

Foreshore Plan nearly completed.

The Lake Kununurra Foreshore Committee was formed in early 2005 to put together a community plan to guide development on the Foreshore of Lake Kununurra in proximity to the Kununurra townsite.

In November of 2005 the committee distributed a questionnaire to the community asking for opinions on issues such as weeds, the bat colony and foreshore development. They also asked the community to identify on a foreshore map where they would like to see things such as BBQs, toilets, conservation areas and residential areas. The four page questionnaires were completed by 124 people, some of the main comments received back by the Committee included –

- 26 respondents identified the Water Corporation's 'pump house' as a site for a café/restaurant development. This received the highest score for any development of any type on the map supplied
- 116 respondents said that they would like to see weeds removed and replaced by native plant species.
- 72 respondents considered that development on the Lily Creek and Lake Kununurra foreshore should be screened by vegetation buffers.
- 80 respondents considered that there should be some foreshore areas around Lily Creek and Lake Kununurra not cleared.
- 108 respondents considered that there should be development on, or access to, Lily Creek and Lake Kununurra or the foreshore.

There was a mixed response to the question of access to the bat colony –

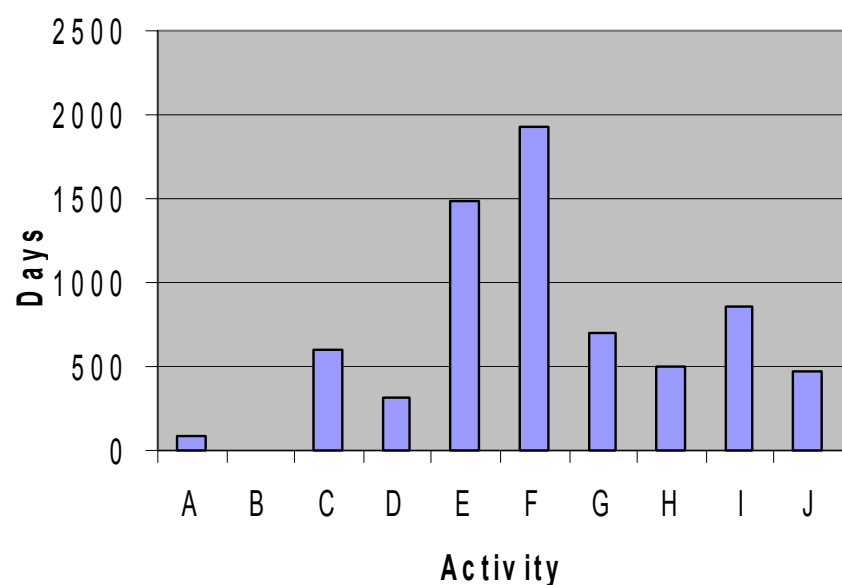
- 40 respondents considered there should be no access
- 39 respondents considered there should be access by boat and
- 39 respondents considered there should be access by foot.
- 30 respondents considered there should be some interpretive signage and walkways placed around the colony.
- 2 respondents indicated that the bat colony should be relocated.

Other points noted were -

- 61 respondents considered that there was insufficient navigation, lighting, speed and channel information for Lily Creek. Of notable concern was the difficulty in finding the entrance of a night without a marking light.
- 64 respondents indicated that the natural environment of the foreshore was their highest value.
- 58 respondents indicated that over commercialisation of the foreshore would be the greatest impact on their values.
- 48 respondents considered changes had improved the foreshore, from that 24 respondents considered the new boat ramp and accompanying jetty was one of the reasons why.
- 32 respondents considered that changes had allowed the foreshore to decline, from that 12 respondents considered that weed growth was one of the reasons why.

Respondents were also asked to identify how many days they spent engaged in some sort of activity on or around the lake's foreshore. The average respondent spent 53 days a year doing something around the lake.

Activity Days



Days spent by respondents in some activity on or around the lake.

A	Camping	80
B	Sailing	5
C	Skiing	602
D	Fishing	317
E	Boating	1488
F	Walking	1923
G	Picnicking	695
H	Canoeing	501
I	Bird watching	851
J	Swimming	474

Other ideas people submitted included -

- A place for dogs on the foreshore.
- A new park for Lily Creek with walkway to Lakeside.
- A swimming area on the lake closer to town.
- Better parking facilities and signage at the boat ramp.
- A Visitors Centre at Messmate Way was good idea.
- Cumbungi should be maintained in some areas as a biological filter.



Ord Land and Water Newsletter

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Neem trees can be killed!



Ord Land and Water has been busy over this past wet finding the best way to kill neem trees. To prove these methods over 100 hectares of neem at Cave Springs were destroyed. The work was extremely beneficial giving a good indication of how the weed effects local trees and a clearer picture of how it spreads.

Most of the neem was growing around native trees from where the seed had been dropped by birds. Of most concern was that it appeared that the trees most affected were those heavily used by native animals as food or shelter. The neem population density under some of these trees was estimated at around 20,000 plants a hectare.

What has become clear from the recent work was that it is still possible to have an impact on the trees around Kununurra. The work showed that one person with the aid of a quad bike was able to clean up just over a hectare of land an hour.

OLW has applied for funding to increase the amount of work being done to eradicate the pest. Unless this work is successful it's likely that we will lose many of our native trees over the next decade in the same way that other major weeds such as *Mimosa pigra* in the Northern Territory and prickly acacia and mesquite in Queensland have impacted on those environments.

Weed population densities of less than 2,000 plants a hectare are capable of creating monocultures. Neem has shown that it is capable of creating densities much higher than this number here in the Kimberley.

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OLW Coordinator Dick Pasfield inspects dead neem trees that had threatened to choke out this tree.

Lily Creek water quality monitoring

Stormwater drains frequently carry pollutants such as oil, litter, weeds, detergents and nutrients into waterways.

As part of a National Action Plan for Salinity and Water Quality project *Key Management Actions for Lake Kununurra*, sampling has begun on stormwater drains entering Lily Creek Lagoon and one site within the lagoon itself. Coordinated by the Shire, OLW and the Department of Environment, the sampling program aims to provide a snapshot of water quality entering the lagoon. Samples are collected and sent off for laboratory analysis. If high levels of pollutants are found work can begin to make the community aware of the issue and management programs developed to reduce the associated risks.

You can help to reduce stormwater pollution by:

- Putting rubbish and cigarette butts in the bin,
- Secure rubbish bins so that rubbish cannot escape,
- Compost leaves, grass clippings and garden waste,
- Ensure pond and garden weeds don't escape into drains,
- Wash your car on grass or gravel.

For more information please contact the Environmental Projects Officer at the Shire of Wyndham East Kimberley on 91684100

Salvinia still in Lily Creek

After an absence of 12 months more salvinia recently reappeared inside the enclosed area of Lily Creek where it was first found in 2000. Salvinia grows best in water temperatures ranging from 20 to 30°C and can double its size every two to three days. Infestations have been recorded attaining a wet weight of 400 tonnes per hectare.

The plant spreads when part of a stem breaks away from the mature plant. The small piece then grows into a new plant and can be carried away by water flow to form a new population downstream.

The risk with the outbreak in Lily Creek is that it sits at the bottom of a drain and wet season floods could carry pieces of the plant past the erected barriers and into the lake itself. If this was to happen both Lily Creek and all boating activities on it would be in serious jeopardy.

The good news is that in a National Action Plan for Salinity and Water Quality project that focuses on management actions for Lake Kununurra the Shire and OLV are now able to increase the work currently being done towards getting rid of this highly invasive weed.

The community must remain vigilant in searching for and reporting this weed when out on the lake and also being aware not to dump any of this weed from fish ponds into drains or the lake.



Shire Officer Katya Tripp checking for salvinia in the affected area

Water Re-Use in the Irrigation Area

One of the Goals identified in the OLV Management Plan developed by the community back in 2000 was a target to 'Improve water use efficiency and reduce surface water losses by installing tail water reuse and recycling systems'. We have recently seen the first example of this in the ORIA!

Tropical Forestry Services in partnership with the Ord Irrigation Cooperative have recently completed work on a tailwater storage and re-use system that will recycle up to 7,500 megalitres of tailwater annually back onto cropped land on Packsaddle Plains.

The project will have both economic and environmental benefits by contributing to the increase of water use efficiency levels in the irrigation area and improving water quality in the Dunham River.

The second stage will see more land incorporated into the re-use system later this year increasing the volume of water saved.

Water for re-use is stored in part of the existing drainage system and pumped into a delivery channel as required for irrigation.

The Minister for Agriculture Mr. Kim Chance officially opened the project in a ceremony on the 12th May on the property.

Funding for the project was received through the National Action Plan for Salinity and Water Quality.



The pump lifting water up into the channel for re-use is switched on.

Ivanhoe trees tidied up.

OLV has been working with the Shire to come up with a slashing program that will provide for the Shire's need to maintain road verges for safety and fire break purposes while also retaining some trees to improve visual amenity and habitat for animals.

Last year, nearly 30 volunteers staked and flagged some of the native seedlings growing along the Ivanhoe roadside from the M1 channel out to the Research Station Road turn-off for National Tree Day.

Since this time contractors have been slashing around these trees but over the prolonged wet they had become tangled with weeds and grass. There was concern that the trees would be choked by the long grass or the contractors would not be able to see the trees and that they would be destroyed.

Recently a group of volunteers carried out some weeding around the trees. Some of the trees are over now waist height and are already providing habitat for birds with five nests found in a one kilometre stretch, two with eggs.



Volunteers cleaning weeds from away from a small tree.

Erosion Workshops a success for the East Kimberley despite wet

A series of 'grader schools' were recently held in the East Kimberley as part of an OLV National Action Plan for Salinity and Water Quality project aimed at delivering best management practices to the pastoral industry. The workshops focused on reducing the erosion resulting from building and maintaining roadways and fence lines. In total, four schools were held, at Ruby Plains, Larrawa west of Halls Creek Argyle Downs on the WA NT border, and Carlton Hill.

Held between respective floods in Kununurra and Katherine the schools were extremely lucky to go ahead. The first school at Carlton Hill was held less than two weeks after the record rainfalls in the area with the only available piece of dry land being a hillside not far from the station itself. On the day, presenter Darryl Hill from Soil Save received a call from his wife in Katherine informing him that the town was under threat of flood. With roads closed Darryl was unable to get back so carried on with the workshops receiving updates of the situation at home every night. Fortunately the flood abated 300mm below floor level of his home.

All workshops were well attended by station managers and their grader operators. On the day they were shown the principles of using levels then a demonstration of how to best build diversion banks with the grader to minimise any erosion risk.

Further workshops are planned for later this year and early in 2007. OLV is pleased to be working with pastoralists in the wider Ord Catchment and feel these 'grader schools' were a real success!



The final touch up on a newly installed diversion bank at Carlton Hill Station.

Electro-fishing on the Ord

More knowledge was gathered on barramundi and other freshwater fish recently with the second round of fish sampling undertaken on the Ord River, Lake Kununurra and Lake Argyle in May. Using a technique known as 'electro fishing' 7,000 fish were catalogued over a five day period; this included about 600 barramundi that were tagged and released back into the river.

The research work has been done as a part of the fishway project that is investigating ways to allow the movement of barramundi and other fish into Lake Kununurra, Lake Argyle and the upper Ord River. Information gathered from this research work will help determine where and what type of fishway would be most efficient at moving fish from the Ord River into Lake Kununurra.

Electro-fishing is a common and successful method of collecting fish for research, the DC current temporarily stuns the fish allowing them to be scooped into a holding tank with a net. Once the fish are identified and measured they are then released back to the river unharmed.

As expected the numbers of fish found at the various locations sampled were well up on the November count. Fish such as barramundi, mullet and tarpon migrate upstream towards the end of the wet season but their progress is halted by structures such as the dam and Ivanhoe Crossing once water levels drop.

Sampling also indicated that there were plenty of fish heading up the Dunham, in fact one barramundi was tagged below the dam wall then recaptured the day after heading back up the Dunham.

The fishway project has its roots go back to the local Recreational Fishing Advisory Committee efforts of the mid nineties. A decade on and the work of a few to develop partnerships with Local Government and Fisheries WA has seen much of the preliminary work completed.

All that remains to be done prior to a decision made to build the dam structure and other associated structures, possibly at Ivanhoe Crossing and on the spillway of Lake Argyle is the final design drawings and associated costings. In addition a study into Indigenous cultural fishing values that will identify other priority aquatic species that the fishway design might need to accommodate.



A Fisheries Officer prepares a 112cm fish for an injection of calcein that will lay down a coloured ring on the fishes ear bone. This will enable researchers to accurately gauge growth rates of the fish from the time of initial capture to recapture.

Q: What did the fish say when it hit a concrete wall?
A: Dam!!