MANAGEMENT PLAN FOR THE MEDINA OFF-ROAD VEHICLE AREA

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FOR: THE TOWN OF KWINANA
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Kath and Darren Hill, Steve Horner, Steve Kemp, Glen Mottram, Alan Quinn, Peter Martin

DISCLAIMER

All information in this Management Plan was considered correct and current at the time of publication and any errors or omissions are unintentional. Trail Bike Management Australia disclaims all and any liability to any person or organisation in respect of the consequences of any action or consequence for such persons in reliance, whether wholly or partially, on this report.

The *Management Plan for the Medina Off Road Vehicle Areas* has been prepared for the Town of Kwinana for the purpose of developing a framework for planning and managing off road vehicle activity within the area. This report must not be used for any other purpose, nor by any other party.

EXECUTIVE SUMMARY

INTRODUCTION

The Medina Off Road Vehicle Area provides 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. It is the only area of its type in the south metropolitan region.

By providing a legitimate outlet for this popular and growing recreational activity, off-road vehicle areas are intended to lessen the incidence of illegal riding of unregistered bikes on roads, ovals, reserves 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 Medina is controlled by the Town of Kwinana. The Town of Kwinana has expressed concerns over the obligations imposed by this control on the basis that:

a) The area requires active management if it is to be effectively controlled.

b) The catchment area for the facility extends well beyond the boundaries of the Town of Kwinana, therefore the facility should be managed – and funded – as a regional facility.

c) Control of the areas exposes the Town to Duty of Care obligations under the Occupiers' Liability Act.

d) There are environmental impacts to the area itself and the bush forever land surrounding the site.

Of major consideration in the planning for ORV areas is the State Trail Bike Strategy. 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 a Management Plan for the Medina ORV area was a key recommendation.

THE CURRENT SITUATION

The designated ORV area is a small area located in the northern portion of a relatively large area of bushland bounded by Thomas Road and Rockingham Road. Other than a cleared area for car parking and unloading there are no apparent built features nor is there any visible attempt to create designated tracks or trails within the area or safer one way routes.

The bushland south of the designated area is also commonly used by riders. Soil composition is less sandy and there is less limestone caprock, making it more suitable for younger riders on smaller-wheeled bikes. Generally the riding experience is considered by riders to be better in the area south of the designated area than within the designated area itself. However, the surrounding areas south of the designated area is Bush Forever Site # 349, providing legislative protection from inappropriate land use.

STATE TRAIL BIKE SURVEY 2007 – LIKES/DISLIKES ABOUT MEDINA ORV AREA			
LIKES – STRENGTHS		**DISLIKES - WEAKNESSES**	
Legal	No conflicting interests	Safety issues with 4WDs	Lack of facilities
Close to home	Legal for Children	No maintenance	Irresponsible riders
Variety of terrain	Trees	Lack of ranger patrols	Small size
		No track design	Thomas Rd median strip

Management Concerns

1. ORV area is utilised by a high percentage of users who reside outside the Town of Kwinana and hence should be considered and operated as a regional facility.
2. Town of Kwinana doesn't have the physical or financial resources to effectively manage the operational risks associated with the facility to an acceptable safety standard.
3. No clearly defined boundaries results in riders often leaving the designated area and riding through adjacent bushland around the Chalk Hill area, causing significant damage to the environment.
4. Ongoing maintenance of the car park signs, regular checks of the track and removal of rubbish is costly.
5. Adequate toilet facilities will need to be considered if the facility is to remain open. Costs for cleaning and vandalism must be factored in.
6. Dust and noise.
7. Illegal trail bike riders will probably continue to use 'across town' routes to get to the facility, including riding across Council's ovals in Medina.

Environmental Concerns

The off-road vehicle area is located within a Bush Forever Site. Specific environmental impacts that need to be minimised are Noise, dust, risk of the introduction of dieback from bikes that contain infected soil, degradation of native vegetation.

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

Any future planning for the Medina ORV Area must recognise the significant constraint of its small size. However as the only ORV area in the southern suburbs it has significant strategic value. Accordingly, this Plan proposes a short and medium term view for Medina. The short term recognises its current importance at a regional level, while the medium term operates on the assumption that a larger and more suitable regional facility can be identified and developed so that Medina can fall back to service a more localised market, or specific segments.

Until more ORVAs are located in the southern suburbs the main issue will be controlling the number of users in the area.

Budget priorities are perimeter fencing, track planning and development and amenities.

MEDINA AREA PLAN

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

SUPPORTED USES	NOT SUPPORTED	DIFFICULTY RATINGS
'PeeWee' Kids circuit Novice / Kids circuit MX practice circuit Enduro practice trails Trials Practice area	Practice Supercross circuit Freestyle / jumps Racing	Junior / Novice trails – 1.4km – 14% Intermediate trails – 6km – 35% 1 x MX practice circuit – 450m 2 x PeeWee circuits – 220m and 345m

Facilities would include a car park, a toilet block, potable water, picnic benches and an information board/shelter.

Capacity indicators show that Medina can cater for around 100 visitors at a time.

Work Priorities

1. Risk Warning Signage / Area Boundary Signage – done as part of re-opening.
2. Develop practice MX circuit in bowl area
3. Extend and fence car park
4. Fence perimeter of ORV area
5. Build toilets and amenities
6. Create Junior trails with hard packed surface
7. Resource area management
8. Control the behaviour of hoons
9. Create Enduro loop with hard packed surface
10. Ongoing development of precincts and trails.

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 the Medina ORVA. The key risk recommendations are:

1. A network of signed, one-way trails should be developed with precincts for different riding styles.
2. Areas outside the developed trails are then considered 'off piste' where 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.
6. All visitors should be asked to report any observed hazards and members of the "Friends Of Medina ORVA" to be recruited as volunteer trail patrol to increase the vigilance over trail conditions.
7. A schedule of trail and fence inspections to be established to 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 outside the gazetted area, particularly on the footpath along Thomas Rd.

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 Medina 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 Medina ORVA" 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 Town of Kwinana 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 environmental impact minimization riding techniques, 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.

Clear processes and documentation are required for environmental, trails, facilities and infrastructure maintenance.

ENFORCEMENT

Enforcement is a major challenge. The ability to conduct effective enforcement is currently hindered by resource and legislative constraints.

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 the Town of Kwinana, WA Police and the "Friends of Medina ORVA" to establish the new "code of conduct" and to reinforce the required changes.

FUNDING

Funding estimates require approximately $426,000 for capital works, trails development, maintenance, management and communications.

There are several sources of funding for capital works and / or ongoing management including State Government and grant funding. Options are also considered for a User-Pays scheme and commercial sponsorship opportunities.

INTRODUCTION

On July 1, 2008 the Medina Off-Road Vehicle Area was re-opened after an 18 month temporary closure and the area automatically became available for use under the Control of Vehicles (Off Road Areas) Act 1978.

The Town of Kwinana recognised the need to have the re-opening of the site managed, and to develop a Management Plan for the area to address any potential environmental, risk, resourcing and financial impacts associated with the site.

The Medina Off Road Vehicle Area provides 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. It is the only area of its type in the south metropolitan region.

By providing a legitimate outlet for this popular and growing recreational activity, off-road vehicle areas are intended to lessen the incidence of illegal riding of unregistered bikes on roads, ovals, reserves 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 Medina is controlled by the Town of Kwinana. The Town of Kwinana has expressed concerns over the obligations imposed by this control on the basis that:

e) The area requires active management if it is to be effectively controlled.

f) The catchment area for the facility extends well beyond the boundaries of the Town of Kwinana, therefore the facility should be managed – and funded – as a regional facility.

g) Control of the areas exposes the Town to Duty of Care obligations under the Occupiers' Liability Act.

h) There are environmental impacts to the area itself and the bush forever land surrounding the site.

This Management Plan is intended to address these 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 (ORVAs) 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
Pinjar	250 Ha	Motorcycles, Quads
Gnangara	225 Ha	Motorcycles, Quads
Medina (Kwinana)	20 Ha	Motorcycles
York	2 Ha	Motorcycles
Chidlow1	N/A	Junior MX

It can be seen that the Medina ORVA is very small compared to Lancelin, Gnangara and Pinjar however it does currently represent the only available Off Road Areas within the southern Perth metropolitan area. As such it is a critical location 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 Coombe v Shire of Gingin Case.

[1] Vested in the Junior Motocross Club – juniors only motocross track and not available to the public.

In this case the Judge found Gingin Shire partially responsible (60%) for the injuries sustained by Mr Coombe 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.

This Management Plan will address issues of Occupiers' Liability with regard to the Coombe –v- Gingin Shire decision and other precedents under the Occupiers Liability and Civil Liabilities Acts.

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 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 have been under pressure to close, primarily due to the Local Government custodians not wanting the operational and legal responsibility,

> ***"Areas are put aside for horse riders and walkers but very little is done for a large and rapidly growing number of off-road riders. More areas should be opened not closed eg Red Hill, Kwinana and Lancelin"*** 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 unregistered vehicles in reserves, state forests and national parks. Yet 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 resources.

State Trail Bike Strategy Recommendations:

Developing Management Plans for the Medina ORV area was a key recommendation of the State Trail Bike Strategy. This project aligns with the following Recommendations of the 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 State Trail Bike Strategy (p153) outlines the recommendations for ORV areas in the southern metro area:

OFF-ROAD VEHICLE AREA	RECOMMENDATION
ADDITIONAL SOUTH	Medina (Thomas Rd) area could be developed into a planned and managed facility if extended beyond current boundaries, possibly with extension via sub-lease into the ARG land to the south. An additional location in the region must be identified as a priority to relieve pressure on industrial land and reserves in the vicinity

Town of Kwinana has indicated that it will not consider any proposals to extend the site.

Context: Town of Kwinana Strategic Objectives

The Town of Kwinana Strategy Plan 2006-2010 refers to 'A Place for People'. In particular, reference is made to the provision of appropriate public open space, community facilities and services to meet community needs.

The popularity of the Medina ORVA is evidence of a community need, notwithstanding the fact that a proportion of its users come from beyond the Town of Kwinana catchment.

A measurement of the success in this strategy is the level of volunteering achieved. The strong support for the concept of a 'Friends of Medina ORVA' group that emerged from consultations (and, indeed, was evidenced in the strong public support for the re-opening of the area) suggests that the Medina ORV facility could stimulate an active volunteer group which would be consistent with the Strategy Plan.

The Strategy Plan also refers to 'A Place for the Environment', with objectives including the retention, where practical, of remnant vegetation and measurement of success including the condition of vested Bushland Reserves and amount of locally significant bushland / wetland areas retained and protected. This requires strategies to minimise environmental impacts to the off-road vehicle area and its surrounds.

In developing the Medina Off Road Vehicle area as an attractive alternative for trail bike riders, the potential exists to draw these riders away from more environmentally sensitive areas. Having a legal alternative to which riders can be directed will also assist Rangers in enforcing exclusions from prohibited areas.

Management Plan Objectives

The objectives of this Management Plan are:

1. To address immediate issues of risk.
2. To minimise environmental impacts to the site and its surrounds from the use of off-road vehicles.
3. To create an area re-development plan that ensures the area delivers:
    a. risk mitigation for the Town of Kwinana as occupier of the land
    b. a sustainable environment that can be managed over time
    c. a safe environment within the constraints of the inherent risks associated with off road vehicle use
    d. a satisfying experience for riders and their families
    e. the ability to cater for increasing number of users
4. To establish funding and management mechanisms that places the area on a sustainable footing.

such that

5. The Town of Kwinana can access funding and resource assistance from the State Government.

Scope

The scope of this project considers the current issues and risks within the Medina ORVA and proposes a re-development plan along with recommendations for future management of the area.

On that basis consultation occurred with the Town of Kwinana, riders and the main property effected in the area being the Australian Railroads Group.

PART 1 – CURRENT SITUATION

Area Description

Name	**Medina (Thomas Rd)**
Location	Corner Thomas Rd and Rockingham Rds Medina -32.226053,115.791821 37.5km by road from Perth CBD
LGA	Town of Kwinana
Approx Area	20 ha
Status	Designated ORV Area – Motorcycles <125cc[2] Temporarily closed in July 2006, re-opened July 1, 2008
Terrain	Mainly soft sand with protruding limestone cap-rock
Facilities	None
Maintenance	None
Description	The designated ORV area is a small area located in the northern portion of a relatively large area of bushland bounded by Thomas Road and Rockingham Road. A proposed controlled access highway reserve runs down the eastern edge and encroaches by 160 m at the southern boundary. Town of Kwinana estimates that the area is used by approximately 1500 bikes per annum, mainly on weekends and public holidays. Other than a cleared area for car parking and unloading there are no apparent built features nor is there any visible attempt to create designated tracks or trails within the area or safer one way routes. The bushland south of the designated area is also commonly used by riders. Soil composition is less sandy and there is less limestone caprock, making it more suitable for younger riders on smaller-wheeled bikes. Generally the riding experience is considered by riders to be better in the area south of the designated area than within the designated area itself.
Preclusions	Residential areas within 1km to the east of the area. Australian Railroads Group operates the rail freight facility to the south-western side of the area and would need assurances that ORV activities would be confined to agreed boundaries. The site and surrounding areas south of the designated area is Bush Forever Site # 349, providing legislative protection from inappropriate land use.

[2] Process to lift this restriction is underway via Dept. Local Govt and Regional Dev.

Current Utilisation

Town of Kwinana estimates in 2005 placed utilisation at around 1,500 visits per annum[3]. Since Medina ORVA has been re-opened in August 2008, observation indicates average patronage of around 100 riders per weekend within the gazetted area. No formal traffic counts have been made however this estimate probably underestimates the number of riders visiting the area as it does not include riders who arrive on bike from other areas or those who set up and ride outside the gazetted area.

The number of visitors to the area is a small percentage of the number of bikes and riders resident within the region. Most respondents to the State Trail Bike Strategy rider survey[4] indicated an unwillingness to ride at the designated ORV areas. This survey was conducted whilst Medina was under temporary closure so Medina data would under-estimate usage once re-opened.

Where do you regularly ride? (check all that apply)				
answer options	**Never**	**Once only**	**Occasionally**	**Regularly**
Medina Off Road Vehicle Area	83%	7%	8%	3%
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%

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

- Aged 25-49 and having been riding for more than 10 years, or between 1-5 years.
- They mostly ride with mates or family and 70% say their family also ride.
- 64% live in the southern suburbs, 10% come from the northern suburbs and 13% from the hills (this is much more localised than data for Gnangara and Pinjar).
- 36% are professionals/management and 35% are trades people with the majority earning $50k-$100k per annum and 36% earning over $75k per year.
- 66% 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.
- 61% have been stopped by rangers whilst out riding which is much higher than riders in other areas – and indicates the lack of riding opportunities in the southern suburbs.
- If available they would constantly use a network of signed, one way forest trails and a dedicated off road motorcycle park.

[3] Town of Kwinana Minutes November 23 2005

[4] The survey ran from May – September 2007 with 1098 responses – full details can be obtained within the State Trail Bike Strategy documentation.

- 88% would be prepared to pay a daily or annual fee to access a commercial trail bike riding area/park.
- They are more likely to ride unregistered motocross bikes (46%) than registered trail or enduro bikes (41%). A quarter of surveyed riders claimed to ride quad bikes.

and their riding frequency is:

- 40% ride every week and 29% ride a couple of times a month
- 52% ride all day and 43% ride for half a day
- 95% use their own or a mate's trailer to get to their riding area

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. 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 because of their lack of management, maintenance and control.

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 <u>like</u> about Medina?[5]

Legal - can ride without breaking the law – don't have to worry about rangers/police.
No **conflicting** interests - don't upset anybody.
Position - close to home – closest for southern suburbs – convenient for a quick ride.
Trees – shade – good to ride around.
Children – only place where children can ride in the area.
Terrain – variety from flat to hilly, sand to rock climbs.

From the RTRA survey:[6]

- "It is a perfect area for a bike ride."
- "The Kwinana facility is well situated and could be developed into an effective ORV area. Given the urgent need for ORV facilities in the southern suburbs, the Kwinana facility should be seriously considered for retention."
- "Over the years I have thoroughly enjoyed using the Kwinana off road area. It provides many different terrains from flat and hilly sand to rock climbs, There are fast trails and

[5] Perceptions of the Medina area most likely included the surrounding bushland to the south of the gazetted area.

[6] The RTRA Survey was conducted to inform the decision on re-opening Medina. Most comments are likely to be based on perceptions of the overall area, including the surrounding bushland to the south of the gazetted area.

technical trails, mud and some jumps. I enjoyed it as a teenager and now that I have my own family have used the area to teach my kids to ride, I see many other families doing the same thing. There are quiet areas to teach kids and enough variation in terrain to keep me amused. All in all one of the better off road areas around."

Management Advantages

The Council of the Town of Kwinana has acknowledged the following benefits of the facility:[7]

1. It would be an ideal location for trail bike riding if properly operated
2. There are no other public ORV areas within the southern metropolitan area.
3. A well set up facility could attract major events.
4. The facility would minimise the impact on other areas.

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.

> ***"Separate, designated and marked routes for Beginners, Intermediate and Competent riders would help reduce possible accidents. Many tracks cross over each other, and it's not easy to hear another bike coming through the trees.."*** 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 and whooped out	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		

[7] Council Minutes 23rd November, 2005 (CL41 and 42)

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 <u>dislike</u> about Medina?

Size as most were unaware of the actual boundaries and 20ha is limiting
Track **maintenance and track design** is non-existent.
Irresponsible riders and hoon behavior and lack of ranger patrols.
Safety concerns with mixing bikes and 4WDs.
No median **cross over lane** to turn West when exiting the area.
The amount of **rubbish** and dumped cars in the area.
Lack of **facilities.**

Management Concerns

The Town of Kwinana provided the following rationale for requesting handing back control of the area to DLGRD:

1. *ORV area is utilised by a high percentage of users who reside outside the Town of Kwinana and hence should be considered and operated as a regional facility.*

2. *Town of Kwinana doesn't have the physical or financial resources to effectively manage the operational risks associated with the facility to an acceptable safety standard.*

3. *The area is only gazetted for bikes up to 125cc and the Town of Kwinana is concerned at the cost of checking trail bikes for compliance with size and safety requirements.*

4. *No clearly defined boundaries results in riders often leaving the designated area and riding through adjacent bushland around the Chalk Hill area, causing significant damage to the environment.*

5. *Ongoing maintenance of the car park signs, regular checks of the track and removal of rubbish is costly.*

6. *Adequate toilet facilities will need to be considered if the facility is to remain open. Costs for cleaning and vandalism must be factored in.*

7. *Dust and noise can be a problem.*

8. *Illegal trail bike riders will probably continue to use 'across town' routes to get to the facility, including riding across Council's ovals in Medina.*

Since the area has been re-opened Town of Kwinana reports that complaints have been received from local residents and nearby businesses regarding:

1. Noise – residents complain about bike noise in and around the off-road vehicle area.

2. Bikes outside the area – bikes are being ridden through bush corridors to access the area and are using the bush areas and mud flats outside the area.

3. Bikes riding in and around the Australian Railroads Group property, including roads and railway reserves.

Environmental Concerns

The off-road vehicle area is located within a Bush Forever Site which places constraints on clearing and development. In addition there are noise impacts for local residents and businesses. Specific environmental impacts that need to be minimised are:

- Noise
- Dust
- Risk of the introduction of dieback from bikes that contain infected soil
- Degradation of native vegetation

Current area management and expenditure

Maintenance

Other than the costs of earthworks and signage in the temporary closing and subsequent re-opening of the Medina Area, there is little evidence of any expenditure applied to maintaining the area.

Management

There is no official management of the areas – there is no requirement for this under the Control of Vehicles (Off Road Areas) Act. After the temporary closure was announced, a concerted effort involving Rangers over an eight month period was effective in displacing riders from the land to the south of the gazetted area, however riders have since returned to this area following the re-opening, indicating that another similar campaign is required.

The Town of Kwinana does not have sufficient Rangers available on weekends to provide a constant or even regular presence in the area. There is a reluctance to send individual Rangers in to enforce vehicle prohibitions in what is effectively a remote area with groups of potentially hostile offenders present.

There is difficulty for Rangers in dealing with offenders on registered vehicles as Rangers do not have authority for enforcement under the Road Traffic Act. Rangers only have authority under the Control of Off-Road Vehicles Act.

A couple of years ago the Town of Kwinana purchased a quad bike for the local police for the express purpose of patrolling the area. However it was rarely used and was returned to the Town.

PART 2 – OPPORTUNITIES AND CONSTRAINTS

Land use

The Medina ORV area is Unallocated Crown Land, the control of which is vested in the Town of Kwinana.

Location and Features

In terms of location it is well situated for its purpose. To the north, Thomas Rd, the Ratcliffe Rd inert waste disposal site and Quit Motorplex are near neighbours unlikely to raise concerns about noise. To the west, Rockingham Rd, the railway and industrial properties are also compatible neighbours.

To the east there is a residential subdivision bounded by Bingfield Rd W approximately 600m from the eastern boundary of the ORV area.The ridge along the eastern boundary of the ORV area should provide an effective noise buffer, particularly for the northern area of the site. However, as has been previously identified, since the area has re-opened there has been an increase in the number of noise complaints relating to the use of trail bikes.To the south is Unallocated Crown Land, and private property belonging to Australian Railroads Group.

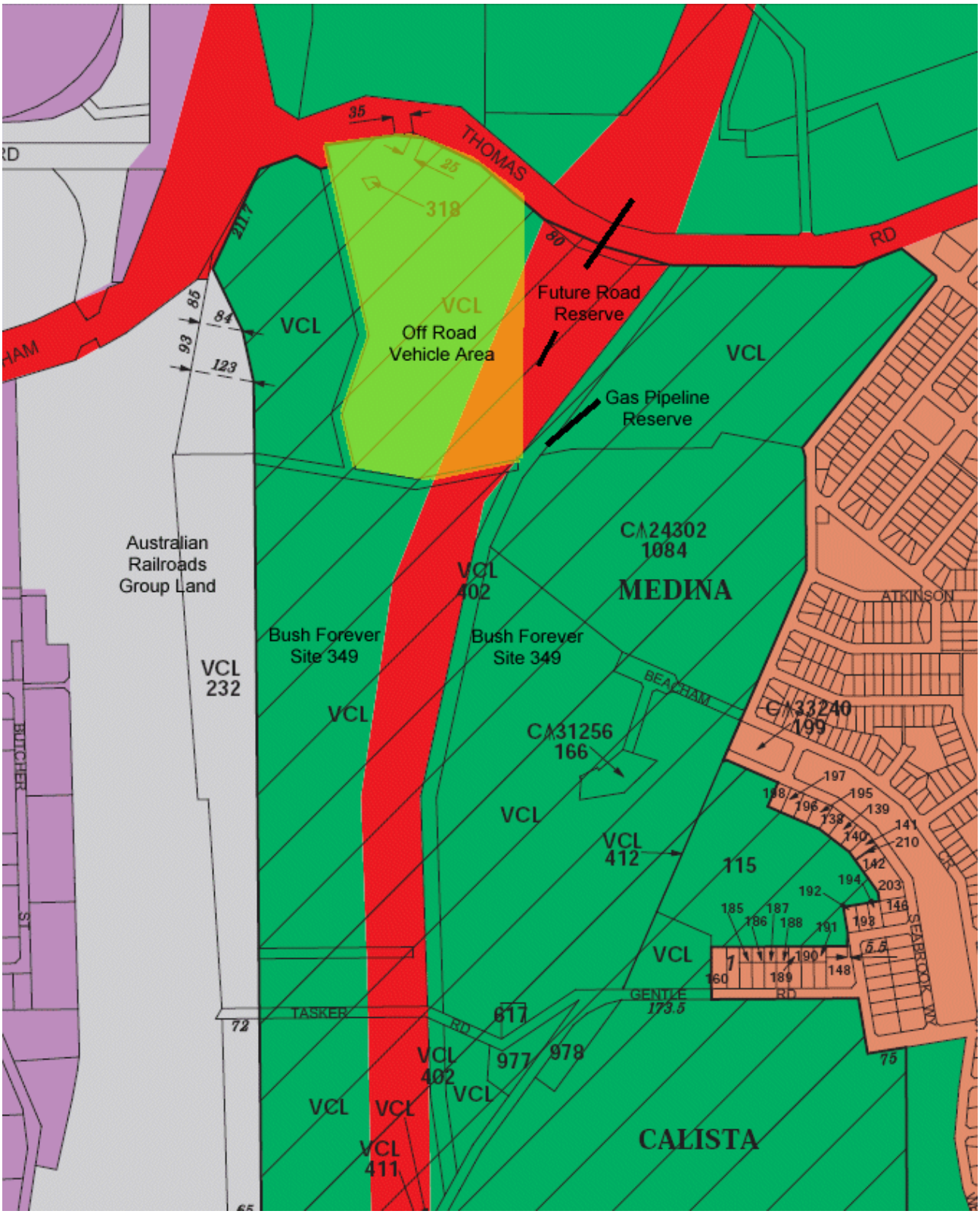
A Primary Regional Road Reserve for the future six lane Fremantle – Rockingham highway runs southwards from Thomas Rd, clipping the south eastern corner of the ORV Area. The highway is not scheduled for construction within the next four years and its ultimate construction will depend on the growth in congestion of Rockingham Road. Given the continuing residential expansion in the region it is reasonable to conclude that this highway will be required and will built at some stage in the future.

To the east of the road reserve and outside the gazetted area is the Dampier to Bunbury gas pipeline corridor. Activities and works on the corridor are limited under Section 41 of the Dampier to Bunbury Pipeline Act 1997.

Size and Capacity Constraints

The gazetted area is only 20Ha which is considered inadequate for a regional facility, however the lack of any other Off Road Areas in the southern suburbs means that the Medina ORV area is servicing a very broad catchment ; with potential rider numbers well beyond its capacity to deliver a satisfying and safe experience.

Refer to following Map for details of these features.


THOMAS RD
35
25
318
80
Future Road Reserve
VCL
Off Road Vehicle Area
VCL
Gas Pipeline Reserve
VCL
Australian Railroads Group Land
VCL 232
VCL 402
Bush Forever Site 349
Bush Forever Site 349
CA 24302 1084
MEDINA
ATKINSON
BEACHAM
CA 33240 199
CA 31256 166
VCL
VCL 412
115
VCL
BUTCHER ST
TASKER RD
72
617
977
978
VCL 402
VCL
VCL
VCL
VCL 411
GENTILE RD
173.5
SEABROOK WY
CALISTA
75

Environmental and Safety Issues

The entire area is reserved for Parks and Recreation and declared a Proposed Special Control Area No 1 under Bush Forever Protection Area BFS 349 indicating that the environmental values of the area warrant protection. [8] This should provide protection against any future residential encroachment, however as noted previously a proposed six lane highway intersects the area which may further impact the ORVA boundaries and reduce its size.

The Town of Kwinana reports that the area south of the gazetted ORV area is under considerable pressure from illegal vehicle access which has led to a number of major problems in the reserve ranging from illegal dumping of rubbish; vegetation loss due to the establishment of illegal tracks; increase fire frequency; increase weed invasion as a result of altered fire regimes; increase spread of the plant pathogen Phytophthora cinnamomi and increased community safety issues.

Australian Railroads Group also reports concerns relating to riders accessing railway property, most seriously the railway line itself and the access road which carries a high volume of heavy truck traffic.

Expansion Potential

Australian Railroads Group has previously expressed a willingness to consider granting conditional permission for ORV use on the eastern portion of its landholding. Such use would be conditional on an effective means of preventing riders from straying on to the operational portion of their land (including the railway lines). A physical barrier such as security grade fencing is considered the minimum for this purpose.

There would also appear to be no statutory planning preclusions to extending the area south to Wellard Rd and east to the boundary of the priority road reserve, however any such future expansion would need to consider noise buffering and be consistent with the Bush Forever objectives of the area.

While such expansion would relieve pressure on the currently gazetted area, the challenges of managing access to this area and controlling environmental impacts within it would need to be addressed. The Town of Kwinana has indicated that it will not consider any proposals to extend the site. Accordingly, this plan constrains its focus to managing the existing area.

[8] Ref Map on previous page

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. The sandy terrain that predominates at Medina is suitable for quad bikes, but novices on trail bikes will find the boggy conditions frustrating and unpleasant.

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. Like novices, kids on quads will enjoy the conditions, but kids on two wheelers will struggle and not have a good experience unless hardened tracks and trails are created specifically for them.

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 - the Grommets - will need their own area.

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 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. Coastal Districts club operates a facility at Henderson, however this club is itself at capacity and struggling to meet the demand.

There is an opportunity to create a practice MX circuit in the bowl area.

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. The Medina ORV area 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 or Munda Biddi.

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. Given the small size of the area the appeal to this group would be limited.

Suggestions from Users

Suggested improvements from area users were obtained in the rider meeting.

- separated areas for PeeWees, Beginners/Family, Intermediate, Advanced riders
- creating trails blocks to keep the 4 wheel drives out
- turning bays/lane to get on and off Thomas road
- 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
- 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
- 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

PART 3 – PLAN FOR THE FUTURE

The Big Picture

There are an estimated 50,000 trail and quad bikes being ridden in WA[9] - many of which are not road registered and / or are ridden by unlicenced riders and therefore legally confined to private property or Gazetted Off Road Vehicle Areas.

In the northern suburbs the Gnangara (225Ha) and Pinjar (250Ha) ORV areas have the potential to become effective areas for the managed pursuit of the trail riding activity for these groups.

In the southern suburbs there is only Medina, which at just 20Ha in size represents just 4% of the area set aside in the metropolitan area.

Any future planning for the Medina ORV Area must recognise this significant constraint. No matter how much investment in planning and facilities, the size of this area makes it impractical for consideration as a true regional facility catering for all forms of recreational riding.

But for now it is the only game in town and it would be equally unrealistic to say because it can't handle the demand for riding areas from its regional catchment that it should cease to exist, subject to it being managed safely and sustainably.

Accordingly, this Plan proposes a short and medium term view for Medina. The short term recognises its current importance at a regional level, while the medium term operates on the assumption that a larger and more suitable regional facility can be identified and developed so that Medina can fall back to service a more localised market, or specific segments.

Capacity

With proper planning and some investment in tracks and trails the Medina ORV area could accommodate many more participants – with greater safety – than the current unstructured arrangement.

Controlling capacity could, however, be a challenge given;

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

[9] State Trail Bike Strategy 2007

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 Medina Off Road Vehicle Areas could be expected to make use of it if it is improved. Additionally, the riders who do currently use the area could be expected to visit more often if the area were to be improved.

The number of riders choosing to ride at Medina will also be affected by the number of off-road vehicle areas available for use - if more areas are gazetted, a greater dispersion of riders can be expected. It is therefore difficult to predict just how many riders might in the future make use of the facility, but it can be expected to be many times more than currently.

By way of comparison, planning for the Gnangara / Pinjar areas indicated potential daily utilisation rates of between 500 and 750[10]. There is nothing to suggest that demand from southern suburbs will be any lower than this, highlighting both the inadequacy of the Medina ORV area to cope with demand and the urgent requirement for a larger regional facility.

Determining capacity and controlling rider numbers can be a challenge. Arbitrary separation – eg declaring the venue available only for quads or only for bikes of a certain maximum engine capacity tends not to work, as many families and groups include a mix of bike types, capacities and rider capabilities. The failure of the arbitrary separation by engine capacity is a case in point.

Preferred uses could be established through trail and facility design. For example certain trails could be designed to favour quad bikes, while others could be designed as *preferred* trails for juniors by creating tighter, hard-packed trails and a more conducive environment for parental supervision. 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.

Car park capacity is another way of controlling the number of users in the area. Visitor perception of a venue's capacity is aligned to the size of the parking facilities, so limiting the available parking is a cue to the expected maximum level of patronage.

Ultimately, however, problems occur where demand outstrips supply, and unless some way of limiting entrance to the Medina facility can be applied, any improvements to the quality of the area are likely to result in an increased patronage – to the point of overcrowding - that may increase the risk to users.

[10] Gnangara Pinjar Management Plans – Department of Environment and Conservation 2008

Budget Priorities

The most expensive element of an ORV area are the central facilities such as access road, car parks, toilets etc. By comparison the cost of building the trails themselves is minor.

This suggests that the most economically efficient ORV areas are going to be those larger areas that have more space for a greater number of riders to disperse beyond the central facilities.

This works against small areas like Medina, where the cost of central facilities might be the same as larger ORV areas but the number of visitors it can handle is much smaller.

The one advantage of a smaller area is that the perimeter fencing is cheaper.

In setting budget priorities the needs of the land manager and the users of the area need to be balanced.

Risk management is an obvious key priority for the land manager, while users favour quality trails, separate areas for kids and better management of the area over facilities such as toilets, picnic tables etc.

Local Government policy will also influence priorities, especially in the case of the provision of toilets where the local interpretation of the Health Act and Regulations will determine whether or not these facilities are required to be provided. Town of Kwinana has indicated that these are to be considered an essential infrastructure element of any plan to upgrade the area.

Future ORVAs

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.

General Principles of Trails Development

A gazetted ORVA 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 ORVA 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
Green Trail (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 all riders to ride with care for novices and at a cautious pace
Blue Trail (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
Black Trail (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 Medina 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.

MEDINA AREA PLAN

Vision

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

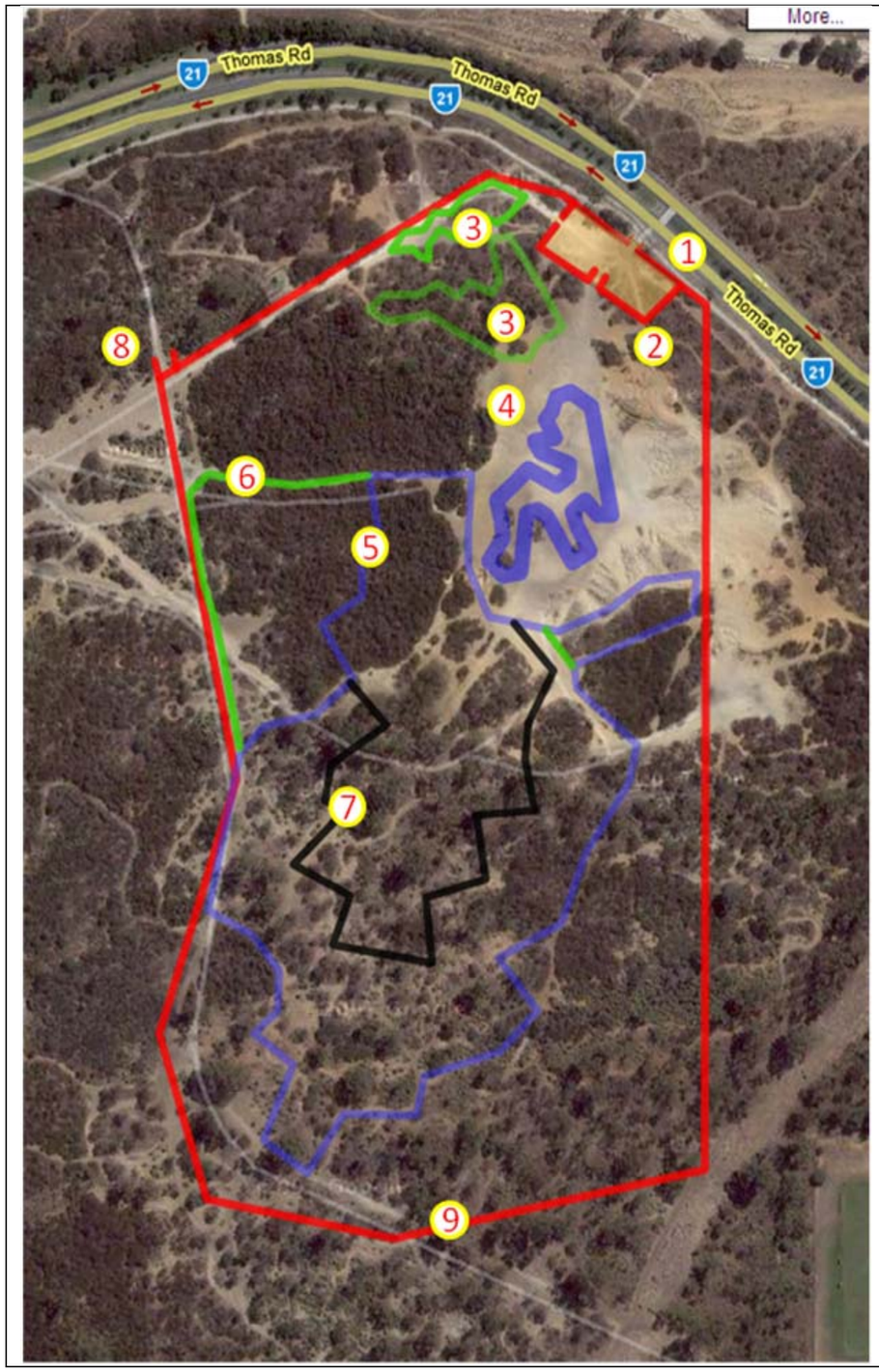
Proposed Uses

SUPPORTED USES	NOT SUPPORTED
• 'PeeWee' Kids circuit – kids predominantly under 10 years, closely supervised • Novice / Kids circuit – learner adults, kids • MX practice circuit • Enduro practice trails • Trials Practice area	• Practice Supercross Circuit • Freestyle / jumps • Racing

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 – 1.4km – 14%
- Intermediate trails – .6km – 35%
- 1 x MX practice circuit – 450m
- 2 x PeeWee circuits for young children – 220m and 345m
- Trials practice area
- Free riding areas



REF	PRECINCT / FACILITY	DESCRIPTION
1	Car park	Extended and fenced with controlled access to riding area
2	Moto Trials precinct	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.
3	Junior Trails	The Pee Wee area is a dedicated precinct for the youngest riders. Short trails with a 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.
4	MX Practice track	500m 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	Enduro Loop	One-way marked trail(s), roughly formed and lightly maintained. The Intermediate trails draw riders away from the parking areas and to the southern regions of the ORVA, reducing congestion and separating intermediate / advanced riders from beginners. Estimated length 1.5km
6	Novice sections	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.
7	Advanced Trails	Advanced trail to include optional technical challenges such as logs, rocks etc.
8	Emergency Gate	Gate for emergency vehicles access southern portion of ORVa. Entry from Rockingham Rd.
9	Fencing	New fencing to be erected around entire perimeter of gazetted area.

Facilities

A staged approach to facilities development is recommended. The transformation of the Medina ORV area from its current anarchic state to a place of more orderly family-based recreation will take some time, and there is a high risk of vandalism or destruction of facilities if they are introduced too early.

Access from Thomas Rd to car park.

Sometime after the temporary closure of the Medina ORV area the median crossover which allowed vehicles to enter and exit the area eastbound along Thomas Rd was closed with bollards and grassed. When ORV area re-opened vehicles were making U-turns and even driving a short distance counter-flow along Thomas Rd to bypass the closed section.

The Department of Main Roads advised that it would not re-open the median. According to Main Roads their current specifications would require a slip lane and an acceleration lane and would cost tens of thousands of dollars to build. Their solution was to extend the bollards to the east and west in order to prevent vehicles doing U-turns or crossing the median in that area.

At the time of writing the newly installed bollard extensions remain in place, however given the considerable inconvenience for visitors wishing to enter or exit the area eastbound along Thomas Rd it remains to be seen if frustrated visitors to the ORV area attempt to remove or destroy the bollards in order to 'break open' the median. Alternatively and of greater concern, vehicles may travel further counter-flow on Thomas Rd or make U-turns across the median in even more inappropriate areas. Either way it is flagged here as a potential source of a serious accident and an issue to be monitored.

Car park

The current car park is too small and there are too many access points to the main riding areas, resulting in riders riding through the car park to get from one trail to another.

Recommendation is to extend the car park to the east and fence its entire perimeter, leaving one central access to the bowl area and a small controlled accessway to the PeeWee area to the West.

The graded limestone surface will suffice, and the area should have a 20-30 vehicle capacity (the majority of which will be towing trailers). Each parking bay should therefore be approx 10 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.

Secondary car park

A secondary car park was considered at the south western corner and using the Rockingham Rd entrance. However the traffic flow on Rockingham Rd and need to provide access through the Bush Forever land makes this unlikely to receive approval. Accordingly this has not been shown on the indicative site plans.

Toilet block

Toilets and associated facilities do not rank high on riders' wish lists – they would prefer to see any available funding allocated to more trails. Riders have been using the Medina area for many years and have done so without toilets.

Under S173 of the Health Act a 'public building' is defined as:

> *(a) a building or place or part of a building or place where persons may assemble for –*
>
> *(iii) entertainment, recreational or sporting purposes*

It could be argued that the ORVA falls within this definition of a place, and therefore falls under the associated Health (Public Buildings) Regulations 1992 which require at S20:

> *(1) Every public building, shall, unless exempted in writing by the local government, be provided with a water carriage system for sewage disposal and sanitary conveniences in accordance with the Building Regulations or as approved by the local government.*

While this regulation, most strictly applied to the definition of a 'place' requires the provision of toilets, local government appears to have the discretion to exempt such a requirement.

The Town of Kwinana considers that toilets should be a high priority and provided at the earliest possible time, however there are vandalism and destruction concerns if built facilities are constructed before an improvement in rider respect for the area has been demonstrated. Town of Kwinana estimates the cost of these facilities at around $250,000.

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 ~3.

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. Locating these near the PeeWee zone will give non-riding parents somewhere to sit while they watch their kids.

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.

PRECINCT	LENGTH	SPACING	TRAIL CAPACITY	ROTATION	USER CAPACITY
Advanced Trails	600m	100m	6	1:2	12
Enduro loop	1500m	100m	15	1:2	30
MX Practice	500	75m	7	1:3	21
Novice sections	1000m	100m	10	1:2	20
'PeeWee' Kids' Circuit	500m	75m	7	1:2	14
MotoTrials practice			3	1:3	9
TOTAL					**105**

The above table indicates an estimated capacity to cater for 105 visitors at any one time if all facilities were used to maximum capacity. From the research we know that an average visit to an Off Road Vehicle area is half a day. On the basis of a 2x visitor turnover rate per day we can extrapolate that the concept plan as devised should be able to cater for up to 200 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. Normally increasing the size of the ORVA would be considered if warranted by usage, however the Town of Kwinana has indicated that it will not consider any strategies to extend the site.

Work Priorities

The implementation of the Medina plan should balance the risk management priorities of the Town of Kwinana with the priorities as stated by the users of the area:

1. Risk Warning Signage / Area Boundary Signage – done as part of re-opening.
2. Develop practice MX circuit in bowl area
3. Extend and fence car park
4. Fence perimeter of ORV area
5. Build toilets and amenities
6. Create Junior trails with hard packed surface
7. Resource area management
8. Control the behaviour of hoons
9. Create Enduro loop with hard packed surface
10. Ongoing development of precincts and trails

1. Risk Warning Signage / Boundary Signage

Risk Warning signage is an important protection for the landowner under the Civil Liabilities Act. Where an activity has 'obvious and inherent' risks, and where any area-specific risks are made known to a participant (including by means of a prominent sign) the prevailing view is that the landowner's duty of care to the participant is largely discharged.

In the absence of a full perimeter fence, boundary signage alerts those persons about to enter the area that it is an off road vehicle area, and defines the boundaries for those people within the area. The experience since erecting numerous boundary signs is that the majority have been knocked down or removed, hence the need for full perimeter fencing.

2. Develop practice MX circuit in bowl area

One of the main reasons why riders leave the gazetted area to ride in the southern portion of the reserve is that the ground is firmer and more satisfying to ride on. By contrast, the ground in the gazetted area itself is soft sand with limestone caprock.

By creating a simple practice MX circuit with a 'proper' clay surface in the bowl area many of these people could be attracted back to the gazetted area and legal riding.

3. Extend and Fence Car park Area

The creation of a practice MX circuit is likely to increase the attractiveness of the area for riders and this in turn will both draw riders away from the southern area and bring back riders who had previously avoided the area altogether. The current parking area is unlikely to cope with the resultant visitor increase, and so this would be a good time to both extend the parking area and to properly fence it in order to control the movement of people and bikes between the car park and the riding areas.

4.Fence Perimeter of Gazetted Areas

Having shown good faith by creating an interesting first circuit for riders, the erection of perimeter fencing is likely to be better accepted.

It is unlikely that even full cyclone fencing will prevent all riding in the southern area, as entry to this area can be gained from any of several routes, including the gas pipeline, Wellard and Gentle Roads and the ARG yards (strong enforcement is required to address this). The perimeter fence will help to prevent riders leaving the ORV area and riding in surrounding bush land or on ARG land, and it will prevent riders from entering the gazetted area from the south where they would not have been exposed to Risk Warnings and may not know or respect the one-way trails.

It remains to be seen whether four-wheel drivers will object to the erection of a perimeter fence. It would seem reasonable to anticipate a relatively high degree of vandalism and destruction, at least in the early months.

Regular monitoring of the fence should be undertaken and repairs made as soon as practical.

5. Build Toilets and Amenities

Sturdy Unisex toilet designed for remote deployment. Toilet unit similar to that used at York ORVA would be seen as a minimum standard, subject to ToK regulations.

6. Create Junior Trails with hard-packed Surface

As part of the work undertaken prior to the initial reopening of the Medina off-road vehicle area a pilot junior trail was created and signed. While suitable for quads, parts of the trail are very soft sand that must be crossed to complete a loop, making this circuit impractical for junior riders on small wheeled bikes. By lining this trail with a clay-based road fill this problem could be addressed and the two proposed junior trails could be opened, creating a mini precinct for mini riders.

7. Resource Area Management

A Program Manager should be appointed and the “Friends of Medina ORVA” group formed and trained.

Refer: Part 4 Area Management

8. Control the behaviour of hoons

One of the major concerns among riders – particularly those with families – is the irresponsible minority who throw up dust and gravel in the car park, ride on the footpath, don't wear helmets and don't respect other areas users. An Enforcement Strategy needs to be developed between the Town of Kwinana 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 of CV(OA)A in relation to the wearing of helmets as well as discouraging riding in the car park.

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

9. Develop the Enduro Loop

The approx 1.4km 'enduro' loop needs laying out, armouring where necessary, signing and remediation in the vicinity to block off potential intersections.

10. 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.

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.

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 Medina area.

Risk Management and the Medina ORVA Environment

Site visits and information provided by users of these areas indicates the following general hazards and risks specific to the Medina ORVA:

- Many 4 way intersections, often with limited sight-lines
- Exposed tree roots
- Limestone caprock, often protruding from sandy trails
- 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

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 immoveable 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).

Risk Matrix

The following 2 pages provides a detailed Risk Matrix outlining the risk, its impact, likelihood, severity and mitigation strategy for the Medina ORV area.

Risk Log

Title: Medina ORVA Risk Assessment **Account Number:** MORVA

ID	Title	Description	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	High	Low	Medium	Create trails 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	Low	High	Medium	Import more stable clay-based soil to enable hardening of surface of trails in beginner / intermediate zones. Designate sandy trails as 'quad-preferred'	
3	Riding in Car Park	Collision risk with other bikes, cars or pedestrians.	High	High	Major	Designate as a low speed '1st Gear' zone. Signage and Volunteer Area Patrols to educate riders.	
4	Thomas Rd Median	Closure of median opposite entrance. Vehicles may drive up footpath or contra-flow on Thomas Rd in order to cross median beyond pine barriers.	High	Low	Medium	Either re-open Median opposite entrance or effectively close median either side.	
5	Mandatory Safety gear not worn	Some riders don't wear helmets - very high risk of serious injury or death	Very High	High	Major	Information signage, enforcement patrols, "Friends of.." patrols. Zero tolerance enforcement by Rangers / Police	
6	Recommended Safety gear not worn	Many riders don't wear full protective gear - boots, goggles, gloves, body armour - high risk of serious injury	High	High	Major	Information signage, enforcement patrols, "Friends of.." patrols	
7	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.	Medium	Medium	Medium	Ban consumption of alcohol on the premises. Enforce pragmatically.	
8	Buried and semi-buried hazards causing injury	Risk of injury through collision with partly buried objects.	Medium	Medium	Medium	Rubbish prevention and regular cleanups. General Risk Warning	
9	No on-ground management / enforcement	Required as mitigation strategy for many identified risks. Lack of ranger / police presence leads to culture of lawnessness, exclusion of responsible riders and families.	High	High	Major	Friends of Medina' , Volunteer Patrols, Ranger presence, Police presence, control signage	
10	Crossing trail intersections	Risk of injury through collision at trail intersections.	Very High	High	Major	Close intersections as part of trail redevelopment	
11	Theft from parked vehicles	Users reluctant to park away from where they are riding, cars + bikes = collision risks	Low	Medium	Medium	Consolidate parking to increase visitor presence in parking areas, 'Friends of Medina', Volunteer Patrols, Ranger presence, Police presence.	
12	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.	Medium	Medium	Medium	Strategy of "zero tolerance". Educate riders and area volunteers to be vigilant and report illegal dumping. Regular cleanups	
13	Emergency vehicle acess	In case of injury prompt emergency vehicle access is required.	Medium	Low	Minor	Emergency vehicle access to be included in trail plan	

Risk Log

Title: Medina ORVA Risk Assessment **Account Number:** MORVA

ID	Title	Description	Impact	Likelihood	Severity	Mitigation Strategy	Additional Comments
14	Fire	Riders get cut off from their vehicles, injury, loss of property, liability issues.	High	Low	Medium	Evacuation procedure to be developed. Volunteers to be trained. Policy on use of fires (BBQs etc) and facilities.	
15	Trail degradation	Sandy tracks get whooped out. Less experienced riders go around whoops, increasing track width. New hazards can become exposed.	Low	Very High	Major	Develop a schedule for periodic track grading.	
16	Trail capacity exceeded	Increased risk of collision, increased risk of rider dissatisfaction	Medium	High	Medium	Monitor and control visitor numbers if required - eg by imposing a daily usage fee	
17	Hoons in cars	Injury, culture of lawlessness, exclusion of responsible riders and families	Medium	High	Medium	Apply anti-hoon legislation. Educate riders and area volunteers to be vigilant and report incidents.	
18	Car parking / unloading capacity exceeded	Visitors will park in inappropriate areas - risk of collisions with bikes, damage to area, reduction in visitor satisfaction	Medium	Medium	Medium	Monitor and control visitor numbers if required - eg by imposing a daily usage fee	
19	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.	High	High	Major	Trail difficulty gradings / signage. Trails planning. Rider capabilty separation via precincts. Volunteer patrols / Rangers	
20	User-created 'features' eg ramp jumps	Injury risk from poorly designed / constructed structures	Medium	Low	Minor	Policy to prohibit user-created structures. Ongoing dialogue with visitors to identify desired features and construct properly.	
21	2 way trails	Risk of head-on collision, especialy around blind corners	Very High	High	Major	Move to a planned network of one way trails	
22	Area doesn't meet requirements of riders	Riders go elsewhere impacting environment and causing social conflicts	High	High	Major	Ongoing dialogue with visitors to identify desired features and construct properly.	
23	Riding in bushland surrounding the area	Many riders, including those avoiding the sandy terrain and over crowded conditions ride in the bushland around the ORVA.	High	High	Major	Fence area, zero tolerance to riding on non-ORVA land. Extend ORVA boundaries to include this area.	
24	Inadequate funding	Not all risks can be mitigated, objectives of the area as control mechanisms not met, leading to ongoing impact on envinronment and increasing social conflicts	High	High	Major		
25	Litigation from injured visitor	Claim against Town of Kwinana under Occupiers Liability for injury suffered at ORVA	High	Low	Medium	Risk Warnings, risk management policies	
26	Inability to source volunteers for 'Friends of Medina' or Volunteer Patrols	Decreases available resources for monitoring / education and on-ground patrols, increase ToK risk / budget requirement for on-ground management	High	Low	Medium	Ongoing marketing, recognition of and backup / support for volunteers. Ongoing govt commitment.	
27	Enforcement objectives not met	Enforcement of policy is a mitigation strategy for many identified risks	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 Medina ORVA" can be recruited as volunteer trail patrol in order to increase the vigilance over trail conditions (see Management section).

7. A schedule of trail and fence 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 outside the gazetted area, particularly on the footpath along Thomas Rd.

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 ORVA, 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 ORVA – 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.

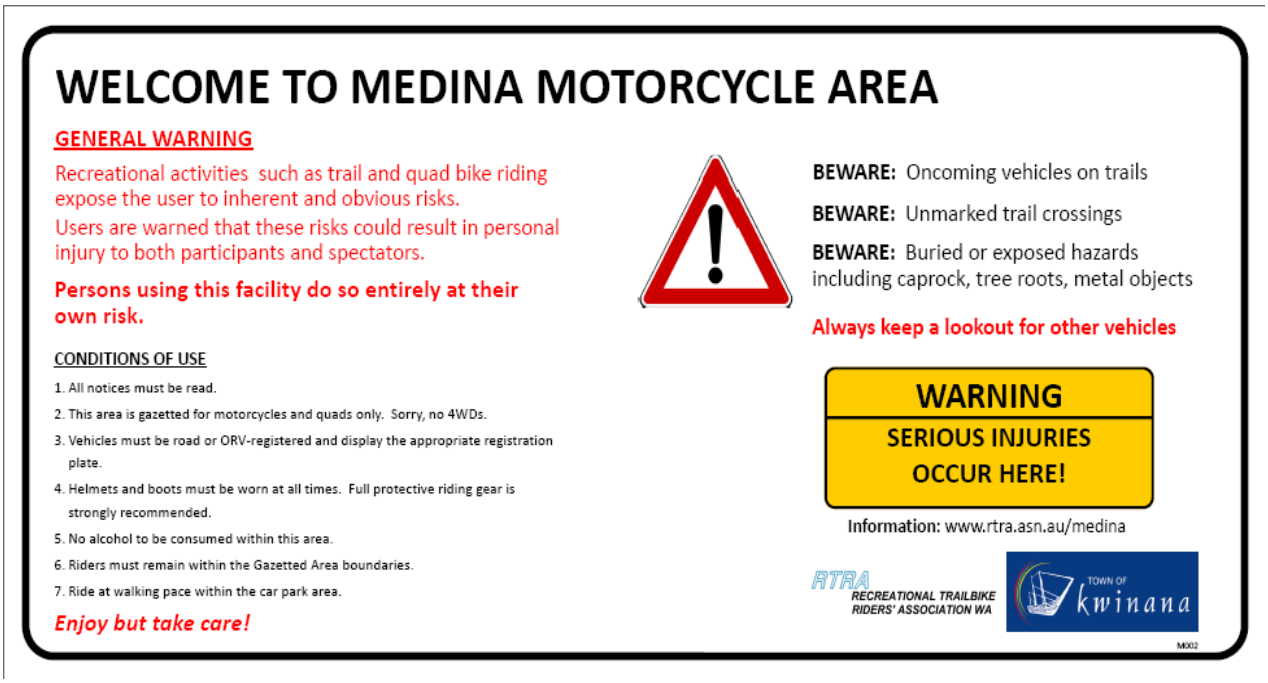
The first message that must be conveyed is that this is an Off Road Vehicle Area. This is important to alert any visitors to the area, whether riding or not (and including members of the public who may be entering the land for other purposes) to the fact that the area is used for uncontrolled motorised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

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 Durability rather than 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 ORVA 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 ORVA and serve as a warning to those approaching the ORVA 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 ORVA 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 ORVA 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	a) To give confidence that a rider is on the right trail and heading in the right direction. b) To alert the rider to an imminent change of direction	 Example of trail branching with 'more difficult' and 'most difficult ' options	1. Suggest using international skiing and mountain biking colour coding to denote difficulty grade: Green – Easy Blue – More difficult Black – Most difficult 2. Use trail numbering for quick visual reference. 3. Use where trail branches or alternative routes exist. 4. Use at and after T-Junctions to identify direction of travel 5. Use as advance warning of imminent curves, especially blind apexes. Position where initial sighting of sign is well in advance of braking zone.

		Example of 'sharp turn' double-sign	6. Unexpectedly tight turns can be marked with double markers.
Distance	a) To provide riders with a sense of progress along a trail b) To enable orientation on trail map		1. Use in conjunction with confidence marker.

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.

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.		Applying a specific speed limit, rather than just declaring a 'slow zone' helps riders understand what is meant by 'slow'. 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 '1st 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 Medina ORVA 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. "***

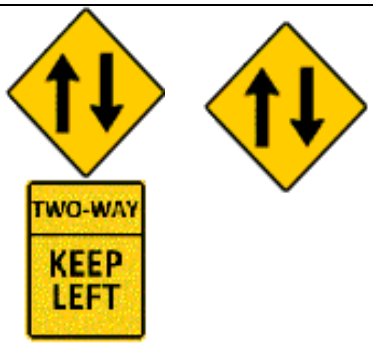
The determination of which hazards should be thus identified should be based on:

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 Medina ORVA" 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 ORVAs 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 ORVA signs can also be significantly smaller than their road counterparts given that the sight-lines are typically much shorter in an ORVA 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.)

Area Management

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

"Friends of Medina"

An active local management program is critical to the ongoing effectiveness of the areas. Joining the "Friends Of Medina ORVA" 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 Medina ORVA" , the Town of Kwinana and Local Rangers would work with the Program Manager (see below) to provide focus and direction on area and trail development, maintenance, environmental improvement programs, user education and information programs and enforcement.

RTRA (Recreational Trail Bike Riders' Association) can assist with the membership drive via RTRA members. The Medina survey also captured the contact details of a number of 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 Medina ORVA" 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 the Town of Kwinana to fulfill their objectives for the area.
3. To self-regulate desired rider behaviour.

A mandate for the "Friends Of Medina ORVA" and a Memorandum of Understanding with the Town of Kwinana 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 Biddi Foundation, it is felt unnecessary to establish the "Friends Of Medina ORVA" group as a not for profit incorporated association. Other models or utilising the RTRA incorporation should be considered by the Town of Kwinana.

Volunteers

Volunteer programs modelled on the Bibbulmun Track Foundation and the Munda Biddi Foundation would provide volunteers for track maintenance, trail guides, environmental improvement programs and marketing and education programs. Volunteers would work within the Town of Kwinana Volunteer Program.

"Trail Guides"

"Friends Of Medina ORVA" 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 Medina ORVA" 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 and environmental impact minimization strategies.

Program Manager

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

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

Inspection And Maintenance Processes And Documentation

Facilities and Infrastructure Maintenance

Fencing, roads, car parks and facilities all 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.

Environmental Maintenance

With the emphasis on the area and surrounds being environmentally sensitive, regular inspections of environmental damage are required with issues being reported via the online form for inclusion in the environmental improvement program.

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.

Town of Kwinana staff, the Program Manager or an authorised contractor would visually inspect on-site. Any exceptions would be reported via an online form.

Frequency: monthly

3. Formal, audit.

Town of Kwinana staff, the Program Manager 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 and the environment will evolve with use and observation.

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 ORVA 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).

Minimising environmental impacts - riding behaviours that minimize environmental impacts such as staying on the trail, staying in the area, using toilet facilities, no rubbish. The area would adopt the "Leave no Trace" principles.

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 addition to the mandatory level there should be a *recommendation of* supplementary protection such as gloves, goggles, body armour etc.

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 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.

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

Explanation of Area and Trail Signage – It is important that every visitor understands the meaning of the signs used throughout the ORVA. 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.

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 interpretative 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 ORVA 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.

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 ORVA
    - Trail and Precinct Map explaining the riding experiences
    - Code of Conduct
    - Riding behaviours that minimise environmental impacts
    - Off-road vehicle registration required and how to get it
    - General risk warning
    - "Friends of Medina ORVA", what they do, how to recognize a volunteer, how to join.
    - Mandatory and recommended safety gear.
    - No alcohol / No rubbish dumping
    - Area and trail signage explanations
    - Where speed restrictions apply
    - Procedure for fire and accident emergencies and associated phone numbers. Nearest first aid facilities.
    - the level of noise emissions that are socially and legally acceptable

On-site:

- **Main Signage** – in the car parks
    - Trail Map
    - General risk warning
    - Boundaries and staying within them
    - Code of Conduct
    - Off-road vehicle registration required and how to get it
    - "Friends of Medina ORVA", what they do and how to join.
    - Mandatory and recommended safety gear.
    - No alcohol.
    - Current conditions including trails open/closed.
    - Area 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.
- **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 Medina ORVA"** - One of the roles of the "Friends of Medina ORVA" 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.

A web site should be developed that provides information on:

- Location of the ORVA
- Trail Map explaining the riding experiences at Medina. Provide 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 Medina ORVA", what they do and how to join.
- Mandatory and recommended safety gear.
- No alcohol.
- Types of vehicles permitted
- No rubbish dumping messages
- Area 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.

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 ORVA 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 and legislative constraints. Both the general community and the trail bike riders have expressed concern over "nuisance" and illegal behavior from both bike and 4WD car "hoons" and members of the community dumping rubbish.

People visiting the areas need to see both police and ranger presence to indicate that "nuisance" and illegal behaviour will not be tolerated. However Rangers do not have authority to prosecute road registered offenders (only the Police can do this under the Road Traffic Act), nor are there specific items in the Control of Off-Road Vehicles Act that address "hoon" behavior (such as speeding through the car park).

Enforcement is required to address and stop:

- car and motorcycle hoon behaviour (eg unregistered motorcycles on public access road, riding outside the area, ripping up the car park, damaging or removing signs, speeding in the car park)
- cars accessing the areas beyond the car parks
- rubbish dumping

and to enforce compliance of:

- the wearing of mandatory safety gear
- off-road vehicle registrations
- noise emission levels
- alcohol restrictions

Enforcement Strategy

An Enforcement strategy needs to be developed between the Town of Kwinana and the WA Police 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 local police to request frequent presence in the short term to establish the new "code of conduct" and to reinforce the required changes. Town of Kwinana Rangers should also increase their presence and include the areas in their patrols – daily during the week and more often on weekends. The Rangers conducted a very effective campaign when the area was temporarily closed that saw use of the area and its surrounds reduced to almost nil – so this shows that an enforcement campaign can work.

Suggested programme:

Immediate first 2 months

- remove current 125cc restriction[11]
- zero tolerance for rubbish and car hoon behaviour.
- Warnings provided for motorcycle hoon behaviour
- Information and education regarding mandatory safety gear, area boundaries, off-road vehicle registrations, noise emission levels

2-6 months

- zero tolerance for rubbish dumping, car and motorcycle hoon behaviour.
- Warnings provided for mandatory safety gear, area boundaries, off-road vehicle registrations.
- Information and education regarding noise emission levels, alcohol restrictions

After 6 months

- zero tolerance for rubbish dumping, car and motorcycle hoon behaviour, mandatory safety gear, area boundaries, off-road vehicle registrations.
- Warnings provided for noise emission levels, alcohol restrictions.

"Friends Of Medina ORVA"

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 Medina ORVA" would establish a "Medina Watch" for riders to report rubbish dumping by getting area users to text car license plates to an established number.

[11] This was completed in September 2008.

PART 5: FUNDING

Cost estimates

The following pages details the preliminary estimated budgets for the Medina Off-Road Vehicle Area for a period of 3 years covering capital works, trails development, maintenance, management and communications.

$690,550

MEDINA IMPLEMENTATION STRATEGY

ITEM	DESCRIPTION	QTY	UNITS	COST PER	COST	Notes
Capital Works						
Extend car park	Main car park	1		$50,000	$50,000	
Fence car park	Fence car park with 2 x access for bikes	0.225	km	$20,000	$4,500	
Fence perimeter	Fence entire boundary of ORV area	1.8	km	$20,000	$36,000	
Toilets	4 seater, remote design	1		$250,000	$250,000	1
Picnic benches	Vandal resistant	3		$1,250	$3,750	
Signage	Various, including replacement	80		$100	$8,000	
					$352,250	
Trails Development						
PeeWee Circuits	Imported materials, graded base	0.5	km	$15,000	$7,500	2
Develop MX Practice Circuit	Imported materials, formed features	0.5	km	$40,000	$20,000	2
Develop the network of one way trails	Advance / intermediate - lightly formed	3	km	$15,000	$45,000	2
Develop Trials Practice area	Technical features	1		$5,000	$5,000	
Ongoing development of precincts and trails	Progressive development and rotation of trails	1		$35,000	$35,000	2
					$112,500	
Maintenance						
Rubbish removal	Remove piles / bags collected by volunteers	1		$10,000	$10,000	
Car Park maintenance (annual)	Grading, resurfacing @ 20% of capital cost p.a.	2	yrs	$10,900	$21,800	
Risk inspection audits	Formal, quarterly	8		$1,750	$14,000	
Trails grading	Grading and maintenance of trails, car parks	3	km	$3,000	$9,000	
					$54,800	
Management						
Ranger presence on weekends - to 30/6/11	Rangers patrolling in pairs - 800 hrs coverage	1600	hours	$65	$104,000	3
ORVA Program Manager - to 30/6/11	Part time	30	months	$2,000	$60,000	
					$164,000	
Communications						
Web site	Include 30 months content maintenance	1		$5,000	$5,000	
Information brochure	Design & Print	1		$2,000	$2,000	
					$7,000	

1. Cost estimate provided by Town of Kwinana. Further investigation may reveal lower cost options.
2. Preliminary estimates only. Budgets will be dependent on overall concepts, outcome of trails surface pilot test
3. Town of Kwinana raised concerns about safety of Rangers operating alone. Requested two-Ranger patrols.

Funding sources

There are several sources of funding for capital works and / or ongoing management. Note that these will need to be reviewed in the context of any policy changes created by the recent change in government.

Cost Sharing with neighbouring LGAs

Town of Kwinana correctly points out that while it has the financial responsibility for the Medina ORV area, Rangers from neighbouring Shires are continually referring trail bike riders to the Kwinana facility.

It seems reasonable that those councils whose solution to the 'trail bike problem' is to send riders to another LGA should pay a contribution to the cost of managing and maintaining the Medina area.

Direct Government Funding

- **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 Medina ORVA 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.

Grant funding

Following is a list of potential grants available for the off-road vehicle areas. The grant applicant would need be the Town of Kwinana, RTRA or the "Friends Of Medina ORVA" community group.

- **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

- **Community Grants Scheme (DSR)**
  The scheme aims to increase community participation in sport and active recreation. The grants were available to local government, sporting and community organisations for the implementation of safe, sustainable and innovative projects.

- **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.

- **Local Activity Grants**
  The Local Activity Grants program is a collaborative grant initiative between the Premier's Physical Activity Taskforce (PATF) and the Western Australian Local Government Association (WALGA), made possible through a Lotterywest Grant. The Local Activity Grants program offers matched grants for local governments and community groups to encourage new and innovative approaches to increasing physical activity. Matched funding between $5,000 and $60,000 is available.

- **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 Gnangara 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 $55,000 based on an average weekend visitation rate of 105 per day.

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

The Medina Off Road Vehicle Area is not the solution to illegal trail bike riding in the southern suburbs. And it is not the solution to the needs of legitimate trail bike riding either.

However with a level of investment that is not inconsistent with the funding applied towards other popular recreational activities the area could be developed into an attractive local facility that will provide an opportunity for local riders and their families to enjoy their activity in a way that manages environmental and social impacts.

As with any public facility a level of ongoing monitoring, management and maintenance of the area is required to control risks and impacts.

APPENDICES

1. Principles Of ORV Risk Management
2. Concept Signage Plans

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 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[12], 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

[12] 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

Off Road Area

Quantity: 1 Size: 900 x 1200

Position: 32 13.587S 115 47.572 E Prominently at main entrance of Thomas 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

Your safety is our concern but your responsibility

General Warning / Main Information

Quantity: 1 Size: 900 x 1800 Position: Prominent in Car Park

WELCOME TO MEDINA MOTORCYCLE AREA

GENERAL WARNING

Recreational activities such as trail and quad bike riding expose the user to inherent and obvious risks.
Users 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. No 4WDs
3. Vehicles must be road or ORV-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. Riders must remain within the Gazetted Area boundaries

ENJOY, BUT TAKE CARE!

RTRA RECREATIONAL TRAILBIKE RIDERS' ASSOCIATION WA www.rtra.asn.au/kwinana

BEWARE: Always keep a lookout for other vehicles.

BEWARE: Unmarked trail crossings.

BEWARE: Buried or exposed hazards including caprock, tree roots.

Ranger Hotline: 0411 078 264

Area Boundary

Quantity: 20 **Size**: 450 x 300 **Positioned**: At regular intervals along boundary.

Viewed from inside ORVA

Viewed from outside ORVA

Don’t Litter

Quantity: 1 Size: A2

Position: Prominent in car park

Please take your rubbish home

REPORT ILLEGAL DUMPING

HOTLINE: **6467 5129**

RTRA RECREATIONAL TRAILBIKE RIDERS' ASSOCIATION WA

www.rtra.asn.au/kwinana

TOWN OF kwinana

Car Park

Quantity: 2 Size: A2

Position: Prominent in car park

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: 0411 078 264

RTRA RECREATIONAL TRAILBIKE RIDERS' ASSOCIATION WA

www.rtra.asn.au/kwinana

TOWN OF kwinana