STATE SALINITY COUNCIL

Newsletter of the Western Australian State Council July 1998

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Full ahead for State funding

Implementation of the Salinity Action Plan will be accelerated in 1998-99, the first year of full funding from the State Government after two years of phasing-in new funds.

The Government allocation for 1998-99 is $10 million, double that provided in the previous financial year.

This is in addition to money redistributed to the Salinity Action Plan from the existing budgets of key Government agencies: Agriculture Western Australia, the Department of Conservation and Land Management, and the Water and Rivers Commission. Extra spending on commercial tree crops by CALM is also being funded separately.

The allocation of the $10 million is set out below, together with details of some of the programs to be funded:

$2 million to Agriculture WA

- doubling (to $1 million) the direct assistance to assess and control salinity in priority rural towns under the Rural Towns Program;
- $315,000 for a thorough assessment of revegetation options and the better integration of trees into farming systems;
- $190,000 for catchment support teams which provide the technical expertise to focus catchments developing plans aimed at controlling salinity;
- $160,000 to improve communication about salinity management by making scientific information available in more useable formats;
- $90,000 for best practice information on deep drainage;
- $65,000 to improve salinity prediction models initiated under the National Dryland Salinity Program in the Kent Catchment to make them more applicable in the wheatbelt.

$4.65 million to CALM

- $2.5 million for the Key Wetlands and Natural Diversity Recovery Program to protect critical and regionally significant natural areas;
- $500,000 for biological surveys which will identify further Recovery Catchments (Toolibin Lake, the Lake Muir-Unicup system of wetlands and the Lake Warden system have already been selected);
- $1.25 million to manage remnant vegetation on Crown land, including conservation reserves;
- $250,000 to monitor salinity levels and their effects on wetlands, flora and fauna;
- $150,000 for the Land for Wildlife Program, which encourages private landowners to protect wildlife on their properties.

$3.15 million to the Water and Rivers Commission

- $1 million in conservation planting, $600,000 for remnant vegetation fencing and $215,000 to upgrade its water monitoring network in water resource Recovery Catchments;
- increased staff resources in Albany, Bunbury and Northam to provide technical and on-farm support for farmers in Recovery Catchments. Staff will work directly with farmer groups and other government agencies at the regional level to develop farm and catchment plans and deliver implementation support and extension of groundwater investigations.
- $330,000 for drilling investigations.

$0.2 million to the Department of Environmental Protection

- further development of environmental objectives and criteria for assessing drainage proposals;
- regional analysis of remnant vegetation to provide strategic context for clearing proposals.

Salinity Council visits Moora

The State Salinity Council held its sixth meeting in April and took the opportunity to tour sites around Moora.

The two-day trip included a visit to a property south of Dandaragan, where farmer Richard Notley is managing a CALM farm forestry site integrating maritime pines and other deep-rooted perennials into a farming system for increased water use.

Council then also visited Peter Nixon's property where sub-tropical perennial grasses and other crops are being grown to overcome waterlogging and the threat of salinity.

Mogumber farmer Bill Cocking took the Council on a tour of his property, demonstrating techniques being used for covered drains and other aspects of drainage.

Council chairman Alex Campbell said the Council also met local community members to discuss incentives for sustainability in land management for farmers.

"It's very important for council members to get a feel for action on the ground in tackling salinity and we are very grateful for the time many people gave to show us their properties," he said.

"Council recognised the need to balance the issues involved in drainage solutions, ensuring that sound comparisons are made between drainage and other approaches such as high water using perennial crops and pastures and oil mallee plantations."

Mr Campbell said it was important to factor in the downstream consequences of drainage when assessing its feasibility as an approach for addressing salinity.

In recognition of this Council has agreed to a prototype catchment approach by the four natural resource management agencies with landholders in the Datatine and Doradine catchments near Dumbleyung.

Tree planting along a farm drain - one of the properties inspected by the State Salinity Council near Moora.

Salinity update progress

The update and review of the Salinity Action Plan is progressing on schedule, with initial feedback endorsing the plan's general approach, according to State Salinity Council chairman Alex Campbell.

Mr Campbell said 250 people had attended regional and metropolitan meetings in recent weeks, providing valuable feedback to strengthen and improve the Action Plan.

"Importantly, many community groups were formally represented, including more than 15 local authorities and 35 Land Conservation District Committees," he said.

Through these regional meetings and letters to key stakeholders, interested people were encouraged to make written submissions.

Mr Campbell said more than 100 written submissions had been received so far. The topics raised range from fine tuning the current initiatives in the plan to some innovative concepts that will be reviewed closely.

"Salinity on the coastal plain and in the irrigation areas, and productive use of salinised land, are two topics that many people considered need to be included in the updated plan," he said.

"There is wide support for a more agronomic and systems approach to farming and land management, and the inclusion of high water using crops and no-till cultivation were supported as water management options.

"Programs and projects being promoted under the plan, such as the focus catchment concepts, drainage modifications, infrastructure protection, research and development were supported, but suggestions were made as to how to improve some of these concepts and achieve a better result."

Mr Campbell said he was encouraged by the interest shown and was confident the updated plan would be a more robust and useful blueprint for the future. He said more people and groups were now prepared to commit themselves to be involved, and he could see the updated plan being more of a community document.

A revised draft plan would be released later in the year for wider public comment. The update was expected to be completed by late 1998 — around the second anniversary of the plan's launch by Premier Richard Court.

Salinity software

Landcare managers can benefit from computer software and new information on salinity control and management techniques released by Agriculture Western Australia and CSIRO.

Agriculture Western Australia has developed a new computer software database, called Combores, designed to allow landholders to store, graph, analyse and interpret their groundwater records. Combores will also help catchment groups understand the complexities of salinity in their local area.

Agriculture Western Australia has also released the report *Groundwater trends in the agricultural areas of Western Australia* which gives a snapshot of the condition of groundwater under the agricultural landscape.

Another report, *Salinity and Hydrology of the Wamballup Catchment*, provides a detailed example of a hydrology and salinity investigation prepared for the Wamballup focus catchment.

The reports and software can be obtained by contacting Agriculture Western Australia publications on (08) 9368 3729.

CSIRO has released a series of documents on the interactions between groundwater and salinity in *Studies in Catchment Hydrology: The Basics of Recharge and Discharge*. Information is available from CSIRO publishing (03) 9662 7666.

The new information packages provide a wealth of knowledge about hydrology and salinity and are valuable contributions towards a better understanding of salinity management.

At the release of new salinity information are the CSIRO's Deputy Chief Executive John Radcliffe (left), Primary Industry Minister Monty House and State Salinity Council Chairman Alex Campbell.

Setting the Tone

A farming family on the Tone River and the Water and Rivers Commission are collaborating to develop what is hoped will become a standard approach for land and water management.

Working on the Harvey family property in the Kojonup Shire, the Commission has put in 25 groundwater monitoring bores on drains installed by William Harvey to tackle two low-lying areas which have become waterlogged and saline. Surface water monitoring will also be installed.

Commission salinity coordinator Viv Read said the drains were only the first step in the project to develop and monitor the effects of an integrated land management plan.

"We will be mapping the soils and landform, conducting a land capability study and then considering what options there may be for commercial tree crops, crop rotation, annual and perennial pasture management," he said.

"We are hoping the project will set a precedent for good land and water management in the catchment — not just for the land but for the river as well.

"The key point about the project is that drainage may be used to get a foothold so we can establish other things that will really solve the problem — drainage is the modifier, not the fixer."

Mr Read said the project was part of the Salinity Action Plan to develop best management practice guidelines for drainage.

One of the drains on the Harvey family property, near Tone River, Shire of Kojonup.

The Commission was also working with Agriculture Western Australia to ensure the project met drainage policies being developed under the Salinity Action Plan.

Mr Read acknowledged the initiative of the Harvey family who he said were putting in a lot of effort into trying new techniques to combat salinity.

Landcare Vision group tours landcare projects

Members of Western Australia's Landcare Vision community group returned inspired and ready for work after a recent seven-day eastern states tour of landcare projects.

The 16 individuals representing the catchment groups that make up Landcare Vision Incorporated (Gabby Quoi Quoi, South Tammin, South Yoting, Yeelanna, West Dale and Morbinning) visited sites in Victoria and south-east New South Wales.

Gaining a greater insight into initiatives such as aquaculture, wildlife protection, salinity action and farm diversification was among the most informative part of the tour for most of the group.

But they returned feeling satisfied that what they were doing in their own catchments was as progressive as anything they had seen elsewhere.

"We realised we had a lot to show the east," said Landcare Vision manager Fay Chatfield.

"We went to learn and also to explain what we are doing, but I think most of the prominent people in landcare would agree that we are far ahead of much of the country.

"But there are some very inspirational people over there, and certainly there are areas in WA that need more attention than they are getting."

Learning from groups in the east which are hosting landcare tours was a big help for Landcare Vision as its members are heavily involved in similar activities in their own catchments.

Landcare Vision is the initiative of six farmer catchment groups that have participated in an accelerated rehabilitation program with technical support from Agriculture Western Australia and financial support from Alcoa of Australia.

For more information on the Landcare Vision tours contact Fay Chatfield on 08 9637 1060.

Farmers working together to tackle salinity

Many farmers in the State's wheatbelt are working together through local catchment groups to develop economical and sustainable solutions to salinity.

Leading the way is the Gabby Quoi Quoi Catchment Group, near Wongan Hills. The group includes 24 families running 14 farms in the 20,784 hectare catchment–one of the Salinity Action Plan's Focus Catchments.

The group was formed in 1989 by a shared desire to tackle continuing degradation of their landscape in a unified catchment approach. The group has addressed problems through cooperative planning and new work programs are integrated across farm boundaries.

A catchment strategy for their farming systems, which is based on soil types and land management issues, guides the whole group. Individual farmers use this strategic blueprint to guide their individual property management decisions in order to achieve common approaches across the catchment.

Gabby Quoi Quoi farmers addressing land degradation problems through cooperative planning and integrated work programs across farm boundaries. From left: Peter Whitfield, Alan Hewson, Rob Edkins (Agriculture Western Australia), Charles Whitfield, Wendy Davey and Maitland Davey. Photo courtesy of Alcoa.

After seven years of coordinated effort, the Gabby Quoi Quoi Catchment Group continues to share landcare experiences with other farmers. The group is regarded as a successful demonstration of landcare techniques including shelterbelts, tagasaste plantations, revegetation programs and extensive tree and salt bush trials.

Gabby Quoi Quoi means "water plenty plenty" and the catchment contains many examples of different ways to intercept, control and harness excess water, including contour banks, deep drains, reverse interceptor, deep interceptor and absorption banks.

The farmers have designed the catchment's drainage systems to direct water into dams, combined with the planting of fodder shrubs and trees to use up excess water.

The Gabby Quoi Quoi Catchment Group is one of six catchment groups which has participated in a unique cooperative venture with Agriculture Western Australia and Alcoa of Australia to develop practical solutions to reverse land degradation.

Tours to the catchment group can be arranged through Landcare Vision. For more details contact Fay Chatfield on 08 9637 1060.

Draft management plan for Esperance Lakes

The community has been asked to comment on the draft management plan released for Esperance Lakes Nature Reserves.

The reserves include the Lake Warden system, which has been identified as a high priority area under the Salinity Action Plan's Wetlands and Natural Diversity Recovery Program.

Parts of the reserves are also listed as wetlands of international importance under the Ramsar Convention and protect at least 17 species of waterbirds cited in migratory bird agreements between Australia and Japan and China.

Altogether the reserves support an estimated 60 species of waterbirds, including one declared rare species, the Cape Barren goose.

Lake Warden, looking south, and a banded stilt (inset) one of about 60 species of waterbirds recorded in the reserves.

Another lake in the reserves, Shark Lake, is one of the few permanent freshwater wetlands on the south coast and is an important drought refuge, with comparatively high numbers of birds being recorded in summer.

The lakes also provide opportunities for a range of recreational activities close to Esperance townsite, such as bushwalking, picnicking, sailboarding, canoeing and birdwatching.

The draft management plan was prepared by CALM for the National Parks and Nature Conservation Authority and includes the following key recommendations:

- ensure management is consistent with the Ramsar Convention guidelines;
- foster the implementation of an integrated catchment management strategy in consultation with other government agencies and community groups;
- protect waterbirds and their habitats from the impacts of reserve use and management;
- identify priority areas for protection from dieback and take appropriate action;
- maintain close liaison with local Bush Fire Brigades, reserve neighbours, the Shire of Esperance and other agencies and establish mutual aid arrangements;
- develop a circuit walk track around Woody and Wheatfield lakes.

Copies of the draft plan are available from CALM's Esperance office and written submissions should be sent to CALM by mid-July.

Maritime pines to tackle Esperance salinity

CALM's Maritime Pine Project is to be extended to Esperance in 1999.

The project, which is a key initiative under the Salinity Action Plan, aims to establish half a million hectares of maritime pines (*Pinus pinaster*) in the medium rainfall zone to tackle rising watertables.

The pines will be planted under sharefarm agreements with private landowners and are expected to have a major impact on controlling salinity levels, as well as providing future resources for a regional timber industry.

Maritime pine from Helm's arboretum, established in Esperance by the Forests Department in 1959, already supports a small but growing local pine processing industry.

The Maritime Pine Project will provide farmers with another opportunity to plant trees and will complement the extensive tree planting already undertaken by landowners in the region.

Last year, for example, more than a million tree and shrub seedlings are estimated to have been planted in the region, including 112,000 maritime pine seedlings ordered from CALM's Manjimup nursery for farmers' own planting programs.

CALM estimates there are about 85,000 hectares in the Esperance region in the 400 to 600 millimetre rainfall belt that would be suitable for maritime pines as tree crops integrated into existing farming operations.

A total of 500 hectares of pines is expected to be planted on ten farms in the winter of 1999, together with a range of supplementary species available under the Maritime Pine Project.

The supplementary species include mainly native trees and all have been chosen to fit into farm landcare programs, such as protecting wetlands and other areas of high conservation value. Some, such as sandalwood, also have potential as future commercial crops.

New hydrologists

Agriculture Western Australia has appointed eight catchment hydrologists in the past year to strengthen further its work in implementing the State's Salinity Action Plan.

The latest appointment is to Manjimup. South Australian hydrologist, Peter Taylor, is assisting salinity rehabilitation work in the recovery catchments of Muir-Unicup and Warren-Tone, and the control of nutrient enrichment in the Lower Blackwood and Scott River catchment.

Hydrologists have been appointed in the past year to Moora, Lake Grace, Katanning, (for the Blackwood and for the South Coast), Merredin, and Albany.

CD ROM

Agriculture Western Australia is providing a new computer tool on CD ROM to help farmers and catchment groups understand how different management systems affect the water balance on farms.

AgET (agricultural evapotranspiration) is a simple to use water balance calculator to assess the water balance of existing or proposed 'high water use' farming systems. The program calculates the main components of the water balance of any chosen combination of soil type and species of plant (including most crop and pasture rotations, perennial grasses and shrubs, lucerne, trees and pre-clearing vegetation).

AgET uses historical rainfall records from 1954 to 1993 from more than 100 stations throughout the agricultural region to calculate plant water use (evapotranspiration), runoff and deep flow past the plant roots (recharge).

AgET will be available in the next month or so from Catchment Hydrology Groups, based at most Agriculture Western Australia regional offices, and on the Internet at www.agric.wa.gov.au

Landcare conference for Esperance

Esperance has been selected to host the 1999 State Landcare Conference.

Soil and Land Conservation Council chairman Rex Edmondson said there had been a huge commitment to landcare in the Esperance district.

The Esperance proposal had been chosen ahead of submissions from Kalgoorlie, Katanning and Albany. Mr Edmondson said all submissions were of a very high quality and indicated that the landcare movement continued to be a major force in rural Western Australia.

Rehabilitated reserves

CALM's 1997/98 program to rehabilitate cleared areas on Crown reserves in the Wheatbelt was successfully completed during June.

Most of the areas treated were old gravel and sand pits and costs were higher than expected due to the large amount of rubbish dumped in pits. However, most of this rubbish was old, indicating that previous attitudes to bushland have changed.

CALM has employed, or has plans to employ, local Aboriginal groups to help with the rehabilitation work.

Commercial assessment

Perennial species native to the south-west are being assessed by CALM for possible use in farm forestry.

Assessing the suitability of native species as commercial crops is one of the action items under the Salinity Action Plan. Recent work by CALM includes establishing trial sites, such as those for melaleuca and sandalwood, as well as undertaking chemical testing of brown mallet tannin and employing a consultant to document the commercial values of mallet tannin.

Mallet was the first hardwood plantation established in Western Australia. More than 8000 hectares of mallet were planted at Dryandra, near Narrogin, between 1926 and 1962 to support the tannin industry.

The current segment of this work is supported by funding under the Regional Enterprise Scheme and by CALM.

Rural Towns Program

Additional funding under the Rural Towns Program will be provided this financial year to help more rural shires plan for the control of the effects of rising groundwater and salinity.

So far, 15 new shires have expressed interest in joining the 13 shires already in the program. They are Bruce Rock, Kalgoorlie-Boulder, Kent, Koorda, Lake Grace, Mingenew, Moora, Mount Marshall, Mukinbudin, Pingelly, Quairading, Victoria Plains, Westonia, Wongan-Ballidu and Woodanilling.

The program is being managed and coordinated by Agriculture Western Australia which will work closely with towns involved.

This year's funding will enable the participating shires to build on salinity control work already underway in the town catchments.

For more information on the Rural Towns Program contact Mark Pridham at Agriculture Western Australia on (08) 9368 3919.

Salinity Council Newsletter — Contributing to WA's Salinity Action Plan

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