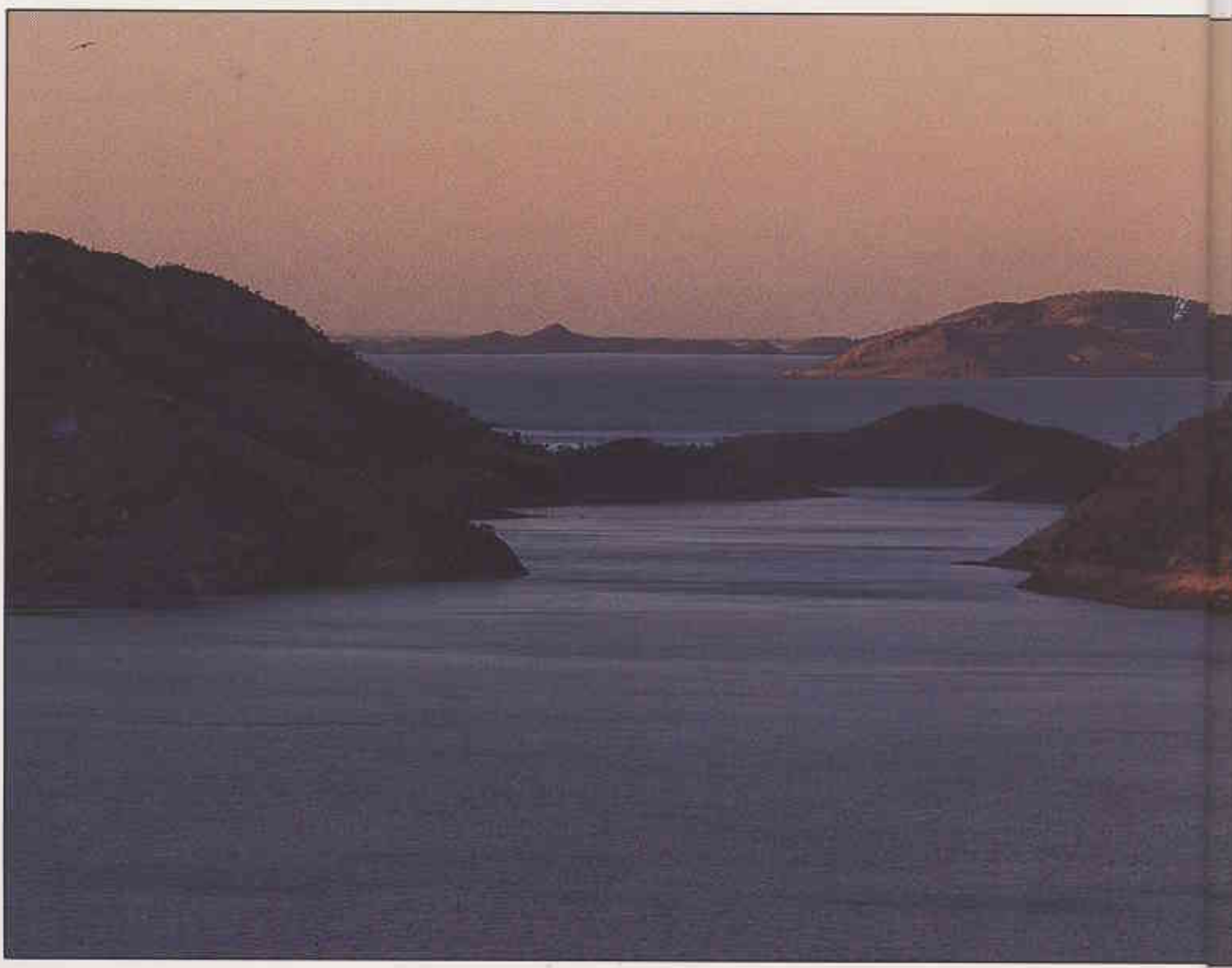
The Fringing Forests of Lake Argyle

FORESTS IN FAIRYTALES ARE ALWAYS OLD, BUT THERE IS A SPECIAL ENCHANTMENT ABOUT THE IDEA OF A NEW FOREST. CHRIS DONE LOOKS AT W.A.'s NEWEST FOREST.

Photography by Jiri Lochman



With the flooding of Lake Argyle in 1973 came major ecological changes. Vast areas of riverine vegetation and associated drylands have been permanently flooded by up to 30 m of water. Downstream from Kununurra the character of the Ord has changed from a temperamental river of raging floods during the wet season (Jan, Feb, Mar) and a series of water holes during the dry season (Apr, Dec) to a more sedate and even flowing river throughout the year.

The massive floods used to 'flush' the river and ensure that surrounding flood plains and billabongs were recharged with what sometimes must have seemed a surfeit of water. Now flooding has been 'controlled' and water plants such as Cumbungi (typha) bullrushes are flourishing. Riverine forest species and those dependent on annual flooding are developing closer to the riverbed. The river itself seems to be getting shallower and wider in its lower reaches.

The waters of Lake Argyle, Lake Kununurra and the lower Ord River are a magnet to visitors from all around the country and an increasing number of international tourists. The much-sought-after barramundi and the notorious saltwater crocodile inhabit the lower Ord along with many other species of wildlife, while the lakes are home to freshwater crocodiles, massive numbers of waterbirds and a variety of other creatures.

An unexpected side effect of the construction of Lake Argyle was the development of a new forest around the fringes of the lake in isolated areas. These fringing forests are largely composed of a single species — river red gum *(Eucalyptus camaldulensis)*, which occurs in even-aged tracts corresponding to the annual flooding levels of the lake: W.A.'s newest forest.

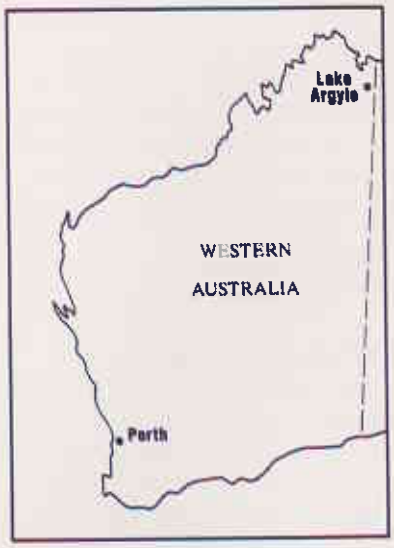
In 1973 the initial flooding and later receding of the water level allowed several hundred hectares of river red gum forest to become established. Seed source for this new forest was the riverine forests along the now flooded major creeks and river systems. All of the newly established forests were close to these flooded drainage lines indicating that seed had not been transported far for other apparently suitable sites.

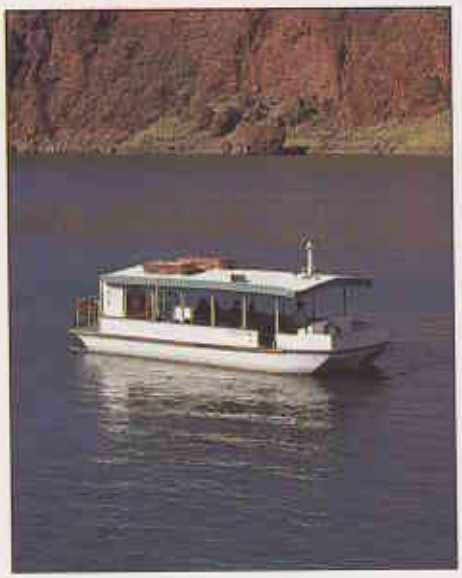
Subsequent higher water levels (e.g. 1982/83) has allowed a further wave of regeneration to occur upslope from the 1973 areas and since the river red gums set seed at age 3 or 4 in this area, these are probably 2nd generation fringing forests.

An examination of satellite imagery indicates that nearly 11 000 ha of gently sloping, seasonally inundated land are available to colonisation by the new fringing forests. Of this 11 000, approximately 6 000 ha are covered with new forest. To date little free growth has occurred except close to the first regeneration areas. Such a situation could be manipulated, however, to encourage the growth of trees suitable for post, rail and even saw-log production by selection of seed stock and aerial or ground seeding methods. There is even the possibility of introducing other tree species which would have river red gum's extreme tolerance for flooding followed by long periods of drought.

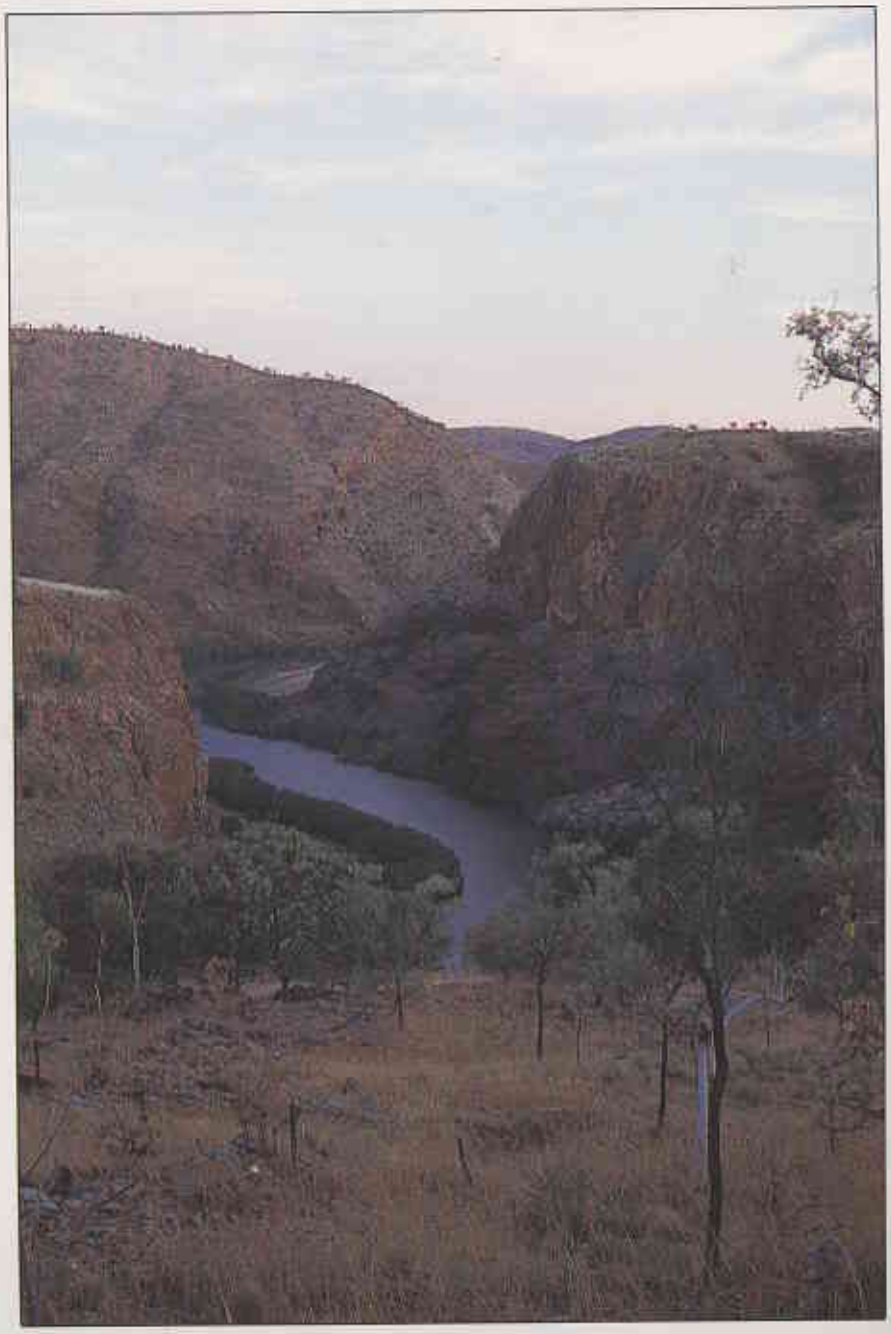
It is possible than an hydro-electric scheme will be built at Lake Argyle. Should this go ahead, it's likely that the water level will drop much more rapidly through the dry season. This would have the effect of annually flooding a far greater area each year. If this happens the area available for fringing forests development will be vastly increased.

In the long term, the Lake Argyle fringing forests are unlikely to be of great commercial value. They do, however, provide a habitat for many species of birds and animals, and protection against wave-caused erosion around the lake. With careful management it would be possible to rapidly increase the area protected by the forests.□





The waters of Lake Argyle, Lake Kununurra and the lower Ord River are a major tourist drawcard to the Kimberleys. Wildlife in the area includes crocodiles, Barramundi and a massive number of waterbirds.



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COVER PHOTO:
Stark silhouettes evoke the spirit of our remote regions. This photograph was taken near Quairading by Hans Versluis.

EDITORIAL

Public participation in land management sounds like a great idea: the community has a chance to study and comment upon the government's proposals. The scientists and managers can keep their fingers on the pulse of public demand. But sometimes good ideas are hard to put into practice.

Last April the Department of Conservation and Land Management released draft management plans for the south-west forest regions, and a draft timber strategy for W.A. The release of the plans was accompanied by a series of workshops and public meetings, and extensive media releases. Four hundred and thirty-five letters offering briefings and speakers were sent out. Ninety groups responded. Public comment on any aspect of the plans and the strategy was invited.

4070 responses were received. This included 3505 proformas (from 30 organisations) and 565 substantial submissions, some up to 200 pages in length. Many submissions endorsed the plans in their entirety; some rejected them out of hand; others suggested hundreds of minor changes.

How can so many, and such varied, views possibly be integrated simply and sensibly into a final plan? What weighting should be given to the views of different groups or individuals? Who decides what is 'right' when pure value judgements are to be made and values are in conflict? How should one resolve an issue when the views of a large section of the public are quite different from those of a small group of scientists working closely on the problem? These questions represent the sharp end of public participation. It's a relatively new game for W.A.'s land managers, and one in which the rules are still unwritten and ill-defined.

What is certain is that the Department's policy and planning staff have a big job ahead of them, and a job which must be done to the highest possible professional standard. It is important that the final plans for our south-west forests reflect the tremendous thought, effort and interest shown by the community; and it is essential that there are efficient mechanisms for public involvement in conservation and land management, because these processes will be the norm, not the exception in years ahead.

Published by Dr S. Shea, Executive Director, Department of Conservation and Land Management, 50 Hayman Road, Como, W.A. 6152.