



# MANAGEMENT GUIDELINES FOR GNANGARA AND PINJAR OFF-ROAD VEHICLE AREAS

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PREPARED BY: TRAIL BIKE MANAGEMENT AUSTRALIA  
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Department of  
**Environment and Conservation**  
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## VERSION HISTORY

VERSION NO.	NOTES
1.0	Original version released August 2008.
1.1	DEC amendments. Shire of Gingin vs Coombes – case information updated. Barbagallo Raceway section update to reflect changes in those plans. Funding options updated to remove two grants no longer operating.
1.2	Minor DEC amendments

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### Project Steering Committee

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- Mike Meinema - Department of Environment and Conservation
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### Reference Group

In particular we would like to thank the individuals who volunteered their time to form and be part of the two Reference Groups for each area.

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The *Management Plan for the Gngangara and Pinjar Off Road Vehicle Areas* has been prepared for the Department of Environment and Conservation for the purpose of developing a framework for planning and managing off road vehicle activity within the Gngangara and Pinjar ORV areas. This report must not be used for any other purpose, nor by any other party.

## EXECUTIVE SUMMARY

### INTRODUCTION

Off Road Vehicle Areas such as Gngangara and Pinjar play an important element in the control of trail and quad bike riding in Western Australia by providing a legal opportunity for riders of non-road-registered motorcycles and quad bikes, and people (including juniors) who do not hold a drivers' licence to ride on public land.

Gngangara and Pinjar combined ORV areas represent over 95% of the available Off Road Areas within the Perth metropolitan area. As such they are critical locations in terms of the objectives of the Control of Vehicles (Off-Road Areas) Act 1978.

Of major consideration in the planning for these areas is the Gngangara Sustainability Strategy and the State Trail Bike Strategy. The Gngangara Sustainability Strategy (GSS) is a cross-government initiative working to optimise the land and water use on the Gngangara Groundwater System for the period 2008-2030. Key land and water use issues in these two GSS sub-areas that may impact the ORV areas include removal of the pine trees and changes to land use. Escalating community tensions and rider concerns over the perceived shrinkage of legitimate riding opportunities led to the development of the State Trail Bike Strategy in 2007 of which developing Management Plans for Gngangara and Pinjar ORV areas were key recommendations.

### THE CURRENT SITUATION

Gngangara is currently in a poor state with rubbish strewn all over (including truckloads of building rubble and old household appliances), the myriad of tracks are heavy sand with many whoops (a bump or undulation in a trail) which means that much of the riding is done on the main access road, Centre Way, which is in a poor condition. Safety is a concern with a criss-crossing grid of trails with a high risk of collision, half-buried obstacles such as old car springs and other metal objects.

Pinjar is a very similar area to Gngangara, but it is less well known and therefore less heavily used. It is also much less polluted and has a major advantage in that it is bounded on three sides by sealed roads. Given this Pinjar has greater potential for development into a planned and managed facility.

Surveys for the State Trail Bike Strategy found that 31% of respondents occasionally or regularly ride at Gngangara and 22% occasionally or regularly rode at Pinjar. Many were unaware of the existence of the ORV areas, for most they were seen as dangerous, attracted "hoon" riders and full of "sandy whoops" that were not suitable for riding, particular juniors and novices.

GNANGARA PINJAR SURVEY 2008 – LIKES/DISLIKES ABOUT THE 2 areas			
LIKES – STRENGTHS		DISLIKES - WEAKNESSES	
<b>Legal</b>	<b>No conflicting interests</b>	<b>Rubbish &amp; dumped cars</b>	<b>Lack of facilities</b>
<b>Proximity to Perth</b>	Size	No maintenance	Irresponsible riders
<b>Variety of terrain</b>	Trees	Lack of ranger patrols	Poor safety
<b>Legal for Children</b>		No track design	Lack of parking
		Access from Gngangara Rd	State of CentreWay
		Tree branches & stumps	

## OPPORTUNITIES AND CONSTRAINTS

Current area management is limited, ranger and police presence is very rare and the funds provided for the area to date have been spent on fencing and not to upgrade facilities or trails.

Investigation into future land use requirements for each area shows that there is no current pressure for the areas to be excised out of State forest for housing or industrial lands and so both areas have an expected security of tenure as ORV areas of at least 10 years.

## PLAN FOR THE FUTURE

Pinjar is generally recognised as having greater long term potential, as it is bordered by sealed roads on three sides, has potential for expansion to the north and could become a starting point for a future destination trail ride north to Yanchep. However with the continued growth in the number of riders and the greater 'drawing power' of an improved facility - the more areas, the greater will be the dispersion of riders. It is considered that the potential number of users could be:

- On any given Saturday or Sunday between 230-310 bikes could be at Gnangara.
- On any given Saturday or Sunday between 300-450 bikes could be at Pinjar.

Taking all of the above considerations into account the recommendations are to:

1. Continue to maintain both the Gnangara and Pinjar areas at least in the medium term and indefinitely if ongoing demand warrants.
2. Invest in basic infrastructure for both facilities in terms of
  - a. Parking areas
  - b. Toilets
3. Prioritise the elements that will achieve the greatest outcomes in attracting riders and managing risk, ie;
  - a. Trails development
  - b. Signage
4. Place development (hence budgetary) emphasis on Pinjar, to make this a preferred location, especially for families.

## GNANGARA area PLAN

*Vision* - a cleaner, safer and more structured facility than current, whilst still retaining an undeveloped feel.

SUPPORTED USES	NOT SUPPORTED	DIFFICULTY RATINGS
'PeeWee' Kids circuit –under 10 years, supervised Novice / Kids circuit – learners Junior MX practice circuit Senior MX practice circuit Natural Terrain MX practice circuit Family Trails network Enduro trails network Trials Practice area	Practice Supercross Circuit Freestyle / jumps Racing	Junior / Novice trails – 4km – 14% Intermediate trails – 10km – 35% Advanced trails – 15km – 50%

*Facilities* would include an access road from Gngangara Road to the car parks (main car park, secondary car park and junior trails car park), a toilet block, potable water, picnic benches and an information board/shelter.

Capacity indicators show that Gngangara can cater for around 560 visitors at a time.

Work Priorities - The implementation of the Gngangara plan should balance the risk management priorities of DEC with the priorities as stated by the users of the area:

1. Clean up the rubbish – and prevent it from accumulating in the future
2. Fix the entry road, including the intersection of Gngangara Rd and Centre Way and basic repairs to current parking areas
3. Entry signage and notice board
4. Create concept trails
5. Resource area management
6. Control the behaviour of hoons
7. Make an area safer and more suitable for kids
8. Develop network of one way trails
9. Improved parking / picnic facilities / Toilets
10. Ongoing development of precincts and trails

There are three key **challenges** in realising the development goals for Gngangara. They are:

1. Preventing users of the Off Road Vehicle Area from accessing Centre Way.
2. Defining the new trails in a way that eliminates intersections with existing routes and avoids the cutting of new intersecting trails.
3. Removal of pine trees

### **PINJAR area PLAN**

*Vision* - A well planned, well developed and well maintained Off Road Motorcycle facility that can be used as a model for future ORV Area planning.

SUPPORTED USES	NOT SUPPORTED	DIFFICULTY RATINGS
'PeeWee' Kids circuit –under 10 years, supervised Novice / Kids circuit – learners Junior MX practice circuit Senior MX practice circuit Natural Terrain MX practice circuit Family Trails network Enduro trails network Trials Practice area Free riding areas	Practice Supercross Circuit Freestyle / jumps Racing	Junior / Novice trails – 10km – 35% Intermediate trails – 12.5km – 45% Advanced trails – 5.5km – 20%

*Facilities* - Pinjar has more long term development potential than Gngangara, and this should be reflected in better quality facilities. Including an access road from Wesco Road to the main car park, toilet block, drinking water and a secondary car park off Old Yanchep Road with picnic benches.

Capacity indicators show that Pinjar can cater for around 530 visitors at a time.

Work Priorities - The implementation of the Pinjar plan should balance the risk management priorities of DEC with the priorities as stated by the users of the area:

1. Entry signage and notice board
2. Create concept trails
3. Create main entrance off Wesco Rd and car park
4. Develop and sign a precinct for junior riders
5. Develop initial network of one way trails
6. Improved parking / picnic facilities / Toilets
7. Ongoing development of precincts and trails

Pinjar is seen as a significantly easier area to develop than Gngangara.

### *Transition Strategy*

This work is not going to occur over a short concentrated period, neither will the areas be closed whilst works are undertaken. Accordingly a Transition Strategy (detail plan, stages, timing, dependencies and resourcing) has been provided to move gradually, as funding permits, from the current environment to the proposed new designs.

### **RISK MANAGEMENT**

All trail and quad bike riding involves some risk. Most risk is within the control of the rider – ie the rider’s responsibility to know the capabilities and limitations of the vehicle and to ride within his or her limits of strength, experience and skill. The land manager’s duty of care is limited in this regard, as the participant is assumed to understand the risks of the activity and to be making his or her free choice to engage in it.

There are other risks that are not inherent to the activity, but which derive from the nature of the environment. These are the risks of greatest concern to the land manager, for it can be said that these are risks that are – or should be – known to the land manager but which cannot be expected to be known intuitively by the rider and are therefore not ‘obvious’ risks.

A Risk Matrix has been provided outlining the risk, its impact, likelihood, severity and mitigation strategy for both Gngangara and Pinjar. The key risk recommendations are:

1. A network of signed, one-way trails should be developed with precincts for different riding styles. These are the areas where a level of maintenance and risk management is provided.
2. Riding is not prohibited outside these areas but is discouraged, and the participant assumes a greater responsibility for their own safety.
3. All 4 way intersections on the designated trails should be eliminated by re-routing the intersecting trails and / or installing natural barricades via mounds of logging remnants.
4. Prior to opening each trail should be assessed for hazards and a conscious decision made whether to accept, eliminate, reduce or transfer the risk on each identified hazard.
5. A Risk Register should be developed, documenting the observed hazards and the considered approach to each. The Risk Register can also serve as a check-list for any remediation work required (See Table 1)
6. All visitors should be asked to report any observed hazards (eg trees down over track, fuel spills, rock falls etc). Additionally members of the “Friends of..” can be recruited as volunteer trail patrol in order to increase the vigilance over trail conditions (see Management section).
7. A schedule of trail inspections should be established to periodically review the Risk Register.

8. Rider education, visible ranger patrols and increased enforcement is necessary to change the culture, improve behavior and reduce risk.
9. Physical , education and enforcement strategies are required to eliminate off-road vehicles operating on Centre Way, Gngangara and Wattle Ave, Pinjar.

It is important to consider water quality and all activities should be mindful of the Gngangara Underground Water Pollution Control Area (UWPCA). All measures should be taken to minimize contamination. The Metropolitan Water Supply, Sewerage and Drainage By-laws 1981 imposes certain obligations in respect of the handling of petroleum products. (5.5.5) and the disposal onto the ground of petroleum products (5.4.6) and may limit development within the UWPCA.

### **SIGNAGE AND CONTROL**

Signs are a recognised method for supervision of a remote location. Legally, the benefit of an appropriately placed sign is that it brings the foreseeable risk to the attention of the person at that location. Appropriate signage makes a statement about the management of the operation and the commitment to caring for the safety of – and controlling the behaviour of – participants.

The Concept Signage Plan (Appendix) provides concepts for:

- General warning signage - the first signage encountered when entering the ORV area.
- Information signage - general layout of area, location of facilities, emergency information, area and Precinct boundaries, code of conduct, current issues such as maintenance closures
- Trails information - provides confidence to participants that they are on the right trail and heading in the right direction.
- Control signage – provides instructions to participants that must be followed such as Stop, Give Way, Maximum Speed, Do Not Enter
- Caution signage - used to draw specific attention to unexpected hazards.

### **AREA MANAGEMENT**

Ongoing management is required for Gngangara and Pinjar for both the physical amenities (trails, parking areas, toilets, signage) and social/behavioural management of the area users and visitors.

Creation of a “Friends Of...” local management program is seen as critical to the ongoing effectiveness of the areas. This includes providing volunteers for track maintenance, trail guides or hosts and marketing and education programs.

A staffed or contracted Program Manager would provide professional assistance, advice and relevant expertise to the DEC District Manager in relation to the management, maintenance and marketing of the ORV areas.

### **RIDER INDUCTION AND EDUCATION**

Rider induction and education is critical to reduce risk and foster desired behaviours.

Users of the areas need to know about general risk, safety gear, the trails precincts and network, where the area boundaries are, they need to understand the signage, where speed restrictions apply, code of conduct, registration required, emergency information and interpretive information.

As the areas are not permanently staffed, there is no mechanism to *ensure* that riders have received or understood the safety and control messages. Accordingly the ORV areas must rely on signage on-site and information provided (or made available) to visitors before their visit. Riders can be

educated at the start of their ride by providing them with maps, interpretative information and the area's rules and regulations and prior to their visits via a web site and printed materials distributed through retailers and local councils.

## **ENFORCEMENT**

Enforcement is a major challenge. The ability to conduct effective enforcement is currently hindered by resource constraints and lack of clarity over responsibilities.

Both the general community and the trail bike riders have expressed concern over "nuisance" and illegal behavior. The lack of enforcement is listed as one of the main reasons why riders do not use the areas. People visiting the areas need to see both police and ranger presence to indicate that "nuisance" and illegal behaviour will not be tolerated.

An Enforcement strategy needs to be developed between DEC, WA Police and the City of Swan/City of Wanneroo to establish the new "code of conduct" and to reinforce the required changes.

## **FUNDING**

Funding estimates require approximately \$2m over 3 years for capital works, trails development, maintenance, management and communications.

There are several sources of funding for capital works and / or ongoing management including DEC Departmental budgeting, inter-departmental budgeting and grant funding. Options are also considered for a User-Pays scheme and commercial sponsorship opportunities.

## **CONCLUSION**

There is common agreement between riders, the community, land managers and enforcement agencies that areas need to be set aside for trail bike riding.

Western Australia has a mechanism to enable areas of public land to be gazetted as Off Road Vehicle Areas, but the current areas simply do not attract enough riders to fulfil their objectives in drawing riders away from areas where environmental damage or social nuisance is caused.

DEC has an opportunity to redevelop the two main metropolitan riding areas and make them significantly more viable. In doing so DEC will be:

- helping to protect other bushland from non-authorized ORV use
- maximising social utility from land that otherwise has little attraction
- providing improved facilities for a large – and growing – group of outdoor recreationalists.
- be reducing its own risk as a land occupier,
- establish a model that other land managers such as LGAs can follow,
- gain experience in managing trail bike access in a low environmental value area that can then be adapted and applied in other DEC-managed areas

## INTRODUCTION

Off Road Vehicle Areas such as Gngangara and Pinjar provide a legal opportunity for riders of non-road-registered motorcycles and quad bikes, and people (including juniors) who do not hold a drivers' licence to ride on public land.

By providing a legitimate outlet for this popular and growing recreational activity, these areas are intended to lessen the incidence of illegal riding of unregistered bikes in state forests, national parks and other areas where environmental and social concerns are felt. As such they play an important element in the control of trail and quad bike riding in Western Australia.

The land at Gngangara and Pinjar is controlled by the Department of Environment and Conservation (DEC). DEC has a vested interest in the effectiveness of these venues as a control mechanism, and has recognised that:

- a) The more attractive these areas become to riders the more effective they will be in reducing the incidence of illegal and destructive riding elsewhere
- b) Control of the areas exposes DEC to Duty of Care obligations under the Occupiers' Liability Act.

This Management Plan is intended to address both issues.

### **Context: The Control of Vehicles (Off Road Areas) Act 1978**

WA is unique amongst Australian states in that it is the only state that declares Off Road Vehicle Areas (ORV areas) on public land for the benefit of riders of bikes and quads that are not road registered, and for riders, especially juniors, who do not possess a driver's licence.

The mechanism for this is the Control Of Vehicles (Off-Road Areas) Act 1978.

The Act was proclaimed in 1978 when the growing popularity of trail bike riding and concerns over social and environmental impact prompted the need for some legislative control over the activity.

The intention of the Act was to enable Local Government Authorities to declare prohibited areas where the riding of non road registered vehicles could be disallowed, while establishing more suitable areas where the activity could take place.

Initially seven areas were gazetted, however several of these were subsequently de-gazetted due to the expansion of the metropolitan area and/ or concerns over public liability.

There are currently five designated off road vehicle areas for riders from the Perth metropolitan region and one small area in York. These areas are:

AREA	APPROX SIZE	DESIGNATED FOR:
Lancelin (inc Ledge Point)	400 Ha	ORVs of all classes and sizes, including buggies
Gnangara	225 Ha	Motorcycles, Quads
Pinjar	250 Ha	Motorcycles, Quads
Chidlow <sup>1</sup>	N/A	Junior MX
Medina (Kwinana) <sup>2</sup>	20 Ha	Motorcycles
York	2 Ha	Motorcycles

It can be seen that the Gnangara and Pinjar combined ORV areas represent over 95% of the available Off Road Areas within the Perth metropolitan area, and over 50% when Lancelin is included. As such they are critical locations in terms of the objectives of the Act.

The Control of Vehicles (Off Road Areas) Act 1978 (CVOAA) is administered by local government and is guided by an Advisory Committee consisting of representatives from Local Government, off road vehicle and 4WD users, and the agency responsible for administering the CALM Act 1984.

### Context: Decision in Coombes -v- Shire of Gingin

Occupiers' Liability is a concern for all public land managers and especially where the public is permitted to engage in activities that carry risk on that land. Liability concerns have been responsible for at least one Off Road Vehicle Area closure, the attempts to close two others, and the reluctance of Local Government to establish new gazetted areas.

The issue of Occupiers' Liability received guidance when on October 12, 2007 Judge Keen handed down his decision on the Coombes v Shire of Gingin Case.

In this case the Judge found Gingin Shire partially responsible (60%) for the injuries sustained by Mr Coombes when he dropped off a 'razorback' dune on his motorcycle. The responsibility was said to result primarily through the lack of adequate warning signage about the inherent dangers of the areas, particularly the unpredictable drop-offs that can occur through wind action on the dunes.

Importantly, Judge Keen said in his decision that there should have been no onus on Gingin Shire to regularly inspect the dunes, or identify particular dunes that were especially hazardous, or place signs around the dunes to warn of specific dangers or exclude the public from the area. To require Gingin Shire to do so would have been unreasonable in the context of the constantly changing conditions of the area.

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<sup>1</sup> Vested in the Junior Motocross Club – juniors only motocross track and not available to the public.

<sup>2</sup> After 18 months of temporary closure this area was re-opened on July 1, 2008 after a decision by the Minister for Local Government.

In May 2009 the Supreme Court overturned the District Court judgement on appeal in a majority decision. Judge Martin stated that duty of care involved more than just signage or lack thereof and the claimant had not demonstrated that additional or more prominent signage would have prevented the accident from occurring. The case is now likely to move to the High Court.

## **Context: The Gngangara Sustainability Strategy**

The Gngangara Sustainability Strategy (GSS) is a cross-government initiative working to optimise the land and water use on the Gngangara Groundwater System for the period 2008-2030. The system provides 60% of Perth's drinking water and is the most important drinking water resource in Western Australia. Both the Pinjar and Gngangara ORV areas are located within the GSS study area

The GSS focuses principally on land use and land management issues as they relate to water quality and quantity issues. Various land use options will be assessed against a quadruple bottom line – water, biodiversity, social and economic impacts. The GSS study area is divided into 30 sub-areas - the Pinjar and Gngangara ORV areas are located in the GSS West Pinjar and Gngangara Sub-areas.

Key land and water use issues in these two GSS sub-areas that may impact the ORV areas include:

- Proposed horticultural precinct that may include the cleared pine areas in West Pinjar
- Proposed strategic roading from Alexander Avenue or Beechboro Road north to Wattle Avenue impacting both areas.
- The decision by Government to remove the 22,000 ha of pine plantation from the Gngangara Mound via a State Agreement over 25 years (2002-2027). According to the GSS<sup>3</sup> numerous studies have demonstrated that dense plantations on the deep sandy profiles eliminate recharge to the aquifers. A decision to replant any of this land with alternative forestry crops has not yet been made.
- To determine post pine land use of the 22,000 ha of State forest for conservation, recreation, alternative tree crops, maximising groundwater recharge and commercial uses. The continued support of the current ORV areas is included in this mix of possible future land uses for the plantation areas.
- Adding to the complexity of the management of these plantations has been the discovery of an extensive European House Borer infestation. The Department of Agriculture and Food (DAFWA) is keen for 100% of pine to be removed from Gngangara Plantation and the West Pinjar area of Pinjar Plantation ASAP. FPC and DEC are in consultation with DAFWA to determine speed of clearfell and its sequence.

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<sup>3</sup> <http://portal.water.wa.gov.au/portal/page/portal/gss/Projects/PlantationForestryProject>

## Context: The WA State Trail Bike Strategy

Escalating community tensions and rider concerns over the perceived shrinkage of legitimate riding opportunities led to the development of the WA State Trail Bike Strategy in 2007.

Western Australia is experiencing rapid growth in popularity of recreational trail bike riding. Sales of off road motorcycles and quad bikes increased by 66% between 2004 and 2006 and while no precise total numbers exist, it is estimated that around 50,000 trail bikes exist and are ridden in WA. Quad bikes are very popular with sales in WA representing 40% of total national sales.

Against this backdrop of a rapidly growing recreation we are seeing an equally rapid urban spread, bringing residential areas into close proximity to 'traditional' riding spots. Rather than keeping pace with the growth in ORV use there has actually been a significant reduction in designated Off Road Vehicle areas and closure of available tracks and trails. The lack of designated areas has contributed to a proliferation of unofficial, and often illegal, riding areas. These are causing increasing community concern over noise, safety, environmental damage, illegal riding and general nuisance.

There has been a significant reduction in designated Off Road Vehicle areas – from eight in 1978 to just four in 2007. Several of those remaining are under pressure to close, primarily due to the Local Government custodians not wanting the operational and legal responsibility, while the lack of design, management and maintenance make them unattractive for many riders.

***“They are a disgrace. My wife will not go to Pinjar and Gnangara as they are full of rubbish and car wrecks. The stupidity of other riders is also a real worry - no helmets, no boots, noisy old bikes and many ill disciplined riders just hooning about. It feels unsafe.”***

Respondent to Rider Survey

The lack of suitable areas to ride is most keenly felt by junior riders and riders of bikes not able to be registered. Some of the biggest growth in motorbike ownership is in the categories of ATV's, mini-bikes and motocross bikes and junior riders. The continuing growth in sales of bikes which cannot be legally ridden on public roads is creating increased demand for legal venues to ride. Additional pressure is coming from parents of junior riders seeking legal and safe areas to ride. In particular this causes problems for families who wish to ride together and may have a mix of registered and unregistered bikes and ATVs – their only options are to ride on private land or in the designated off-road vehicle areas.

Lack of information about the ORV areas was also highlighted as an issue in the State Trail Bike Strategy. Very few riders know about the Off-Road Vehicle Registration needed to legally ride in the ORV areas, and a number of riders don't even know about the existence of the ORV areas.

***“Did not know they existed, I only knew about the one off Thomas Road (Medina) and that has been closed for several months now – don't know why? How do I find them?”***

Respondent to State Trail Bike Strategy – Rider Survey

Designated ORV areas play an important role in the provision of facilities for unlicensed and unregistered ORV users, and are an important strategy in reducing the incidence of illegal riding of vehicles in reserves, state forests and national parks. Yet the current areas are not managed for

sustainability and as a result are in a poor state, not viewed favourably by riders and therefore do not attract as many riders as they could and should.

From the land manager perspective, off-road vehicle areas and trails pose issues of risk, liability, and costs of insurance, management, maintenance and other resources.

***State Trail Bike Strategy Recommendations:***

Developing Management Plans for Gngangara and Pinjar ORV areas was a key recommendation of the State Trail Bike Strategy. The preparation of this management plan aligns with the following recommendations from the State Trail Bike Strategy:

- 1.04 Develop Management Plans for existing ORV areas to reduce risk of injury and litigation.
- 2.021 Existing ORV areas to be redeveloped with planned facility design to attract riders.
- 3.01 Create Local Management Committees to manage individual ORV areas. Develop a Terms of Reference and Management Guidelines for these Committees.

The following table from the Strategy outlines the recommendations for the 2 areas:

OFF-ROAD VEHICLE area	RECOMMENDATION
<b>GNANGARA</b>	Intensive redevelopment needed to convert from a wasteland into a planned and managed facility. Could be segmented into several special interest zones. Subject to outcomes of Gngangara sustainability strategy.
<b>PINJAR</b>	Significant development potential with better access than Gngangara providing for easier segmentation into user zones. Needs proper planning and management / maintenance plan to ensure sustainability.

**Context: Department of Environment and Conservation Strategic Objectives**

The Department of Environment and Conservation (Western Australia) was established on 1 July 2006, bringing together the Department of Environment and the Department of Conservation and Land Management.

The department has the lead responsibility for protecting and conserving the State’s environment on behalf of the people of Western Australia. This includes managing the State’s national parks, marine parks, conservation parks, State forests and timber reserves, nature reserves, marine nature reserves and marine management areas.

Among the Department’s eight key objectives are managing natural resources and promoting environmentally sustainable practices, creating a “World Class Parks System”, implementing sustainable forest management and maintaining community involvement and support.

Trail bike riding can provide another means by which people can appreciate the State's natural environment but it must be properly managed if it is to be an environmentally sustainable activity that complements rather than conflicts with other forms of forest use.

Creating opportunities for trail bike riders in designated Off Road Vehicle areas can play an important role in shifting trail bike riding from an unmanaged to a managed activity. It can also reinforce sustainable riding concepts such as staying on marked trails which will benefit not only the ORV areas but other DEC-managed lands. Working with the trail riding community will assist DEC to better understand and plan for trail bike riding as an activity.

## Management Plan Objectives

The objectives of this Management Plan are:

1. To address immediate issues of risk.
2. To plan at a regional level and consider appropriate roles for each of Gngangara and Pinjar.
3. To create area re-development plans that ensure the areas deliver:
  - a. risk mitigation for DEC as the land manager
  - b. a satisfying experience for riders and their families
  - c. a safe environment within the constraints of the inherent risks associated with off road vehicle use
  - d. an environment that can maintain its attractiveness over time
  - e. the ability to cater for increasing number of users
4. To establish funding and management mechanisms for improved recreation facilities of high quality that is attractive to riders.

## Scope

The scope of this project considers the current issues and risks within both areas and proposes re-development plans along with recommendations for future management of the areas.

On that basis consultation occurred with riders, self identified and affected residents and the relevant local governments (Wanneroo and Swan).

The aim of the project was not to decide whether the areas should remain or close and on that basis widespread non-riding community consultation was not undertaken.

## PART 1 – CURRENT SITUATION

### Area Descriptions

<b>Name</b>	<b>Gnangara ORV Area</b>
<b>Location</b>	Cnr Centre Way and Gnangara Rds Lexia -31.795452, 115.915375 34.5km by road from Perth CBD
<b>LGA</b>	City of Swan – Under DEC control
<b>Approx Area</b>	225Ha
<b>Area Perimeter</b>	10.8km approx
<b>Status</b>	Designated ORV Area – a) Motorcycles <125cc b) Motorcycles >125cc
<b>Terrain</b>	Pine forest, sandy
<b>Facilities</b>	The ORV area is completely fenced using a ringlock fence and padlocked gates (although most gates are open). DEC provided designated car parking in 2004 but these were not maintained and are no longer recognisable.
<b>Maintenance</b>	None
<b>Description</b>	<p>Gnangara is the major off road vehicle area within the Perth metropolitan region.</p> <p>The area is DEC land and it is understood that at the time of proclamation as an off road vehicle area the intention was for the City of Swan to manage the facility.</p> <p>Gnangara was established with good intentions but little planning and it appears that little development or maintenance has occurred for a decade or more. As a result the area is not in a state that is attractive to riders or reflects well on the management of the area. The area has been littered with truckloads of rubbish, the myriad tracks are boggy with whoops (bumps or undulations), and the main access road, Centre Way, is in such poor condition that most visitors park as close as possible to Gnangara Rd, creating congestion in the South East corner of the facility and leaving the remaining 90% sparsely used.</p> <p>It is testimony only to the desperation of riders for a legal venue that so many of them still utilise this area.</p> <p><b>Safety</b></p> <p>Unlike the Lancelin ORV area, no specific records of injuries are maintained for the Gnangara off road vehicle area. There have over the years been a number of fatalities and serious injuries.</p> <p>Pine plantations have some inherent risks. Most significant is the network of fast straight tracks going both north-south and east-west. This creates a criss-crossing grid with a high risk of collision. In the more densely treed</p>

areas this problem is exacerbated by poor sight-lines of upcoming intersections.

Tree roots and stumps pose a natural hazard, but of more significance and concern to riders is the rubbish and half-buried obstacles such as old car springs and other metal objects.

The sandy nature of the soil means that tracks quickly become boggy and whoops (bumps or undulations) form. This creates challenging riding for the more experienced rider on larger more powerful bikes, but is no fun for novice riders or those on smaller wheeled machines. As a result much of the riding at Gnangara does not occur within the pine forests themselves but on the main limestone access road (Centre Way) that runs along the eastern perimeter of the area.

It is common to see motorcycles of all sizes and ages, quad bikes, four-wheel drives and buggies tearing up and down this roadway at high speed. Many trail bike and quad riders using the area do not wear helmets or other safety gear, and the carrying of pillion passengers is common (usually on motorcycles with no pillion foot pegs).

The most recent fatality occurred when a rider lost control on the limestone road and fell from his motorcycle. He was not wearing a helmet.

### **Risk**

There are currently no warning signs on entry to the area – in fact no signage to even indicate that the area is an Off-Road Vehicle area. One conclusion that can be drawn is that by not undertaking any maintenance of the area, or attempting to enforce levels of acceptable behaviour, or even recognising the existence of the area by signage, the occupier of the land is distancing themselves from the activities undertaken within the area and thereby reducing the ‘proximity’ that is one test of a duty of care.

However Gnangara is an officially proclaimed Off Road Vehicle Area under the Control of Vehicles (Off Road Areas) Act 1978 and is promoted by the Department of Local Government and Regional Development as such.

In the context of the Civil Liabilities Amendment Act, it would be difficult for DEC and / or the City of Swan to mount a defence against ‘reckless disregard for safety’, given the lack of any evidence to the contrary.

### **Compliance**

The Gnangara ORV area has been gazetted in two areas – motorcycles less than 125cc and motorcycles greater than 125cc. In practice this is an impractical classification because it may prevent, for example, families riding together. But irrespective of engine capacity, the area is gazetted for motorcycles, not buggies and four wheel drives.

Unlike Lancelin, where regular Ranger presence enforces wearing of

	<p>helmets, encourages (and sometimes enforces) ORV Registration and provides information about area boundaries, there is very limited Ranger presence (or any other authority) at Gnangara. As a result there is little guidance provided to users of the area and this has resulted in a high level of unacceptable behaviour prevailing.</p> <p>Few vehicles are ORV-registered, safety equipment is often not worn, and the riding at speed through the access road poses a significant safety risk to participants and the public.</p> <p>Access at night by vandals, hoons and car thieves also poses a major problem.</p>
<b>Preclusions</b>	<p>Future culling of the pine plantation could reduce the appeal for some ORV users.</p>
<b>Potential</b>	<p>The area is well located to service the northern suburbs and is large enough to properly accommodate many times more motorcycles than currently. With proper planning and suitable investment, Gnangara could be developed into an attractive facility for ORV use.</p>

<b>Name</b>	<b>Pinjar ORV Area</b>
<b>Location</b>	Wattle Rd Pinjar (Opposite Wanneroo Raceway) and Wesco Rd -31.65955496536633,115.7920789718628 40.6km by road from Perth CBD
<b>LGA</b>	City of Wanneroo
<b>Approx Area</b>	250 Ha
<b>Area Perimeter</b>	8.6km approx
<b>Status</b>	Designated ORV Area – a) Motorcycles <125cc b) Motorcycles >125cc
<b>Terrain</b>	Pine forest, sandy
<b>Facilities</b>	None
<b>Maintenance</b>	None
<b>Description</b>	<p>Pinjar is a very similar area to Gnangara, but it is less well known and therefore less heavily used. It is also much less littered, although it seems that wherever there is a trail leading into a forest rubbish dumping has occurred.</p> <p>Pinjar has a major advantage over Gnangara in that it is bounded on three sides by sealed roads. This would provide opportunities for the creation of zoned areas to suit different purposes.</p> <p>It suffers from the same problem of the sandy conditions leading to a more than desirable amount of riding occurring on the limestone access roads.</p> <p><b>Safety</b> No injury records have been maintained for the Pinjar area.</p> <p><b>Risk</b> The area is sign-posted as an Off Road Vehicle area, but there are no obvious risk warnings at the entry points.</p> <p><b>Compliance</b> There is little or no evidence of Ranger patrol and few vehicles appear to be ORV-registered. General observations and anecdotal comments from riders indicate a generally higher level of rider responsibility than at Gnangara.</p>
<b>Potential</b>	Given the sealed road access and generally better condition, Pinjar has greater potential for development into a planned and managed facility than does Gnangara.

## Current Utilisation

Gnangara in particular gets very busy on weekends, however most respondents to the State Trail Bike Strategy rider survey indicated an unwillingness to ride at the designated ORV areas.

Where do you regularly ride? (check all that apply)				
answer options	Never	Once only	Occasionally	Regularly
Gnangara Off Road Vehicle Area	56%	15%	20%	10%
Pinjar Off Road Vehicle Area	68%	10%	14%	7%
Lancelin Off Road Vehicle Area	43%	11%	25%	21%
Medina Off Road Vehicle Area	83%	7%	8%	3%

31% of respondents occasionally or regularly ride at Gnangara and 22% occasionally or regularly rode at Pinjar. Quad and MX riders were most likely to be regular riders at both ORV areas.

Use patterns for Gnangara from the rider survey conducted show:




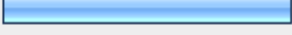
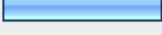


- 25% ride there a couple of times each month and 20% ride there every few months. Riding at Pinjar occurs less frequently (27% once a year or less).
- 50% ride for half a day and 23% for an hour or two or all day – so the vast majority ride for less than a whole day and indicates why people prefer not to travel too far to ORV areas. Pinjar riders mostly go for half a day (36%) or the whole day (31%).
- 92% use a trailer or ute to get the bike to Gnangara and 13% ride there (more than 100% as can select multiple answers). 9% of unregistered bikes ride their bikes to Gnangara. No survey respondents admitted to riding unregistered bikes to Pinjar, possibly because it is further from home.
- 75% ride with a family member (37% ride with their kids, 17% with their partner) whilst 72% ride with mates – only 19% ever ride alone. 88% of Pinjar riders go with their family.

No formal traffic count of the area has been attempted. The numerous entrances and parking areas, varying lengths of visit, influence of weather on visitor numbers and high number of non-riding visitors to the area make an accurate count impractical. However DEC have done an informal survey in February and July of 2008 reporting around 70 trail bikes, 20 quads, 50 vehicles and about 120 people with two thirds of this activity being in Gnangara and one third in Pinjar.

In terms of the visitor profile, from the STBS survey we can describe Gnangara and Pinjar riders as:

- Aged 35-49 and having been riding for more than 20 years, or between 1-5 years.
- They mostly ride with mates or family and 80% say their family also ride.
- 46% live in the Northern suburbs, 24% come from the southern suburbs and 20% from the hills.
- 36% are professionals/management, 28% are trades people, and 14% are students with the majority earning \$50k-\$100k per annum and 40% earning over \$75k per year.
- 65% do not belong to a club and 90% have never been on an organized ride.
- They also ride at Lancelin, on private property on motocross tracks and in state forests.

- Their biggest concerns are the lack of designated areas (and their poor quality), trails being closed, safety and irresponsible riders.
- 46% have been stopped by rangers whilst out riding.
- If available they would constantly use a network of signed, one way forest trails and a dedicated off road motorcycle park.
- They are more likely to ride unregistered motocross bikes (48%) than registered trail or enduro bikes (31.2%). Over a quarter of surveyed riders (26.3%) claimed to ride quad bikes.
- 90% would be prepared to pay a daily or annual fee to access a commercial trail bike riding area/park.

29. What sort of bike do you ride?		
		Response Percent
Road Registered trail / enduro bike		31.2%
Class 2 registered trail / enduro bike		3.4%
Unregistered trail / enduro bike		15.0%
Motocross bike		48.0%
Quad bike		26.3%
 view Other (please specify)		6.7%

## Area Strengths and Weaknesses

### Strengths

Respondents to the STBS survey who indicated that they had ridden in an ORV area were asked “What do you like about riding in the designated ORV areas?”. The most common response was simply that they only rode there because it was legal. Apart from the uniqueness of the Lancelin dunes for those that like jumps and sand, there was nothing specific about the ORV areas that attracted riders. Because it was legal the riders could relax and ride without fear of hassles. However the majority of riders still did not enjoy riding in the ORV areas.

*“The only good part with riding in a ORV area is that it's not against the law.”*

What do you like about riding in the designated ORV areas?		
Legal place to ride – can relax.	No fear of fines, trouble, hassle or rangers – accepted.	Sand dunes (Lancelin)
Not much, very little, nothing – ride there because I have to	close, convenient,	socialising with other riders
a place to ride	Doesn't hassle others	Safe with others around
Good terrain and trails	Good jumps - Lancelin	Fun

### What do riders like about Gngangara and Pinjar?

**Legal** - can ride without breaking the law – don't have to worry about rangers/police.

No **conflicting** interests - don't upset anybody.

**Position** - Proximity to Perth – close to home – closest for northern suburbs – convenient for a quick ride.

**Size** of the area – big area. Crowding levels not too bad.

Variety of **terrain** – “mildly diverse” – challenging environment – large open areas. .

**Trees** – shade – good to ride around – hold the soil together – pines.

**Children** – only place where children can ride in the area.

Compared to Gngangara, Pinjar was seen as:

**Larger** with longer tracks.

**Better terrain** and better trails with some hard pack and not all sand.

**Less crowded**, less “idiots” and less “car hoons”.

A better place to take **children** due to less problem behavior, less crowded and less sand.

A nicer environment with **less rubbish**.

## Weaknesses

The 30% of respondents to the State Trail Bike Strategy survey who had never ridden in the off-road vehicle areas were asked why not. Many were unaware of the existence of the ORV areas, for most they were too crowded and too far away (particularly for regional respondents) and were generally seen as attracting “hoon” riders.

Gnangara in particular is seen as a sandy rubbish dump and play ground for “hoons”.

*“Gnangara pines is a horrible place, so many idiots just blasting up and down the straight road sometimes without helmets giving all riders a bad name. I used to ride there but wouldn't go there again. There needs to be some sort of one way circuit to ride, some jumps and nice corners to challenge riders rather than have them blat up and down a track at full speed in all directions. It's plain dangerous and asking for a head on collision. I also find it quite boring.”*

Respondent to STBS – Rider Survey

Why don't you ride in these designated ORV areas?		
Too small	Too many people	Too far away
None in rural areas	Didn't know they existed, don't know where they are	Too dangerous
Not managed or controlled	Too much rubbish, not nice places	Boring terrain
Tracks too sandy, boggy	Tracks unmaintained	Have a registered bike – don't need to go there
“Idiot” riders – attract hoons	Don't like riding with 4x4s around	Want to explore new terrain, not ride in circles
Not suitable for children		

The majority of trail riders will not ride in these areas because they are seen as unplanned, unmanaged, unsatisfactory, uncared for and unsafe riding experiences.

### What do riders dislike about Gnangara and Pinjar?

The amount of **rubbish** and dumped cars in the area. (Gnangara only)

Lack of **facilities**

Track **maintenance** is non-existent.

Large number of **irresponsible riders** and hoon behavior and lack of ranger patrols. (Less for Pinjar)

**Safety** of the area is deemed “awful”.

**Track design** is awful and non-existent.

Lack of **parking** and unloading areas. (Less for Pinjar)

The **main access** from Gnangara Road is in an “appalling state” . (Gnangara only)

The state of **CentreWay** as the main access road. (Gnangara only)

Tree branches and **stumps** left after cutting the trees (mostly Pinjar)



*Intersection of Centre Way with Gnangara Rd showing potholes and rough edges.*

## Current area management and expenditure

No data has been supplied to quantify the expenditure on managing and maintaining the two ORV Areas.

### Maintenance

The Government has provided DEC with capital funds for Gngangara Park (\$300-\$500,000 per annum) to provide fencing/gates for access control, additional recreational facilities in the main recreation zone (east of Centre Way) and for rehabilitation trials and demonstration sites. This capital funding has not be used to upgrade the existing facilities and ORV sites

Fencing, some signage, removal of car bodies and infrequent maintenance of Centre Way at Gngangara are observable maintenance actions that would have incurred expenditure. Most road maintenance appears to be undertaken by FPC to support logging operations.

In May 2008 DEC undertook an operation within the Gngangara ORV area that:

- Consolidated much of the accumulated rubbish along the southern kilometre of Centre Way
- Regraded Centre Way
- Repaired the intersection of Centre Way and Gngangara Rd.

This operation involved 18 man-days of effort, a bobcat, a front end loader a grader and a truck.

In June 2008 DEC provided staff and equipment to a half-day cleanup of the Gngangara ORV area coordinated by the Recreational Trailbike Riders' Association of WA. Between the DEC staff and the approximately 50 volunteers the cleanup day resulted in the removal of 500 bags of rubbish.

### Management

There is no official management of the areas – there is no requirement for this under the Control of Vehicles (Off Road Areas) Act. Anecdotally, Ranger or Police presence is very rare and this lack of presence is seen to have contributed to the level of irresponsible activity seen in the area.

## PART 2 – OPPORTUNITIES AND CONSTRAINTS

### Land use

Future land use considerations will impact the development potential of the Gngangara and Pinjar areas. The Gngangara Sustainability Strategy (GSS) is the key land use planning mechanism for the region and this group's work is still in progress, so while it is possible that some alternative land uses may emerge there are currently no alternative land use pressures on either area.

In the absence of any surprise outcomes of the GSS it would appear that both the Gngangara and Pinjar areas have an expected security of tenure as ORV areas of at least 10 years. The current future land use options under consideration are:

#### Gngangara

There are no current plans to alter the status of land use of the ORV area or its surrounds. However, there is significant pressure from DAFWA and FPC to clear fell both areas to control European House Borer and provide timber resource to industry.

In the longer term (est >10 years) Centre Way is one of two options for a strategic arterial road connecting either Beechboro Road or Alexander Road with Flynn Drive to take the heavy haulage pressure off Wanneroo Road. There is no current pressure on this area to be excised out of State forest for housing or industrial lands.

#### Pinjar

The Pinjar area has been flagged for a potential horticultural precinct, however it is understood that this proposal has not been supported by the Gngangara Sustainability Strategy Taskforce and Gngangara Coordinating Committee (as of June 2008).

The area of pines north of Wesco Road has been declared an EHB Buffer zone to prevent the spread of European Household Borer (EHB) and the plantations are likely to be clear-felled. There is a potential for thinning and clear felling of the pine plantations within the ORV area.

The future of the adjacent Barbagallo Raceway is under review, with options including the development of a new international motorsports facility (Bullsbrook has been mentioned as a possible location) or the upgrading of the Wanneroo circuit. This presents a number of potential scenarios:

#### **Scenario 1: New International Motorsports Centre is developed elsewhere (less likely)**

- a) Wanneroo Raceway could be rezoned as industrial or
- b) Amalgamated with AJS Club Motocross circuit could be amalgamated to become a State Motorcycle Centre under the control of Motorcycling WA.

This scenario is not seen to have any direct impact on the continued use of the Pinjar ORV area.

## Scenario 2: Wanneroo Raceway upgraded (more likely)

The WA Sporting Car Club was originally seeking around 30Ha of land opposite the main entrance of the circuit as overflow parking for major events (3-4 times per year).



In a project led by the Department of Sport and Recreation this land opposite the main entrance of the circuit is now sought for an expansion to the existing track in order to keep the V8 supercars in WA.

It is beyond the scope of this plan to make any assumptions about DEC's attitude towards this request should it eventuate formally, however the important point from the perspective of the ORV area is that none of these scenarios would be inconsistent with the retention of the Pinjar ORV area as a recreational trail bike riding facility. On this basis we do not see future land use as an impediment to effective investment in these areas.

If this was supported by the Government, compensation should be made to ensure the existing ORV gazetted area in Pinjar is transferred to a site nearby or the existing site extended with minimal impact. There should also be no gap in facility construction. A new ORV facility should be established before the gazetted area is constructed for the raceway.

## User Segments & Requirements

These segments will be used in the development of area facilities to ensure the needs of all user groups are considered and catered for.

The segmentation focuses on attitudinal rather than strict age segments, although there is a strong correlation between age and attitude in the under 25 year groups. The distinction between registered / licenced and unregistered / unlicensed does not of itself assist in the segmentation.

### Novices

Novices can be found in all age groups and are defined by their experience and capabilities. Novices prefer wide, formed, graded and hardened trails. Speeds will be lower and the trail will have less technical challenges.

### Nippers 5-12

These are the kids riding pee-wees to 80cc MX minibikes. They will be brought to the ORV area and supervised by an adult, usually the parent.

The key consideration is safety. Parents want their junior riders to get an enjoyable and safe introduction to riding. Strategies include:

- Riders of the same age and bike type riding together
- Riders all going the same direction with no cross-trails
- Riding in an area that can be viewed continuously from a family-friendly location such as a picnic area.
- Riding on a maintained track with no dangerous obstacles, logs, rocks or large bumps.
- Riding without the pressure of competition (note that age is no barrier to entry the MX Competitor segment)

The reality is that the kids will be easily pleased, so this market segment is really the *parents* of the kids.

### Grommets 13-17

The 13-17 year segment contains the future MX and Enduro competitors. This segment is faster and keener on competition. They will also be brought to the area and supervised by an adult, but potentially this adult is less likely to be a parent.

This segment is likely to contain a mix of late first-timers and seasoned junior pros. While the late first-timers will mix easily with the Nippers, the more aggressive riders will need their own area. It is intended that this group will be catered for with a half size MX track with appropriately scaled optional features such as table tops and rhythm sections.

### Mulisha 18-24

Go to any Crusty Demons show and you'll see this segment. Their mantra is 'go hard or go home'. More likely to be on older MX bikes as this group is not usually flush with cash. It is highly probable that this group also contributes the most to the anti-social and irresponsible behaviour that feeds the media with ongoing evidence of the 'trailbike scourge'.

This group is likely to be resistant to organization or rules of any type. They are the most likely group to take risks and expose themselves and others to danger. They are the most likely group to have older, unmaintained bikes and will be the most likely group to resist the wearing of proper protective gear.

It is expected that this group will use the MX track and Enduro loops and want freestyle areas. Some purpose built features such as rhythm sections and table-top jumps could be provided but consideration would need to be given to a grading system to prevent bravado placing riders in situations above their riding skills.

The objective must be to instil a sense of tribal pride in the facility by creating some form of “Friends of” with an appropriate flavour (see Area Management later in this document).

### **MX Competitors**

Genuine Motocross competitors looking for an area where they can practice specialised techniques. This group is reasonably well catered for with MX facilities for organised competition, and most clubs who operate MX tracks provide any-time access for members via a key system.

Likely opportunities include specialised practice areas such as rhythm sections, flat turns, berms etc.

### **Trials Competitors**

Members of the two Trials Clubs looking somewhere to practice, and the clubs themselves as a venue to hold events.

The AJS club has a dedicated facility at Wanneroo MX track however the Pathfinder club holds most of its meetings at Jarrahdale and has no access to a regular practice facility. Gnangara and Pinjar ORV areas would be an excellent location for a Trials facility.

### **Enduro Competitors**

Members of the Trail & Enduro Club or other, looking for a place to ride and practice between events.

An Enduro area with technical challenges such as tight single track, logs and less maintained trails will accommodate Enduro Competitors looking to practice and non-competitors who want to challenge themselves.

### **Trail Riders**

People who are not into racing all the time, who just like getting out on their bikes with a few mates for a ride. This is a very broad segment in terms of age and machinery.

The limitation of the ORV area in relation to this market segment is that it is loop rather than destination based. 'Real' trail riders prefer to travel point to point - the type of riding that really needs a destination trail such as the Bibbulmun Track or Munda Biddi Trail.

The key will be keeping the trails fresh and well maintained. Like a Scalextric set that can be configured in different track formats, the Enduro precinct needs to be able to be set in different layouts with sections opened and closed on a regular basis to provide riding variety.

## Suggestions from Users

Suggested improvements from area users were obtained in the survey.

- separated areas for PeeWees, Beginners/Family, Intermediate, Advanced riders
- fencing the riding area to keep cars out with gates that are opened in the morning and locked at night
- turning bays/lane to get on and off Gnangara road and a sealed entry and exit
- bituminize Centre Way
- No cars - restrict to purpose built orvs
- a network of signed, one-way trails with two way trails for 'transport' sections
- an Enduro practice loop with technical challenges
- a "firmer riding surface - tracks and trails for novice / intermediate riders should be harder surfaced and regularly graded.
- single track trails
- Specially constructed MX practice circuits with 'air opportunities' – ie jumps
- Water ways - a man made water section with river crossings
- Regular ranger patrols to enforce off road registrations; helmets; control dangerous riding and police rubbish dumping. Specify minimum riding gear and police it
- creation of a Local Management Committee of riders
- improved notification / signage of logging and back burning activities
- a way of contacting emergency services, ie a phone and a fire point
- Signage educating riders to dangers and conduct. Signage at the entrance guiding riders to novice/intermediate/advanced tracks and to parking areas.
- regular grading of novice and intermediate areas
- Dumping of rubbish – area needs to be completely cleaned up then steps taken (predominant suggestion was fencing) to prevent rubbish dumping in the future. Provide rubbish bins.
- Sprinkler system to reduce dust especially in the kids and picnic area.
- Specified parking / unloading areas and If the trees are removed shaded areas need to be installed.
- First aid centre.

And specific to Pinjar

- expand the area north of Wesco Rd

## PART 3 – PLAN FOR THE FUTURE

### The Big Picture

Do we need two Off Road Vehicle areas in such close proximity or would a better overall result be achieved by consolidating all activity in one area?

Pinjar is generally recognised as having greater long term potential, as it is bordered by sealed roads on three sides, has potential for expansion to the north and could become a starting point for a future destination trail ride north to Yancheep. But does this mean we should attempt to concentrate all focus and activity into this area, or would a better overall outcome be achieved if both Pinjar and Gnangara were to operate in parallel?

In addressing this question there are several aspects to consider:

1. Can the expected future capacity requirements be met within a single area?
2. Is there a logical and beneficial separation of uses that can be achieved if both areas remain operational?
3. What level of facilities / development would be sacrificed if resources were continued to be divided across the two areas?
4. What are the future prospects for more gazetted ORV Areas?

### Capacity

There is little doubt that at the current utilisation levels a single, properly developed facility would suffice. The creation of separate zones for riders of different abilities, a network of single direction trails and a series of practice tracks could accommodate many more participants – with greater safety – than the current unstructured arrangement.

There are, however, two considerations that offset this argument.

1. The anticipated continuing growth in numbers of riders through;
  - a. Natural population increase
  - b. Increasing per capita popularity of the activity. The availability of cheaper bikes and quads, the high disposable income and flexible working hours created by WA's resources boom and the growing number of wives, girlfriends and families taking up the activity.
2. The greater 'drawing power' of an improved facility – ie many of the riders who currently steer clear of the gazetted Off Road Vehicle Areas can be expected to make use of them if they are improved. The research undertaken for the State Trail Bike Strategy found that 56% of riders had never visited Gnangara and 68% of riders had never visited Pinjar. This suggests a very substantial potential increase if the areas become more appealing to riders, without taking into account the increased visitation frequency that would follow from current riders.

In addition the number of riders choosing to ride at Gnangara and Pinjar will also be effected by the number of off-road vehicle areas available for use - the more areas, the greater will be the dispersion of riders. It is therefore difficult to predict just how many riders might in the future make use of the facility/ies, but it can be expected to be many times more than currently, suggesting a cautious approach be taken towards capacity planning.

Using data from the State Trail Bike Strategy rider survey, and considering potential rider increases as the areas become more attractive, some predictions of potential rider numbers have been developed. It is considered:

- On any given Saturday or Sunday between 230-310 bikes could be at Gnangara.
- On any given Saturday or Sunday between 300-450 bikes could be at Pinjar.

### Separation

Both areas are very similar in terms of terrain – sandy pine plantations and cleared areas - so there is only limited opportunity for separation in terms of the riding experience itself.

Arbitrary separation – eg proposing quads at Gnangara and bikes at Pinjar – tends not to work, as many families and groups include a mix of bike types, capacities and rider capabilities. The failure of the current arbitrary separation by engine capacity is a case in point.

*Preferred* uses could be established within each area and between the two areas through trail and facility design. For example Pinjar could become the *preferred* venue for juniors by creating more hard-packed trails and a more conducive environment for parental supervision, while Gnangara could become a preferred venue for quads by shaping trails specifically with quad riders in mind. Over time, this preferred use separation could evolve, but it would never become absolute because many quad riders also have kids on bikes and vice versa.

### Budget Priorities

It goes without saying that a higher standard of development would result if all of any available budget were to be applied to a single facility rather than being spread across two facilities. Little, if any, expenditure on facilities would be considered ‘portable’, meaning that any investment in one or other area would be lost if that area were to close in the future.

So the question is one of quantity versus quality. At what point does the law of diminishing returns kick in to reduce the incremental effectiveness of further investment in an area?

The answer to this can be derived from the research into what riders wanted in the areas (see “User Suggestions in Part 2).

It can be seen that the majority of riders value convenience (ie shorter travelling times) and variety over infrastructure such as picnic areas, toilets and sealed car parks.

Of course it is not automatic that the available budget be divided equally between the two facilities, particularly if a long term objective were to be to consolidate activity into one area. So

consideration should be given to the range of options from spending everything on one facility to dividing the budget equally between the two.

### **Future ORV Areas**

A key recommendation of the State Trail Bike Strategy is the need for more Off Road Vehicle areas to be gazetted –to provide a more convenient regional spread, to provide greater diversity in riding experiences and to avoid over-concentrating activity in too few areas.

Some interest has already been shown by regional Shires, and a future DEC study will examine opportunities for both registered and unregistered vehicles in the area from Swan to Collie.

It is reasonable to assume, therefore, that there will be more Off Road Vehicle Areas opening up in the future, however it is not possible to place a solid time-frame on this and therefore this prospect should be heavily discounted as an influencing factor.

### **RECOMMENDATIONS**

Taking all of the above considerations into account the recommendations are to:

1. Continue to maintain both the Gnangara and Pinjar areas at least in the medium term and indefinitely if ongoing demand warrants.
2. Invest in basic infrastructure for both facilities in terms of
  - a. Parking areas
  - b. Toilets
3. Prioritise the elements that will achieve the greatest outcomes in attracting riders and managing risk, ie;
  - a. Trails development
  - b. Signage
4. Place development (hence budgetary) emphasis on Pinjar, to make this a preferred location, especially for families.

## General Principles of Trails Development

A gazetted ORV area should provide both easy and difficult trails to spread visitors and meet a range of needs. By indicating the length and difficulty of trails with a clear signage system, visitors will be able to locate their preferred type of trail easily.

Arbitrary segmentation by age, gender, bike type or size, or even years of riding experience should be avoided. A skilled 12 year old on an 85cc bike may well be able to successfully negotiate terrain that might stop a less confident adult on a 450.

A significant attraction of a commercial ride park or gazetted ORV area is that families can ride together, so segmentation needs to be by capabilities and expectations rather than any arbitrary criteria.

*Capabilities* determine the type of terrain that a rider is capable of competently and safely negotiating, while *expectations* are both those of the rider in wanting an appropriate level of challenge, and those of management in requiring riding attitudes consistent with the intent of each level of trail.

	Novice Riders	Intermediate Riders	Advanced Riders	Management
<b>Green Trail</b> (easy)	Will negotiate trail safely and comfortably	Will enjoy for a cruisy, less challenging ride	Will ride for a warm-up or wind-down or with less experienced family members / friends	Will expect <u>all</u> riders to ride with care for novices and at a cautious pace
<b>Blue Trail</b> (more difficult)	May require some assistance, will feel physically challenged	Will negotiate trail safely and comfortably but with some challenging sections	Will enjoy for a cruisy, less challenging ride	Will allow a faster pace but anticipating less experienced riders
<b>Black Trail</b> (most difficult)	Will struggle, need assistance, will feel overwhelmed and probably not enjoy.	May require some assistance, will feel physically challenged	Will negotiate trail safely but with some challenging sections	Will anticipate a fast pace

The above matrix discourages novices from attempting Blue trails unless in the company of a more experienced rider, and discourages novices from attempting Black trails under any circumstances.

Advanced riders, however, are not discouraged from riding Blue or Green trails but are expected to ride them at an appropriate pace.

Note that a trail may be predominantly Green or Blue, but may have optional sections of a higher level. Where such branching occurs, it is important to ensure that the lower level trails do not have any unexpected obstacles, so the more advanced riders can temporarily leave the less experienced riders in their party confident that they will meet up again where the trails re-converge.

## Principles of trails classification and grading

A general principle in classifying trails for different levels of users is that the hardest non-optional section of trail determines the overall trail grading. There's no point calling a trail a 'Beginners' Trail if 98% of it is wide smooth and flat but the remaining 2% is a steep, rutted, gnarly goat-track.

There are currently no accepted national or international standards for rating trail bike and ATV trails, so any classification system will be largely subjective. There does, however, appear to be broad support for adopting the three-tier classifications as used in skiing;

- **Novice - Green**
- **Intermediate – Blue**
- **Advanced - Black**

Judgment and observation, together with rider feedback is necessary to develop a feel for the types of terrain and challenges that define the boundaries of each level. To this end it is useful to create a 'reference group' that comprises 'average' level riders within each of the bands of Novice, Intermediate and Advanced.

The following guidelines have been adapted for motorised trail bikes and quads from the International Mountain Biking Association (IMBA) guidelines for mountain bike trails.

### 1. Rate Technical Challenge, not Impact of Speed

Even the simplest trail will become 'technical' as speed increases. For this reason the focus should be on rating the technical challenge of trails, not the risks that increase with speed.

### 2. Evaluate Difficulty Relative to Local Trails.

In the absence of standardised and quantifiable criteria trails should be rated relative to other trails in the area. A black diamond trail in one region may rate as a blue square in another region, but the ratings should be consistent locally.

### 3. Use Good Judgment.

Rating a trail is not 100 percent objective. It's best to combine tangible data with subjective judgment to reach the final rating. For example, a trail may have a wide range of tread surfaces - most of the trail is easy, but some sections are more difficult. How would you rate it? Use personal experience (and if possible a reference group) to consider all elements and select a rating that best matches the style of trail.

#### 4. Consider Other Trail Qualities.

A wide variety of features can contribute to a trail's difficulty. For example, exposure - the feeling of empty space next to and below the trail tread - provides an added psychological challenge beyond the steepness or roughness of the trail. A 3-inch rock seems like a boulder when a 50-foot drop looms on your side! Other qualities to think about are corridor clearance and turn radius.

#### 5. Consider the 'B' line

With just a little thought different lines through obstacles can provide a range of challenges. For example a hill climb might have a graded side and a rutted side so the same group of mixed-ability riders can each select the appropriate level of challenge. In the context of Gngangara and Pinjar this could equate to a trail with obstacles such as logs or whoops that has an easier bypass around those sections.

#### *Criteria to Consider*

**Tread Width** - The average width of the active tread or beaten path of the trail.

**Tread Surface** - The material and stability of the tread surface is a determining factor in the difficulty of travel on the trail. Some descriptive terms include: hardened, firm, stable, variable, widely variable, loose and unpredictable, sandy, slippery, rocky. Firmer surfaces make for easier riding.

**Hills** – Hills are probably the most common technical challenge that impact on trail difficulty rating. A novice can be expected to conquer a hill where there are no obstacles to impede progress (eg rocks, ruts, tree stumps etc) and where traction can be maintained at a relatively low speed. An intermediate rider can be expected to conquer a hill where momentum is necessary to maintain traction but where there are only moderate obstacles, while an Advanced rider can be challenged by steeper terrain that demands commitment and skill to navigate multiple obstacles.

**Natural Obstacles** - Objects that add challenge by impeding travel. Examples include: rocks, roots, logs, holes, ledges, drop-offs, etc.

## GNANGARA AREA PLAN

### Vision

A cleaner, safer and more structured facility than current, whilst still retaining an un-developed feel.

### Proposed Uses

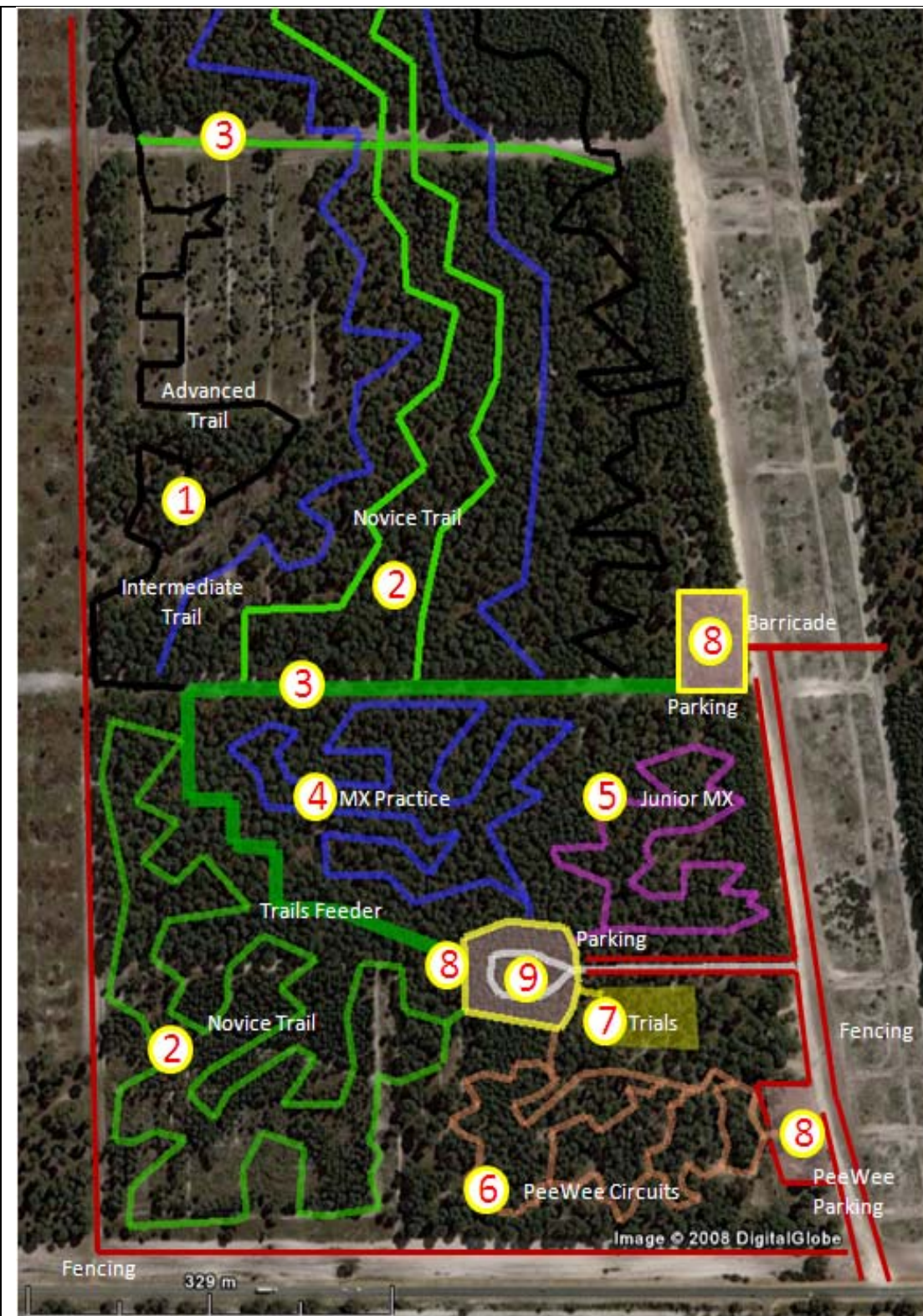
SUPPORTED USES	NOT SUPPORTED
<ul style="list-style-type: none"><li>• 'PeeWee' Kids circuit – kids predominantly under 10 years, closely supervised</li><li>• Novice / Kids circuit – learner adults, kids</li><li>• Junior MX practice circuit</li><li>• Senior MX practice circuit</li><li>• Natural Terrain MX practice circuit</li><li>• Family Trails network</li><li>• Enduro trails network</li><li>• Trials Practice area</li></ul>	<ul style="list-style-type: none"><li>• Practice Supercross Circuit</li><li>• Freestyle / jumps</li><li>• Racing</li></ul>

### Site plan

The following indicative site plan illustrates the separation of riding levels into precincts as well as the types of circuits and trails envisaged. The conceptual plan suggests

- Junior / Novice trails – 4km – 14%
- Intermediate trails – 10km – 35%
- Advanced trails – 15km – 50%
- 2 x MX practice circuits
- 3 x PeeWee circuits for young children
- Trials practice area
- Free riding areas

# GNANGARA CONCEPT PLAN



REF	PRECINCT / FACILITY	DESCRIPTION
1	Advanced / Intermediate Trails (Blue, Black)	Series of one-way marked trails, roughly formed and lightly maintained. Advanced trail to include optional technical challenges such as logs, rocks etc. The Advanced and Intermediate trails draw riders away from the parking areas and to the northern regions of the ORVA, reducing congestion and separating intermediate / advanced riders from beginners. It is estimated that approximately 25km of trails can be developed within the area.
2	Novice Trails (Green)	Wider, well-formed one-way marked trails with firm base on corners, regularly maintained. The simplest, most groomed trails would be those closest to the main car park area and would be designed for family riding – ie parents with young children or adult novices. Approximately 2.5km trail length should be possible.
3	Feeder Trails	The 'Feeder' trails provide access to the main one-way trails. These trails would be wider, clearly signposted as Two-Way, firmly surfaced and regularly maintained. A speed restriction would be applied consistent with their objective of being transport <i>between</i> trails. By using the Feeder Trails at the east-west crossroads a combination of circuits can be created (eg ride the Black 'up' trail from Machado to Lexia, then take the Blue 'down' trail back.)
4	MX Practice	1.5 km circuit with firm base on corners, small jumps <1m, well-formed and lightly maintained. By creating a practice MX track we are providing an outlet for those who want speed and challenge, in a confined and more controllable setting. Locating this close to the car park and picnic facilities will suit the cycle of typical 10-20 minute sessions on the track with rest breaks between.
5	Junior MX Practice	1.0 km circuit with graded firm base, small jumps <.5m, well-formed and regularly maintained. The Junior circuit provides a one-way closed circuit that is close to the car park so that parents can remain close by. Adult riders would be discouraged from using this circuit unless accompanying children.
6	'PeeWee' Kids' Circuit	The Pee Wee area is a dedicated precinct for the youngest riders. Expanding loops up to 1.2km easy circuit with graded firm base, well-formed and regularly maintained. Adult riders would be strongly discouraged from using these circuits unless accompanying children and riding at a very slow and cautious pace.
7	MotoTrials practice	An obstacle course of rocks and logs for trials practice. Despite not requiring a large area, trials riders often have difficulty finding legal places to practice. Trials is entertaining to watch, and the bikes are quiet, so positioning this precinct adjacent to the main car park will provide some entertainment for riders taking a break or non-riders accompanying children or friends to the area. Exposure to the skill and control of trials riding would be a beneficial influence on many young riders.
8	Parking / Picnic / Amenities	Basic parking / picnic area. Three car park areas proposed: <ol style="list-style-type: none"> <li>1. Main carpark at central point within pines – this will have the facilities such as toilets</li> <li>2. PeeWee parking – a separate parking area closest to Gnanagara Rd is proposed, for the convenience of the non-riding parents of small children, and the objective of separating the youngest riders from the others.</li> <li>3. An overflow car park further along Centre Way is envisaged and this would provide direct access to the northern trails.</li> </ol> The main information signs would be in the main car park, with information specific to the Pee Wee precinct and the northern trails in car parks 2 and 3 respectively.
9	Toilets	1 x 4 seat remote area toilet block & tank for drinking water to be situated in Car Park 1 (main car park).
	Fencing	New fencing to be erected either side of a reduced-width Centre Way to define this as a roadway. Fencing around car parks 1, 2 and 3 with access to riding area for motorcycles and quads only. Barricade Centre Way north of car park 3, with locked gate for emergency vehicle access. Lock gate on Centre Way at Gironde Rd and other northern entrances to area.

## Facilities

Only basic facilities are proposed for the Gngangara ORV area.

### Access road from Gngangara Rd to car park(s).

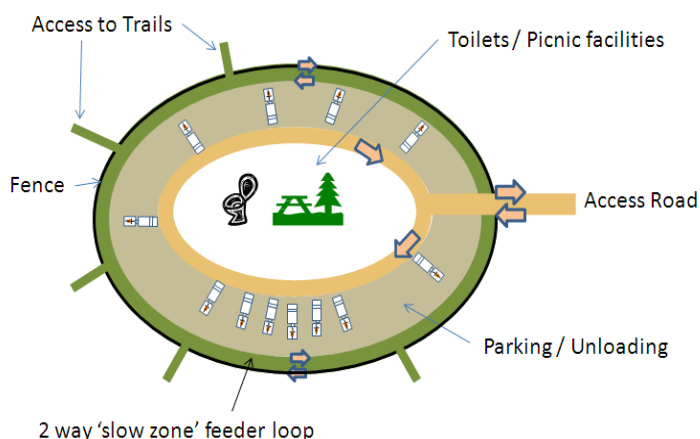
Sufficient width for two vehicles travelling in opposite directions to pass one another. Concept plan indicates 275m Centre Way from Gngangara Rd then 200m West to car park 1. Should ideally be bitumen or gravel to clearly differentiate from the riding trails, be signposted with a 20km/h advisory speed sign<sup>4</sup> and be bordered on edges with rocks, logs, or fencing to prevent bikes / quads crossing.

### Main car park

Graded limestone or gravel surface, 50 vehicle capacity (the majority of which will be towing trailers). The car park should retain as many trees as possible for shade, with each parking bay being approx 15 metres long to allow for tow car, trailer and space behind to unload and work on bike, quad etc. The objective is to keep bikes and quads out of the car parking area as much as possible (to avoid bike / car conflict), and to separate bikes / quads from places where people (especially children) are likely to be walking or playing. At the same time it must be recognised that riders want to return to their cars between rides, as they will have their tools, drinks, snacks etc locked in the car while they are on the trails.

The concept parking plan indicates a one-way clockwise loop with parking on the outside, facilities such as toilets, kids play area, picnic facilities etc on inside (a 'bike-free zone'). Ringing the parking area is a two-way 'slow zone' feeder trail, from which the various trails and circuits can be accessed. An outer fence provides controlled access to the trails.

**Parking / Facilities Concept Plan**



<sup>4</sup> DEC does not have authority to erect speed signs, this is a Main Roads responsibility. No speed limits can be set for gravel roads due to the variability of the surface, therefore Speed Advisory signs would be used.

### **Secondary car park**

With a graded limestone or gravel surface, 20 - 50 vehicle / trailer capacity. This is both overflow parking and more direct access to the Intermediate and Advanced trails.

### **Junior Trails Parking**

A small parking area with a graded limestone or gravel surface, 10 vehicle capacity. This car park, closest to Gnangara Rd and adjacent to the PeeWee track would be designated for families with young children. Some shaded picnic tables would be useful given that the parents using this section of the ORV area would be there in a supervisory capacity.

### **Toilet block**

It is anticipated that a single 4 seat toilet block (remote area design), located in the main car park area should be sufficient.

### **Potable Water**

A water tank to provide drinking water would be beneficial and could presumably be constructed as part of the toilet block.

### **Picnic benches**

Destruction-resistant x ~8 in the main car park and x ~3 in the Junior Trails Parking.

Picnic benches play an important role in defining the use of a particular space. It is easier to declare an area a 'bike free zone' when the area has so obviously been established for the purposes of eating or just sitting.

### **Information Board / Shelter**

A combination information board and shelter where more detailed information about the area layout, boundaries, precincts and behaviour expectations can be communicated.

## Capacity indicators

It is important to estimate the maximum 'carrying capacity' of the facility. Unfortunately there are many influencing variables and little hard research upon which reliable predictions can be based.

The following model provides a basis for estimating capacity that can be refined with observation.

The model assumes a minimum average spacing between riders on each type of trail or circuit, then allows for the fact that riders tend to alternate between riding and resting / refuelling / maintaining / eating etc.

- The more strenuous the circuit the more time is spent between riding sessions.
- Circuit-based activities tend to accommodate a higher intensity of use than trail-based activities.
- Experienced riders are comfortable with a higher level of traffic than the younger or less experienced riders.
- Formed and surfaced trails will carry a higher capacity than unformed trails.

PRECINCT	LENGTH	SPACING	TRAIL CAPACITY	ROTATION	USER CAPACITY
Advanced Trails	15Km	200m	75	1:2	150
Family Trails	10km	100m	100	1:2	200
MX Practice	1.5km	75m	20	1:3	60
Junior MX Practice	1km	75m	15	1:2	30
Novice / Kids' Circuit	4km	100m	40	1:2	80
'PeeWee' Kids' Circuit	1.2km	75m	16	1:2	32
MotoTrials practice	NA	NA	3	1:3	9
<b>TOTAL</b>					<b>561</b>

The above table indicates an estimated capacity to cater for over 500 visitors at any one time if all facilities were used to maximum capacity. From the research we know that an average visit to Gngangara is half a day so we can extrapolate that the concept plan as devised should be able to cater for up to 1,000 riders per day.

While exact current user numbers are not known this is likely to be several times more than the facility currently attracts and the potential carrying capacity is substantially more than the anticipated patronage, at least in the short-medium term.

Disciplined monitoring of user numbers will be required as the area is developed in order to predict the growth rate of patronage. Increasing the size of the ORV area may be possible if warranted by usage.

## Work Priorities

The implementation of the Gngangara plan should balance the risk management priorities of DEC with the priorities as stated by the users of the area:

1. Clean up the rubbish – and prevent it from accumulating in the future
2. DEC to continue to maintain entry roads
3. Entry signage and notice board
4. Create concept trails
5. Properly resource the management of the area
6. Control the behaviour of hoons
7. Make an area safer and more suitable for kids
8. Develop network of one way trails
9. Improved parking / picnic facilities / Toilets
10. Ongoing development of precincts and trails

### *1. Clean up the rubbish – and prevent it from accumulating in the future*

It is noted that DEC has already undertaken significant recent work to remove much of the rubbish strewn along Centre Way.

The Volunteer Cleanup Day held on June 21 made an impact on the small rubbish scattered throughout the pines area. 500 bags of rubbish were removed by 50 volunteers and DEC staff, effectively cleaning around 200 metres along Centre Way and well into the pines to the west.

It is anticipated that the “Friends of Gngangara” will organise future cleanup days on perhaps a six monthly basis. Following each of these cleanup days, DEC will need to remove the rubbish collected along with any large items.

Preventing the future dumping of rubbish in the area is more of a challenge. It could be argued that the City of Swan should take more responsibility for rubbish being dumped, as the scarcity and expense of household transfer stations and tips contributes to the problem. DEC and the City of Swan need to develop and agree a strategy to reduce rubbish dumping along with assigning responsibilities for enforcement, clean ups and under which legislation enforcement can occur.

The following strategies should assist:

- Preventing cars accessing the area apart from the car park. This can be done via modifications of Centre Way, closing this road beyond the second car park and reducing its width so that it is

clearly only an access road to the two car park areas. Fencing and gating the area was also considered, however this was rejected due to logistical problems and DEC policy.

- increased user presence and activity in the area immediately adjacent to Gnangara Rd
- increased Ranger and Police presence – zero tolerance approach
- Entry point and car park signage
- Hotline to report the illegal dumping of rubbish and education of riders to note and report suspicious activity.
- On site campaign “Dob in a dumper” run by the Friends of Gnangara.

Keep Australia Beautiful Council provides grant funding for litter reduction projects. *For further investigation: City of Swan (and other surrounding LGAs) engagement in this issue.*

## ***2. Fix the entry road, including the intersection of Gnangara Rd and Centre Way***

In May 2008 DEC graded Centre Way and filled the major holes at the intersection of Gnangara Rd. A more permanent solution needs to be developed to this intersection, preferably the creation of a proper slip road and right turn lane.

Initially this intersection can be monitored and patched as necessary along with the 6 monthly grading of Centre Way. The access road itself should be reduced in width and existing parking areas graded / compacted to remove loose sand.

DEC is responsible for the management and maintenance of Centre Way (FPC liaises with the DEC in relation to timings of forest harvesting).

Gnangara Road is classified as a Distributor Road and comes under the City of Swan's control and management. Due to its regional significance Main Roads and State/Federal Government funding is sought for required works. No improvements are currently scheduled but works will probably be required in approx 5 - 8 years, depending upon traffic movements and funding. Any request for alterations would need to be determined by the City of Swan.

## ***3. Entry, Boundary and Information Signage***

Entry signage should clearly identify the area as an Off Road Vehicle Area and prohibit the dumping of rubbish.

Immediately inside the area should be a Risk Warning notice and an Information Shelter with signage and a notice board to which can be attached special purposes notices. By associating special purpose notices with the general Risk Warning more opportunities for viewing the Risk Warning are created.

Interim signage consisting of the General Warning Signage at the entry and a Welcome/Risk Warning Sign have been produced as part of this Management Plan project and will be immediately installed.

The Information Shelter will be created at the time of initial grading and compacting of existing car parks and positioned nearby. The information will be gradually added and updated throughout the re-

development project. Area boundary signs would be installed at the same time. At this point the Signage Inventory would be created for ongoing auditing.

Finally, the entry signage and Information Shelter would be re-positioned upon completion of new entrances and development of the permanent car parks.

Refer: Signage section in Part 4.

#### ***4. Create Concept Trails***

In this phase some of the trails concepts are roughly formed by dozer or loader without incurring the time and expense of importing materials and properly forming these trails. The concept trails should be located in the block between Lindley Rd and Machado Rd. They would all be fully signed. This will:

- attract riders away from the southern zones that should be first to be re-developed
- Give riders a taste of what is to come
- Create opportunities for more riding away from Centre Way
- Begin to separate riders by capability and riding style.

#### ***5. Properly Resource the Management of the Area***

A Program Manager should be appointed and the "Friends of Gngangara" formed and trained.

Current 125cc restriction to be removed.

Refer: Part 4 Area Management

#### ***6. Control the behaviour of hoons***

Until the major changes to Centre Way are implemented speed along Centre Way should be restricted to a maximum of 20kph. While Main Roads WA signage policy precludes the erection of speed limit signs on a gravel road this speed restriction could be included in a Riders' Code of Conduct or local policy for the area. An Enforcement Strategy needs to be developed between DEC, the City of Swan and WA Police. Ranger / Police patrols should be scheduled – ideally 2 x 1 hour visits each day over weekends. Initially this should be confined to enforcing the Centre Way speed limit and the provisions of CV(OA)A in relation to the wearing of helmets as well as discouraging riding on Centre Way.

Local volunteer patrols will provide the 'eyes on the ground' necessary to monitor behaviour in the area, however these volunteers will have no enforcement rights or responsibilities.

Refer: Part 4 Area Management

#### ***7. Make the area safer and more suitable for kids***

Establish the Juniors' Precinct by clearly delineating with signage and develop the required circuits and trails with materials as suggested by the trails pilot. Create the Junior Car Park.

#### ***8. Develop the network of one way trails***

Delineate precincts and progressively plan and develop new trails, shutting off intersections with former cross-trails. Advanced trails will be easier to create as they will require less intensive surface preparation. Trails should be developed progressively across precincts so that each user group is catered for.

### ***9. Improved parking / picnic facilities / Toilets***

Rider feedback indicates that toilets and other facilities rank lower in priority than controlling hoon behaviour and establishing order in the way the area is used (ie one-way trails).

DEC's experience in site development, however, shows that sites need the appropriate level of infrastructure in place to deal with the level of visitation/use expected.

Without adequate visitor facilities users tend to create their own in an ad hoc manner – eg clearing places to park and unload, carving new entries to trails, littering and general lack of respect. Where visitors park and what they see when they arrive sets the scene for the rest of the experience. Good and appropriate infrastructure is required fairly early on.

Balancing the somewhat opposing views of the riders and DEC is a challenge. Accordingly it is recommended that the upgrade to the parking and picnic facilities should begin as soon as possible after the early stage trails development run in parallel to the trails development. The major work to eliminate riding on Centre Way would be done late in this stage along with closing all other entrances into the area.

A second benefit to this approach is that items 1 to 8 can be done incrementally and in a relatively low-key manner, whereas item 9 – parking / toilets / picnic facilities - represents a significant and very public enhancement of the area.

### ***10. Ongoing development of precincts and trails***

Once the basic infrastructure including parking and toilets is in place the area can evolve towards the master plan. This will enable user comments and suggestions to be fed progressively back into the planning process.

### **Specific Challenges**

There are three key **challenges** in realising the development goals for Gngangara. They are:

1. Preventing users of the Off Road Vehicle Area from accessing Centre Way.
2. Defining the new trails in a way that eliminates intersections with existing routes and avoids the cutting of new intersecting trails.
3. Removal of pine trees.

Following are recommended approaches for dealing with these challenges:

#### ***Centre Way***

Centre Way is currently attractive to some riders partly because of its hard surface and partly because it is long and straight.

The trail development should provide preferred alternatives within the riding area itself, but it is also important to actively discourage riders of unregistered vehicles from riding on Centre Way and to control how registered vehicles use this road.

It is recommended that Centre Way be declared a prohibited area for non-road registered vehicles, and made a low speed area.

Options to discourage or prevent access by ORVs are:

1. Fence the eastern perimeter of the ORV area (the western edge of Centre Way).
2. Terminate Centre Way at the proposed northern car park and rip up Centre Way from that point north to (at least) Trainor Rd. The limestone road base removed from Centre Way could be used as a trails base within the designated riding area.
3. Reduce the width of Centre Way by ripping either side and / or installing fencing.

### *Preventing New Intersections on Trails*

As new 'designated' trails are created special care must be taken to obliterate any pre-existing trail crossings. This can be done by destroying the old trail before it reaches the new designated trail and by placing visual and physical barriers such as logs and other vegetation.

New intersections will be created if users enter or leave the designated trails to create their own trails. The point at which they enter or leave a trail could become a new intersection with a direct risk of collision with a rider on the designated trail and an indirect collision risk as at the point of the new intersection the direction of the designated trail may not be clear. This could result in a rider entering a designated trail and travelling in the wrong direction.

Short of creating physical barriers on either side of the entire trail, this undesirable situation can be mitigated by:

1. Providing signed, one-way loops off designated trails for rider interest, to access different areas and to create return short-cuts.
2. Educating riders to stay on the designated trails
3. Regular patrols to identify and immediately remediate any user-created trail intersections.

### *Removal of Pine Trees*

It is essential that the Forest Product Commission, the Department of Environment and Conservation and the Recreational Trail Bike Association communicates with each other on the timing of logging, fire and fuel reduction burning activities from a safety perspective.

The clear felling of pine trees would have a significant impact on the attractiveness of the area to riders and therefore the effectiveness of the area as a control mechanism. Selective thinning, by contrast, would actually enhance the attractiveness and would simplify the process of developing and managing trails. Accordingly the following objectives should be set for negotiations with FPC:

1. Develop a planting strategy with DEC to ensure there are always trees at the site, DEC may choose to plant now in case the FPC are required to clear fill the site.
2. Delay any thinning activity on these blocks until trails development plans are finalised to allow for efficient sequencing of the trails development work.

## Transition Strategy

This work is not going to occur over a short concentrated period, neither will the area be closed whilst works are undertaken. Accordingly a transition strategy is required to move gradually, as funding permits, from the current environment to the proposed environment for Gngangara.

The next pages provides the detailed plan, stages, timing, dependencies and resourcing.

ID	Task Name	Text1	Start	Finish	Resource Names	Duration
1	<b>GNANGARA IMPLEMENTATION STRATEGY</b>		<b>Mon 23/06/08</b>	<b>Thu 11/08/11</b>		<b>1081.13 days?</b>
2						
3	<b>Rubbish</b>	<b>maint</b>	<b>Mon 23/06/08</b>	<b>Mon 10/01/11</b>		<b>880.13 days</b>
4	<b>Clean up days</b>	<b>maint</b>	<b>Mon 23/06/08</b>	<b>Mon 3/01/11</b>	<b>FOG</b>	<b>873.5 days</b>
11	<b>Rubbish removal</b>	<b>maint</b>	<b>Mon 14/07/08</b>	<b>Mon 10/01/11</b>	<b>DEC</b>	<b>860.25 days</b>
18	Agreement re ongoing strategy to prevent rubbish dumping	strategic	Fri 29/08/08	Fri 29/08/08	COS,DEC	0 days
19	Signage regarding illegal dumping	comms	Fri 19/09/08	Fri 19/09/08	COS,DEC	0 days
20	Enforcement patrols commence	enforce	Fri 19/09/08	Fri 19/09/08	WAPOL,COS	0 days
21	Communication campaign commences	comms	Fri 19/09/08	Fri 19/09/08	AM	0 days
22						
23	<b>Access and Facilities</b>	<b>works</b>	<b>Wed 25/06/08</b>	<b>Wed 22/12/10</b>		<b>859.5 days</b>
24	<b>Centreway</b>	<b>works</b>	<b>Wed 25/06/08</b>	<b>Wed 31/03/10</b>		<b>607.5 days</b>
25	Install 20kmp speed limit signage	comms	Fri 29/08/08	Fri 29/08/08	DEC	0 days
26	Communication campaign commences	comms	Mon 18/08/08	Mon 18/08/08	AM	0 days
27	Enforcement patrols commence	enforce	Fri 29/08/08	Fri 29/08/08	WAPOL,COS	0 days
28	<b>Grade and maintain</b>	<b>maint</b>	<b>Wed 25/06/08</b>	<b>Wed 23/12/09</b>	<b>DEC</b>	<b>515.75 days</b>
33	Reduce width of Centre Way	works	Sun 9/11/08	Sun 9/11/08	DEC	0 days
34	Close road, develop new entrance into area and car parks	works	Wed 31/03/10	Wed 31/03/10	DEC	0 days
35	<b>Gnangara Rd and Entrance</b>	<b>works</b>	<b>Wed 25/06/08</b>	<b>Wed 22/12/10</b>		<b>859.5 days</b>
36	<b>Fill potholes where Centre Way meets Gnangara Rd</b>	<b>maint</b>	<b>Wed 25/06/08</b>	<b>Wed 22/12/10</b>	<b>DEC</b>	<b>859.5 days</b>
37	Fill potholes where Centre Way meets Gnangara Rd 1	maint	Wed 25/06/08	Wed 25/06/08	DEC	0.25 days
38	Fill potholes where Centre Way meets Gnangara Rd 2	maint	Wed 24/12/08	Wed 24/12/08	DEC	0.25 days
39	Fill potholes where Centre Way meets Gnangara Rd 3	maint	Wed 24/06/09	Wed 24/06/09	DEC	0.25 days
40	Fill potholes where Centre Way meets Gnangara Rd 4	maint	Wed 23/12/09	Wed 23/12/09	DEC	0.25 days
41	Fill potholes where Centre Way meets Gnangara Rd 5	maint	Wed 23/06/10	Wed 23/06/10	DEC	0.25 days
42	Fill potholes where Centre Way meets Gnangara Rd 6	maint	Wed 22/12/10	Wed 22/12/10	DEC	0.25 days
43	Creation of slip road and right turn lane on Gnangara Rd	works	Thu 13/08/09	Thu 13/08/09	Main Roads,COS	0 days
44	<b>Additional entrances</b>	<b>works</b>	<b>Wed 31/03/10</b>	<b>Wed 31/03/10</b>		<b>0 days</b>
45	Close all area entrances to cars except main entrance off Gnangara Rd	works	Wed 31/03/10	Wed 31/03/10	DEC	0 days
46	<b>Car Parks</b>	<b>works</b>	<b>Wed 29/10/08</b>	<b>Thu 7/10/10</b>		<b>668.38 days</b>
47	Initial grading/compacting of existing car parks	works	Wed 29/10/08	Wed 29/10/08	DEC	0 days
48	<b>Grading/compacting of existing car parks</b>	<b>maint</b>	<b>Thu 2/04/09</b>	<b>Thu 7/10/10</b>	<b>DEC</b>	<b>524.38 days</b>
53	Develop new car parks according to plan	works	Wed 31/03/10	Wed 31/03/10	DEC	0 days
54	<b>Facilities</b>	<b>works</b>	<b>Wed 31/03/10</b>	<b>Wed 31/03/10</b>	<b>DEC</b>	<b>0 days</b>
55	Toilet block	works	Wed 31/03/10	Wed 31/03/10	DEC	0 days
56	Potable water	works	Wed 31/03/10	Wed 31/03/10	DEC	0 days
57	Picnic facilities	works	Wed 31/03/10	Wed 31/03/10	DEC	0 days
58						
59	<b>Signage</b>	<b>comms</b>	<b>Mon 4/08/08</b>	<b>Wed 31/03/10</b>		<b>569.75 days</b>
60	Interim signage installed	comms	Mon 4/08/08	Mon 4/08/08	DEC	0 days
61	Information Shelter Signage	comms	Wed 10/12/08	Wed 10/12/08	DEC,AM	0 days
62	Area boundary signs	comms	Thu 11/12/08	Wed 17/12/08	DEC,AM	1 wk
63	Signage inventory	comms	Tue 16/12/08	Wed 17/12/08	AM	1 day

ID	Task Name	Text1	Start	Finish	Resource Names	Duration
64	Move Entry and Information Shelter Signage with area re-development	comms	Wed 31/03/10	Wed 31/03/10	DEC	0 days
65						
66	<b>Trails Development</b>	<b>works</b>	<b>Thu 6/11/08</b>	<b>Tue 4/01/11</b>		<b>745.13 days</b>
67	Create concept trails	works	Thu 6/11/08	Thu 5/02/09	AM,DEC,FOG	13 wks
68	<b>Establish the Junior's Precinct - trails, circuits, signage, facilities</b>	<b>works</b>	<b>Fri 1/05/09</b>	<b>Fri 1/05/09</b>	<b>AM,DEC,FOG</b>	<b>0 days</b>
69	PeeWee Circuits	works	Fri 1/05/09	Fri 1/05/09	AM,DEC,FOG	0 days
70	Junior MX Circuit	works	Fri 1/05/09	Fri 1/05/09	AM,DEC,FOG	0 days
71	Car Park - Junior area	works	Fri 1/05/09	Fri 1/05/09	DEC	0 days
72	Develop the network of one way trails	works	Wed 20/05/09	Wed 31/03/10	AM,DEC,FOG	45 wks
73	Develop MX Practice Circuit	works	Tue 15/12/09	Tue 15/12/09	AM,DEC,FOG	0 days
74	Develop Trials Practice area	works	Fri 5/02/10	Fri 5/02/10	AM,DEC,FOG	0 days
75	Ongoing development of precincts and trails	works	Wed 31/03/10	Tue 4/01/11	AM,DEC,FOG	40 wks
76						
77	<b>Area Management</b>	<b>strategic</b>	<b>Mon 18/08/08</b>	<b>Thu 11/08/11</b>		<b>1027.5 days?</b>
78	<b>Enforcement</b>	<b>enforce</b>	<b>Mon 18/08/08</b>	<b>Thu 11/08/11</b>		<b>1027.5 days?</b>
79	Remove 125cc restriction	strategic	Mon 8/09/08	Mon 8/09/08	DEC	0 days
80	Develop enforcement strategy	enforce	Mon 18/08/08	Mon 18/08/08	COS,DEC,WAPOL	0 days
81	Ranger / Police patrols commence	enforce	Fri 19/09/08	Fri 19/09/08	COS,DEC,WAPOL	0 days
82	<b>Ranger on site - part time, weekends</b>	<b>enforce</b>	<b>Fri 19/09/08</b>	<b>Thu 11/08/11</b>		<b>997.5 days?</b>
86	Appoint Area Managers	strategic	Fri 21/11/08	Fri 21/11/08	DEC	0 days
87	<b>Friends of Gngangara</b>	<b>strategic</b>	<b>Wed 26/11/08</b>	<b>Fri 6/02/09</b>		<b>66 days</b>
88	Establish mandate and MOU with DEC	strategic	Wed 26/11/08	Wed 26/11/08	AM,DEC	0 days
89	Promote, sign up members	comms	Tue 2/12/08	Tue 27/01/09	AM	8 wks
90	Establish volunteer management, roles, processes	strategic	Sun 7/12/08	Sun 7/12/08	AM,FOG	0 days
91	Training and induction	strategic	Fri 6/02/09	Fri 6/02/09	AM	0 days
92	Form Management Committee	strategic	Wed 11/02/09	Wed 11/02/09	COS,DEC,FOG	0 days
93	Develop Code of Conduct	strategic	Wed 4/03/09	Wed 4/03/09	AM,FOG	0 days
94	<b>Risk Management</b>	<b>strategic</b>	<b>Fri 12/12/08</b>	<b>Thu 30/06/11</b>		<b>878.63 days?</b>
95	Develop Risk Register	strategic	Fri 12/12/08	Fri 12/12/08	AM	0 days
96	Hazard reporting facility	strategic	Fri 12/12/08	Fri 12/12/08	AM	0 days
97	Inspection schedule and checklist	strategic	Fri 12/12/08	Fri 12/12/08	AM	0 days
98	Quarterly Formal inspections / risk audit	maint	Fri 12/12/08	Thu 30/06/11		878.63 days?
99	<b>Rider Induction and Education</b>	<b>comms</b>	<b>Thu 15/01/09</b>	<b>Thu 26/02/09</b>	<b>AM</b>	<b>40 days</b>
100	Produce and distribute information brochure	comms	Thu 15/01/09	Thu 15/01/09	AM	0 days
101	Develop web site	comms	Thu 26/02/09	Thu 26/02/09	AM	0 days
102						
103	<b>RE-DEVELOPMENT TARGETS</b>		<b>Fri 28/11/08</b>	<b>Mon 10/01/11</b>		<b>729.38 days</b>
104	Initial maintenance, signage, communications		Fri 28/11/08	Fri 28/11/08		0 days
105	Medium term developments		Fri 1/05/09	Fri 1/05/09		0 days
106	Final re-development		Wed 31/03/10	Wed 31/03/10		0 days
107	On-going development and maintenance		Mon 10/01/11	Mon 10/01/11		0 days

## PINJAR AREA PLAN

### Vision

A well planned, well developed and well maintained Off Road Motorcycle facility that can be used as a model for future ORV Area planning.

### Proposed Uses

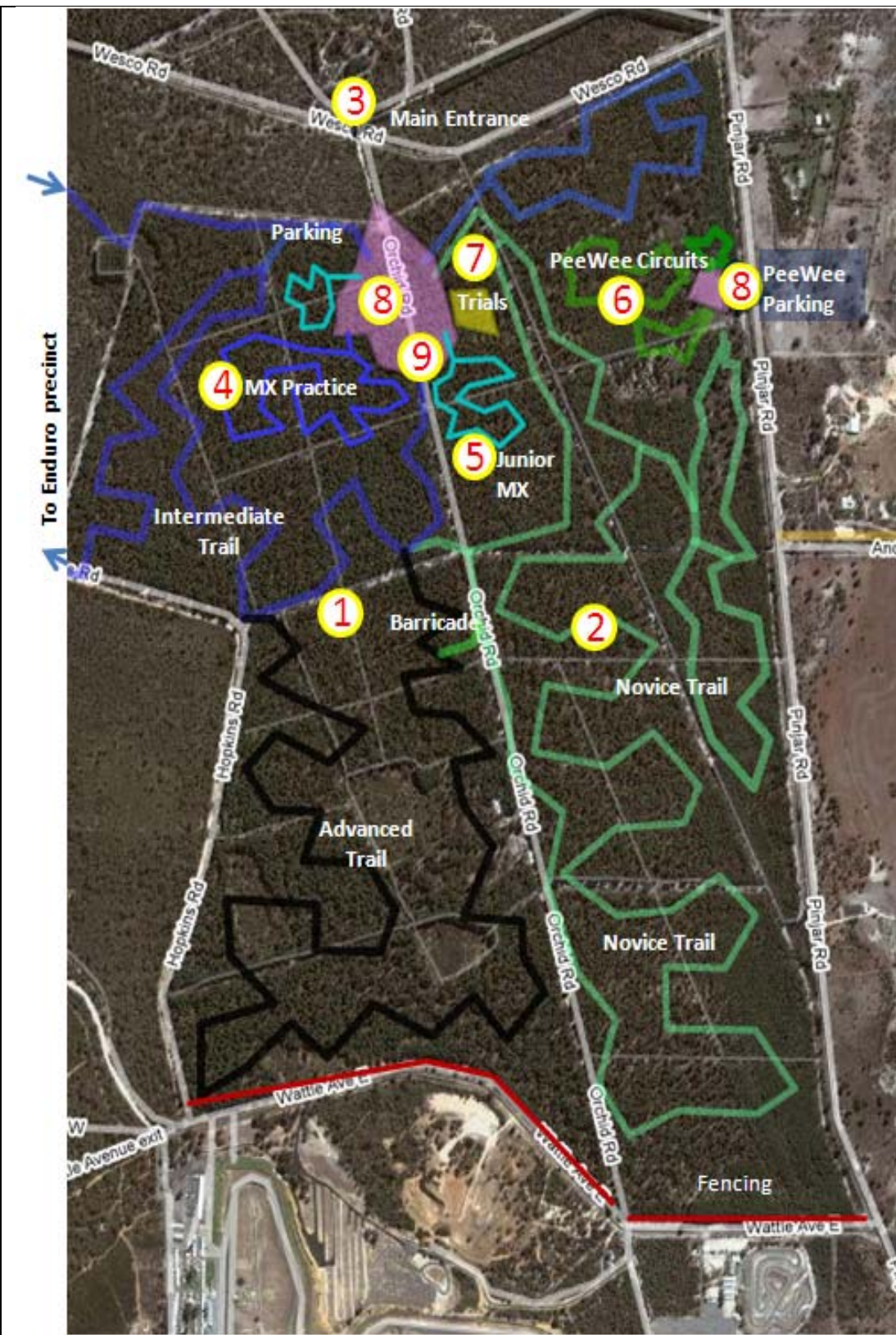
SUPPORTED USES	NOT SUPPORTED
<ul style="list-style-type: none"> <li>• 'PeeWee' Kids circuit – kids predominantly under 10 years, closely supervised</li> <li>• Novice / Kids circuit – learner adults, kids</li> <li>• Junior MX practice circuit</li> <li>• Senior MX practice circuit</li> <li>• Natural Terrain MX practice circuit</li> <li>• Family Trails network</li> <li>• Enduro trails network</li> <li>• Trials Practice area</li> <li>• Free riding areas</li> </ul>	<ul style="list-style-type: none"> <li>• Practice Supercross Circuit</li> <li>• Freestyle / jumps</li> <li>• Racing</li> </ul>

### Site plan

The following indicative site plan illustrates the separation of riding levels into precincts as well as the types of circuits and trails envisaged. The conceptual plan suggests

- Junior / Novice trails – 10km – 35%
- Intermediate trails – 12.5km – 45%
- Advanced trails – 5.5km – 20%
- 2 x MX practice circuits
- 1 x Natural Terrain circuit
- 3 x PeeWee circuits for young children
- Trials practice area
- Free riding areas

# PINJAR CONCEPT PLAN



REF	PRECINCT / FACILITY	DESCRIPTION
1	Advanced / Intermediate Trails (Blue, Black)	Series of one-way marked trails, roughly formed and lightly maintained. Advanced trail to include optional technical challenges such as logs, rocks etc. The Advanced and Intermediate trails draw riders away from the parking areas and to the southern and western regions of the ORVA, reducing congestion and separating intermediate / advanced riders from beginners. It is estimated that approximately 18 km of trails can be developed within the area. Extend gazetted area to Myrtle / Wesco / Hopkins as intermediate enduro practice loop.
2	Novice Trails (Green)	Wider, well-formed one-way marked trails with firm base on corners, regularly maintained. The simplest, most groomed trails would be those closest to the main car park area and would be designed for family riding – ie parents with young children or adult novices. Approximately 10 km trail length should be possible.
3	Main Entrance	The main entrance should be moved to Wesco Rd to re-orientate the area away from Wattle Ave East. This will help reduce conflict with Barbagallo Raceway traffic and position main riding areas (particularly juniors) where the terrain is firmer.
4	MX Practice	1 km circuit with firm base on corners, small jumps <1m, well-formed and lightly maintained. By creating a practice MX track we are providing an outlet for those who want speed and challenge, in a confined and more controllable setting. Locating this close to the car park and picnic facilities will suit the cycle of typical 10-20 minute sessions on the track with rest breaks between.
5	Junior MX Practice	750m circuit with graded firm base, small jumps <.5m, well-formed and regularly maintained. The Junior circuit provides a one-way closed circuit that is close to the car park so that parents can remain close by. Adult riders would be discouraged from using this circuit unless accompanying children.
6	'PeeWee' Kids' Circuit	The Pee Wee area is a dedicated precinct for the youngest riders. Expanding loops up to 1.6 km easy circuit with graded firm base, well-formed and regularly maintained. Adult riders would be strongly discouraged from using these circuits unless accompanying children and riding at a very slow and cautious pace.
7	MotoTrials practice	An obstacle course of rocks and logs for trials practice. Despite not requiring a large area, trials riders often have difficulty finding legal places to practice. Trials is entertaining to watch, and the bikes are quiet, so positioning this precinct adjacent to the main car park will provide some entertainment for riders taking a break or non-riders accompanying children or friends to the area. Exposure to the skill and control of trials riding would be a beneficial influence on many young riders.
8	Parking / Picnic / Amenities	Basic parking / picnic area. Two car park areas proposed: <ol style="list-style-type: none"> <li>1. Main carpark at central point within pines – this will have the facilities such as toilets</li> <li>2. PeeWee parking – a separate parking area closest to Gnangara Rd is proposed, for the convenience of the non-riding parents of small children, and the objective of separating the youngest riders from the others.</li> </ol> The main information signs would be in the main car park, with information specific to the Pee Wee precinct in car park 2.
9	Toilets	1 x 4 seat remote area toilet block & tank for drinking water to be situated in Car Park 1 (main car park).
	Fencing	Consider erecting new fencing along Wattle Ave East to clearly define boundaries and to discourage access to Wattle Ave from ORVA. Locked gate for FPC / utilities / emergency vehicle access at corner of Wattle Ave E and Orchard Rd.

## Facilities

Pinjar has more long term development potential than Gngangara, and this should be reflected in better quality facilities.

- Access road from Wesco Road to car park(s). Bitumen sealed or graded gravel.
- Main car park with a graded limestone or gravel surface, 100 vehicle capacity (the majority of which will be towing trailers). Configured to enable viewing of trials precinct and MX practice tracks. Destruction-resistant picnic benches x 6.
- Toilet block – 4 seat remote area design.
- Drinking Water
- Secondary car park off Old Yanchep Rd with a graded limestone or gravel surface, 20 vehicle / trailer capacity. Configured to enable parking in close proximity to PeeWee tracks. Destruction-resistant picnic benches x 4.
- Roads are to be managed as per the appropriate requirements

## Capacity indicators

The following table indicates a capacity of up to 1,000 riders per day, assuming that each visit lasts an average of approximately half a day.

PRECINCT	LENGTH	SPACING	TRAIL CAPACITY	ROTATION	USER CAPACITY
Enduro	12Km	200m	60	1:2	120
	5km	200m	25	1:2	50
Family Trails	7km	100m	70	1:2	140
Natural Terrain MX	1.8km	75m	24	1:2	48
MX Practice	1km	50m	20	1:3	60
Junior MX Practice	750m	50m	15	1:2	30
Novice / Kids' Circuit	2.4km	100m	24	1:2	48
'PeeWee' Kids' Circuits	300m	50m	6	1:1.5	9
	500m	50m	8	1.1.5	12
	800m	50m	10	1.1.5	15
MotoTrials practice			3	1:3	9
<b>TOTAL</b>					<b>532</b>

## Work Priorities

The implementation of the Pinjar plan should balance the risk management priorities of DEC with the priorities as stated by the users of the area. The following priorities will be further considered during the detailed site planning process:

1. Entry signage and notice board
2. Create concept trails
3. Create main entrance off Wesco Rd and car park
4. Develop and sign a precinct for junior riders
5. Properly resource the management of the area
6. Develop initial network of one way trails
7. Fence the 'Bush Forever' triangle and east side of Hopkins Rd
8. Improved parking / picnic facilities / Toilets
9. Ongoing development of precincts and trails

### *1. Entry Signage and Notice Board*

Entry signage should clearly identify the area as an Off Road Vehicle Area for Motorcycles only and prohibit the dumping of rubbish.

Immediately inside the area should be a General Risk Warning / Area Regulations notice.

Interim signage consisting of the General Warning Signage at the entry and a Welcome/Risk Warning Sign have been produced as part of this Management Plan project and will be immediately installed.

Signage should be positioned:

- At each end of Orchid Rd (Wattle Ave and Wesco Rd)
- At the entry point along Pinjar Rd
- At the corner of Wattle Ave E and Hopkins Rd

A main information board within the car park would contain more details about the area, its precincts, code of conduct etc. The Information Shelter will be created at the time of initial grading and compacting of existing car parks and positioned nearby. The information will be gradually added and updated throughout the re-development project. Area boundary signs would be installed at the same time. At this point the Signage Inventory would be created for ongoing auditing.

Finally, the entry signage and Information Shelter would be re-positioned upon completion of new entrances and development of the permanent car parks.

Refer: Signage section in Part 4.

## ***2. Create Concept Trails***

In this phase some of the trails concepts are roughly formed by dozer or loader without incurring the time and expense of importing materials and properly forming these trails. These concept trails should start and end in the area where the car park and facilities will be created. This will:

- Give riders a taste of what is to come – ie fully signed, directional trails
- Encourage riders to base their riding around the area which will become the car park
- Begin to separate riders by capability and riding style.

## ***3. Create main entrance off Wesco Rd and central car park.***

Creating a new main entrance will enable the consolidating of the parking / unloading area so that trail heads can be controlled and signage and facilities can be centralised. Once the Wesco Rd entrance is created the parking on or entrance via Wattle Ave East can be discouraged. Signage pointing to the new Wesco Rd entrance would be installed at the corner of Pinjar and Wattle Ave East. Consideration should be given to fencing the ORV area along Wattle Ave East to reinforce the area boundaries. A locked gate at the corner of Orchid and Wattle Ave East could prevent general entry from this side while providing access for FPC, utilities and emergency vehicles.

## ***4. Develop and sign a precinct for junior riders***

Establish the Juniors' Precinct by clearly delineating with signage and develop the required circuits and trails with materials as suggested by the trails pilot.

## ***5. Properly Resource the Management of the Area***

A Program Manager should be appointed and the "Friends of Pinjar" formed and trained. Refer: Part 4 Area Management

Current 125cc restriction to be removed. Area bounded by Hopkins Rd / Myrtle Rd / Wesco Rd should be Gazetted as an ORV Area to provide increased capacity.

## ***6. Fence the 'Bush Forever' triangle and east side of Hopkins Rd***

To protect the strip of Bush Forever land, this should be fenced when the Hopkins / Myrtle /Wesco Rd portion is annexed as gazetted ORV Area. Similarly the east side of Hopkins Rd should be fenced to ensure that riders don't accidentally stray into the quarry area where heavy truck traffic occurs.

## ***7. Develop the network of one way trails***

Delineate precincts and progressively plan and develop new trails, shutting off intersections with former cross-trails. Advanced trails will be easier to create as they will require less intensive surface preparation. Trails should be developed progressively across precincts so that each user group is catered for.

## ***8. Improved parking / picnic facilities / Toilets***

Rider feedback indicates that toilets and other facilities rank lower in priority than controlling hoon behaviour and establishing order in the way the area is used (ie one-way trails).

DEC's experience in site development, however, shows that sites need the appropriate level of infrastructure in place to deal with the level of visitation/use expected.

Without adequate visitor facilities users tend to create their own in an ad hoc manner – eg clearing places to park and unload, carving new entries to trails, littering and general lack of respect. Where visitors park and what they see when they arrive sets the scene for the rest of the experience. Good and appropriate infrastructure is required fairly early on.

Balancing the somewhat opposing views of the riders and DEC is a challenge. Accordingly it is recommended that the upgrade to the parking and picnic facilities should begin as soon as possible after the early stage trails development run in parallel to the trails development .

A second benefit to this approach is that items 1 to 7 can be done incrementally and in a relatively low-key manner, whereas item 9 – parking / toilets / picnic facilities - represents a significant and very public enhancement of the area.

### ***9. Ongoing development of precincts and trails***

Once the basic infrastructure is in place the area can evolve towards the master plan. This will enable user comments and suggestions to be fed progressively back into the planning process.

Pinjar is seen as a significantly easier area to develop than Gngangara. It does not have the same level of hoon behaviour or household rubbish dumping, and access is easier to control via Wattle Ave, Pinjar and Wesco Rds. Like Gngangara, however, it contains a network of criss-crossing trails that need to be addressed in order to reduce collision risk. As designated one-way trails are developed and signed the crossing trails should be blocked off.

### **Transition Strategy**

This work is not going to occur over a short concentrated period, neither will the area be closed whilst works are undertaken. Accordingly a transition strategy is required to move gradually, as funding permits, from the current environment to the proposed environment for Pinjar.

The next pages provides the detail plan, stages, timing, dependencies and resourcing.

ID	Task Name	Text1	Start	Finish	Resource Names	Duration
1	<b>PINJAR IMPLEMENTATION STRATEGY</b>		<b>Mon 4/08/08</b>	<b>Tue 30/11/10</b>		<b>800.63 days?</b>
2						
3	<b>Signage</b>	<b>comms</b>	<b>Mon 4/08/08</b>	<b>Tue 31/03/09</b>		<b>224.25 days</b>
4	Interim signage installed	comms	Mon 4/08/08	Mon 4/08/08	DEC	0 days
5	Signage regarding illegal dumping	comms	Mon 18/08/08	Mon 18/08/08	COW,DEC	0 days
6	Information Shelter Signage	comms	Fri 12/12/08	Fri 12/12/08	DEC,AM	0 days
7	Area boundary signs	comms	Fri 12/12/08	Fri 19/12/08	DEC,AM	1 wk
8	Signage inventory	comms	Wed 17/12/08	Thu 18/12/08	AM	1 day
9	Move Entry and Information Shelter Signage with area re-development	comms	Tue 31/03/09	Tue 31/03/09	DEC	0 days
10						
11	<b>Trails Development</b>	<b>works</b>	<b>Mon 18/08/08</b>	<b>Thu 2/09/10</b>		<b>704.25 days</b>
12	Create concept trails	works	Mon 18/08/08	Fri 30/01/09	AM,DEC	24 wks
13	<b>Establish the Junior's Precinct - trails, circuits, signage, facilities</b>	<b>works</b>	<b>Tue 31/03/09</b>	<b>Tue 31/03/09</b>	<b>AM,DEC,FOP</b>	<b>0 days</b>
14	PeeWee Circuits	works	Tue 31/03/09	Tue 31/03/09	AM,DEC,FOP	0 days
15	Junior MX Circuit	works	Tue 31/03/09	Tue 31/03/09	AM,DEC,FOP	0 days
16	Pee Wee Car Park	works	Tue 31/03/09	Tue 31/03/09	DEC	0 days
17	Develop the network of one way trails	works	Fri 6/02/09	Fri 27/11/09	AM,DEC,FOP	42 wks
18	Develop MX Practice Circuit	works	Tue 12/05/09	Tue 12/05/09	AM,DEC,FOP	0 days
19	Develop Trials Practice area	works	Mon 5/10/09	Mon 5/10/09	AM,DEC,FOP	0 days
20	Ongoing development of precincts and trails	works	Fri 27/11/09	Thu 2/09/10	AM,DEC,FOP	40 wks
21						
22	<b>Access and Facilities</b>	<b>works</b>	<b>Fri 31/10/08</b>	<b>Thu 7/10/10</b>		<b>667.13 days?</b>
23	<b>Create Wesco Rd Main Entrance</b>	<b>works</b>	<b>Tue 31/03/09</b>	<b>Tue 31/03/09</b>	<b>DEC</b>	<b>0 days</b>
24	Create new main entrance	works	Tue 31/03/09	Tue 31/03/09	DEC	0 days
25	Create main car park	works	Tue 31/03/09	Tue 31/03/09	DEC	0 days
26	Signage on Wattle Ave pointing to new entrance and car park	works	Tue 31/03/09	Tue 31/03/09	DEC	0 days
27	<b>Additional entrances closed</b>	<b>works</b>	<b>Sat 15/08/09</b>	<b>Mon 17/08/09</b>	<b>DEC</b>	<b>2.5 days?</b>
28	Close all area entrances to cars except main entrance off Wesco Rd	works	Sat 15/08/09	Sat 15/08/09	DEC	0 days
29	Fence along Wattle Ave East	works	Mon 17/08/09	Mon 17/08/09	DEC	1 day?
30	Install locked gate cnr Orchid and Wattle Ave East	works	Mon 17/08/09	Mon 17/08/09	DEC	1 day?
31	<b>Car Parks</b>	<b>works</b>	<b>Fri 31/10/08</b>	<b>Thu 7/10/10</b>		<b>667.13 days</b>
32	Initial grading/compacting of existing car parks	works	Fri 31/10/08	Fri 31/10/08	DEC	0 days
33	<b>Grading/compacting of existing car parks</b>	<b>maint</b>	<b>Thu 2/04/09</b>	<b>Thu 7/10/10</b>	<b>DEC</b>	<b>524.38 days</b>
38	Develop new car parks according to plan	works	Fri 27/11/09	Fri 27/11/09	DEC	0 days
39	<b>Facilities</b>	<b>works</b>	<b>Fri 27/11/09</b>	<b>Fri 27/11/09</b>	<b>DEC</b>	<b>0 days</b>
40	Toilet block	works	Fri 27/11/09	Fri 27/11/09	DEC	0 days
41	Potable water	works	Fri 27/11/09	Fri 27/11/09	DEC	0 days
42	Picnic facilities	works	Fri 27/11/09	Fri 27/11/09	DEC	0 days
43						
44	<b>Area Management</b>	<b>strategic</b>	<b>Mon 29/09/08</b>	<b>Thu 5/03/09</b>		<b>146.75 days</b>
45	<b>Enforcement</b>	<b>enforce</b>	<b>Mon 29/09/08</b>	<b>Fri 31/10/08</b>		<b>30 days</b>
46	Remove 125cc restriction	strategic	Mon 20/10/08	Mon 20/10/08	DEC	0 days
47	Develop enforcement strategy	enforce	Mon 29/09/08	Mon 29/09/08	COW,DEC,WAPOL	0 days

ID	Task Name	Text1	Start	Finish	Resource Names	Duration
48	Ranger / Police patrols commence	enforce	Fri 31/10/08	Fri 31/10/08	COW,DEC,WAPOL	0 days
49	Appoint Area Managers	strategic	Fri 21/11/08	Fri 21/11/08	DEC	0 days
50	<b>Friends of Pinjar</b>	<b>strategic</b>	<b>Thu 27/11/08</b>	<b>Fri 6/02/09</b>		<b>66 days</b>
51	Establish mandate and MOU with DEC	strategic	Thu 27/11/08	Thu 27/11/08	AM,DEC	0 days
52	Promote, sign up members	comms	Tue 2/12/08	Tue 27/01/09	AM	8 wks
53	Establish volunteer management, roles, processes	strategic	Sun 7/12/08	Sun 7/12/08	AM,FOP	0 days
54	Training and induction	strategic	Fri 6/02/09	Fri 6/02/09	AM	0 days
55	Form Management Committee	strategic	Thu 12/02/09	Thu 12/02/09	COW,DEC,FOP	0 days
56	Develop Code of Conduct	strategic	Thu 5/03/09	Thu 5/03/09	AM,FOP	0 days
57	<b>Risk Management</b>	<b>strategic</b>	<b>Fri 12/12/08</b>	<b>Fri 12/12/08</b>		<b>0 days</b>
58	Develop Risk Register	strategic	Fri 12/12/08	Fri 12/12/08	AM	0 days
59	Hazard reporting facility	strategic	Fri 12/12/08	Fri 12/12/08	AM	0 days
60	Inspection schedule and checklist	strategic	Fri 12/12/08	Fri 12/12/08	AM	0 days
61	<b>Rider Induction and Education</b>	<b>comms</b>	<b>Thu 15/01/09</b>	<b>Fri 27/02/09</b>	<b>AM</b>	<b>40 days</b>
62	Produce and distribute information brochure	comms	Thu 15/01/09	Thu 15/01/09	AM	0 days
63	Develop web site	comms	Fri 27/02/09	Fri 27/02/09	AM	0 days
64						
65	<b>RE-DEVELOPMENT TARGETS</b>		<b>Fri 31/10/08</b>	<b>Tue 30/11/10</b>		<b>717.13 days</b>
66	Initial maintenance, signage, communications		Fri 31/10/08	Fri 31/10/08		0 days
67	Medium term developments		Tue 31/03/09	Tue 31/03/09		0 days
68	Final re-development		Fri 27/11/09	Fri 27/11/09		0 days
69	On-going development and maintenance		Tue 30/11/10	Tue 30/11/10		0 days

## **PART 4: MANAGEMENT**

### **Risk Management**

The overriding objective of any risk management strategy is to minimise the likelihood of misadventure or injury to a visitor.

All trail and quad bike riding involves some risk. Most risk is within the control of the rider – ie the rider’s responsibility to know the capabilities and limitations of the vehicle and to ride within his or her limits of strength, experience and skill. The land manager’s duty of care is limited in this regard, as the participant is assumed to understand the risks of the activity and to be making his or her free choice to engage in it. In the case of minors, the decision – and responsibility – is deemed to be that of the parents or guardians.

There are other risks that are not inherent to the activity, but which derive from the nature of the environment. These are the risks of greatest concern to the land manager, for it can be said that these are risks that are – or should be – known to the land manager but which cannot be expected to be known intuitively by the rider and are therefore not ‘obvious’ risks. These risks are greater for first-time participants to an area, but it cannot be assumed that a returning visitor will be aware of risks encountered previously, particularly when conditions change according to weather, erosion, trails development and the impacts of other vehicles on the trails.

DEC has a well established Risk Management process, so it is not necessary to discuss general principles of Risk Management here (a discussion on Risk Management principles relating to Off Road Vehicles is included as Appendix 2). Following are the issues that have been identified as being particular to the Gngangara and Pinjar areas.

### **Risk Management and the Gngangara / Pinjar Environment**

Site visits and information provided by users of these areas indicates the following general hazards and risks specific to the Gngangara / Pinjar ORV areas:

- Exposed tree roots
- Exposed or concealed tree stumps
- Fallen branches, often with sharp ends protruding onto trails
- Many 4 way intersections, often with limited sight-lines
- No formalised concept of trails – riders are free to go anywhere and make their own, creating opportunities for collision
- Riders riding alone
- Riders not wearing appropriate protective gear
- Riders travelling too fast for their level of skill and the conditions
- No separation by age or riding skills
- Cars and 4WD vehicles on access roads
- Potential fuel spills

- Harvesting operations
- In the event of fire, the DEC's response plans will be implemented

Some of these risks can be eliminated by developing a network of one-way trails.

Other risks are reduced by removing the hazard or modifying the trail, for example where a line through a corner is optimised to apex later and therefore avoid running wide towards an obstacle.

Other immovable hazards are identified and risk reduced by the placement of specific warning signs.

The majority of minor hazards, and the non-specific risks are accepted, with risk transferred to the participant both implicitly through the participant choosing to engage in what is considered to be a dangerous recreational activity, and explicitly through appropriate general warning signage.

To support this risk transfer and to maximise the safety of participants an effective induction program is essential (see Rider Induction and Education).

Other risks associated with accidents etc such as fuel spill and or fire, will be managed as per the DEC's fire management plans.

### **Risk Matrix**

The following 2 pages provides a detailed Risk Matrix outlining the risk, its impact, likelihood, severity and mitigation strategy for both Gngara and Pinjar.

Risk Log								
Title: GPMP Risk Assessment			Account Number: GPMP					
ID	Title	Description	ORVA	Impact	Likelihood	Severity	Mitigation Strategy	Additional Comments
1	No separation of ages, riding abilities	Increased risk of collision / injury if faster riders and novices are riding in same area	GP	High	Low	Medium	Create zones for different riding styles, so that families can still ride together (even if on very different machinery). Emphasis should be on segmentation by speed, not bike capacity or rider age.	
2	Soft sandy terrain	Soft sandy terrain not suitable for small wheeled bikes / inexperienced riders. Younger or less experienced riders look for harder surfaces to ride on which may not be appropriate areas from a risk and management point of view, or avoid the area completely diminishing the ORVA's effectiveness as a control mechanism	GP	Low	High	Medium	Import more stable clay-based soil to enable hardening of surface of trails in beginner / intermediate zones.	
3	Riding on Centre Way	Many riders, including those avoiding the sandy terrain, ride on Centre Way - often at higher speeds than would occur within the pines area. Collision with other bikes, cars or pedestrians - injury risk from falls at higher speeds.	G	High	Very High	Major	Develop trails network, rider education, zero tolerance enforcement. Physical prevention by terminating Centre Way at Car Park 2 or by eliminating it completely	
4	Centre Way / Gngangara Rd intersection	Centre Way / Gngangara Rd Intersection not suitable for trailers turning in. No slip lane, badly eroded road edge requires very slow crossing, especially with bikes on trailers. Risk of collision with vehicles travelling along Gngangara Rd as vehicles entering Gngangara ORV slowly pull into or out of Centre Way	G	High	Low	Medium	Create a slip road and, if practical, a right turn lane from Gngangara Rd.	
5	Lack of facilities, toilets etc	Lack of care for the area by visitors, reputation risk to DEC as land manager, not attractive to families so a) responsible family riders avoid the area and b) less responsible behaviour predominates	GP	Medium	Medium	Medium	Install 4 seat toilet facilities and a rubbish bin in Car Park 1.	
6	Mandatory Safety gear not worn	Some riders don't wear helmets - very high risk of serious injury or death	GP	Very High	Very High	Major	Information signage, enforcement patrols, "Friends of.." patrols. Zero tolerance enforcement by Rangers / Police	
7	Recommended Safety gear not worn	Many riders don't wear full protective gear - boots, goggles, gloves, body armour - high risk of serious injury	GP	High	High	Major	Information signage, enforcement patrols, "Friends of.." patrols	
8	Alcohol consumption	Some riders drink alcohol before riding. Some spectators drink alcohol leading to incidents of aggressive behaviour. Collisions and accidents due to impaired judgement. Question of duty of care in the event of a third party being injured as the result.	GP	High	High	Major	Ban consumption of alcohol on the premises. Enforce pragmatically.	
9	Buried and semi-buried hazards causing injury	Risk of injury through collision with partly buried objects.	GP	Medium	Medium	Medium	Rubbish prevention and regular cleanups. General Risk Warning	
10	No on-ground management / enforcement	Required as mitigation strategy for many identified risks. Lack of ranger / police presence leads to culture of lawlessness, exclusion of responsible riders and families.	GP	High	High	Major	Friends of..' , Volunteer Patrols, Ranger presence, Police presence, control signage	
11	Crossing trail intersections	Risk of injury through collision at trail intersections.	GP	Very High	High	Major	Close intersections as part of trail redevelopment	
12	Theft from parked vehicles	Users reluctant to park away from where they are riding, cars + bikes = collision risks	GP	Low	High	Medium	Consolidate parking to increase visitor presence in parking areas, 'Friends of..' , Volunteer Patrols, Ranger presence, Police presence.	
13	Dumping of rubbish	Risk of injury through collision with partly buried objects. Lack of care for the area by visitors. Less 'attracting power' leading to diminishing of effectiveness as a control strategy.	G	Medium	Medium	Medium	Strategy of "zero tolerance" to be developed between DEC and City of Swan. Educate riders and area volunteers to be vigilant and report illegal dumping. Regular cleanups	
14	Emergency vehicle access	In case of injury prompt emergency vehicle access is required.	GP	Medium	High	Medium	Emergency vehicle access to be included in trail plan	
15	Fire	Riders get cut off from their vehicles, injury, loss of property, liability issues. Commercial risk to FPC	GP	High	Low	Medium	Evacuation procedure to be developed. Volunteers to be trained. Policy on use of fires (BBQs etc) and facilities.	

Risk Log								
Title: GPMP Risk Assessment			Account Number: GPMP					
ID	Title	Description	ORVA	Impact	Likelihood	Severity	Mitigation Strategy	Additional Comments
16	Trail degradation	Sandy tracks get whooped out. Less experienced riders go around whoops, increasing track width. New hazards can become exposed.	GP	Low	High	Medium	Develop a schedule for periodic track grading.	
17	Trail capacity exceeded	Increased risk of collision, increased risk of rider dissatisfaction	GP	Medium	Low	Minor	Monitor and control visitor numbers if required - eg by imposing a daily usage fee	
18	Hoons in cars	Injury, culture of lawlessness, exclusion of responsible riders and families	G	Medium	Very High	Major	Apply anti-hoon legislation to Centre Way. Educate riders and area volunteers to be vigilant and report incidents.	
19	Car parking / unloading capacity exceeded	Visitors will park in inappropriate areas - risk of collisions with bikes, damage to area, reduction in visitor satisfaction	GP	Medium	Low	Minor	Monitor and control visitor numbers if required - eg by imposing a daily usage fee	
20	Tree branches and stumps remaining after harvesting / thinning	Injury risk if struck	GP	Medium	Medium	Medium	General Risk Warning. Regular monitoring and clearing of 'designated' trails as part of maintenance schedule. Volunteers to report specific hazards that can't be immediately mitigated.	
21	125cc limit	Liability risk if a rider on a small capacity bike is struck by a larger capacity bike in an area with a capacity limit	GP	High	Very Low	Minor	Remove 125cc capacity limit	
22	Clear-felling of large blocks	Area does not meet objectives of attracting riders and families. Capacity reduced	GP	High	High	Major	Negotiate policy of selectively thinning rather than clear-felling with FPC (GSS)	
23	Riders travelling too fast for their level of skill and the conditions	Injury through loss of control and / or collision with riders, hard bits of environment.	GP	High	High	Major	Trail difficulty gradings / signage. Trails planning. Rider capability separation via precincts. Volunteer patrols / Rangers	
24	Exposed tree roots	Possible loss of control if struck, leading to potential injury	GP	Medium	High	Medium	Rider education, General Risk Warning, Trail relocation where significant risk exists	
25	User-created 'features' eg ramp jumps	Injury risk from poorly designed / constructed structures	GP	Medium	Medium	Medium	Policy to prohibit user-created structures. Ongoing dialogue with visitors to identify desired features and construct properly.	
26	Solo riders	Rider may fall and be injured or suffer a mechanical problem in a remote part of the ORVA	GP	Medium	Low	Minor	Rider education, General Risk Warning, volunteer patrols	
27	2 way trails	Risk of head-on collision, especially around blind corners	GP	Very High	High	Major	Move to a planned network of one way trails	
28	ORVAs don't meet requirements of riders	Riders go elsewhere impacting environment and causing social conflicts	GP	Medium	High	Medium	Ongoing dialogue with visitors to identify desired features and construct properly.	
29	Riding on Wattle Ave	Many riders, including those avoiding the sandy terrain, ride on Wattle Ave. Collision with vehicles on Wattle Ave.	P	High	High	Major	Relocate main entrance and car park to Wesco Rd, zero tolerance enforcement, fence Wattle Ave	
30	Inadequate funding	Not all risks can be mitigated, objectives of the ORVAs as control mechanisms not met, leading to ongoing impact on environment and increasing social conflicts	GP	High	Medium	Medium		
31	Litigation from injured visitor	Claim against DEC under Occupiers Liability for injury suffered at ORVA	GP	High	Low	Medium	Risk Warnings, risk management policies	
32	Inability to source volunteers for 'Friends of' or Volunteer Patrols	Decreases available resources for monitoring / education and on-ground patrols, increase DEC risk / budget requirement for on-ground management	GP	High	Very Low	Minor	Ongoing marketing, recognition of and backup / support for volunteers. Ongoing govt commitment.	
33	Enforcement objectives not met	Enforcement of policy is a mitigation strategy for many identified risks	GP	High	High	Major	Risk Warnings, risk management policies	

## RISK RECOMMENDATIONS:

1. A network of signed, one-way trails should be developed with precincts for different riding styles. These are the 'swim-between-the-flags' or '*piste*' areas where a level of maintenance and risk management is provided.
2. Areas outside the developed trails are then considered 'off piste'. Riding is not prohibited in these areas but is discouraged, and the participant assumes a greater responsibility for their own safety.
3. All 4 way intersections on the designated trails should be eliminated by re-routing the intersecting trails and / or installing natural barricades via mounds of logging remnants.
4. Prior to opening each trail should be assessed for hazards and a conscious decision made whether to accept, eliminate, reduce or transfer the risk on each identified hazard.
5. A Risk Register should be developed, documenting the observed hazards and the considered approach to each. The Risk Register can also serve as a check-list for any remediation work required (See Table 1)
6. All visitors should be asked to report any observed hazards (eg trees down over track, rock falls etc). Additionally members of the "Friends of.." can be recruited as volunteer trail patrol in order to increase the vigilance over trail conditions (see Management section).
7. A schedule of trail inspections should be established to periodically review the Risk Register.
8. Rider education, visible ranger patrols and increased enforcement is necessary to change the culture, improve behavior and reduce risk.
9. Physical barriers, education and enforcement strategies are required to eliminate off-road vehicles operating on Centre Way, Gngangara and Wattle Ave, Pinjar.
10. It is recommended that the land manager does not use pine logs as barricades due to the presence of the EHB in both the Pinjar and Gngangara ORV areas.

## Signage and Control

Signs are a recognised method for supervision of a remote location. However, signs can only perform a limited function and are generally only one item in a whole range of information, past and present, which enters into a person's decision as to how to act in a given situation. In several cases where a litigant has succeeded in an action for breach of duty of care, the courts have considered that the failure to provide adequate warning or information signage lost the plaintiff the opportunity to consider their actions/reactions to the physical circumstances surrounding them.

Legally, the benefit of a sign is that it brings the foreseeable risk to the attention of the person at that location. If the person elects not to slow down, for example, when passing a Caution sign and suffers subsequent injury, then arguably the land manager had satisfied its duty of care and no liability will attach to it. However, the sign must be appropriate to the situation and placed in an appropriate position. If the sign is illegible, in poor condition, nowhere near the hazard being warned against or, due to the nature of the hazards, inappropriate, then it would be useless in bringing the risk to the attention of the person coming onto the land and serve no purpose in satisfying any duty of care.

Signage opportunities begin on first entry to the ORV area, and throughout the area where it is important to control participant behaviour or to draw specific attention to unexpected hazards.

Beyond the content of the signage, the way in which signage is presented makes a statement about the management of the operation and the commitment to caring for the safety of – and controlling the behaviour of – participants.

### General Warning Signage

General Warning Signage is the first signage encountered when entering the ORV area – and is perhaps the most important from the point of view of drawing attention to the purpose of the area and alerting riding and non-riding visitors alike to the obvious and inherent risks of the activity.



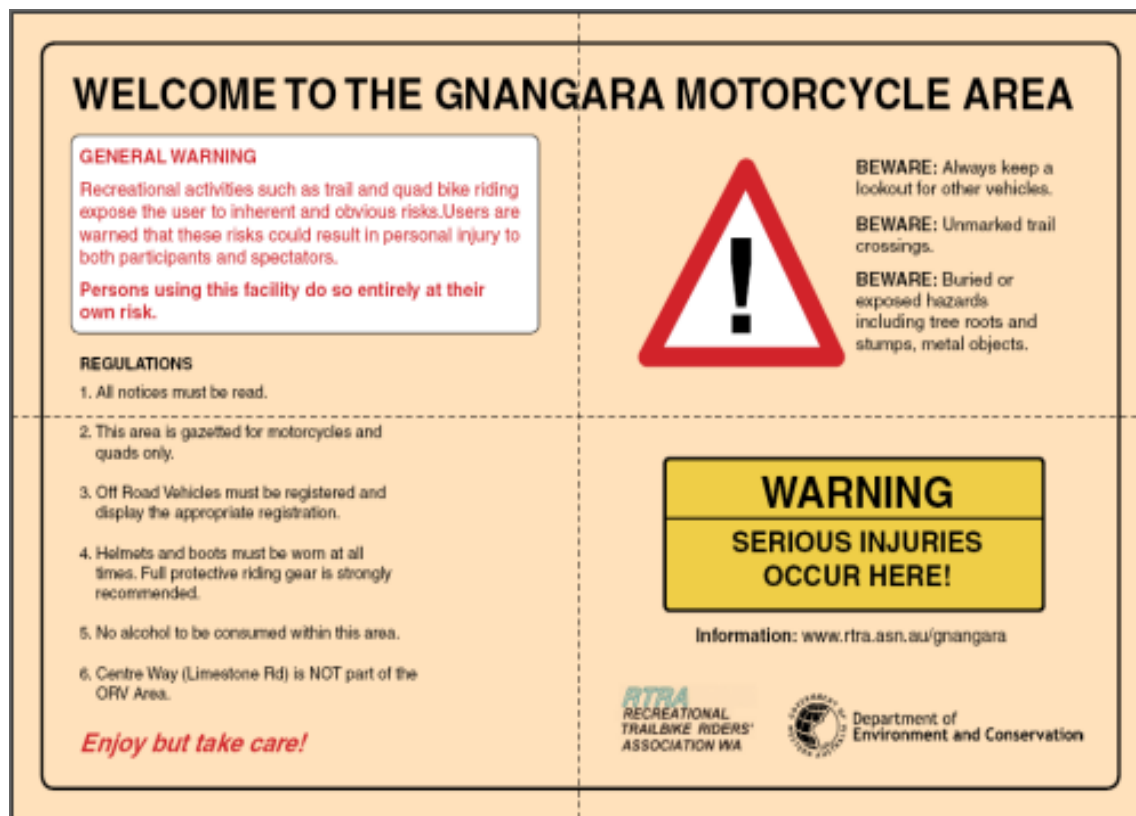
The first message that must be conveyed is that this is an Off Road Vehicle Area. This is important to alert any visitors to the area, whether riding or not (and including members of the public who may be entering the land for other purposes) to the fact that the area is used for uncontrolled motorised activities.

This sign should be placed at main entry points as close to the actual boundary of the area as possible.

Once people have entered the area they will have more opportunity to read the general warning and conditions of use signage.

Additional protection is provided under the provisions of the Civil Liabilities legislation where a risk warning is provided to participants. This is particularly important in terms of risks that are not an 'obvious and inherent' aspect of the activity but are risks that are specific to the area itself.

The risk warning can be combined with other general information about the area, provided that the emphasis on the risk warning is not diminished by the presence of other more general information.



The general risk warning sign must be positioned where it will be seen by any person entering the area, and should be positioned where it can be properly read.



**Potential locations:**

- A central and dominant position within the car park area.
- At major entry points, where it is practical and safe to stop traffic – in which case the general risk warning sign can be used in combination with the ORV Area Boundary sign.

## Information Signage

There are two types of information signage – information about the area and information about specific trails.

### Area Information

Information about the area includes:

- General layout of area
- Location of facilities
- Emergency information
- Area and Precinct boundaries
- Code of conduct
- Current issues such as maintenance closures



A principal advantage of having a centralised car park / facilities area is that it provides a focal point for communicating information about the area.

An information board and shelter can serve as an on-site induction to the area as well as a notice board for issues requiring the attention of riders.

Careful consideration should be given to the construction of an information shelter given the risk of vandalism within the car park area. Survivability and durability as well as aesthetics should be the priority.

For details of the recommended content of information signage please refer to “Rider Education and Induction”.

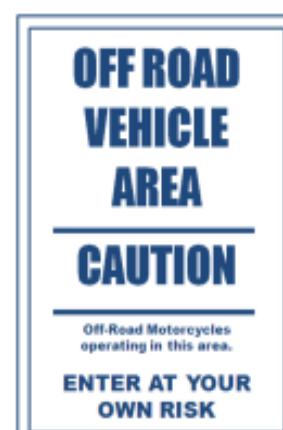
Area Boundary signs are also an important element in controlling rider behaviour. Without knowing where the gazetted ORV area ends, riders can inadvertently stray into other public or private spaces. Riders who are aware of the boundaries can also use the lack of signage as an excuse.

A double-sided boundary sign can both alert riders to the boundary of the ORV area and serve as a warning to those approaching the ORV area from outside. Boundary signage should be positioned at every entry and exit point (gates, trail heads) and at regular intervals along fence lines or where there is no physical barrier to delineate the ORV area boundary.

Viewed from inside ORVA



Viewed from outside ORVA



### Trails Information

Signage Information on trails is often referred to as ‘confidence’ signage, as it provides confidence to participants that they are on the right trail and heading in the right direction. Information signage is typically used to identify:



- The direction of travel
- Significant changes of direction, especially where these are not visually obvious
- Choices where the trail branches
- Distance covered or remaining
- Any special features, rest areas, lookouts or other points of interest.



There is currently no international or national standard for motorised trail markings – and even if there were it could not be assumed that recreational participants would be aware of them.

Unlike four wheel drivers, who travel at slow speeds and can consult a reference map while on the trail, a motorcycle or quad is more likely to look at a map before heading out on the trail (if at all) then not consult it again unless they get lost or particularly want to explore branching trails.

Accordingly it is important to adopt a consistent signage standard throughout the ORV area and to ensure that participants fully understand the signage before entering the trails. The following guidelines are proposed for Information trail markings:

### Information Signage

SIGN	PURPOSE	IMAGE	APPLICATION NOTES
Direction	<p>a) To give confidence that a rider is on the right trail and heading in the right direction.</p> <p>b) To alert the rider to an imminent change of direction</p>	  <p>Example of trail branching with ‘more difficult’ and ‘most difficult’ options</p>	<p>1. Suggest using international skiing and mountain biking colour coding to denote difficulty grade:</p> <p>Green – Easy Blue – More difficult Black – Most difficult</p> <p>2. Use trail numbering for quick visual reference.</p> <p>3. Use where trail branches or alternative routes exist.</p> <p>4. Use at and after T-Junctions to identify direction of travel</p> <p>5. Use as advance warning of imminent curves, especially</p>


		 <p>Example of 'sharp turn' double-sign</p>	<p>blind apexes. Position where initial sighting of sign is well in advance of braking zone.</p> <p>6. Unexpectedly tight turns can be marked with double markers.</p>
Distance	<p>a) To provide riders with a sense of progress along a trail</p> <p>b) To enable orientation on trail map</p>		<p>1. Use in conjunction with confidence marker.</p>




### Control Signage

Control signage provides instructions to participants that must be followed:

- Stop
- Give Way
- Maximum Speed
- Do Not Enter

There are internationally recognised signs for traffic control, and these conform to Australian Standard AS 2342-1992. Regulator signs are controlled by Main Roads WA – further investigation into their use in non-road situations will be required.

SIGN	PURPOSE	IMAGE	APPLICATION NOTES
Stop	To ensure that riders stop and check before entering an intersection.		Use on T-Intersections where it is not possible to enter the new trail parallel to the trail (ref diagram 1)

Give Way	To ensure that riders yield to riders already on a trail they are about to enter		Use on all areas where a minor trail merges with a major trail
Maximum Speed	To encourage riders to slow down in areas of mixed traffic or where otherwise required for safety.		Although many vehicles won't have a speedometer it is reasonable to assume a general perception of speeds such as 10 km/h.  Alternatively, a '1 <sup>st</sup> Gear Only', or 'Walking Pace' limit can be imposed.
Do Not Enter	To identify closed trails, prevent travel against the trail direction.		Use for temporarily or permanently closed trails and areas.

### Caution Signage

Caution signage is used to draw specific attention to unexpected hazards. The term 'unexpected' in this context is quite significant, as a General Warning can alert the participant to *expect* unmarked hazards of various types, so it could be argued that specific hazard identification is redundant when a General Warning has been issued. However this is a grey area where the assumptions of the land manager and the assumptions of the participant can easily vary. The test will always be based on a what a reasonable person would conclude on the basis of the General Warnings.

An example: The General Warning alerts participants to the fact that rocky sections may be encountered on the trail. At the end of a 75 metre straight section of relatively smooth gravel there is a 20 metre stretch of caprock protruding 10-15cm above ground level. Is this the type of general hazard warned of or is this a specific hazard that should be marked?

The argument *for* marking this as a specific hazard is its context. At the end of a fast straight section riders may not expect a sudden change of trail surface and loss of control could occur if they hit the rock section at too high a speed. By the time they spot the hazard may not have sufficient time to reduce speed. Giving them advance warning will provide more time to slow down.

The argument *against* marking this as a specific hazard is that by doing so, and with each hazard so identified, the rider is being given false confidence that any time they need to be aware of an obstacle or

hazard there will be a sign alerting them to the obstacle or hazard. This can reduce or remove the rider’s own sense of vigilance and care, thereby reducing the effectiveness of the General Warning on the attitude of the rider.

Clearly, the need to identify specific hazards must be balanced by the need to preserve an overall attitude of alertness and care in the rider.

A statement of signage principles is required, such as:




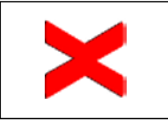
*“The Gnangara / Pinjar ORV area policy is to not mark every hazard or obstacle on trails as it is the responsibility of each rider to be aware that unmarked hazards exist and to travel at a speed that allows response to changing trail conditions, obstacles and hazards. Specific hazards may be marked where, in our opinion, a hazard exists that represents a significant risk for a rider who is competent for the Difficulty Level of trail and is exercising due care and control of his / her vehicle. “*

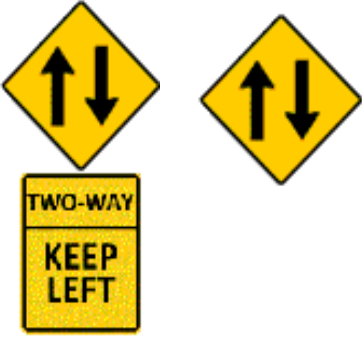

The determination of which hazards should be thus identified should be based on:

1. The Risk Register
2. Observing and consultation with riders of the skill level for whom the trail is intended, and those slightly below the recommended skill level. Members of “Friends Of..” would assist.
3. The Incidents Register

### What format should Signage take?

There are no firm standards for Caution signage as applied to motorised trails. A variety of formats are in use and would be recognised by experienced trail or enduro riders (shown below), but the casual or novice rider would need explanation of these, so the safer option would be to adapt either the Australian Standard AS 2342-1002 format for warning signs, or the international Caution symbol as below.

SIGN	PURPOSE	IMAGE	APPLICATION NOTES
Caution (international)	To alert riders to a significant unexpected hazard.	 	Well accepted non-specific Caution sign based on international standards. Can be used in conjunction with direction signs to indicate caution at a corner, trail crossing etc
Caution (enduro)	To alert riders to a significant unexpected hazard.	 	Two versions of Caution signage used in Enduros. Not recommended for use in ORV areas as many casual or novice riders would not have seen these or intuitively understand

			them.
Two way trail	To encourage riders to slow down in areas of mixed traffic or where otherwise required for safety.		The two-way symbol and advisory text should be used at the beginning of each two-way trail section, with the smaller symbol alone periodically along the trail.
Wrong Way	Immediately alert a rider who is riding in the wrong direction.		After intersections into one-way trails, in case a rider enters the wrong direction.

### Signage Materials

Trail signage may reflect the designs and style of traditional road signage, but need not be of the same size or constructed of the same materials. In fact it is preferable to use lightweight plastic or corflute signs wherever possible so that lighter weight supports can be used (or the signs affixed to trees or other existing structures). The ORV area signs can also be significantly smaller than their road counterparts<sup>5</sup> given that the sight-lines are typically much shorter in an ORV area than on the road, the approach speeds slower, and there is significantly less visual clutter. 20-30cm height should be sufficient for most Control and Cautionary signage, and 15-20cm height for Directional signage.

### Signage Inventory

The position (GPS coordinates or distance along trail) of all signs should be logged. A regular audit should be performed to ensure that all signs are in place, not defaced or obscured by vegetation etc. (Refer Maintenance Procedures.)

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<sup>5</sup> Further investigation require to determine impact of size on Australian Standard – and ability to adapt for non-road circumstances

## Area Management

Ongoing management is required for Gngangara and Pinjar for both the physical amenities (trails, parking areas, toilets, signage) and social/behavioural management of the area users and visitors.

### “Friends of ...”

An active local management program is critical to the ongoing effectiveness of the areas. Joining the “Friends Of..” provides a sense of belonging and ownership, self management and self regulation as well as volunteers to assist with practical work. Members would be rewarded with special events such as rides, manufacturer days.

A Management Committee with representatives from “Friends of..” , DEC and Local Rangers would work with the Program Manager and DEC District Manager (see below) to provide focus and direction on area and trail development, maintenance, user education and information programs and enforcement.

RTRA (Recreational Trail Bike Riders’ Association) can assist with the membership drive via RTRA members. The Gngangara / Pinjar survey also captured the contact details of 80 people who said they would like to be involved. On-site signage would point to an online sign up form. An initial Committee would be selected, suitable for the initial re-development.

Proposed goals for the “Friends of..” are:

1. To provide a resource base of volunteers to make a significant contribution to the management, maintenance and development of the area.
2. To work with DEC to fulfil their objectives for the area.
3. To self-regulate desired rider behaviour.

A mandate for the “Friends of..” and a Memorandum of Understanding with DEC would be required to establish obligations and responsibilities with regards to management of the area.

Unlike other similar programs such as the Bibbulmun Track Foundation and the Munda Bididi Foundation, it is felt unnecessary to establish the two “Friends of..” groups as not for profit incorporated associations. Other models or utilising the RTRA incorporation should be considered by DEC.

### Volunteers

Volunteer programs modelled on the Bibbulmun Track Foundation and the Munda Bididi Foundation would provide volunteers for track maintenance, trail guides and marketing and education programs. Volunteers would work within the DEC Volunteer Program.

### **“Trail Guides”**

“Friends of..” would provide volunteers as trail guides or hosts who provide information and engage with riders on the importance of responsible riding and minimal impact. Volunteers would undergo training in policies, regulations, code of conduct, minimal impact riding behaviours and need to relate well to people and understand that they are not enforcement officers. Their primary objective is to provide information, guidance and mentoring in responsible riding and act as a role model.

The trail guides would be rostered on and be provided with identifiable riding jerseys. They would also lead introduction rides around the precincts.

### **Code of Conduct**

A Code of Conduct should be developed by the “Friends Of..” that is included in all signage and informational material. This should include minimum gear requirements, riding speeds and behaviour in the car parks and family zones, registration requirements, no alcohol.

### **Program Manager (Designated DEC District “Area Manager”)**

Whilst the “Friends of..” can provide volunteers, labour, area presence and rider input – professional program management is required to provide risk management, “Friends of” secretariat, inspections, to run the program of works and the raising of funds. This role would either be filled by DEC or would be outsourced with DEC as the contract manager.

The Program Manager would provide assistance, advice and relevant expertise, and report to, the DEC District Manager in relation to the management, maintenance and marketing of the Area.

## Inspection And Maintenance Processes And Documentation

### Facilities and Infrastructure Maintenance

Roads, car parks and facilities such as toilets and picnic areas will require inspection and periodic maintenance.

At this early stage it is not possible to quantify the extent of maintenance that will be required because that will be a function of the materials and construction techniques employed for these.

It is reasonable to assume that there will be a degree of vandalism, and even the possibility of malicious damage from disgruntled evictees as the motorcycles-only policy and code of conduct become more strongly enforced.

Signage will also need to be regularly inspected and replaced as required.

### Trails Maintenance

The level of maintenance expected will vary according to the difficulty grading of (and hence intended market for) each trail.

Novice trails should be regularly 'groomed' to provide a safe and satisfying experience.

Advanced trails can be left longer between maintenance and then only lightly groomed, as the natural deterioration of a trail adds to the challenge.

Intermediate trails fall between these two extremes.

As with all aspects of management, inspection and maintenance should be governed by Policy, not just be an ad hoc affair.

Accordingly, a set schedule of trail inspection is required, together with a statement of 'triggers' for maintenance. The triggers should be relatively well quantified so they don't rely solely on the memory and judgement of the individual.

Examples might include:

- On trail 1, grade hill at .75km when ruts exceed 30cm depth or,
- Remove loose rocks larger than 30cm diameter.

Documenting the inspection and maintenance policy, the inspection schedule and any subsequent maintenance is important in being able to demonstrate discharge of Duty of Care obligations. Again the question becomes "Was the policy reasonable?", and this, in the context of the nature of trail bike riding, would be a readily defensible position.

## **Inspection schedule**

An inspection checklist should be developed and published, listing each element – eg facility, sign, trail - and criteria for acceptance.

The inspection can be done in three levels:

### ***1. Informal, by exception.***

Volunteer Area Patrol would print a copy of the checklist from an online repository and would visually inspect on-site. Any exceptions would be reported via an online form.

Frequency: every 1 – 2 wks

### ***2. Formal, by exception.***

DEC staff or an authorised contractor would visually inspect on-site. Any exceptions would be reported via an online form.

Frequency: monthly

### ***3. Formal, audit.***

DEC staff or an authorised contractor would visually inspect on-site and update details of each element.

Frequency: Quarterly

This three-tiered approach provides a balance between frequency of inspections and audit rigor.

Maintenance required to prevent accidents or injury would be expedited, while maintenance of a routine nature would be scheduled according to resources and available budgets.

It is expected that the maintenance requirements for trails will evolve with use and observation. An initial estimate of maintenance requirements will be developed once the Pilot Trails project has delivered the data on trail durability for different types of trail at different levels of trail armouring.

## Rider Induction and Education

*A basic premise is that educated riders are responsible riders, and responsible riders keep riding opportunities open and reduce impacts.*

---

*Management Guidelines for Off-Highway Vehicle Recreation, Tom Crimmins, NOHVCC*

Management of an Off Road Vehicle Area has to deal with certain issues that don't arise on the public roads network or in a competition venue and structure such as those operated under the umbrella of Motorcycling Australia.

Visitors to an ORV area don't need to have an MA licence, nor do they need a road licence. As such there is scope for many visitors to have or claim ignorance of basic signage or vehicle etiquette principles that experienced riders take for granted.

This makes the process of rider induction and education all the more important.

### Information and Messages

Visitors need to know:

**General Risk Warning** – including the fact that visitors (whether they are riding or not) may be injured and / or have their property damaged, and that such injury or damage may not be through any fault of their own (eg in the event of a collision with another rider)

**Mandatory safety gear** – current legislated minimum is helmet only, however a higher level of mandatory safety gear – eg boots, long pants and tops – could be imposed as a Local Area rule in the Riders' Code of Conduct. In addition to the mandatory level there should be a *recommendation of* supplementary protection such as gloves, goggles, body armour etc.

**Trails Precincts and Trails Network** – what riders can expect during their ride eg types of riding available, trail difficulty and other users they may encounter. A trails map should be developed for each area, indicating the Precincts and their definition, with colour coding to represent trails difficulty level, a numbering system to supplement trail names, and clear identification of any two-way trails. Providing information about riding loops and the trail network will encourage riders to ride further away from unloading areas. Without this information riders who are unsure of the location will tend to ride in a smaller area located near the unloading area – creating congestion, disturbance and collision risk.

**ORV Area Boundaries** – clear delineation of ORV area boundaries is required via the main signage, boundary signage and information brochures explaining why riders need to stay within the boundaries.

**Explanation of ORV Area and Trail Signage** – It is important that every visitor understands the meaning of the signs used throughout the ORV area. This can be included in the Trails Map and on the main information signage.

**Speed Limits and Zones** – Visitors need to understand where speed restrictions apply (for example through car parks and unloading zones), including the expectations that speeds will be reduced on Green trails to allow for the presence of novice riders.

**Code of Conduct** – a list outlining the required Code of Conduct for riders and their families and supporters. Would include safe riding measures, low environmental impact riding behaviour, mandatory and recommended safety gear and the no alcohol regulation. Includes a phone number to call to report hoon / illegal behavior.

**Off-road vehicle registration** – what it is, why the bike needs it, how to get it, where the money goes.

**No rubbish dumping** – message for both riders and potential rubbish dumpers including fines and phone numbers to call.

**Emergencies** – procedure for fire and accident emergencies and associated phone numbers. Nearest first aid facilities.

**Minimising environmental impacts** - riding behaviours that minimize environmental impacts such as staying on the trail, using toilet facilities, no rubbish, no storage of fuels, or refuelling of vehicles as per the Metropolitan Water Supply, Sewerage and Drainage By-laws 5.4.9.

**Noise emissions** - the level of noise emissions that are socially and legally acceptable.

**Interpretive information** - What is unique about the area including features, species, historical and cultural interpretive information.

### **Information Media**

A complication arises because unless the area is permanently staffed, there is no mechanism to *ensure* that riders have received or understood the safety and control messages.

Accordingly the ORV area must rely on signage on-site and information provided (or made available) to visitors before their visit. Riders can be educated at the start of their ride by providing them with maps, interpretive information and the area's rules and regulations.

### **Printed Materials:**

- Information Brochure that could be widely distributed by on site volunteers, rangers, Local and State Government offices, motorcycle and accessory shops and online. Includes:
  - Location of the ORV area
  - Trail and Precinct Map explaining the riding experiences
  - Code of Conduct
  - Off-road vehicle registration required and how to get it
  - General risk warning
  - "Friends of...", what they do, how to recognize a volunteer, how to join.
  - Mandatory and recommended safety gear.
  - No alcohol / No rubbish dumping
  - Park and trail signage explanations
  - Where speed restrictions apply
  - Procedure for fire and accident emergencies and associated phone numbers. Nearest first aid facilities.
  - Riding behaviours that minimise environmental impacts

- the level of noise emissions that are socially and legally acceptable

### *On-site:*

- **Main Signage** – in the car parks
  - Trail and Precinct Map
  - General risk warning
  - Boundaries and staying within them
  - Code of Conduct
  - Off-road vehicle registration required and how to get it
  - “Friends of...”, what they do and how to join.
  - Mandatory and recommended safety gear.
  - No alcohol.
  - Current conditions including trails or areas open/closed.
  - Park and trail signage explanations
  - Where speed restrictions apply
  - Procedure for fire and accident emergencies and associated phone numbers. Nearest first aid facilities.
  - Riding behaviours that minimize environmental impacts
  - The level of noise emissions that are socially and legally acceptable
- **Entrance Signage**
  - Name of the area
  - Types of vehicles permitted
  - “Stop” read the signs – risk message
- **No rubbish dumping**
  - Bring it in, take it with you
  - “Dob in a dumper” message and phone number
  - Fines
- **Boundary signage** – to advise riders that they are leaving the area and the implications.
- **Trail signs** – as described earlier in this report.
- **Precinct Signs** – when entering a precinct.
- **Interpretive signs** - What is unique about the area including features, species, historical and cultural interpretative information.

Other forms of on-site communication include:

- **“Friends of...”** - One of the roles of the “Friends of...” is to provide visitor induction and education. This would be done by handing out printed material, taking tours around the area, outreach programs, relationship building and good will and mentoring of visitors.
- **Rangers** - Additional ranger presence is required to provide a greater presence on site to assist with education and information – as well as enforcement.
- **Technology** – such as bluetooth downloads at the main unloading areas of latest trail information, GPS coordinates, recorded messages or text replies accessed via mobile phone or even low powered ‘tourist radio’ broadcasts.

### **Web Site**

Web sites are extremely effective at providing information to the user at the time they need it and there is no restriction on the amount of information that can be provided. A web site is more time-sensitive and cost effective than printed material. An RSS feed could keep regular visitors up to date.

A web site should be developed that provides information on:

- Location of the ORV area
- Trail and Precinct Map explaining the riding experiences at each site. Maps can be interactive with Google Earth overlays, GPS co-ordinates that riders can download (many riders have GPS on their bikes).
- General risk warning
- Boundaries and staying within them
- Code of Conduct
- Off-road vehicle registration required and how to get it
- “Friends of...”, what they do and how to join.
- Mandatory and recommended safety gear.
- No alcohol.
- Types of vehicles permitted
- No rubbish dumping messages
- Current conditions including trails or areas open/closed. This facility could collect information from riders about trail conditions and warnings that can be relayed to the DEC and “Friends of...” for inclusion in maintenance plans.
- Park and trail signage explanations
- where speed restrictions apply
- procedure for fire and accident emergencies and associated phone numbers. Nearest first aid facilities.
- riding behaviours that minimize environmental impacts
- the level of noise emissions that are socially and legally acceptable
- What is unique about the area including features, species, historical and cultural interpretative information.

### **Local Information Radio Service**

Low-powered radio broadcasts can be used to provide information to visitors to an area. A recorded message can convey all of the content carried in an information brochure or web site, but in a convenient package.

For example: a sign at the ORV area entry advertises the Local Information Radio frequency. Visitors to the area can listen to the information broadcast while they drive to the car park area.

To be most effective the Local Information Radio Service should be updated regularly to communicate new information about the ORV area – eg the condition of various trails, whether any areas have been recently graded or improved etc. This will encourage even regular visitors to tune in to the broadcast – which of course provides more opportunities to reinforce the key safety and control messages.

### *Phone-in Information Line*

An alternative (or supplement) to the Local Information Radio Service is the phone-in information line. In this model visitors to the area phone a designated number to listen to key safety and control messages as well as any current status news.

This method can also be used as a visitor registration system, whereby visitors enter information such as car registration number via their telephone keypad after listening to the safety message.

As a further option, the telephone information line can be used to accept payment from ORV area visitors in a highly cost-efficient way should it be decided to charge for access or parking in the future. (Ref: Funding options).

## Enforcement

Enforcement is a major challenge. The ability to conduct effective enforcement is currently hindered by resource constraints and lack of clarity over responsibilities between DEC, WA Police and the Cities of Swan and Wanneroo.

Both the general community and the trail bike riders have expressed concern over “nuisance” and illegal behaviour. This behaviour comes from the area users as well as car “hoons” and members of the community dumping rubbish.

The lack of enforcement is listed as one of the main reasons why riders do not use the areas. People visiting the areas need to see both police and ranger presence to indicate that “nuisance” and illegal behaviour will not be tolerated.

Enforcement is required to address and stop:

- rubbish dumping
- car dumping
- car and motorcycle hoon behaviour (eg riding at speed on access roads, unregistered motorcycles on public access road)
- cars accessing the areas beyond the car parks

and to enforce compliance of:

- the wearing of mandatory safety gear
- park boundaries
- speed restrictions in applicable precincts
- off-road vehicle registrations
- noise emission levels
- alcohol restrictions

## Enforcement Strategy

An Enforcement strategy needs to be developed between DEC, WA Police and the Cities of Swan and Wanneroo to agree on:

- responsibilities for enforcement
- frequency of patrols – weekday, weekends, public holidays, school holidays, seasonal
- priorities for enforcement
- enforcement levels – warnings, fines, confiscations
- define various legislation for enforcement
- resourcing commitments

Discussions need to occur with Midland and Wanneroo police to request frequent presence in the first month to establish the new “code of conduct” and to reinforce the required changes. City of Swan and City of Wanneroo Rangers should also increase their presence and include the areas in their patrols – daily during the week and more often on weekends.

### *Suggested programme:*

#### **Immediate first 2 months**

- remove current 125cc restriction
- zero tolerance for rubbish and car dumping and car hoon behaviour.
- Warnings provided for motorcycle hoon behaviour
- Information and education regarding mandatory safety gear, area boundaries, usage of Centreway (registered vehicles only with road rules), off-road vehicle registrations, noise emission levels

#### **2-6 months**

- zero tolerance for rubbish and car dumping, car and motorcycle hoon behaviour.
- Warnings provided for mandatory safety gear, area boundaries, usage of Centreway (registered vehicles only with road rules), off-road vehicle registrations.
- Information and education regarding noise emission levels, alcohol restrictions

#### **After 6 months**

- zero tolerance for rubbish and car dumping, car and motorcycle hoon behaviour, mandatory safety gear, area boundaries, usage of Centreway (registered vehicles only with road rules), off-road vehicle registrations.
- Warnings provided for noise emission levels, alcohol restrictions.

### **“Friends Of..”**

Volunteer patrols would provide an on-the-ground presence for requesting visitors adhere to local area rules and the code of conduct but they are not an enforcement option. These patrols will be known to rangers and police and they would be provided with ranger and police numbers to call when they require support.

The “Friends of..” would establish a “Gnangara / Pinjar Watch” for riders to report rubbish dumping by getting area users to text car license plates to an established number.

## **PART 5: FUNDING**

### **Cost estimates**

The following pages details the preliminary estimated budgets for both areas for a period of 3 years covering capital works, trails development, maintenance, management and communications.

\$973,750

**GNANGARA IMPLEMENTATION STRATEGY**

ITEM	DESCRIPTION	QTY	UNITS	COST PER	COST	CL
<b>Capital Works</b>						
Modifications to Centre Way	Develop as entrance to new car park	475	m	\$100	\$47,500	0
	Fencing of access road and car parks	1.5	km	\$12,500	\$18,750	1
	Close off beyond Car Park 2	1		\$10,000	\$10,000	0
Create new car parks	Create slip lane off Gngangara Rd	1		\$50,000	\$50,000	0
	Main car park	1		\$75,000	\$75,000	0
	Car Park 2	1		\$30,000	\$30,000	0
	PeeWee Car park	1		\$20,000	\$20,000	0
Toilets	4 seater remote construction	1		\$75,000	\$75,000	0
Water tank	Potable water with tap	1		\$2,500	\$2,500	0
Picnic benches	Vandal resistant	4		\$1,250	\$5,000	0
Signage	Various, including replacement	80		\$250	\$20,000	0
					\$353,750	
<b>Trails Development</b>						
Pilot trails	Roughly formed and signed	5	km	\$4,000	\$20,000	0
PeeWee Circuits	Imported materials, graded base	1.2	km	\$15,000	\$18,000	0
Junior MX Circuit	Imported materials, formed features	1	km	\$25,000	\$25,000	0
Develop MX Practice Circuit	Imported materials, formed features	1.5	km	\$25,000	\$37,500	0
Develop the network of one way trails	Advance / intermediate - lightly formed	20	km	\$4,000	\$80,000	0
	Novice / Feeder - imported materials, graded	4	km	\$15,000	\$60,000	0
Develop Trials Practice area	Technical features	1		\$5,000	\$5,000	0
Ongoing development of precincts and trails	Progressive development and rotation of trails	1		\$35,000	\$35,000	0
					\$280,500	
<b>Maintenance</b>						
Rubbish removal	Remove piles / bags collected by volunteers	1		\$20,000	\$20,000	0
Car Park maintenance (annual)	Grading, resurfacing @ 20% of capital cost p.a.	2	yrs	\$50,250	\$100,500	0
Risk inspection audits	Formal, quarterly	8		\$1,750	\$14,000	0
Trails grading	Grading and maintenance of trails, car parks	30	km	\$3,000	\$90,000	0
					\$224,500	
<b>Management</b>						
Ranger presence on weekends - to 30/6/11		800	hours	\$50	\$40,000	0
ORVA Program Manager - to 30/6/11	Part time	30	months	\$2,000	\$60,000	0
					\$100,000	
<b>Communications</b>						
Web site	Includes 30 mths content maintenance	1		\$10,000	\$10,000	0
Information brochure	Design & Print	1		\$5,000	\$5,000	0
					\$15,000	

NB: Preliminary estimates only. Budgets will be dependent on overall concepts, outcome of Pinjar trails surface pilot test.

\$923,000

**PINJAR IMPLEMENTATION STRATEGY**

ITEM	DESCRIPTION	QTY	UNITS	COST PER	COST	CL
<b>Capital Works</b>						
New Main Entrance (Wesco Rd) and Car Park	Develop as entrance to new car park	200	m	\$200	\$40,000	0
	Fencing of Wattle Ave	2	km	\$12,500	\$25,000	1
Create new car parks	Main car park	1		\$75,000	\$75,000	0
	PeeWee Car park	1		\$30,000	\$30,000	0
Toilets	4 seater remote construction	1		\$75,000	\$75,000	0
Water tank	Potable water with tap	1		\$2,500	\$2,500	0
Picnic benches	Vandal resistant	8		\$1,250	\$10,000	0
Signage	Various, including replacement	80		\$250	\$20,000	0
					\$277,500	
<b>Trails Development</b>						
Trails surface pilot test	Materials, construction and evaluation	1		\$20,000	\$20,000	0
Pilot trails	Roughly formed and signed	6	km	\$3,000	\$18,000	1
PeeWee Circuits	Imported materials, graded base	1.2	km	\$15,000	\$18,000	0
Junior MX Circuit	Imported materials, formed features	1	km	\$25,000	\$25,000	0
Develop MX Practice Circuit	Imported materials, formed features	1.5	km	\$25,000	\$37,500	0
Develop the network of one way trails	Advance / intermediate - lightly formed	18	km	\$5,000	\$90,000	0
	Novice / Feeder - imported materials, graded	10	km	\$10,000	\$100,000	0
Develop Trials Practice area	Technical features	1		\$5,000	\$5,000	0
Ongoing development of precincts and trails	Progressive development and rotation of trails	1		\$35,000	\$35,000	0
					\$348,500	
<b>Maintenance</b>						
Rubbish removal	Remove piles / bags collected by volunteers	1		\$10,000	\$10,000	0
Car Park maintenance (annual)	Grading, resurfacing @ 20% of capital cost p.a.	2	yrs	\$34,000	\$68,000	
Risk inspection audits	Formal, quarterly	8		\$1,750	\$14,000	0
Trails grading	Grading and maintenance of trails, car parks	30	km	\$3,000	\$90,000	0
					\$182,000	
<b>Management</b>						
Ranger presence on weekends - to 30/6/11		800	hours	\$50	\$40,000	0
ORVA Program Manager - to 30/6/11	Part time	30	months	\$2,000	\$60,000	0
					\$100,000	
<b>Communications</b>						
Web site	Include 30 months content maintenance	1		\$10,000	\$10,000	0
Information brochure	Design & Print	1		\$5,000	\$5,000	0
					\$15,000	

NB: Preliminary estimates only. Budgets will be dependent on overall concepts, outcome of trails surface pilot test.

## Funding sources

There are several sources of funding for capital works and / or ongoing management.

### Departmental budgeting

- **DEC Recurrent PVS Budgets**

DEC allocates regional budgets from the Parks and Visitor Services budget for operational maintenance of recreational facilities and managing recreational activities. The Gngangara and Pinjar ORV areas compete for attention against a range of other imperatives in the Swan Region, however a minimum level of resourcing should be allocated directly from this source.

- **DEC PVS Capital and/or Specific Strategic Grants**

DEC allocates its annual PVS Capital funding for various projects based on priorities towards strategic objectives and urgency. The Gngangara and Pinjar ORV areas could be positioned as having strategic importance in reducing the cost of enforcement and remediation of other areas where unauthorised trail bike riding creates problems. On this basis certain projects, perhaps including capital expenditure on roading, car park development and trail upgrades could be funded from the DEC PVS Capital budget.

- **Gngangara Park Funding**

It is understood that Gngangara Park funding is in its final year and that around \$500,000 remains in this. This funding is split equally between the revegetation program following clearing of pines and strategic recreation capital projects. This fund provides a short term resource for immediate capital improvements and the implementation of this Management Plan.

### Inter-departmental budgeting

- **Off Road Vehicle Registrations**

At \$6 per vehicle the registration of Off Road Vehicles under the CV(OA)A generates a small amount of revenue each year which ought to be spent on facilities for these vehicles. It appears that very little of this accumulated revenue has actually been spent, and on a utilisation level or area basis the Gngangara and Pinjar ORV areas should be entitled to a significant percentage of this. The Off Road Vehicle fund is controlled by the Department of Local Government and Regional Development.

- **State Trail Bike Strategy**

An inter-departmental working group is being established to review the recommendations of the State Trail Bike Strategy. The report recommends significant expenditure on improving facilities for trail bike riders as a key element in reducing the incidence of illegal and irresponsible use.

- **Gngangara Sustainability Strategy**

The Gngangara Sustainability Strategy is tasked with optimising land and water use on the Gngangara Mound while recognising the biodiversity, social and economic values the GSS study area provides the citizens of Western Australia. The State Government has committed funds to investigate strategies that will enable this, including the rehabilitation of clear-felled land. As a use compatible with drinking water abstraction, groundwater recharge and strategic bushland protection the GSS options papers may support the Government funding the upgrade and

management of the ORV areas. Thus Government may fund this Management Plan in the GSS Implementation phase (2009/2010 onwards)

- **Wanneroo Raceway Redevelopment**

In the event that funding is made available for extending and upgrading Wanneroo Raceway a deal could be struck to provide an area of land for major event parking in return for development funding.

### Grant funding

Following is a list of potential grants available for the off-road vehicle areas. In most instances State Government departments are not eligible for the Grants and so the grant applicant would need to be the City of Wanneroo, the City of Swan, RTRA or the "Friends Of..." community groups.

- **Community Sporting & Recreation Facilities Fund (DSR)**

The CSRFF program operates on a reimbursement system. Grantees are required to demonstrate that they have expended the funds equivalent to the full cost of project before CSRFF grants can be paid in full. CSRFF grants are paid to the grantee only. Applicants must be either a local government authority, not for profit sport, recreation or community organisation and incorporated under the WA Associations Incorporation Act 1987. The type of projects which will be considered for funding include Upgrade and additions to existing facilities where they will lead to an increase in physical activity or more rational use of facilities and construction of new facilities to meet sport and recreation needs. Funds will not be available for Projects that commence before approvals are announced.

Timing: open July 08, deadline mid September 08, Feb/March 09 announcement

- **Youth Grants (Department for Communities)**

Provide funding support for activities that encourage youth participation and the provision of services and facilities for young people. There are also sponsorships of up to \$10,000 for projects that benefit young people between the ages of 12 and 25 years involving major events, seminars/training and development of education/resource materials. There are also special projects grants of up to \$35,000 for 12-month projects that address particular themes, or link with the priorities in the youth portfolio, which are targeted for the benefit of young people between the ages of 12 and 25 years and/or the youth sector more generally.

- **Criminal Property Confiscation Act 2000 Grants Program (Dept Attorney General)**

The Attorney General has the discretion to direct that money be paid out of this account for a number of purposes including, among others, programmes or activities designed to aid law enforcement, focusing on community safety and crime prevention initiatives within Western Australia.

- **Lotterywest Grants**

Lotterywest's Advancing Participation in Community Life grants support initiatives that encourage broad community involvement in social, cultural or recreation activities.

- **Litter Prevention Grants (Keep Australia Beautiful Council)**

provide financial support and guidance to individuals, communities and organisations for the

implementation of projects which make lasting changes to reduce litter and change littering behaviour. Projects to reduce litter and change litter behaviour in recreation venues is a funding priority.

- **The Community Partnership Fund**

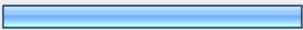


supports local community safety and crime prevention initiatives involving police and the community working together on projects to prevent or reduce crime and anti-social behaviour; improve safety and security; and/or reduce the fear of crime.

- **SGIO Community Help Grants**

The SGIO community help Grants program helps to support organisations that are committed to making our community safer, particularly in the areas of crime prevention, road safety, home safety and the environment.

### User Pays

The rider research indicates nearly 90% of riders would be prepared to pay to use the area if significant improvements were made.

13. If a range of improvements were made to Gngalara would you be prepared to pay an entry fee?			
		Response Percent	Response Count
Yes - would pay a daily fee		55.8%	82
Yes - would pay an annual fee		33.3%	49
No		10.9%	16

Based on the survey, the median amount riders would be prepared to pay is \$10 per day (average \$13.75) per day or \$70 per annum (average \$100) per annum. This is significantly lower than the typical daily charge of commercial parks throughout Australia, and is also significantly lower than the cost of joining a club to access a competition motocross circuit.

Projecting a daily rate of just \$10 to the potential usage figures established earlier, this would provide gross annual revenue of approximately \$624,000 across both Pinjar and Gngalara based on an average weekend visitation rate of 300 per day per ORV area.

Note that any move to raise revenue through a user-pays system would need to follow substantial improvements to the facilities and consideration would need to be given to the cost of collecting fees and dealing with fee-avoiders. The latter would be difficult unless the entire perimeter of the areas was securely fenced.

### Commercial Sponsorship

Once the areas are brought under better control (ie a reduction in vandalism) it could be accepted that commercial sponsorship could be sought for various precincts or features.

This could contribute to specific maintenance or development projects.

## CONCLUSION

There is common agreement between riders, the community, land managers and enforcement agencies that areas need to be set aside for trail bike riding.

Western Australia has a mechanism to enable areas of public land to be gazetted as Off Road Vehicle Areas, but the current areas simply do not attract enough riders to fulfil their objectives in drawing riders away from areas where environmental damage or social nuisance is caused.

DEC has an opportunity to redevelop the two main metropolitan riding areas and make them significantly more viable.

In doing so DEC will be working towards its objectives of protecting the environment, maximising social utility from land that otherwise has little attraction, and catering for a large – and growing – group of outdoor recreationalists.

Importantly, in taking a more pro-active approach to managing these areas, DEC will also:

- be reducing its own risk as a land manager,
- establish a model that other land managers such as LGAs can follow,
- gain experience in managing trail bike access in a low environmental value area that can then be adapted and applied in other DEC-managed areas

## **APPENDICES**

- 1. Principles Of ORV Risk Management**
- 2. Concept Signage Plans**
- 3. Survey Results**

## APPENDIX 1: Principles Of ORV Risk Management

In the context of trail bike riding the legal underpinning to any risk management strategy is the Civil Liability Act 2002 which provides that there is no liability for harm caused by obvious risks associated with recreational activities nor for harm caused by inherent risks.

The effect of this legislation is to give people the right to choose to engage in activities that carry risk of personal injury or death, while providing protection for those land owners and managers who provide facilities where those activities can be undertaken.

Notwithstanding the risk transfer accomplished by the Civil Liability Act 2002, there remain certain obligations -- both legal and moral -- owed as a duty of care to visitors to an area.

A risk management plan explores the risks to the public and to the land owner or manager and seeks to mitigate this risk through a series of deliberate actions.

The steps involved in developing a risk management plan are:

1. Identify hazards
2. Assess the risks
3. Manage the risks
4. Review and monitor

### *Hazard Identification*

Hazard identification involves consideration of all natural or man-made objects or circumstances that could give rise to injury. The identification process should not be influenced by any presumption of the ease or difficulty of mitigating the hazard and should be a continuous, rather than a one-off process.

Typical input into hazard identification includes a review of past incident reports, site inspection, interviews or focus group research with those people most directly responsible for the management of an area, relevant reports, articles or case studies and interviews with visitors to the area.

Hazards are relative to the overall difficulty grading of a trail. For example a 30cm diameter log across an advanced trail may be considered a positive trail feature, whereas that same log on a novice trail would represent a risk.

It is important to properly document the hazards, both for effective management and as evidence of the review and consideration process. An effective way of documenting hazards in a trails environment is to establish a trail start marker and use distance from start (sometimes referred to as SLK or straight line kilometre) as the identification of specific locations. This enables a relatively quick process of identification and subsequent review.

## *Assessing The Risk*

Assessing the risk draws on three elements from the occupiers liability principles:

1. The likelihood or probability of the event occurring - from practically impossible to almost certain.
2. The frequency of exposure to the hazard - influenced by the number of visitors to the site and the length of time visitors spend in the area.
3. The potential consequences or impact of an incident or injury -- from inconsequential to catastrophic

Taken in combination, these three elements can be used to determine the overall level of risk and to help guide decisions as to whether a level of risk is acceptable or not.

In practical terms we would recommend using a Likelihood / Consequence rating scale<sup>6</sup>, where:

**Likelihood:** 1. Almost Certain 2. Likely 3. Possible 4. Unlikely 5. Rare

**Consequence:** 1. Insignificant 2. Minor 3. Moderate 4. Major 5. Catastrophic

Priority should be given to those risks that have a higher Consequence rating, even if they are relatively low Likelihood.

The process should be undertaken at periodic intervals. Obviously the initial documentation will take some time to do thoroughly but subsequent reviews will only require identification of new or changed risks. Given the nature of the trails we would suggest a monthly review supplemented by a facility for riders to report any hazards they encounter on the trail.

## *A Management Strategy*

A management strategy can be applied to each assessed risk. There are four main risk management options:

1. Accept the risk
2. Eliminate the risk
3. Minimise the risk
4. Transfer the risk

**Accepting the risk** can be an appropriate option where the overall risk level is considered low, where the hazard is an obvious natural hazard or where removal or minimisation would require expense or effort

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<sup>6</sup> Based upon AS/NZS 4360- Risk Management guidelines and adapted to suit.

that a reasonable person would find unreasonable. A decision to accept risk should only be taken after careful consideration and caution.

**Eliminating the risk** is the safest option, but may not be practical for economic reasons or for reasons of utility. This is particularly the case in facilities for recreation where obstacles are part of the challenge sought by participants.

**Minimising risk** can occur in many ways. Identified hazards can sometimes be modified so as to minimise risk whilst maintaining the original nature of the object. Where it is impractical to modify the hazard, appropriate warnings can help avoid incidents. Where it is impractical to post warnings on every identified hazard a broader educational program can provide visitors with a general warning about the nature of the area together with information to encourage appropriate visitor behaviour.

**Risk transference** typically involves obtaining an indemnity from participants whereby they acknowledge the risks and accept the consequences. The Civil Liability Act 2003 does away with the need to obtain written waivers in the case of obvious risks associated with dangerous recreational activities, however it obviously strengthens a defense to prove that the participant acknowledged awareness of the risks via a signed waiver.

### ***Reviewing and Monitoring***

Reviewing and monitoring the risk management plan is absolutely essential, both to identify new hazards that may have emerged and to ensure that the assessment of risks and associated management strategies remain current and properly implemented.

## APPENDIX 2: Concept Signage Plans



# Concept Signage Plan

Gnangara Off Road Vehicle Area  
Pinjar Off Road Vehicle Area

July 2008

# Objective

- To alert users of the ORV Area to the specific risks of the area
- To articulate boundaries of acceptable conduct
- To provide protection under CLA2003

# Suggested Messages

- Area Rules
  - Safety equipment
  - No alcohol
  - No cars
  - ORV Registration
- General ORV warning – Enter at Own Risk
- Specific Hazards
  - Tree roots and stumps
  - Crossing trails
  - Exposed hazards (semi-buried rubbish)
  - Vehicles and pedestrians

## Off Road Area

Quantity: 6    Size: 900 x 1200

Position: Gnangara: Centre Way at Gnangara Rd entrance and Gironde Rd entrance  
Pinjar: Orchid Rd @ Wesco Rd and Wattle Ave East and Hopkins Rd and Pinjar Rd

# Off Road Vehicle Area Motorcycles Only



IT IS A CONDITION OF ENTRY  
THAT ALL VISITORS MUST  
READ THE MAIN NOTICE  
BOARD AND WARNINGS  
BEFORE PROCEEDING TO THE  
RIDING AREA

GSW001

**Your safety is our concern but your responsibility**

# General Warning / Main Information

Quantity: 2

Size: 900 x 1800

Position: Centre Way at Gnangara Rd entrance and Gironde Rd entrance

## WELCOME TO THE GNANGARA OFF ROAD VEHICLE AREA

### GENERAL WARNING

Recreational activities such as trail and quad bike riding expose the user to inherent and obvious risks.

User are warned that these risks could result in personal injury to both participants and spectators.

Persons using this facility do so entirely at their own risk.

### REGULATIONS

1. All notices must be read
2. This area is gazetted for motorcycles and quads only.
3. Off Road Vehicles must be registered and display the appropriate registration plate.
4. Helmets and boots must be worn at all times. Full protective riding gear is strongly recommended.
5. No alcohol to be consumed within this area
6. Centre Way (Limestone Rd) is NOT part of the ORV Area.

**ENJOY, BUT TAKE CARE!**



BEWARE: Always keep a lookout for other vehicles.



BEWARE: Unmarked trail crossings.



BEWARE: Buried or exposed hazards including tree roots and stumps, metal objects.

# General Warning / Main Information

Quantity: 4

Size: 900 x 1800

Position: Orchid Rd @ Wesco Rd and Wattle Ave E. Hopkins Rd, Pinjar Rd

## WELCOME TO THE PINJAR OFF ROAD VEHICLE AREA

### GENERAL WARNING

Recreational activities such as trail and quad bike riding expose the user to inherent and obvious risks. User are warned that these risks could result in personal injury to both participants and spectators. Persons using this facility do so entirely at their own risk.

### REGULATIONS

1. All notices must be read
2. This area is gazetted for motorcycles and quads only.
3. Off Road Vehicles must be registered and display the appropriate registration plate.
4. Helmets and boots must be worn at all times. Full protective riding gear is strongly recommended.
5. No alcohol to be consumed within this area.

**ENJOY, BUT TAKE CARE!**



BEWARE: Always keep a lookout for other vehicles.



BEWARE: Unmarked trail crossings.



BEWARE: Buried or exposed hazards including tree roots and stumps, metal objects.

## Don't Litter

Quantity: 11

Size: A2

Position: Near entrances, prominent in car parks

# Please take your rubbish home



REPORT ILLEGAL  
DUMPING  
HOTLINE: **6467 5129**

**RTRA**  
RECREATIONAL TRAILBIKE  
RIDERS' ASSOCIATION WA

[www.rtra.asn.au/gnangara](http://www.rtra.asn.au/gnangara)



## Car Park

Quantity: 5 Size: A2

Position: Prominent in car parks

# CAR PARK



Please take your rubbish home with you



No Donuts in the car park!

**CARS AND 4WDs NOT PERMITTED BEYOND CAR PARK**

**Ranger Hotline: 1234 123 123**

## Area Boundary

**Quantity:** 60 approx

**Size:** 450 x 300

**Positioned:** At regular intervals along boundary.

Viewed from inside ORVA



Viewed from outside ORVA



## Area / Trailhead Sign

Quantity: ? Size: 450 x 300

Position: Trailheads, boundaries of precincts



## Directional Sign

Quantity: ? Size: 200 x 150

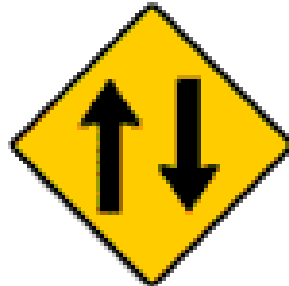
Position: Along trails







# Miscellaneous Control Signs

Quantity: ? Size:

Position: As required to control riders and warn of hazards



# Concept for Modular Signage (to avoid 'repurposing')

<h2>WELCOME TO THE GNANGARA OFF ROAD VEHICLE AREA</h2> <p><u>GENERAL WARNING</u> Recreational activities such as trail and quad bike riding expose the user to inherent and obvious risks. User are warned that these risks could result in personal injury to both participants and spectators.</p> <p><b>Persons using this facility do so entirely at their own risk.</b></p>	 <p><u>BEWARE:</u> Always keep a lookout for other vehicles.</p> <p><u>BEWARE:</u> Unmarked trail crossings.</p> <p><u>BEWARE:</u> Buried or exposed hazards including tree roots and stumps, metal objects.</p>
<p><u>REGULATIONS</u></p> <ol style="list-style-type: none"><li>1. All notices must be read</li><li>2. This area is gazetted for motorcycles and quads only.</li><li>3. Off Road Vehicles must be registered and display the appropriate registration plate.</li><li>4. Helmets and boots must be worn at all times. Full protective riding gear is strongly recommended.</li><li>5. No alcohol to be consumed within this area</li><li>6. Centre Way (Limestone Rd) is NOT part of the ORV Area.</li></ol>	   <p>Information: <a href="http://www.rtra.asn.au/gnangara">www.rtra.asn.au/gnangara</a></p>

# WELCOME TO THE GNANGARA

## GENERAL WARNING

Recreational activities such as trail and quad bike riding expose the user to inherent and obvious risks. User are warned that these risks could result in personal injury to both participants and spectators.


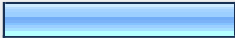



**Persons using this facility do so entirely at their own risk.**

## REGULATIONS

1. All notices must be read
2. This area is gazetted for motorcycles and quads only.
3. Off Road Vehicles must be registered and display the appropriate registration plate.
4. Helmets and boots must be worn at all times. Full protective riding gear is strongly recommended.
5. No alcohol to be consumed within this area
6. Centre Way (Limestone Rd) is NOT part of the ORV Area.

## APPENDIX 3: Survey Results

# Gnangara / Pinjar Rider Survey

1. In total, approximately how many times have you ridden at Gnangara?			Response Percent	Response Count
Hundred of times - Very often			9.2%	17
Dozens of times - I'm a regular			25.4%	47
<b>Occasionally - every now and then</b>			<b>30.8%</b>	57
Once only			14.1%	26
Never			20.5%	38
			<b>answered question</b>	<b>185</b>
			<b>skipped question</b>	<b>0</b>

2. Why don't you ride in the Gnangara designated ORV area?		Response Count
		32
		<b>answered question</b>
		<b>32</b>
		<b>skipped question</b>
		<b>153</b>

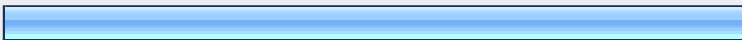



### 3. How often do you ride at Gngara?

		Response Percent	Response Count
A few times each week		5.6%	8
Every week		13.9%	20
<b>A couple of times each month</b>		<b>25.0%</b>	36
Once a month		11.8%	17
Every few months		18.8%	27
A couple of times each year		8.3%	12
Once a year or less		16.7%	24
		If 'Other' please specify.	14
		<b>answered question</b>	<b>144</b>
		<b>skipped question</b>	<b>41</b>

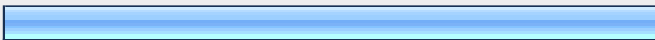

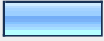

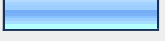


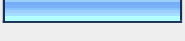
### 4. When you ride at Gngara, how long would you ride for?

		Response Percent	Response Count
An hour or two		22.9%	33
<b>Half a day</b>		<b>50.0%</b>	72
All day		25.7%	37
All weekend		4.2%	6
Other		1.4%	2
		If 'Other' please specify.	3
		<b>answered question</b>	<b>144</b>
		<b>skipped question</b>	<b>41</b>

5. How do you usually get your bike to Gngangara?




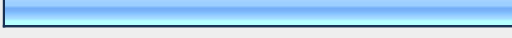

		Response Percent	Response Count
<b>My own trailer / ute</b>		81.9%	118
Mates trailer / ute		10.4%	15
Ride there		13.2%	19
Other		5.6%	8
If 'Other' please specify			9
<b>answered question</b>			<b>144</b>
<b>skipped question</b>			<b>41</b>


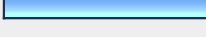
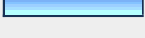
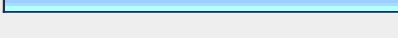

6. When you ride at Gngangara, who do you usually ride with? (check all that apply)

		Response Percent	Response Count
<b>Mates</b>		72.2%	104
Family - Kids		37.5%	54
Family - Parents		10.4%	15
Family - Siblings		9.7%	14
Family - Partner		16.7%	24
Whoever is there		6.9%	10
Organised group		8.3%	12
Ride alone		19.4%	28
Other (please specify)			2
<b>answered question</b>			<b>144</b>
<b>skipped question</b>			<b>41</b>

7. What do you like about riding at Gnangara?		Response Count
		126
	<b>answered question</b>	<b>126</b>
	<b>skipped question</b>	<b>59</b>

8. Please rate your level of satisfaction regarding Gnangara and the riding experience?							
	Awful	Poor	OK	Good	Brilliant	Rating Average	Response Count
Safety	<b>35.7% (45)</b>	28.6% (36)	31.7% (40)	4.0% (5)	0.0% (0)	2.04	126
Facilities	<b>64.3% (81)</b>	23.8% (30)	10.3% (13)	1.6% (2)	0.0% (0)	1.49	126
Track maintenance	<b>44.4% (56)</b>	29.4% (37)	22.2% (28)	3.2% (4)	0.8% (1)	1.87	126
Track design	<b>36.5% (46)</b>	28.6% (36)	27.8% (35)	5.6% (7)	1.6% (2)	2.07	126
Amount of riding area	10.3% (13)	17.5% (22)	<b>31.7% (40)</b>	31.0% (39)	9.5% (12)	3.12	126
Riding terrain	11.9% (15)	27.0% (34)	<b>40.5% (51)</b>	19.0% (24)	1.6% (2)	2.71	126
Irresponsible riders	<b>43.7% (55)</b>	22.2% (28)	27.8% (35)	6.3% (8)	0.0% (0)	1.97	126
Crowding levels	17.5% (22)	23.8% (30)	<b>46.8% (59)</b>	11.1% (14)	0.8% (1)	2.54	126
Conflict between users - eg trail bikes, quads, 4 wheel drives, horses	19.8% (25)	19.8% (25)	<b>38.1% (48)</b>	21.4% (27)	0.8% (1)	2.63	126
Parking / unloading areas	22.2% (28)	<b>30.2% (38)</b>	27.0% (34)	19.8% (25)	0.8% (1)	2.47	126
					Other (please specify)		32
					<b>answered question</b>		<b>126</b>
					<b>skipped question</b>		<b>59</b>

9. If <b>ALL</b> the trees at Gngangara were to be removed would you:			Response Percent	Response Count
Consider it an improvement to safety			4.8%	6
Consider it an improvement to rider satisfaction			6.3%	8
Not care one way or the other			9.5%	12
<b>Be disappointed but continue to ride there anyway</b>			<b>56.3%</b>	71
Go somewhere else to ride			27.0%	34
		<b>answered question</b>		<b>126</b>
		<b>skipped question</b>		<b>59</b>

10. If <b>SOME OF</b> the trees at Gngangara were to be removed would you:			Response Percent	Response Count
Consider it an improvement to safety			20.6%	26
Consider it an improvement to rider satisfaction			22.2%	28
Not care one way or the other			15.1%	19
<b>Be disappointed but continue to ride there anyway</b>			<b>43.7%</b>	55
Go somewhere else to ride			10.3%	13
		<b>answered question</b>		<b>126</b>
		<b>skipped question</b>		<b>59</b>

11. Below are a number of changes that could be made at Gngangara. Please tell us how you personally feel about each one.

	No value	Useful but not important	Important	Essential	Don't know	Rating Average	Response Count
Separated areas for PeeWees, Beginners/Family, Intermediate, Advanced	1.3% (2)	13.4% (20)	32.9% (49)	<b>50.3% (75)</b>	2.0% (3)	3.35	149
A network of signed, one-way trails	2.0% (3)	10.1% (15)	39.6% (59)	<b>47.7% (71)</b>	0.7% (1)	3.34	149
Single track trails	5.4% (8)	23.5% (35)	<b>40.9% (61)</b>	28.2% (42)	2.0% (3)	2.94	149
Enduro practice loop with technical challenges	1.3% (2)	22.8% (34)	<b>40.3% (60)</b>	34.2% (51)	1.3% (2)	3.09	149
Specially constructed MX practice circuits	4.0% (6)	27.5% (41)	<b>45.6% (68)</b>	20.1% (30)	2.7% (4)	2.84	149
Separate trails for bikes and quads	14.1% (21)	<b>33.6% (50)</b>	26.8% (40)	23.5% (35)	2.0% (3)	2.61	149
Specified parking / unloading areas	8.7% (13)	24.8% (37)	<b>34.9% (52)</b>	30.9% (46)	0.7% (1)	2.89	149
Fencing the riding area to keep cars out	9.4% (14)	24.2% (36)	22.1% (33)	<b>42.3% (63)</b>	2.0% (3)	2.99	149
Picnic facilities / viewing areas	5.4% (8)	<b>40.3% (60)</b>	36.9% (55)	16.8% (25)	0.7% (1)	2.66	149
Toilets	3.4% (5)	30.9% (46)	<b>34.9% (52)</b>	30.9% (46)	0.0% (0)	2.93	149
Bike wash facilities	26.8% (40)	<b>55.7% (83)</b>	11.4% (17)	6.0% (9)	0.0% (0)	1.97	149
Regular ranger patrols to enforce off road registrations; helmets; dangerous riding	7.4% (11)	21.5% (32)	26.8% (40)	<b>41.6% (62)</b>	2.7% (4)	3.06	149
Firmer riding surface - not just soft sand	8.1% (12)	27.5% (41)	25.5% (38)	<b>38.3% (57)</b>	0.7% (1)	2.95	149
Regular grading of novice and intermediate areas	2.7% (4)	24.8% (37)	<b>41.6% (62)</b>	30.2% (45)	0.7% (1)	3.00	149
Creation of a Local Management Committee of riders	6.0% (9)	23.5% (35)	<b>41.6% (62)</b>	25.5% (38)	3.4% (5)	2.90	149
	<b>answered question</b>						<b>149</b>

## 12. What other improvements do you think should be made to the Gngangara ORV area?

		Response Count
		85
<i>answered question</i>		<b>85</b>
<i>skipped question</i>		<b>100</b>



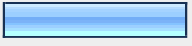
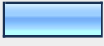
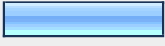

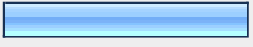
## 13. If a range of improvements were made to Gngangara would you be prepared to pay an entry fee?

		Response Percent	Response Count
Yes - would pay a daily fee		55.7%	83
Yes - would pay an annual fee		33.6%	50
No		10.7%	16
If yes, how much would you be prepared to pay (specify per day or annual fee)			121
		<i>answered question</i>	<b>149</b>
		<i>skipped question</i>	<b>36</b>

## 14. In total, approximately how many times have you ridden at Pinjar?

		Response Percent	Response Count
Hundred of times - Very often		5.5%	8
Dozens of times - I'm a regular		19.2%	28
Occasionally - every now and then		26.0%	38
Once only		8.2%	12
<b>Never</b>		41.1%	60
		<i>answered question</i>	<b>146</b>
		<i>skipped question</i>	<b>39</b>

15. Why don't you ride in the Pinjar designated ORV area?		
		Response Count
		60
<i>answered question</i>		<b>60</b>
<i>skipped question</i>		<b>125</b>

16. How often do you ride at Pinjar?			
		Response Percent	Response Count
A few times each week		3.5%	3
Every week		4.7%	4
A couple of times each month		19.8%	17
Once a month		10.5%	9
Every few months		17.4%	15
A couple of times each year		17.4%	15
<b>Once a year or less</b>		<b>26.7%</b>	<b>23</b>
		If 'Other' please specify.	9
		<i>answered question</i>	<b>86</b>
		<i>skipped question</i>	<b>99</b>

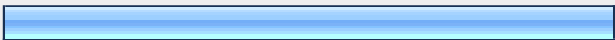


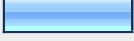
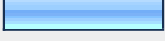
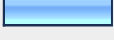

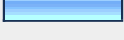
**17. When you ride at Pinjar, how long would you ride for?**

		Response Percent	Response Count
An hour or two		22.1%	19
<b>Half a day</b>		<b>36.0%</b>	31
All day		31.4%	27
All weekend		7.0%	6
Other		8.1%	7
If 'Other' please specify.			7
<b>answered question</b>			<b>86</b>
<b>skipped question</b>			<b>99</b>

**18. How do you usually get your bike to Pinjar?**

		Response Percent	Response Count
<b>My own trailer / ute</b>		<b>81.4%</b>	70
Mates trailer / ute		10.5%	9
Ride there		12.8%	11
Other		9.3%	8
If 'Other' please specify			5
<b>answered question</b>			<b>86</b>
<b>skipped question</b>			<b>99</b>

19. When you ride at Pinjar, who do you usually ride with? (check all that apply)




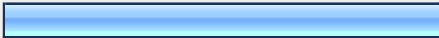
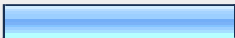
		Response Percent	Response Count
Mates		67.4%	58
Family - Kids		44.2%	38
Family - Parents		12.8%	11
Family - Siblings		14.0%	12
Family - Partner		17.4%	15
Whoever is there		11.6%	10
Organised group		9.3%	8
Ride alone		12.8%	11
Other (please specify)			5
		<b>answered question</b>	<b>86</b>
		<b>skipped question</b>	<b>99</b>

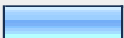

20. What do you like about riding at Pinjar?

		Response Count
		79
		<b>answered question</b>
		<b>79</b>
		<b>skipped question</b>
		<b>106</b>

21. Please rate your level of satisfaction regarding the Pinjar Motorcycle area and the riding experience?

	Awful	Poor	OK	Good	Brilliant	Rating Average	Response Count
Safety	20.3% (16)	<b>40.5% (32)</b>	30.4% (24)	7.6% (6)	1.3% (1)	2.29	79
Facilities	<b>38.0% (30)</b>	<b>38.0% (30)</b>	20.3% (16)	2.5% (2)	1.3% (1)	1.91	79
Track maintenance	30.4% (24)	<b>38.0% (30)</b>	24.1% (19)	6.3% (5)	1.3% (1)	2.10	79
Track design	30.4% (24)	27.8% (22)	<b>34.2% (27)</b>	6.3% (5)	1.3% (1)	2.20	79
Amount of riding area	7.6% (6)	16.5% (13)	<b>50.6% (40)</b>	21.5% (17)	3.8% (3)	2.97	79
Riding terrain	5.1% (4)	32.9% (26)	<b>45.6% (36)</b>	15.2% (12)	1.3% (1)	2.75	79
Irresponsible riders	20.3% (16)	29.1% (23)	<b>44.3% (35)</b>	5.1% (4)	1.3% (1)	2.38	79
Crowding levels	10.1% (8)	22.8% (18)	<b>53.2% (42)</b>	11.4% (9)	2.5% (2)	2.73	79
Conflict between users - eg trail bikes, quads, 4 wheel drives, horses	15.2% (12)	16.5% (13)	<b>54.4% (43)</b>	12.7% (10)	1.3% (1)	2.68	79
Parking / unloading areas	8.9% (7)	38.0% (30)	<b>40.5% (32)</b>	11.4% (9)	1.3% (1)	2.58	79
Other (please specify)							7
<b>answered question</b>							<b>79</b>
<b>skipped question</b>							<b>106</b>

22. If <b>ALL</b> the trees at Pinjar were to be removed would you:			Response Percent	Response Count
Consider it an improvement to safety			5.1%	4
Consider it an improvement to rider satisfaction			2.5%	2
Not care one way or the other			22.8%	18
<b>Be disappointed but continue to ride there anyway</b>			<b>48.1%</b>	38
Go somewhere else to ride			25.3%	20
		<b>answered question</b>		<b>79</b>
		<b>skipped question</b>		<b>106</b>




23. If <b>SOME OF</b> the trees at Pinjar were to be removed would you:			Response Percent	Response Count
Consider it an improvement to safety			12.7%	10
Consider it an improvement to rider satisfaction			12.7%	10
Not care one way or the other			22.8%	18
<b>Be disappointed but continue to ride there anyway</b>			<b>50.6%</b>	40
Go somewhere else to ride			7.6%	6
		<b>answered question</b>		<b>79</b>
		<b>skipped question</b>		<b>106</b>

24. Below are a number of changes that could be made at Pinjar. Please tell us how you personally feel about each one.

	No value	Useful but not important	Important	Essential	Don't know	Rating Average	Response Count
Separated areas for PeeWees, Beginners/Family, Intermediate, Advanced	2.2% (3)	12.4% (17)	33.6% (46)	<b>38.7% (53)</b>	13.1% (18)	3.25	137
A network of signed, one-way trails	2.2% (3)	12.4% (17)	<b>38.0% (52)</b>	35.8% (49)	11.7% (16)	3.21	137
Single track trails	0.7% (1)	19.7% (27)	<b>41.6% (57)</b>	24.8% (34)	13.1% (18)	3.04	137
Enduro practice loop with technical challenges	2.2% (3)	19.0% (26)	<b>36.5% (50)</b>	29.9% (41)	12.4% (17)	3.08	137
Specially constructed MX practice circuits	4.4% (6)	26.3% (36)	<b>35.0% (48)</b>	21.2% (29)	13.1% (18)	2.84	137
Separate trails for bikes and quads	8.8% (12)	28.5% (39)	<b>32.8% (45)</b>	18.2% (25)	11.7% (16)	2.69	137
Specified parking / unloading areas	4.4% (6)	24.1% (33)	<b>38.7% (53)</b>	20.4% (28)	12.4% (17)	2.86	137
Fencing the riding area to keep cars out	5.8% (8)	18.2% (25)	<b>32.8% (45)</b>	31.4% (43)	11.7% (16)	3.02	137
Picnic facilities / viewing areas	3.6% (5)	<b>36.5% (50)</b>	31.4% (43)	14.6% (20)	13.9% (19)	2.66	137
Toilets	2.9% (4)	32.8% (45)	<b>35.0% (48)</b>	19.0% (26)	10.2% (14)	2.78	137
Bike wash facilities	22.6% (31)	<b>48.9% (67)</b>	10.9% (15)	5.8% (8)	11.7% (16)	2.00	137
Regular ranger patrols to enforce off road registrations; helmets; dangerous riding	8.0% (11)	18.2% (25)	26.3% (36)	<b>35.8% (49)</b>	11.7% (16)	3.02	137
Firmer riding surface - not just soft sand	6.6% (9)	25.5% (35)	<b>30.7% (42)</b>	24.8% (34)	12.4% (17)	2.84	137
Regular grading of novice and intermediate areas	3.6% (5)	20.4% (28)	<b>41.6% (57)</b>	21.9% (30)	12.4% (17)	2.93	137
Creation of a Local Management Committee of riders	4.4% (6)	16.8% (23)	<b>47.4% (65)</b>	17.5% (24)	13.9% (19)	2.91	137
Expand the area north of Wesco Rd	0.7% (1)	8.8% (12)	<b>33.6% (46)</b>	32.1%	24.8%	3.29	137

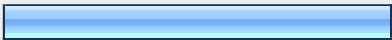




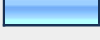
	(44)	(54)	
	<i>answered question</i>		<b>137</b>
	<i>skipped question</i>		<b>48</b>

25. What other improvements do you think should be made to the Pinjar ORV area?		
		Response Count
		52
	<i>answered question</i>	<b>52</b>
	<i>skipped question</i>	<b>133</b>

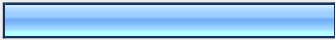



26. If a range of improvements were made to Pinjar would you be prepared to pay an entry fee?			
		Response Percent	Response Count
Yes - would pay a daily fee		54.7%	75
Yes - would pay an annual fee		29.9%	41
No		15.3%	21
	If yes, how much would you be prepared to pay		103
	<i>answered question</i>		<b>137</b>
	<i>skipped question</i>		<b>48</b>

27. What age and gender are you?			
	Male	Female	Response Count
Under 15	100.0% (10)	0.0% (0)	10
15-18	100.0% (3)	0.0% (0)	3
18-24	83.3% (10)	16.7% (2)	12
25-34	90.9% (30)	9.1% (3)	33
35-49	94.7% (72)	5.3% (4)	76
50-59	100.0% (4)	0.0% (0)	4
60+	0.0% (0)	0.0% (0)	0
	<b>answered question</b>		<b>138</b>
	<b>skipped question</b>		<b>47</b>


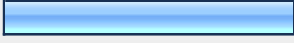
28. In which suburb do you live?		
		Response Count
		138
	<b>answered question</b>	<b>138</b>
	<b>skipped question</b>	<b>47</b>

29. What sort of bike do you ride?			Response Percent	Response Count
Trail / enduro bike			42.8%	59
Motocross bike			23.9%	33
Quad bike			20.3%	28
Pit bike			1.4%	2
Junior / mini bike			1.4%	2
Other (please specify)			10.1%	14
			<b>answered question</b>	<b>138</b>
			<b>skipped question</b>	<b>47</b>

30. What Make, Model and Capacity is your bike or quad?		Response Count
		133
		<b>answered question</b>
		<b>133</b>
		<b>skipped question</b>
		<b>52</b>

31. What sort of registration do you have?			Response Percent	Response Count
Not registered			36.2%	50
Off-Road Vehicle Registration			29.0%	40
Class B Registration			1.4%	2
Road Registered			33.3%	46
			<b>answered question</b>	<b>138</b>
			<b>skipped question</b>	<b>47</b>

32. If you would like to stay informed about this project please provide your email address.		
		Response Count
		95
	<i>answered question</i>	95
	<i>skipped question</i>	90

33. We will be forming reference groups of riders for this project - please indicate your interest in being a part of an ongoing reference group to consider planning ideas for the Gnangara and Pinjar off road vehicle areas.			
		Response Percent	Response Count
Yes I am interested (please ensure you have provided your email address in the previous question)		68.0%	83
No not interested		32.0%	39
	<i>answered question</i>		122
	<i>skipped question</i>		63