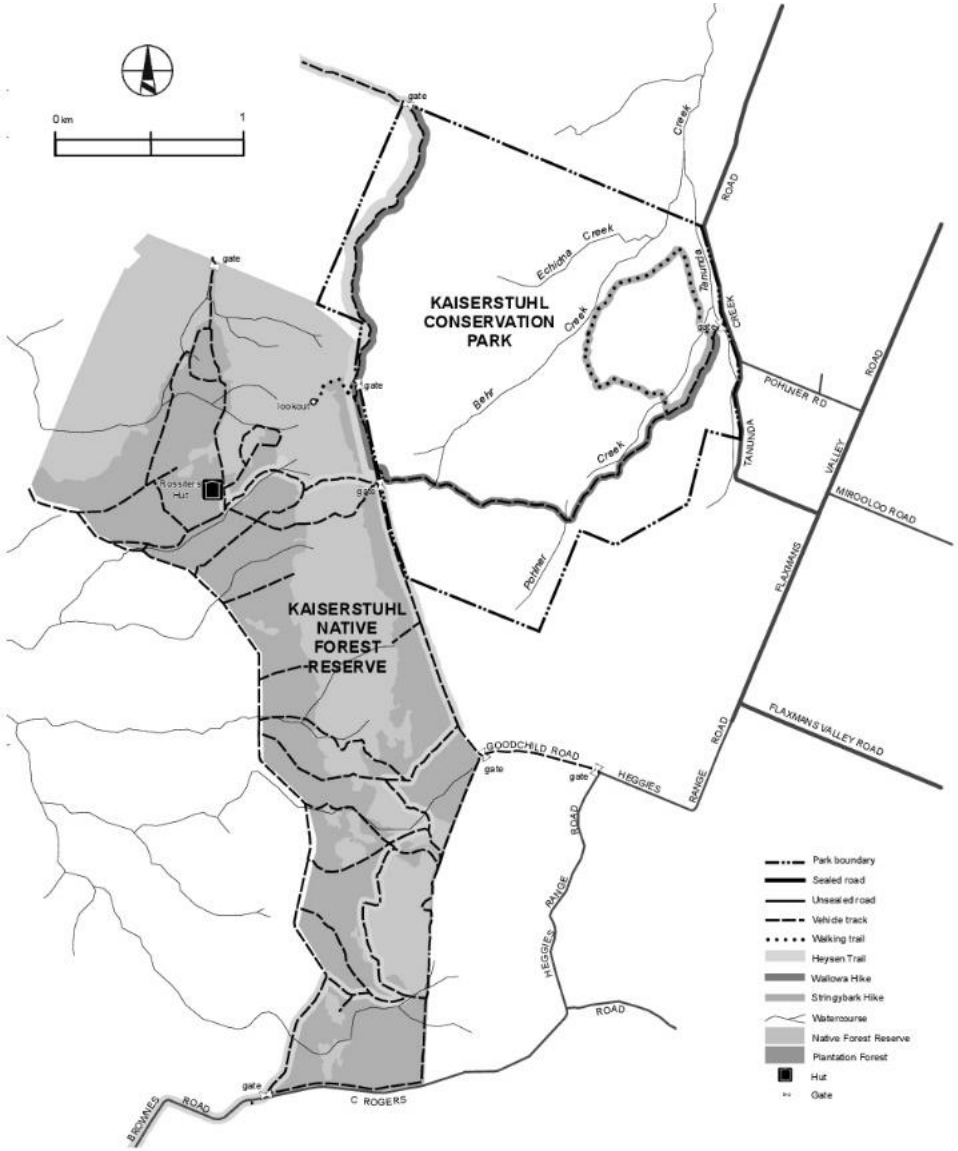
(x) Para Wirra Trails



INTENDED USERS/ USER COHORTS	• Casual walkers • Leisure/occasional hikers • Bush walkers • Trail runners • Horse riding permitted on the Mack Creek trail
TRAIL MODEL	• This is series or prescribed loops and liner routes centred on four separate trailheads • They are for walkers only and vary in length between 1.3 and 8.4km • There is clear hierarchy of trails within the area ranging from very accessible easy walks through to more demanding hikes
STATUS	• In isolation the trails here could be said to be of local or community significance • However when viewed as a whole trail product its scope and scale, accessibility to potential users and supporting infrastructure give it a more regional significance as both a recreation and tourism product
COMMENTS	• Whilst this is an important trail system it could be greatly improved by focussing it more on high quality visitor facilities

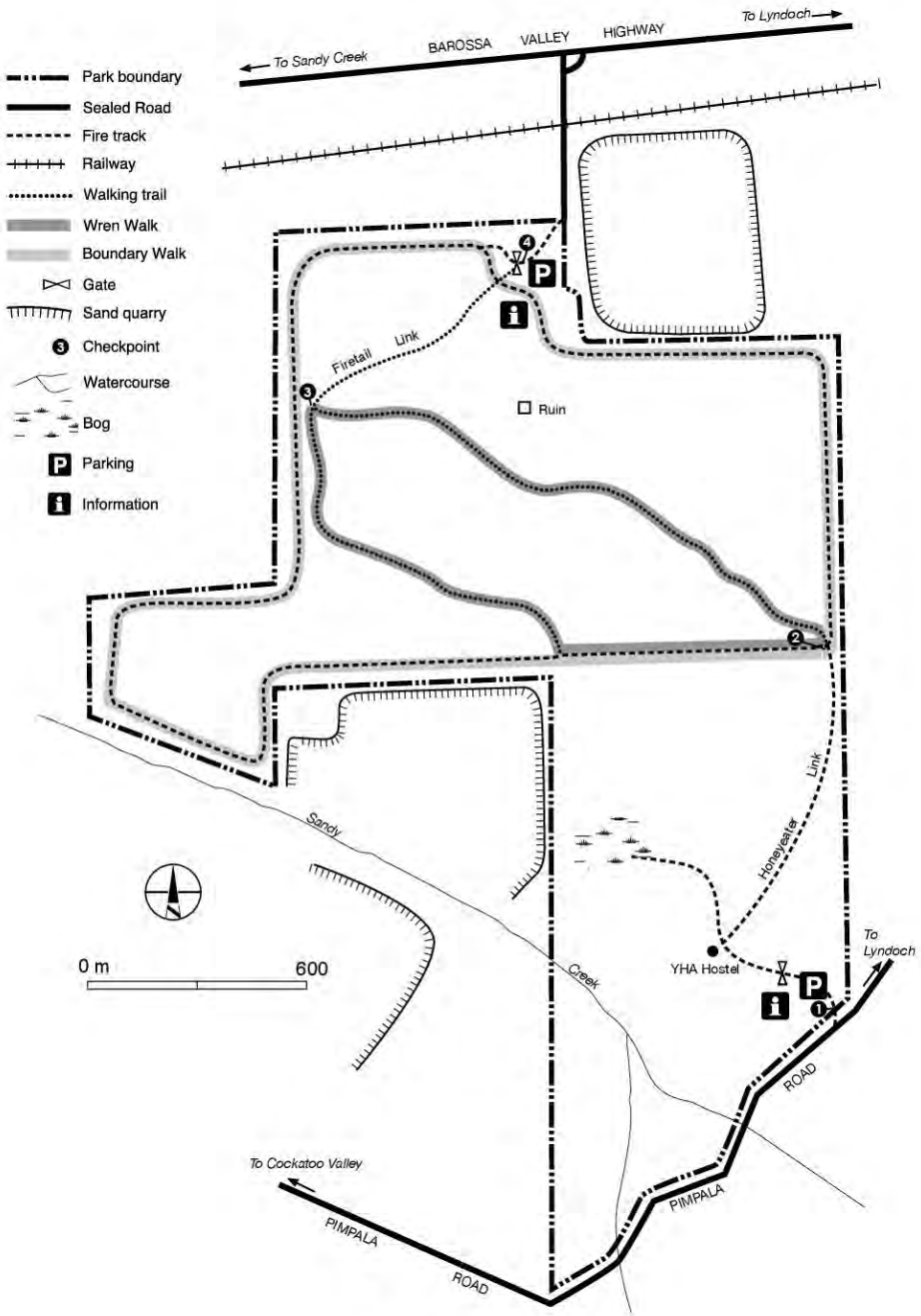
8.3.4 Barossa

(i) Kaiserstuhl Trails



INTENDED USERS/ USER COHORTS	• Casual walkers • Leisure/occasional hikers
TRAIL MODEL	• A single prescribed loop and one prescribed linear route all focussed on a single trailhead
STATUS	• This is a local and community recreation resource • However its position within the Barossa Valley also potentially makes it a local tourism resource
COMMENTS	• These are good quality trails with high levels of interpretation making them a of great appeal to key user cohorts in particular families

(ii) Sandy Creek Trails

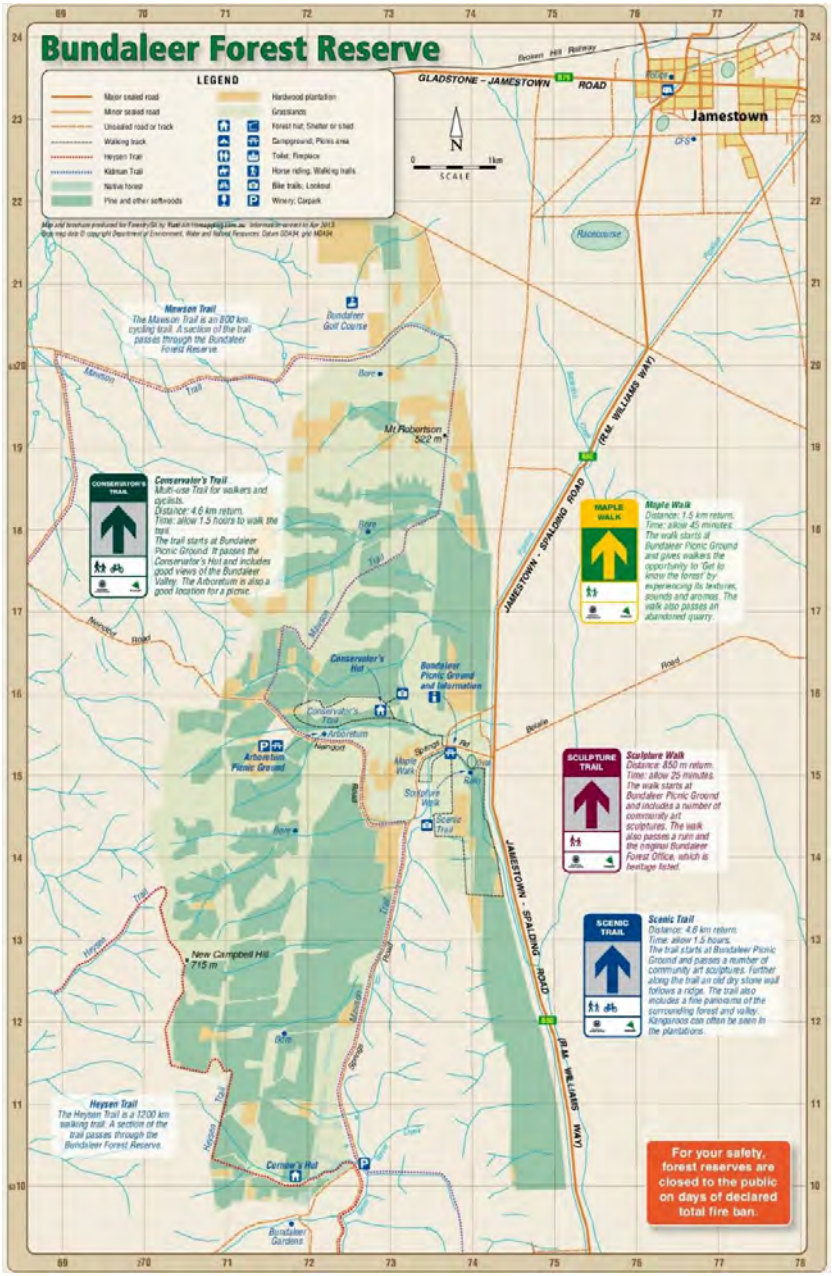


INTENDED USERS/ USER COHORTS	• Casual walkers • Leisure/occasional hikers
TRAIL MODEL	• This is small staked loop of two prescribed trails centred on a single trailhead • The trailhead features basic parking facilities and trail information
STATUS	• This is very much a local and community recreation resource • However its positron within the Barossa valley also gives it some significance as a local tourism resource
COMMENTS	• This is quite an important trail resource since it is located in an area of intensive agriculture and privately owned land where access and recreation opportunities are more limited

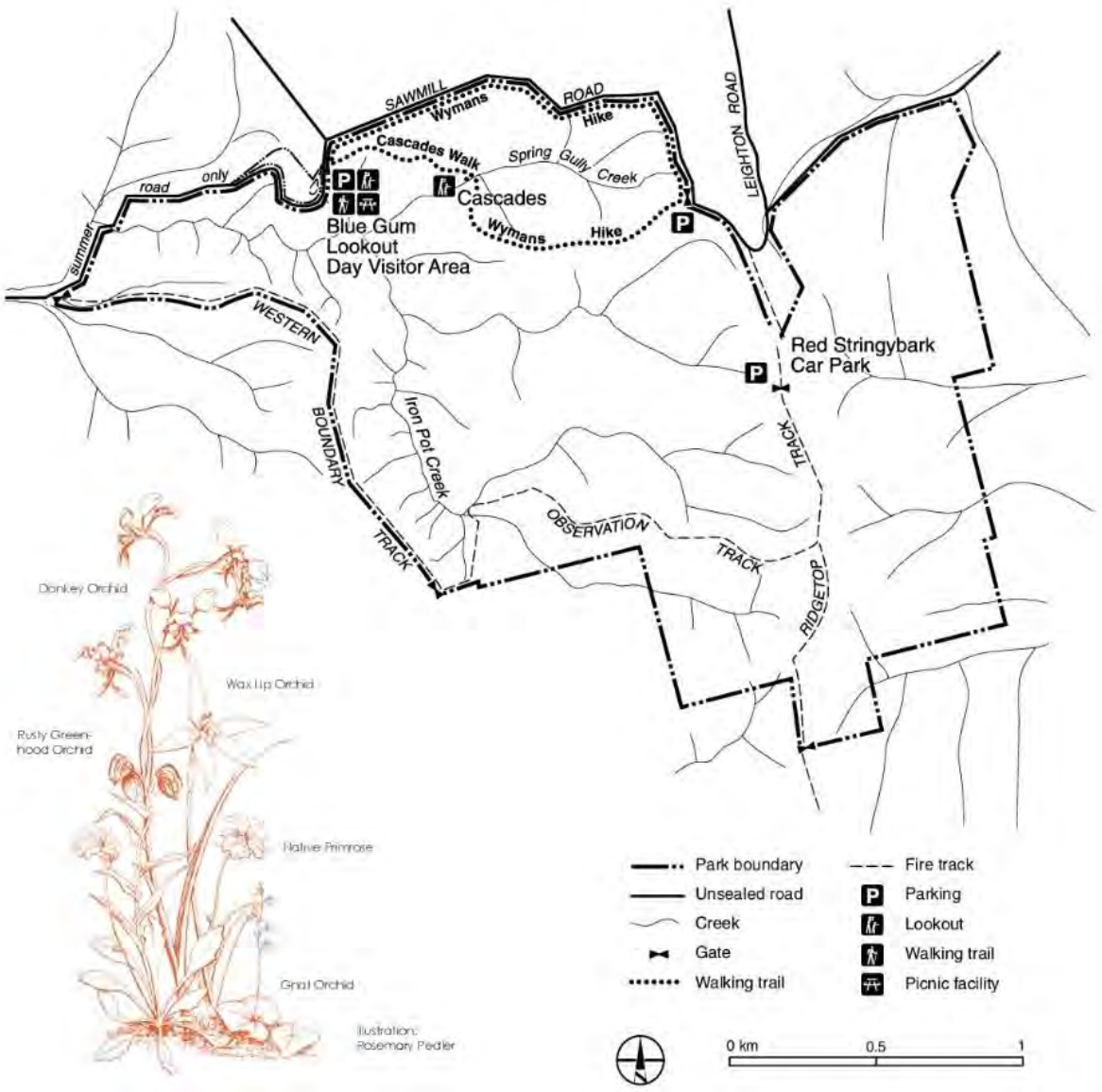
8.3.5 Clare Valley

(i) Bundaleer Trails

INTENDED USERS/ USER COHORTS	• Walkers – casual walkers, leisure/occasional hikers, bush walkers, trail runners • Cyclists – Family/leisure cyclist • Horse riders
TRAIL MODEL	• A staked loop of four prescribed loops al centre on a single trailhead • Some trails are highlighted for walkers only others allow shared use by bikes and walkers
STATUS	• Whilst this is a relatively small trail system it is associated with visitor facilities such as a picnic ground, car parking and toilets • This makes this a local recreation and tourism resource • Its value is also increased when the site is viewed in the context of the Clare Valley where access and recreation opportunities are limited by intensive agriculture
COMMENTS	• The very prescribed nature of this system coupled with it being centred on a single trailhead makes it particularly accessible and user friendly and this potentially increases its value as a recreation resource



(ii) Spring Gully Trails



INTENDED USERS/ USER COHORTS	• The less able i.e. wheelchair users • Casual walkers • Leisure/occasional walkers
TRAIL MODEL	• A small stacked loop of two prescribed trails centred on one trailhead • A third all ability trail is centred on a second trailhead
STATUS	• This is very small trail system of limited scope and scale and as such is a local and community recreation resource • However the all ability trail is of some significance regionally since such opportunities are limited within the region
COMMENTS	• This trail system is largely centred on good quality visitor facilities with car parking, picnic area and trail information • However none of these services are available to wheelchair users since the all ability trailhead is some way away

8.3.6 Eyre Peninsula

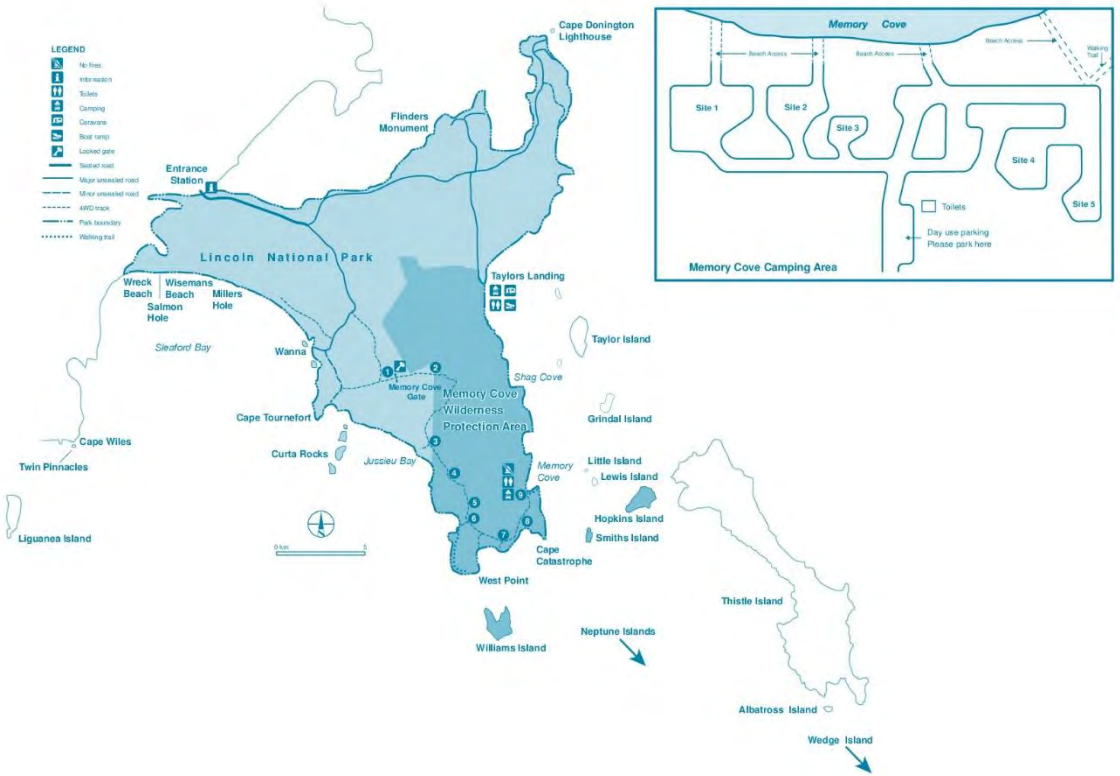
(i) Coffin Bay Trails

INTENDED USERS/ USER COHORTS	• Casual walkers • Leisure/occasional hikers • Bush walkers
TRAIL MODEL	• This is a series of prescribed walks spread around a number of trailheads within the bounds of the national park • Most of the trails are quite demanding linear routes though there is one short looped trail • The trails are all centred on trailheads with campgrounds, toilets and parking with some trail information • Trail information is also available at the entrance to the park
STATUS	• The national park is of regional significance as a recreation and tourism resource • However the trail system does not reflect this status since it is quite fragmented and with only limited appeal across the user cohorts
COMMENTS	• The trail system is extensive and of considerable scope but it is primarily aimed at the more experienced and capable users • Whilst there is one relatively short looped trail the majority of the trail system consists of long linear routes which demand a reasonable degree of fitness

(ii) Lincoln Trails

INTENDED USERS/ USER COHORTS	• Casual walkers • Leisure/occasional hikers • Bush walkers • Trail runners
TRAIL MODEL	• This trail system is largely made up of both prescribed looped routes and linear routes centred on three trailheads • Trail information is available at the trailheads as are facilities such as campgrounds, parking and toilets • There is a clear trail hierarchy though there are no prescribed trails aimed at the very lowest end of the spectrum
STATUS	• This is an important trail system in an important national park • It is a recreational and tourism resource of regional importance due primarily to the status of the national park
COMMENTS	• Whilst the trail system is extensive and of good quality and there is a clear trail hierarchy, it is not a particularly coherent trail product • Trail information is difficult to access and trailheads are dispersed • More accessible trail information and greater flexibility and clarity in the trail system would very significantly enhance the value of what is already an important trail resource

(iii) Memory Cove Trails



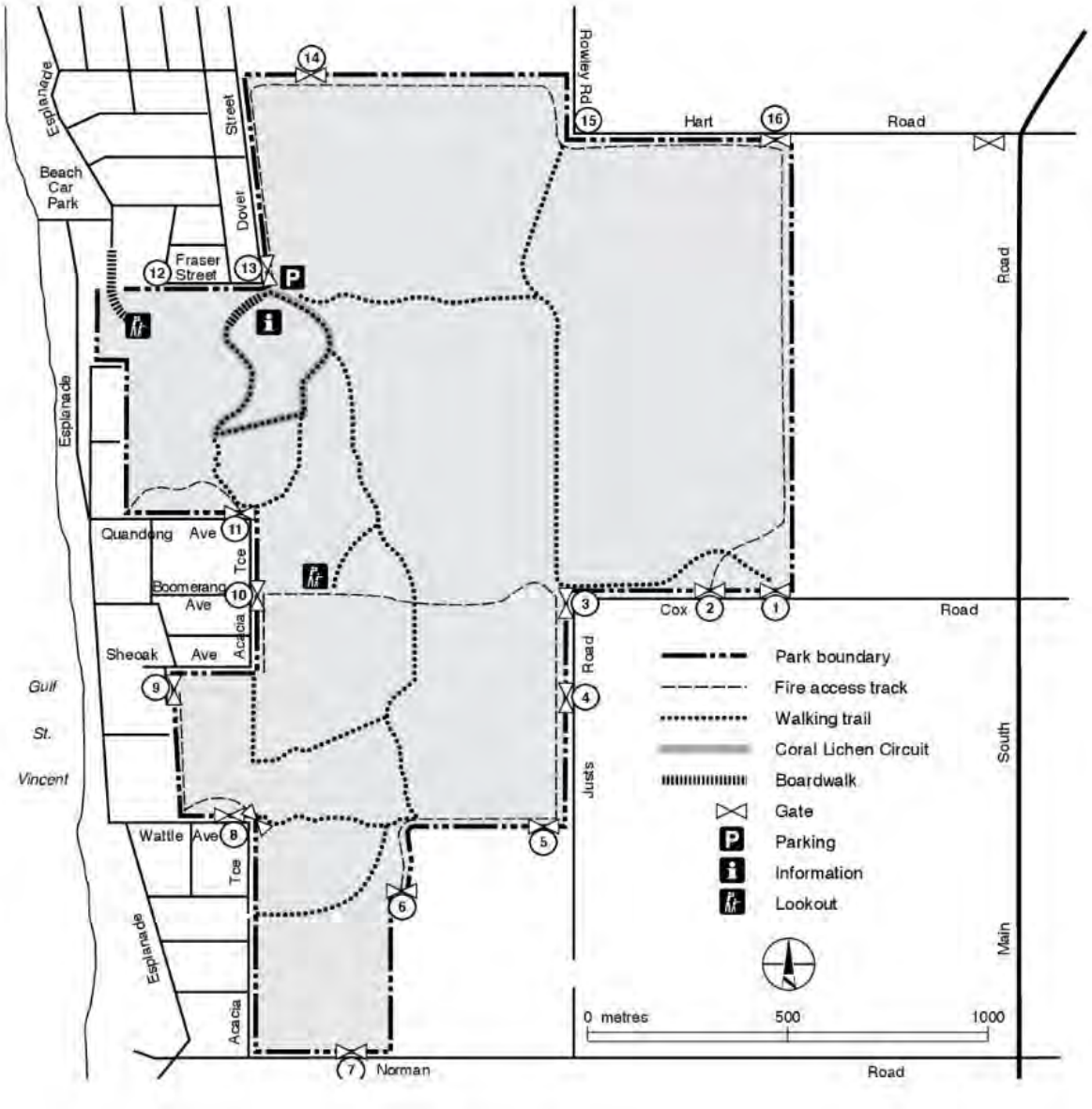
INTENDED USERS/ USER COHORTS	• Leisure/occasional hikers • Bushwalkers
TRAIL MODEL	• A signed flexible network of limited scope and scale
STATUS	• Whilst this is a national park of significant regional status, the trail system is very limited and only of local significance • However the trail system does form part of the overall national park regional tourism product
COMMENTS	• This is small and relatively low status trail system • However an appropriate trail model could add very considerable value to this important tourism and recreation resource

(iv) Pinkawillinie Trails

INTENDED USERS/ USER COHORTS	• Leisure/occasional hikers • Bush walkers
TRAIL MODEL	• Signed flexible network
STATUS	• This is an important national park • However the trails are limited in their scope scale and significance but they do provide important access on foot into the national park • When viewed as a whole the national park is of regional significance as a recreation resource. • However the trails alone are of not more than local significance due to the nature of the trail model and their scope and scale
COMMENTS	The trail offering in the national park essentially limits its significance as a recreation and tourism resource A more accessible and coherent trail product could increase the value of the site as a recreation and tourism resource

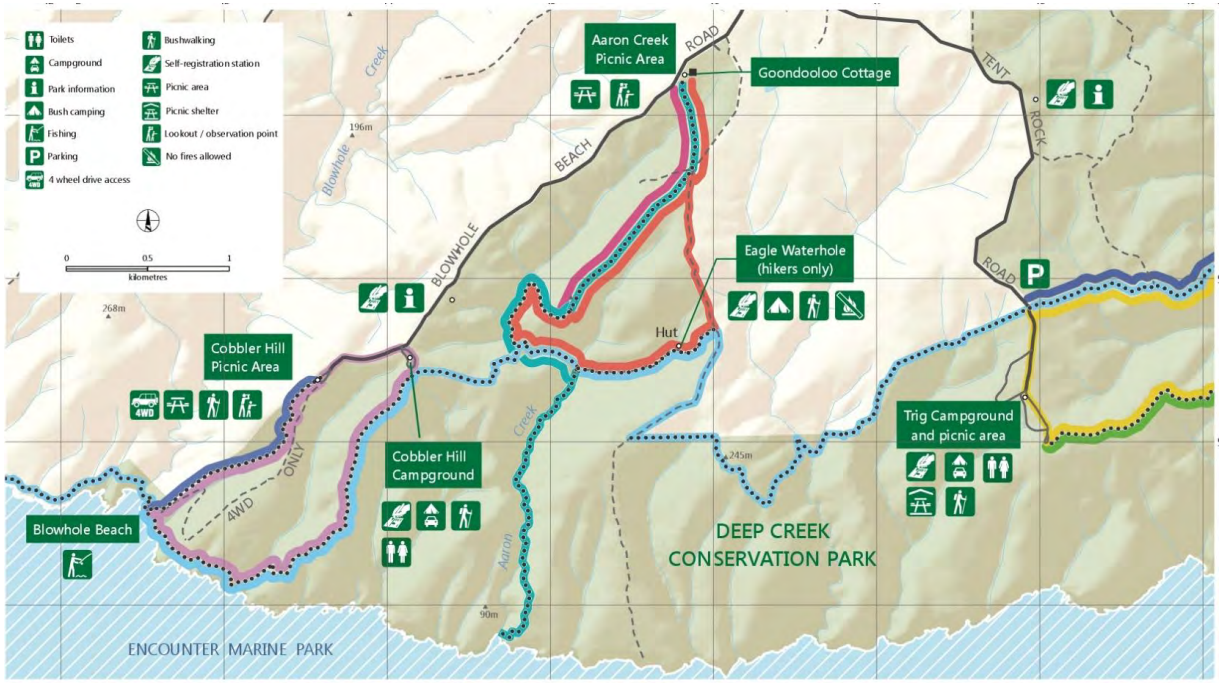
8.3.7 Fleurieu Peninsula

(i) Aldinga Trails



INTENDED USERS/ USER COHORTS	• Casual walkers • Leisure/occasional hikers • Trail runners
TRAIL MODEL	• A signed flexible network centred on one trailhead but accessible from a number of other locations
STATUS	• This is a local and community recreation resource
COMMENTS	• The flexible nature of this trail system increases its appeal and its longevity as a recreation resource

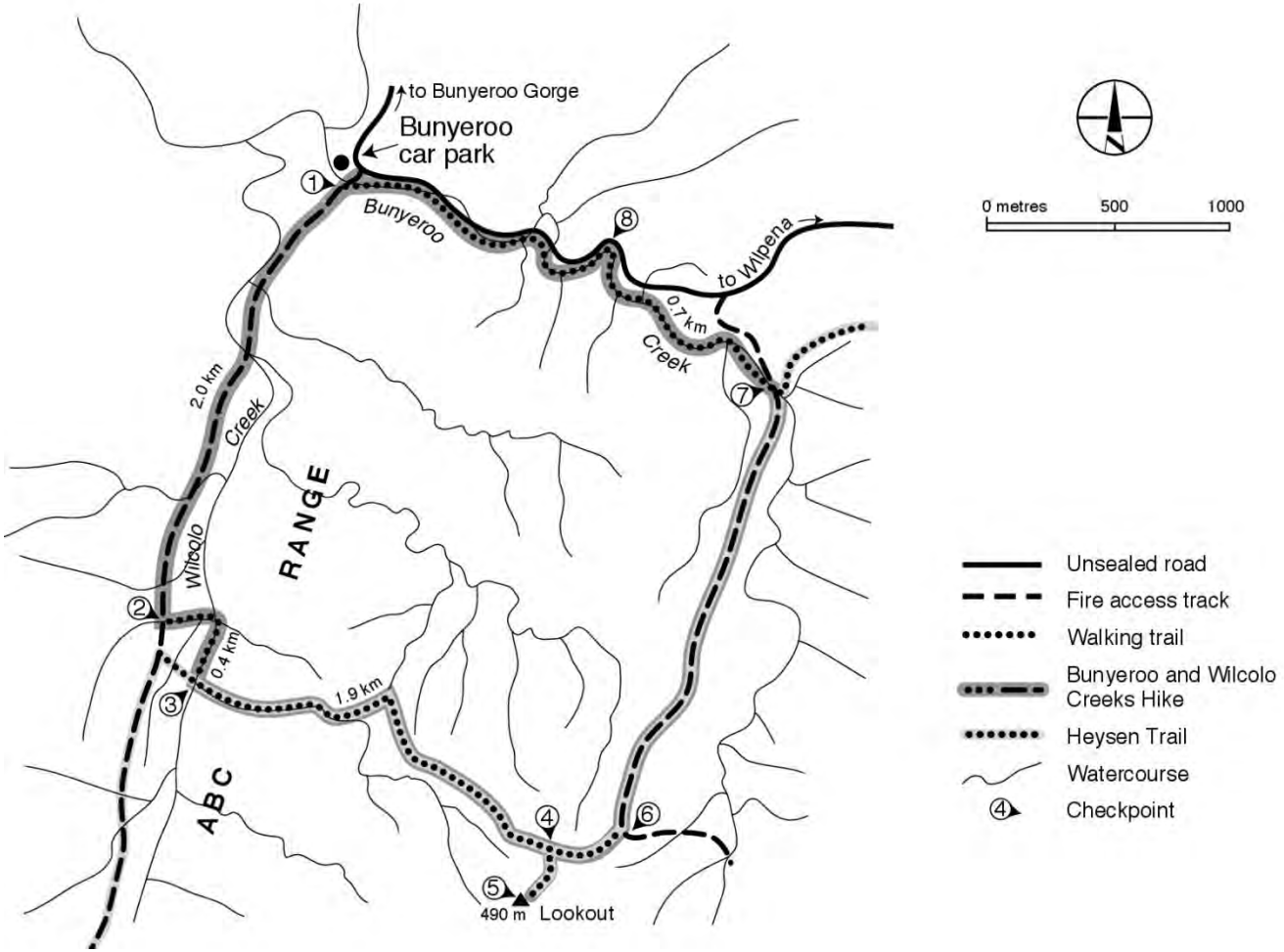
(ii) Deep Creek Trails



INTENDED USERS/ USER COHORTS	• Casual walkers • Leisure/occasional walkers • Bushwalkers
TRAIL MODEL	• This is actually a collection of four trail networks centred on four separate trailheads within the conservation park • The trail systems vary between prescribed loop networks and a number of stacked linear routes • The trails are mostly moderate to difficult hikes but there is a clear hierarchy of trails in terms of distances and times • The Heysen trail also connects a number of the trail systems • Each of the trailheads feature trail information, parking camping and toilets
STATUS	• This is a very extensive and high quality trail product of regional significance in terms of recreation and tourism • It provides access to a range of landscapes and habitats and is easy to access and interpret
COMMENTS	• Focussing this trail product on effective trailheads with camping and other facilities is a key function in ensuring its effectiveness and significance

8.3.8 Flinders Ranges and Outback

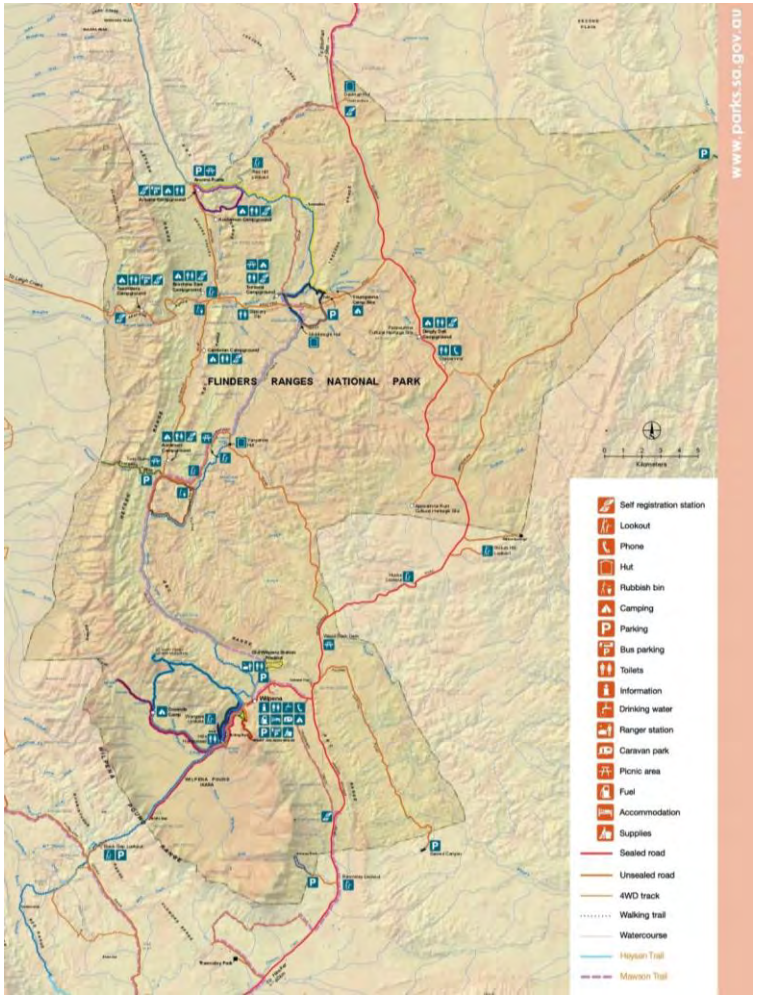
(i) Bunyeroo and Wilcolo Creeks Trails



INTENDED USERS/ USER COHORTS	• Leisure/occasional hikers • Bushwalkers
TRAIL MODEL	• A single prescribed loop centred on one trailhead
STATUS	• This trail is of limited scope and scale and whilst offering easy access to an iconic landscape can only be considered of local significance as a recreation and tourism resource
COMMENTS	• This is a good quality trail and an accessible trail model which is perfectly suited to the intended trail users

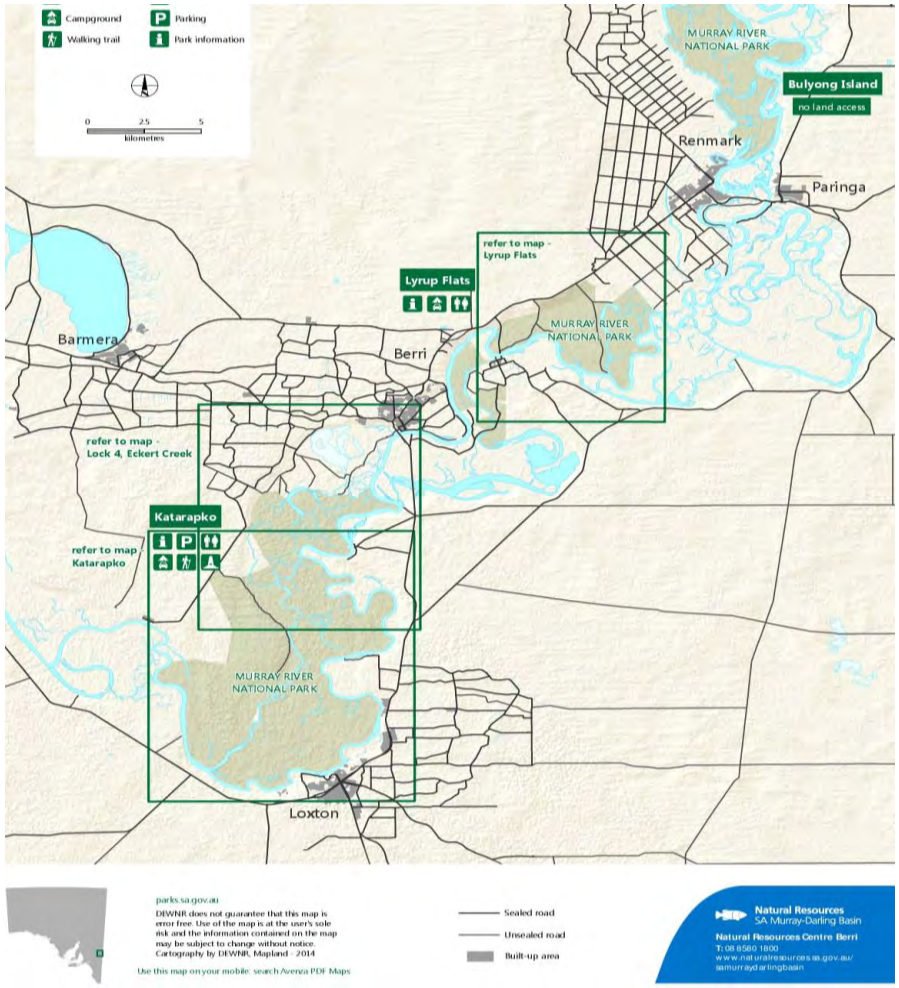
(ii) Flinders Ranges Trails

INTENDED USERS/ USER COHORTS	• Casual walkers • Leisure/occasional hikers • Bushwalkers • Long distance trekkers
TRAIL MODEL	• This is very complex trail system centred on six separate trailheads within the national park • The trails are all either looped routes, linear routes or looped routes that are connected by linear routes • There is considerable overlap between trails making the trails difficult to interpret in some cases • There are 19 separate trails with a clear hierarchy ranging from very accessible short low level walks through to demanding hikes to prominent summits and long treks through very remote country though moderate to hard hikes predominate • Information on all of the trails within the park is available at the Wilpena visor centre and some of the more popular trails are centred upon this facility • Other trails are centred on less developed trailheads with parking and toilets only
STATUS	• When viewed as a whole this is a trail system of state significance as a tourism and recreation resource since it is related to one of the most iconic landscapes in the country • Many of the individual trails stand out as important regional trails in their own right e.g. St Mary's Peak • However parts of the trail system are very confused and difficult to interpret and configurations do not relate well to the landscape
COMMENTS	• This is a very important network of trails and a very valuable recreation and tourism resource • However it does not quite hang together as a coherent trail product, rather it is a collection of trails within a given area • A more cohesive trail product would be more effective and could be of more value



(i) River Murray

INTENDED USERS/ USER COHORTS	• Single day recreation paddlers (day trips between 1 and 6 hours) • Competition paddlers • Tourers/expeditioner paddlers (trips between 2 and 5 days)
TRAIL MODEL	• This is a non-prescribed canoe trail on mostly flat water with no fixed access and egress points • However access and egress is possible in numerous places making numerous itineraries of differing lengths possible • Access and egress points and itineraries are often associated with campgrounds • Some information on access and egress points, campgrounds and itineraries is available on line and in various guidebooks
STATUS	• Whilst this not a formalised prescribed canoe trail it is a recreation and tourism product of regional and state importance • The scope and scale of the system coupled with its flexibility provide a range of canoeing opportunities across a range of cohorts
COMMENTS	• The significance of this trails product cannot be overstated however it could be significantly improved by as follows: • Formalised access and egress points particularly related to campgrounds and communities • Trail information and orientation at access and egress points • Developing clearly defined itineraries • Developing a trail identity or brand • Having detailed trail information available on a dedicated website



(ii) Southern Ocean Trail

INTENDED USERS/ USER COHORTS	• Independent scuba divers • Guided scuba divers
TRAIL MODEL	• A series of dive sites where interpretation and information has been developed relating to particular wrecks • This is not a prescribed trail in any way
STATUS	• This trail highlights a number of very important dive sites and collectively that make up a recreation and tourism resource of both local and regional significance • Crucially the scope and scale of the trail encourages either repeat visits to the area by divers or prolonged stays of several days both of which can be of considerable tourism value
COMMENTS	• This model is only really accessible to either skilled and experienced scuba divers or to guided parties and is not accessible to less experienced people • However it does make excellent use of the diving resource that is available regionally

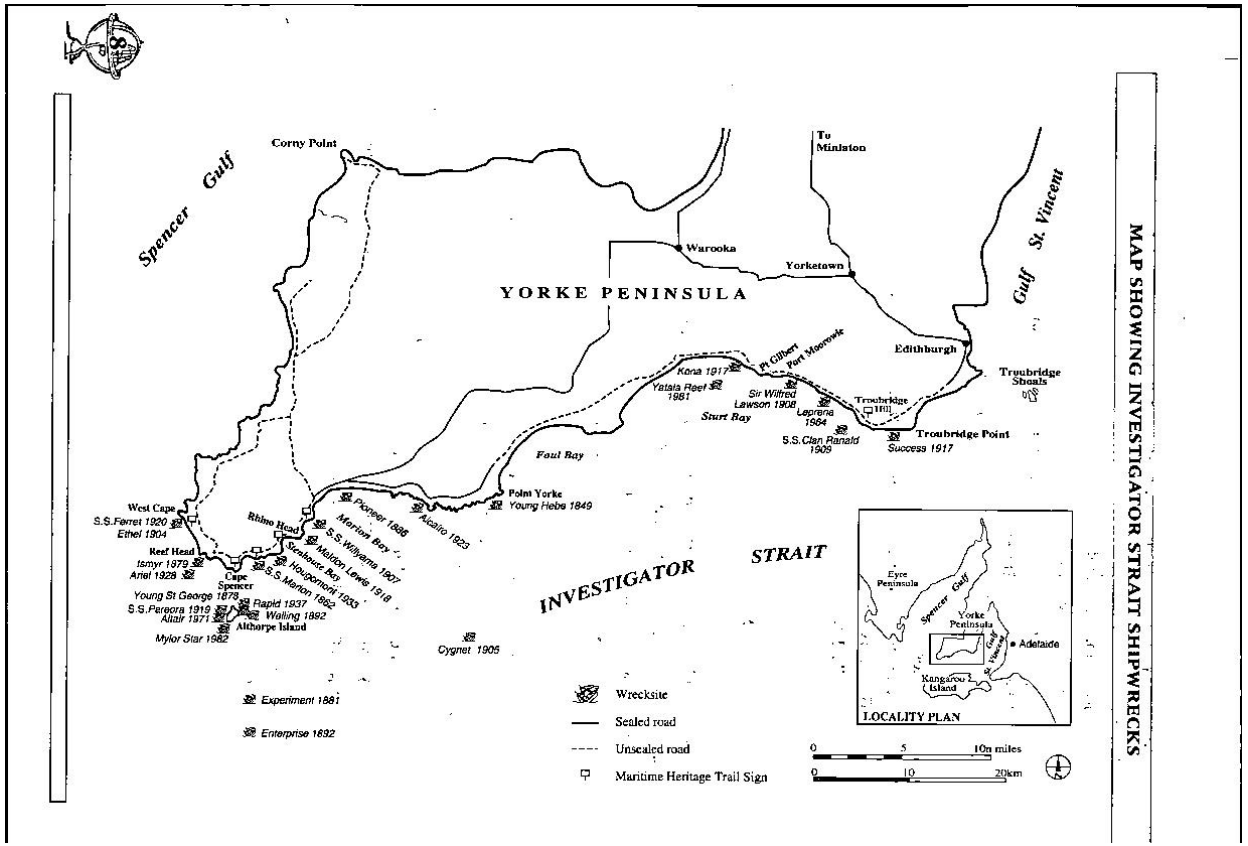
Map of south-east showing some of the major wrecksites including the *Geltwood*.

8.3.9 Yorke Peninsula Trails

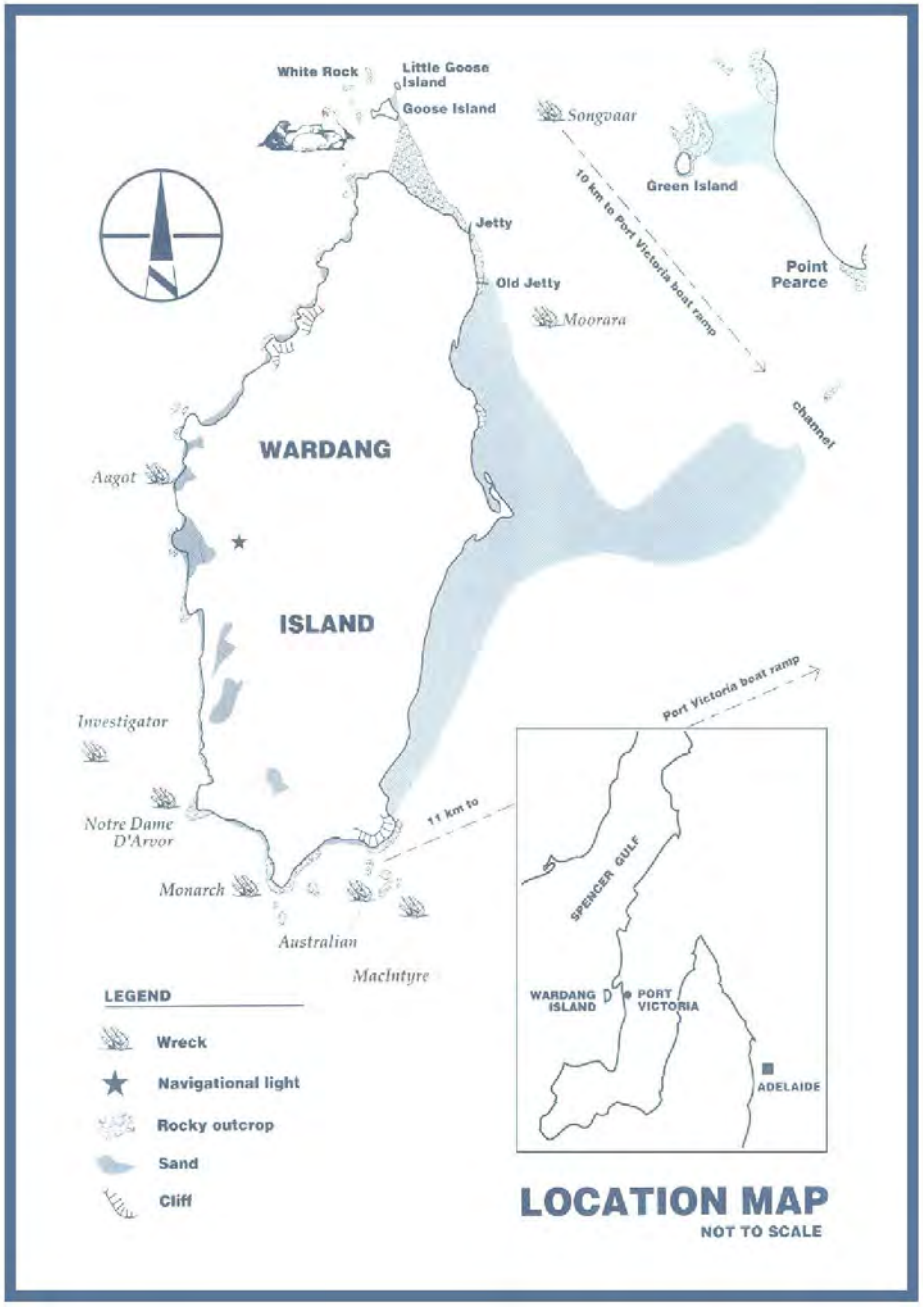
(i) Innes Trails

INTENDED USERS/ USER COHORTS	• Casual walkers • Leisure/occasional hikers • Bushwalkers
TRAIL MODEL	• This trail system includes six prescribed routes each centred on a different trailhead • They are all either prescribed single loops or prescribed linear routes • Trailheads all include parking and trail information and toilet and camping facilities are available within the national park • There is a clear trail hierarchy within the park ranging from a 1km loop to an 8km linear route though with the majority of the trail system between 1 and 4km in length
STATUS	• This is an important national park which is subject to considerable visitation • However the scope and scale of the trail system does not reflect this importance and is really quite limited • The trails are an important component of the national park's recreation and tourism offering and as such are of regional importance when seen in this context • In isolation though they would be considered of local significance as a recreation and tourism resource
COMMENTS	• This is a very limited trail system given the importance of the national park • There may be some scope to improve and expand the trail offering here to make it compatible with the status of the national park and add value to the recreation and tourism offering

(ii) Investigator Strait Maritime Heritage Trail



INTENDED USERS/ USER COHORTS	• Independent scuba divers • Guided scuba divers
TRAIL MODEL	• A series of dive sites where interpretation and information has been developed relating to particular wrecks • This is not a prescribed trail in any way
STATUS	• This is a diving product of regional significance due to its scope and location • I provides a showcase for divers along the Yorke Peninsula and has the potential to be a significant tourism product • In particular it has the potential to encourage both repeat visits or prolonged stays both of which can be of great tourism value
COMMENTS	• Whilst this is a good quality tourism product with excellent in depth information available to users a more coherent branding and marketing approach across the state could add significant value to the aquatic offering as a whole

(iii) Wardang Trails

INTENDED USERS/ USER COHORTS	• Independent scuba divers • Guided scuba divers
TRAIL MODEL	• A series of dive sites where interpretation and information has been developed relating to particular wrecks • This is not a prescribed trail in any way
STATUS	• This is a significant high end diving product which is only accessible to more experienced independent divers or guided parties • It is of considerable scope and scale and encourages either repeat visits by divers or extended stays, both of which increase its value as a regional and local tourism resource
COMMENTS	• Whilst this is a good quality tourism product with excellent in depth information available to users a more coherent branding and marketing approach across the state could add significant value to the aquatic offering as a whole