

**LAKE POORRARECUP
RESERVE LAND 24853
DRAFT MANAGEMENT PLAN**



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Vision

To maintain and protect an environment that is able to sustain a natural ecosystem as well as supporting human recreational activity.

Goal

To maintain and improve facilities at Lake Poorrarecup while educating users on the environmental significance of the lake surrounds and minimising negative impact.

1. Executive Summary

Lake Poorrarecup Reserve Land 24853 is located in the Frankland River district of the Shire of Cranbrook, approximately 40 kilometres from the Cranbrook town site and 20 kilometres from the Frankland River town site. The lake and surrounding remnant vegetation encompasses over 566 acres and is located on Reserve Land 24853 on Poorrarecup Road. The Reserve is vested with the Shire of Cranbrook and forms part of the regionally significant and nationally outstanding Unicup suite of wetlands (Hopkinson, 2003). The Unicup suite of wetlands were identified as such due to their following features:

- Representative of a diverse range of wetland types, processes and vegetation communities.
- The size and types of wetlands
- The landscape setting to which they belong
- Refuge they provide for a large number of waterbirds
- Form part of an extended linked wetland system of floodplains, channels and basins.

The wetlands are also significant on a local scale with many within large reserves providing a valuable area of remnant vegetation, adding significantly to the area's aesthetic qualities. They are important representatives of vegetation communities that existed in the area before clearing. They are large fauna conservation areas that have the potential to be linked to other remnant areas through vegetated corridors following drainage lines and contours in the catchments.

The current facilities available to visitors at Lake Poorrarecup Reserve include camping areas, amenities block (including toilets and change rooms), picnic tables (including an undercover area) and children's playground. However there is no interpretive signage at the Lake Poorrarecup Reserve to highlight the unique values found within the Lake itself or the surrounding vegetation. Although a designated picnic area is available for visitors, there is currently no facility available for visitors to prepare and cook meals. This has resulted in some

visitors lighting fires for cooking purposes which poses a high fire risk to the surrounded vegetation.

The Lake Poorrarecup Upgrade Committee was established in 2007; its members include Shire of Cranbrook staff and elected Councillors, representatives from the Gillamii Centre and the Department for Planning and Infrastructure, local residents and boating and skiing enthusiasts. The purpose of the committee is to 'prepare and recommend to the Council an appropriate management plan for Lake Poorrarecup Reserve 24853'. Issues identified for considered include:

- Appropriate tourist information
- Long term facility planning
- Long term conservation planning

This DRAFT Management Plan will include objectives, strategies, and actions for implementation with a realistic timeframe for completion of identified actions.



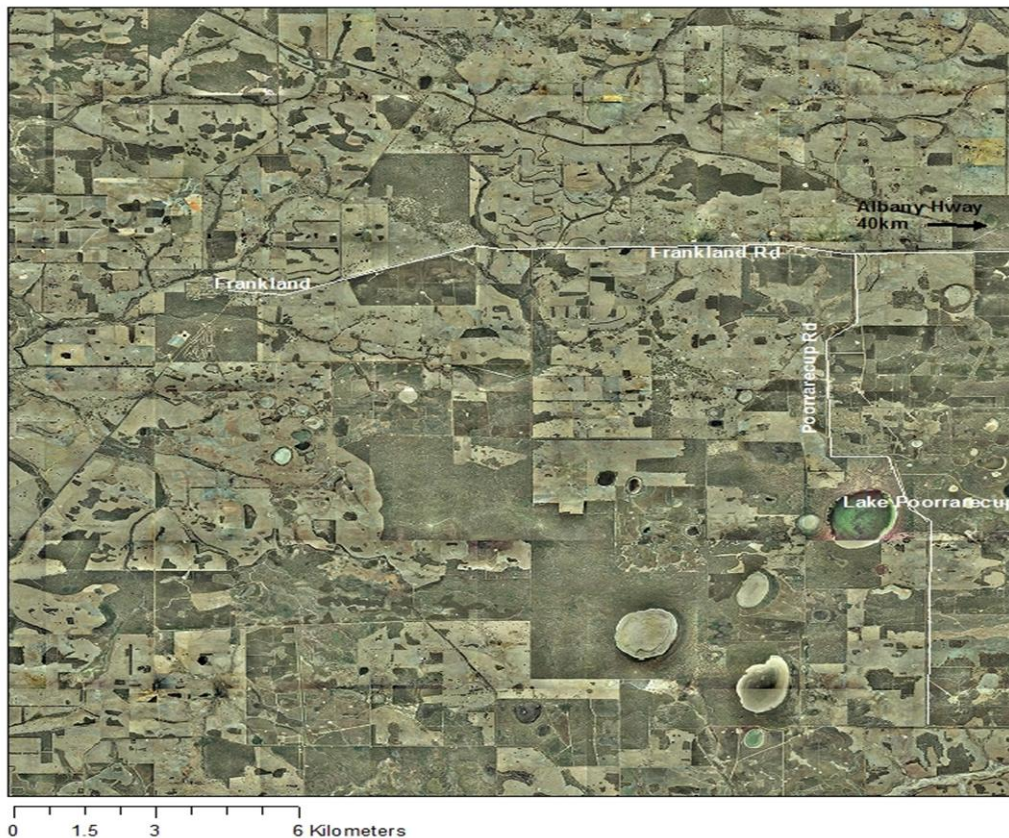
2. Management Context

This management plan was recommended by the Lake Poorrarecup Upgrade Committee due to the increased patronage, low expenditure on infrastructure and growing complaints to the Shire of Cranbrook. The management committee immediately addressed some issues; however the decision was made to implement a management plan to protect the future of the lake for both recreational and environmental purposes. This plan is designed to be fluid, allowing for annual modifications to the strategies to be updated and or altered where appropriate.



3. Location and Regional Setting

Lake Poorrarecup Location



The Lake Poorrarecup Reserve is situated approximately 40kms west of Cranbrook, in the South West of Western Australia. The lake forms part of the Unicup suite of wetlands. It sits amid large areas of private agricultural properties. The climate of the area is considered Mediterranean, with hot dry summers and cool wet winters. The mean annual rainfall averages at around 600mm. The lake falls within the Irwin Inlet Catchment and the sub-catchment of the

Kent Rivers – Upper Kent. Lake Poorrarecup, along with Lake Nunijup and Lake Carabundup are natural disposal points for discharge from this catchment.

Lake Poorrarecup is approximately 225m AHD (Australian Height Datum) and is located on Crown Reserve within a catchment of approximately 94km² which is managed by the Shire of Cranbrook. The swamp itself lies within an unfenced wetland vegetation buffer zone that ranges between 38 -350m from the wetland edge (including the reserve area).

Poorrarecup lies within the geological formation of the Plantagenet group which is made up of marine derived Pallinup Siltstone overlaying the deeper Werillup formation made up of lignite, clays and coarse sand. The lakes in the area are situated in the tertiary sediments that occur mainly on ancient drainage channels. Historically Lake Poorrarecup was a freshwater system perched above the groundwater table and was only seasonally inundated. Since land clearing and groundwater rise, it is highly likely that there is groundwater and wetland connectivity.

The Lake falls within relatively close proximity to the towns of Frankland, Mt Barker, Cranbrook and Kojonup, with many local families making use of the picnic and camping facilities throughout the year.



4. Surrounding Land Use and Zoning

The surrounding land use within the Upper Kent Catchment ranges from livestock grazing and cropping to timber plantations. Since the 1990's cropping has increased markedly from supplementary livestock feed to cash crops including barley, wheat, lupins, peas and more recently, canola (Burdass et al, 1998). Timber plantations covered some 3000ha of the upper Kent catchment up to 1995. By the end of 2002 this figure had increased to 18000ha or approximately 33% of the agricultural area within this catchment.

On the South West border of the Poorrarecup reserve, timber plantations are situated. Directly to the West of the reserve is partially cleared land.

The South East border of the reserve is mainly cleared agricultural land owned by J Bridge, extending to the far side of Poorrarecup Rd. The properties adjoining Bridge's property are predominantly heavily vegetated.

Directly north of the Lake is cleared land, to the North West is partially cleared, lightly vegetated areas.

The wetlands to the South West and North East of Lake Poorrarecup are surrounded by a substantial buffer of vegetation.

In summary, the surrounding landscape has a significant amount of native vegetation, running diagonally across the reserve from North East to South West with some smaller cleared areas of agricultural land interspersed in this vegetation belt. To the North West and South East, are predominantly partially cleared agricultural properties.



5. Significance of the Lake Poorrarecup Reserve

5.1 Natural and Cultural Values

The availability of Lake Poorrarecup for recreational purposes is of high value to the local and holidaying community. Water skiing is a popular activity at the Lake, and many inland residents take advantage of its location.

Along with water skiing, the Lake is popular for bird watching and picnicking, along with swimming in summer. The Lake provides a setting for these activities for the whole community, as such, it has been used for many generations for family holidays and picnics.

People travel fairly long distances to camp at the Lake, as such it can be perceived as of high value to the greater recreational community not just within the Shire of Cranbrook.

Though there are other lake reserves in the region, Lake Poorrarecup is the only one south of Kojonup that provides recreational facilities on this scale.

The reserve surrounding the Lake is the largest of the Unicum suite wetlands and therefore is extremely important from a natural perspective. It provides a valuable link in habitat corridors for native animals.

The Lake is the natural depository for water flow in the region. The specifics of hydrology relating to the area can be seen in Appendix C - Hydrology of Lakes Nunijup, Poorrarecup and Carabundup.

Though the water quality has degraded over time, the Lake is still an important habitat for a variety of flora and fauna.



5.2 Native Flora and Fauna

The vegetation composition of the riparian vegetation at Lake Poorrarecup is described as *Eucalyptus occidentalis* (Swamp Yate) and *Melaleuca cuticularis* (saltwater paperbark) in the upper and mid storey levels as well as sparse rushes in the understorey. Dominant sedges and rushes include jointed twig rush (*Baunea articulate*), bare twig sedge (*Baumea juncea*), and pale rush (*Juncus pallidus*). Seagrass (*Ruppia megacarpa*) can be found within the lake also. (Hopkinson, 2003; South Coast NRM Inc, 2006)

The surrounding remnant vegetation at Lake Poorrarecup received a high conservation priority rating during the Regional Survey and Evaluation of Wetlands in the South Coast Region project completed by Greenskills and the former Water and Rivers Commission in April 2003. Major species in the wetland vegetation communities range from woodlands and fringing stands of *Melaleuca cuticularis* (saltwater paperbark), shrub lands in flats of fresh paper bark (*Melaleuca raphiophylla*), woodlands of Swamp Yate (*Eucalyptus occidentalis*) and Swamp Paperbark (*Melaleuca preissiana*) and diverse shrub lands, heath, sedges and herb lands (Hopkinson, 2003; South Coast NRM Inc, 2006).

For detailed species list see Appendix A “Nature Map Species Report”

Lake Poorrarecup hosts a large variety of water birds, particularly those listed on international treaties. This includes the Banded Stilt, an endemic Australian shorebird of international significance. (Semenuik 1999). No surveys on fauna populations has been conducted in the reserve, however it is reasonable to assume that there would be habitat for a variety of native species.



5.3 Cultural Heritage

Lake Poorrarecup has a long history of recreational usage. In the 1960's there was a drive to promote the lake as a tourist destination. A kiosk was built in 1961 with funds raised by the Lake Poorrarecup Improvements Committee. The Committee also took over the annual swimming lessons at the lake which a local family had begun in 1958. A children's playground was erected at this time. In 1959, a subsidy grant allowed women's change rooms to be built also. In 1963, the New Years Day picnic (which had been held regularly for several years) was enlarged and made into a promotional day. A beauty contest, water-ski competition and several other events were held. It was later estimated that over 2500 people had attended. The Doris Haynes Memorial Park was opened in 1975 on New Year's Day. The park was named in honour of Mrs Haynes who had taught at both the Haynesdale and Frankland schools. She was also heavily involved with the Improvements Committee. This included the newly constructed amenities building, with toilet and shower facilities. This amenities building is currently still in use.

Fishing was once popular at the lake, in 1967 the lake was stocked with Red Perch. By 1977 however the fish had all disappeared due to increasing salt content.

The Lake is host to two sites of local historical significance, Evans' Graves and Andy Ronald's Accident Site.

The Evans' Grave site is the graves of Rose and William Evans, who lived by the old Rations Track which passed north of Lake Poorrarecup. The Evans knew the country and settlers well and had been shepherds for local family's the Hassells and Egerton-Warburtons. Rose Evans kept a diary in 1890 and mentions many of those travelling to Tenterden and further south. Their daughter Alice born in 1863 is believed to be the first European girl born in the Frankland district.

Andy Ronald's Accident Site relates to Andy Ronald who was born in South Australia in 1874 and walked to the Western Australia Goldfields from Port Augusta (as the ships were too crowded), travelling mainly in the coolness of the night and living off the land.

After staying a short time in the Goldfields, Andy Ronald walked through Albany to Kendenup to work as a shepherd for the Hassells. He then married a local Anne Moir and continued

working in the district shepherding, fencing and dingo trapping. It was in 1925 when he was managing the property 'Kybellup' he was tragically killed whilst trapping dingos. He had set a shotgun trap and when following the dog trail, must have accidentally disturbed a stick which caught the spring wire. The shotgun blast shattered his left leg just below the knee. He tried to crawl home but as his smashed leg was impeding his progress he decided to cut it off. His two daughters found him, however he died shortly before Dr Abernathy arrived from Kojonup.



6. Use of the Reserve

6.1 Recreational

The reserve is used extensively during holiday periods for camping, swimming, water skiing, hiking, bird watching and picnicking. Up to 200 people have been noted to be present at any one time during busy summer periods.

There have been water ski clubs at the Lake in previous years. Though there is no longer an official club, the lake has a great deal of marine traffic, primarily for skiing. The Shire of Cranbrook has recently installed a new boat ramp to minimise impact on the environment from boats being loaded directly off the beach.

Walk trails are well used, often including 4WD vehicles accessing the tracks also. One aspect of the management plan seeks to address the issue of unauthorised vehicle access to these walk trails.

6.2 Interpretation and Signage

The Shire of Cranbrook and the Gillamii Centre have been granted funding to install interpretive signage at Lake Poorrarecup to improve education amongst lake users. The Shire is installing directional signage which will include prohibited behaviours within the reserve, and the penalties that will arise should people undertake said prohibited behaviour.

The Gillamii Centre has designed interpretive signage that will educate lake users on the significance of the site and increase environmental awareness. These include flora and fauna recognition signs, along with relevant information pertaining to the area.



7. Threats to the Reserve Values

7.1 Human Impact

The camping ground, lakeside beach and surrounding vegetation have been significantly affected by recreational users.

7.1.1 FIRE

There is evidence that campers are damaging surrounding vegetation for the purpose of fuel for camp fires. Fires are being lit throughout the campgrounds causing grave concern for bushfires. The bushland surrounding the campsite is thick with vegetation and is difficult to access in the event of fire. Two fire pits in the picnic area are provided and display evidence of use. These fire pits are to be removed, no open fires are to be permitted within the Reserve as of September 2010.

7.1.2 EROSION/ENVIRONMENTAL DAMAGE

Use of four wheel drives and motorbikes has damaged walk trail areas. The installation of bollards at the junction of trails has decreased the impact of this; however users are removing bollards to get vehicle access. The use of motorbikes has been decreased since the introduction of regular patrols from the Shire Ranger; however there is still significant evidence of damage from vehicles including the beach.

Those using the camp grounds have previously been cutting down trees and branches to make more camping space. The Upgrade Committee has constructed a fenced, cleared area in which to camp, with beach access and little vegetation to be impacted. There is still evidence of damage to the bush for the purpose of fuel for fires however.

7.1.3 DOGS

Despite Lake Poorrarecup being a prohibited area for dogs under the Councils local dog laws and two signs being placed at the entrance to Lake Poorrarecup that dogs are prohibited, campers continue to bring their dogs with them on holidays and this is producing an obvious conflict with other people trying to use the facilities and lake for

recreational purposes. Along with this there is the potential for dogs to attack wildlife and spread diseases. Numbers have decreased with the introduction of the Shire Ranger patrolling and issuing penalties; however there is evidence to suggest there are still significant numbers of dogs accessing the area.

7.1.4 RUBBISH

Despite the sign at the entrance to Lake Poorrarecup requesting people take their rubbish home with them, there is significant quantities of rubbish left behind at the lake and also littered throughout the bush area. The council has provided several rubbish bins scattered throughout the bush and surrounding the facilities and council staff currently empty these bins intermittently throughout the summer months. A designated refuse site is to be established which will be the only site in which rubbish receptacles are housed. Recycling will be established at this point also.

7.1.5 OTHER HUMAN THREATS

Definition of Boundaries

Actual wetland boundaries may fall outside of intact vegetation perimeter and be part of cleared farm landscape. This intermittently waterlogged ground is an important fringe to the wetland and needs revegetation and protection.

Recognition of a linked system

Most wetlands are linked through subsurface water and processes threatening one site may impact on others.

Recognition of conservation values

Lack of awareness can lead to inappropriate actions taking place such as dumping rubbish, not caring for surrounding wetlands etc.

7.2 Introduced Species

7.2.1 Weeds

Bridal Creeper *Asparagus asparagoides*

Bridal Creeper *Asparagus asparagoides* is present in the camping areas, car park and amenities area. Due to the highly invasive nature of this weed, it is imperative that control measures be put in place whilst the infestation is in its early stages.

Golden Wattle *Acacia pycnantha*

Golden Wattle is visible on the walk track towards the Evans' Grave site. This species is fairly easy to eradicate, manual removal of the sapling and poisoning the trunk/stem will suffice to kill the plant. Eradication if done at this point should be manageable.

Queensland Silver Wattle *Acacia podalyriifolia*

This species is visible on the walk trails. Physical removal of the body of the plant and poisoning the trunk would be required to remove.

Tagasaste *Chamaecytisus palmensis*

This species regenerates prolifically from seed so some care will need to be taken to return to site over time to continue to treat the area.



7.2.2 Feral Animals

European Fox *Vulpes vulpes*

The nature of the surrounding land usage indicates that populations of fox's are likely to exist within the reserve.

Foxes are a concern because they can predate heavily on breeding birds that nest amongst the wetland vegetation. Several of the wetlands support threatened species such as the Freckled Duck (Jaensch, 1992). Control of these predators is vital to preserve the conservation value of the wetlands.

Wild Rabbits *Oractolagus cuniculus*

Rabbits can cause disturbance through digging warrens and grazing on native vegetation, particularly young seedlings. This can impinge on the ability of vegetation to regenerate after flooding or fire, and places native fauna under stress through added competition for food. The grazing and diggings of rabbits can instigate erosion on fragile sandy areas. Rabbit control is essential in these remnant areas to prevent population explosions that could devastate the area.

Sandy ridges traverse this area and provide excellent areas for rabbits to establish large warren complexes. This is particularly the case in areas that have not been cleared and not disturbed by farming activities. Where warrens are difficult to locate and access to rip and fumigate, individual bait stations may be the most effective method of controlling rabbits to any degree.



7.3 Fire Management

The Kybellup Fire Brigade has to date undertaken fire management measures to protect Lake Poorrarecup. As this is Shire governed land, the Department of Environment and Conservation does not have any strategies to protect the reserve. The Shire of Cranbrook does not have an established fire management plan for the reserve and as such it could be at risk from fire from surrounding properties, along with internally from recreational users of the reserve. The wetland nature of the reserve makes access problematic in places, as such fire awareness of neighbouring landholders should be encouraged.



8. Management Objectives

8.1 General

The overall goal of the management plan is to improve and or maintain current facilities for the community to continue to utilise, whilst protecting the surrounding environment as much as is possible. Under this overall goal a number of objectives have been developed addressing the threatening processes within the reserve. Along with each objective a number of actions or 'strategies' have been detailed, which are aimed at fulfilling that specific objective.

8.2 Specific

8.2.1 To reduce the number of unauthorised fires within the reserve to limit risk of bushfire.

Campers lighting fires at times of fire ban and too close to vegetation are putting the reserve at risk of bushfire. A complete open fire ban has been implemented by the Lake Poorrarecup Upgrade Committee and the Shire of Cranbrook as a result. This does not include gas cooking implements, however open fires of any kind will no longer be permitted. The intention to source a gas BBQ for the campers will assist in removing the need for fires. Other strategies to be put in place to reduce the risk of fire is the enforcement of infringements on people lighting fires and installation of signage indicating the total fire ban.

8.2.2 To minimise erosion caused by recreational users to the reserve.

There are problems of people causing erosion by cutting out tracks through the bush, driving in areas they shouldn't be and removing bollards to get through tracks that have been blocked off. This objective was put in place to minimise erosion by attempting to control and direct vehicle access in a better manner. The main strategies of this plan include concreting bollards at depth (so that people cannot remove them) to block off areas of erosion and to install signage indicating areas of no access. The use of removable bollards as gates to areas will also be incorporated if possible.

8.2.3 To enforce dog prohibition within the Lake Poorrarecup Reserve.

Dogs pose the threat of spreading disease and killing native wildlife. The reserve is already prohibited to dogs, as they can cause conflict with other people trying to use the lake for recreational purposes. The aim of this objective is to further and hopefully more effectively enforce the prohibition of dogs in the reserve. To do this people will face fines if they bring their dog to the reserve, new and clearer signage will be put in place indicating that dogs are prohibited and information will be provided to the public on the threats of bringing dogs to the reserve (such as spread of disease to native animals and destruction of native wildlife).

8.2.4 To reduce litter in the camping area.

An issue that was identified in relation to litter problems is that there is signage indicating all rubbish to be taken upon leaving, however bins are also provided.

A decision was made to create a refuse area. One central area in which bins are located, this is likely to be housed at an area that will make deposit of rubbish simple upon leaving the reserve. This will remove all bins from the camping and picnic areas hopefully leaving recreational users more aware of rubbish management in the area. This will also make the collection of rubbish a more effective operation.

8.2.5 To implement weed control and monitoring.

The reserve at the moment only has a relatively small infestation of weeds, however it is important to address this issue and monitor for weed encroachment in the reserve to ensure the area does not come under threat in the future. This objective will ensure that the weeds currently in the reserve are eradicated, that future monitoring of weed encroachment takes place, and when weeds are spotted they are reported to the appropriate authority and quickly dealt with.

8.2.6 To control and reduce the impacts of feral animals within the reserve.

At present it is known that foxes and rabbits infest the reserve, and no measures are in place to control their numbers. The only strategy in place under this objective is to apply for funding so that some control measures can be implemented. This will ensure that numbers of feral animals do not get out of hand in the future.

8.2.7 To improve fire management and reduce the risk of bushfire within the reserve.

Though there are Fire Brigade management strategies in place in the reserve, access in the area is poor. This puts the reserve and its recreational users at extreme risk of bushfires. To improve fire management and reduce risk, a number of strategies will be employed including the widening and clearing of current firebreaks (which are in poor condition), ensuring regular monitoring and maintenance of the fire breaks, applying for funding to put in signage indicating fire bans and designated fire areas and also notifying property owners of neighboring land of the risks the reserve poses. This will include asking these property owners to take note of fire bans and to exercise care when lighting fires on their property.

8.2.8 To educate the community / campers on the conservation values of the area.

Educating and informing the community and users of Lake Poorrarecup about the conservation values of the area can lead to people looking after the environment and treating it with more respect. This objectives purpose it to raise people's awareness of the unique conservation values we are trying to preserve. It will include erecting educational signs on the flora / fauna / geology of the area (drawing attention to any unique characteristics), the creation of a brochure for tourists and putting information on the shire website about the Lake Poorrarecup camp site.

8.2.9 To promote research of the Lake Poorrarecup environment.

It will be useful in the future conservation and management of the area to promote research on the Lake Poorrarecup environment. The more that is known about the site the better it can be managed. The main aim of this objective is to approach schools / universities / TAFE about projects and research offers that they could become involved in.

8.2.9 To develop a fee system to generate funds to support maintenance and improvement of Lake Poorrarecup and its facilities.

To generate the means to maintain facilities, and also to make improvements to the area, a camping fee system shall be implemented for overnight camping. This will be at a cost of \$5.00 per car each night. A ticket system where-by the camper purchases a ticket from a local business venue, then displays the ticket within their vehicle. This ticket will indicate the date of purchase, and duration of stay.

A seasonal pass will also be available for regular campers at the lake. This will be provided at a cost of \$50.00 per year. This will also require displaying within the vehicle, and should have date of expiry evident.



9. Management Strategies

To follow are suggested strategies to address issues that are affecting the Lake socially and environmentally.

As a guide to the orderly implementation of this plan, actions identified in the plan are prioritised within the following categories:

H - High: Actions that are imperative to achievement of the objectives of this plan. They must be undertaken in the near future to avoid significant deterioration in natural, cultural or management resources.

M - Medium: Actions that are necessary to achieve the objectives of this plan but are not urgent.

L - Low: Actions that are desirable to achieve the objectives of this plan but can wait until resources become available.

9.1. Objective: To reduce the number of unauthorised fires within the reserve to limit the risk of bushfire.

Strategy	Action	Who	Priority	When
Strategy 1 Eliminate cooking fires.	Obtain funding for BBQs to reduce the number of cooking fires.	Shire Project Officer	H	ASAP
Strategy 2 Reduce camp fires close to the bush.	Install a complete open fire ban within the reserve	Shire of Cranbrook	H	ASAP
Strategy 3 Increase awareness.	Apply for funding for signage indicating fire ban.	Shire Project Officer	M	As time allows
Strategy 5 Install penalties.	Enforce fire infringements.	Ranger	H	Ongoing

9.2 Objective: To minimise erosion caused by recreational users to the reserve.

Strategy	Action	Who	Priority	When
Strategy 1 Combat damage to bollards.	Concrete bollards at depth to minimise likelihood of removal.	Cranbrook Shire works department	H	
Strategy 2 Address 4WD on beach.	Signage indicating no access.	Cranbrook Shire Project Officer	H	New signage has been completed
Strategy 3 4WD on beach launching.	Improvement of boat ramp facilities, signage indicating correct boat launching procedures	Cranbrook Shire Works Department	H	New boat ramp completed
Strategy 4 Combat 4WD's damage to recreational areas	Install bollards along tracks to minimize likelihood of further vehicle access.	Cranbrook Shire Works Department	M	Aug 2011

9.3 Objective: To enforce dog prohibition within the Lake Poorrarecup Reserve.

Strategy	Action	Who	Priority	When
Strategy 1 Install penalties.	Enforce infringements on people bringing their dogs in to the reserve.	Ranger	H	Ongoing
Strategy 2 Increase awareness.	Apply for funding to install new, clear signage prohibiting dogs in the area.	Cranbrook Shire Project Officer	H	Signage completed and installed 2011
Strategy 3 Educate people.	Educate the community on why they should not bring dogs to the reserve e.g. They spread diseases, kill native wildlife etc. (On shire website, in tourist brochures, on signage at the reserve?)	Cranbrook Shire Project Officer Ranger	L	As opportunity arises (updated website/new brochures etc.)

9.4 Objective: To reduce litter in the camping area.

Strategy	Action	Who	Priority	When
Strategy 1 Remove confusion relating to rubbish	Install a single refuse point	Cranbrook Shire Works Department	H	Nov 2010
Strategy 2 Install penalties.	Enforce littering infringements.	Ranger	H	Ongoing
Strategy 3 Increase awareness.	Apply for funding to install new clear signage indicating 'no littering' and the penalties of littering.	Cranbrook Shire Project Officer	M	As time permits
Strategy 4 Regular rubbish collection.	Ensure bins are emptied on a regular basis - in particular during the busy season.	Cranbrook Shire Works Department	M	Ongoing

9.5 Objective: To implement weed control and monitoring.

Strategy	Action	Who	Priority	When
Strategy 1 Eradicate present weeds.	Implement eradication of weeds presently in the reserve (Bridal Creeper, Golden Wattle etc). <i>Gillamii has sourced funding to undertake removal of Golden Wattle on site.</i>	Cranbrook Shire Works Department	H	ASAP <i>Weed project commencing 2011</i>
Strategy 2 Monitor weeds.	Ensure the area is monitored for further encroachment of weeds and that weed occurrence is reported to the appropriate people.	Cranbrook Shire Parks & Gardens Dept	M	Ongoing

9.6 Objective: To control and reduce the impacts of feral animals within the reserve.

Strategy	Action	Who	Priority	When
Strategy 1 Apply for funding.	Apply for funding to implement appropriate control programs.	Cranbrook Shire Project Officer	H	ASAP

9.7 Objective: To improve fire management and reduce the risk of bushfire within the reserve.

Strategy	Action	Who	Priority	When
Strategy 1 Improving fire breaks.	Implement the widening and clearing of current fire breaks around the reserve.	Cranbrook Shire Works Department	H	Before summer
Strategy 2 Maintenance of firebreaks.	Ensure regular monitoring of fire breaks - and ensure appropriate management actions are taken to maintain the fire break.	Cranbrook Shire Works Department	H	Ongoing
Strategy 3 Increase awareness.	Apply for funding to install new clear signage indicating 'no littering' and the penalties of littering. (e.g. cigarette butts)	Cranbrook Shire Project Officer	M	As time permits
Strategy 4 Raising awareness of neighboring property owners.	Notify surrounding property of the risks the reserve poses - and ask them to take note of fire bans and exercise care when lighting fires on their property (perhaps send out a letter).	Cranbrook Shire Works Department / Cranbrook Shire Project Officer	L	Yearly - before summer?

9.8 Objective: To educate the community / campers on the conservation values of the area.

Strategy	Action	Who	Priority	When
Strategy 1 Raise awareness of flora and fauna in the area.	Erect signs aimed at educating people on the flora and fauna of the Lake Poorrarecup area	Gillamii Project Officer / Cranbrook Shire Project Officer	H	Signage to be installed 2011
Strategy 2 Draw attention to any unique values of the reserve.	Erect signage drawing attention to any unique conservation values in the area e.g. Geology, unique flora / fauna etc.	Gillamii Project Officer / Shire Project Officer	H	Signage to be installed 2011
Strategy 3 Provide information for the community.	Have some sort of tourist brochure / pamphlet made on the area which can be sent to stakeholders.	Cranbrook Shire Project Officer?	L	When opportunity arises
Strategy 4 Make information available over the internet.	Provide information on the Shire website on the conservation values, rules and regulations of the Lake Poorraracup reserve.	Shire	M	When update to website is made

9.9 Objective: To promote research of the Lake Poorrarecup Environment.

Strategy	Action	Who	Priority	When
Strategy 1 Recognising the boundaries and links within the system	Conduct research within the area to define the boundaries of the Lake Poorrarecup Wetland - and identify areas of potential revegetation in the future.	Cranbrook Shire Project Officer?	L	When time permits
Strategy 2 Promote research and increase knowledge of the local environment.	Approach schools / TAFE / uni's about projects / research offers E.g.: Approach UWA - could offer honors projects on 'the impacts of recreational activities on the environment? Could get water sampling, vegetation surveys done...	Shire	L	When time permits

9.10 Objective: To develop a fee system to generate funds to support maintenance and improvement of Lake Poorrarecup and its facilities.

Strategy	Action	Who	Priority	When
Strategy 1 Develop method for fee system.	During LPUC meeting, discussion confirmed that ticket system would be most appropriate. These to be per car/per night or annual seasonal and would be displayed in the windscreen. \$50 seasonal pass offered \$5 per night - per car	Lake Poorrarecup Upgrade Committee	H	Completed 23/9/2010
Strategy 2 Install ticket system to be displayed when camping.	Approach businesses in Frankland and Cranbrook to ascertain willingness to manage ticket sales on behalf of the shire.	Cranbrook Shire Project Officer	H	ASAP



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11. Appendices

Appendix A – Nature Map Species Report

Appendix B – Lake Poorrarecup declared flora and fauna

Appendix C – Hydrology of Lakes Nunijup, Poorrarecup and Carabundup

