STATE SALINITY COUNCIL

Newsletter of the Western Australian State Salinity Council February 1999

Draft updated plan released for comment

The Salinity Action Plan has been updated to keep pace with community and government expectations in combating salinity.

The draft updated plan is now available for public review until 12 March 1999, and the final plan update is expected to be released in May 1999.

State Salinity Council Chairman Alex Campbell said the Council was endeavouring to strengthen the plan through this review and update, and involving the community in its development.

"The Council is keen to see projects in the plan continue to be incorporated into regional strategies and supported in the regions," he said.

"The 1998 draft update gives greater emphasis to the productive use of saline land, to the benefits of perennials and changes in farming approaches and outlines a catchment-based strategy to manage drainage. The update also acknowledges that salinity does not just affect farming, but has wider social implications for families and communities."

Mr Campbell said there had been a number of significant achievements since the Salinity Action Plan was launched in November 1996.

Achievements have included the establishment of 34 focus catchments, with a further 20 catchments to commence soon, as well as the protection of rural infrastructure under the Rural Towns program.

The first towns to benefit from the Rural Towns program include Brookton, Corrigin, Cranbrook, Dowerin, Katanning, Merredin and Wagin.

"State and Federal Governments are contributing significant funding to salinity through services to landholders, research and development and rehabilitation work in water supply catchments and important nature reserves," Mr Campbell said.

"Many landholders have already expended large amounts of money and effort on Landcare projects to benefit their own properties and public lands. The approach set out in the plan will nonetheless continue to require a major long-term investment of time, money and effort."

Mr Campbell said two achievements stood out from all the hard work underway since the launch of the original Salinity Action Plan - the community's increased role in the plan and closer working relationships between Government agencies responsible for combating salinity.

"Both the Government and concerned community groups are committed to ensuring that Western Australia's Salinity Action Plan is implemented quickly and efficiently through a whole of community approach."

Copies of the 1998 draft plan update are available from the Water and Rivers Commission by telephoning (08) 9278 0400, faxing (08) 9278 0587 or emailing mara.vlaar@wrc.wa.gov.au.

Also available is a salinity progress report setting out achievements to date, and an analysis of submissions used to help prepare the draft updated plan.

Written submissions in the suggested format should be sent to State Salinity Council, c/- Water and Rivers Commission, PO Box 6740, Hay Street East, East Perth WA 6892.

New target area for pines

The south-west is the latest target area for the Department of Conservation and Land Management's (CALM) Maritime Pine Project. The project aims to tackle salinity and boost plantation development in Western Australia.

The extension to the project will cover the area from Harvey to Albany Highway, south to Kojonup and the Tone and Frankland river catchments.

Much of the suitable land identified is in the upper reaches of the Collie River (Wellington Dam) catchment, which has been identified in the Salinity Action Plan as an important recovery catchment.

Two hundred and four hectares in the region have already been secured from eight landowners in the West Arthur and Kojonup Shires. Around 3,000 hectares of new plantations and 300 hectares of landcare plantings are expected to be established under the project by the year 2001.

Every 10,000 hectares of maritime pines established in the region will supply enough timber to support a local downstream processing facility that will in turn create regional employment.

The south-west is the latest target area for the Maritime Pine Project.

By the year 2020, Western Australia could generate an additional 13 million cubic metres of timber.

CALM has established a new tree crops sharefarms office in Collie to support the project. More information can be obtained from (08) 9734 1688.

K. McNamara

Saltland pasture presentation

Puccinellia is a valuable tool in saltland rehabilitation, according to South Australian farmer James Darling.

Mr Darling addressed the State Salinity Council meeting in October about his experience with puccinellia pasture on his 3644 hectare cattle and crop property.

Mr Darling's property is located on Duck Island, near Keith in South Australia's south east. Puccinellia is a salt-tolerant perennial tussock grass well suited to thick and patchy barley grass areas with 375 mm or more rainfall.

Mr Darling said puccinellia had not only become a successful and essential tool in managing salt in wet country pasture, but was also a valuable seed crop.

"Farm practices on Duck Island are based on keeping salt at its lowest and least influential level. Salt is a natural component of the landscape and we must deal with it," Mr Darling said.

Mr Darling said puccinellia's usefulness as pasture in saltlands was demonstrated following widespread flooding in 1981 which concentrated salt levels at or near the surface. Puccinellia survived while established pasture was decimated.

Mr Darling said he now had over 600 hectares of puccinellia pasture, which thrives in winter and spring flooding conditions. Puccinellia also has significant feed value in late autumn due to its sappy green stems in dry plants.

State Salinity Council members with James Darling discussing his experience with puccinellia pasture in saltland rehabilitation.

State Salinity Council Member Jos Chatfield said Mr Darling's presentation gave an insight into how South Australian farmers were bringing salt affected wet country back into production.

"Mr Darling has real experience in rehabilitating land lost to salt. His key message is that to keep salt down we must keep cover on the ground," Ms Chatfield said.

"I think Western Australian farmers can learn from Mr Darling's experiences and consider using puccinellia more widely as a useful salt management tool alongside more traditional salt tolerant species."

Oil mallees – Profitable landcare

Farmers across Western Australia's grain belt are investigating the use of high oil content mallee trees to assist in the fight against waterlogging and salinity.

The Oil Mallee Association has been working in conjunction with the Department of Conservation and Land Management to identify superior oil producing parent trees in native stands.

The Association's Administrator, Ric Collins, said large numbers of oil mallees had been found to have a meaningful effect on reducing water table levels. Particular species of mallees were also able to provide a commercial return from eucalyptus oil.

"Oil mallees are compatible with cropping and grazing enterprises, and have a lifespan in excess of 100 years. The Oil Mallee Association is working to plant 500 million mallees in the next 25 years. Like most trees, oil mallees qualify for Natural Heritage Trust funding," Mr Collins said.

Mallees are usually planted in hedge rows across the paddock at widths that allow for the movement of cropping equipment.

Mr Collins said the trees could be planted in blocks if there was heavy seepage, although they should not be planted in saline areas if commercial production was expected.

"Species need to be chosen to suit soil type, rainfall and position in the landscape. Seven species are commonly used. Site preparation is very important, particularly ripping and weed control. Mallees are best sown during a cropping rotation which allows minimal grazing of stubble in the first summer," Mr Collins said.

"Cropping can occur right to the edge of hedge rows. There is no need for special applications of fertilisers for the trees, and virtually no maintenance is required."

More information can be obtained from the Oil Mallee Association on (08) 9478 0330.

David McFall from the Oil Mallee Association showed State Salinity Council members an oil mallee plantation at Munjiduckin.

State Salinity Council meeting

The State Salinity Council held its eighth meeting on 27 October in Tammin, and took the opportunity to visit the West Dale, Morginning and South Tammin catchments.

The Council met and discussed treatments with group members, and was impressed with the various land management options demonstrated through the Landcare Vision concept.

Additionally, Council Members visited a lucerne trial, inspected an oil mallee site at Munjiduckin and visited Tony York's property near Tammin to view treatments on saline land. Mr York is a member of the Saltland Pastures Association.

National land and water resources audit

National Land and Water Resource Audit project specifications are currently being prepared by all States, and are likely to be announced in early 1999.

Improved decision making for all parties involved in resource management is expected to result from Audit activities. Activities will be aimed at providing a scientific assessment of the status of Australia's land and water resources, developing reports on the costs and benefits of resource change and assessing the extent of surface and groundwater resources.

Seven pilot projects have already been selected to trial and demonstrate Audit outcomes. Each pilot project represents one of seven issues to be investigated throughout the Audit.

Key issues include surface and groundwater management, dryland salinity, vegetation condition and use, rangelands monitoring, land use change/sustainability of agricultural enterprises, capacity to implement change and river/estuary/catchment/landscape health.

The Audit has been funded through the Natural Heritage Trust and is responsible to the Federal Minister for Agriculture, Fisheries and Forestry. Audit planning, coordination and work to commence the seven pilot projects has been underway for 18 months. It is intended the Audit will run for a further two years.

Western Australian Pilot

Western Australia was chosen for the dryland salinity pilot. The pilot commenced in July 1998 and is due for completion by December 1999.

A total of $200,000 was allocated to the project to provide a comprehensive analysis of groundwater data; maps of groundwater levels, trends and forecasts; improved salt prediction maps for the Great Southern and improved maps showing infrastructure, land, water and vegetation at risk from salinity.

It is also hoped the project will provide more accurate statistics on areas at risk and the economic benefits and costs of incorporating management practices. Maps will be developed to show the spatial distribution of economic losses if current practices are continued or if different land-use practices are adopted.

The Great Southern region was chosen for the pilot due to the existence of excellent trend and inventory data. The aim of the project is to use data more effectively to allow Government and communities to make better decisions about resource allocations.

The project is being undertaken through the CSIRO Land and Water Division, Mathematical and Information Sciences and Agriculture Western Australia.

Assistance has also been made available through the Water and Rivers Commission, the Department of Conservation and Land Management, the Department of Land Administration, University of Western Australia, Local Government, Main Roads Western Australia, South Coast Regional Initiative Planning Team and the Blackwood Basin Group.

Salinity in the Swan coastal plain

A review of data sets on groundwater and soil salinity in the Coastal Plain region has found salinity in the Swan Coastal Plain is affecting pasture and crop production levels.

Agriculture Western Australia research officer Mark Rivers said the problem of soil salinity to the east of the Darling Scarp had been well documented, and a number of Government and community initiatives to address the problems were now underway.

"Salinity in the Swan Coastal Plain, which is situated to the west of the Darling Scarp, is not at the extreme levels experienced in the east. However, the impact of existing salinity on the region's agricultural production should not be underestimated," Mr Rivers said.

"In fact, up to 20 per cent of the Swan Coastal Plain is estimated to be affected by salinity, with up to 36 per cent of irrigated land in some areas experiencing extreme salt levels."

Mr Rivers said a course of action to address the problem in the region and raise community awareness of salinity in the Swan Coastal Plain had been proposed.

More complete results of Agriculture Western Australia's review of the Coastal Plain region, and a more comprehensive suite of recommendations can be obtained from Mark Rivers on (08) 9531 1788.

National dryland salinity program

A call for submissions for phase two of the National Dryland Salinity Program will be made early in 1999.

Phase two will run for five years with the support of the Land and Water Resources Research and Development Corporation, the Grains Research and Development Corporation, the Murray Darling Basin Commission and relevant State and Federal agencies.

Agriculture Western Australia is directly involved with the operation and management of the program.

The program will make available between $10 - $15 million for significant research and development projects that are able to meet a number of objectives.

Landcare breakfast in the city

Key decision makers in the city were treated to the best of landcare recently when Landcare Vision, a partnership between six farmer catchment groups, Alcoa of Australia and Agriculture Western Australia, hosted a Breakfast in the City to present landcare in action.

The aim of the breakfast was to raise awareness in the business community of the impact of land degradation and of the innovative landcare solutions being implemented by farmers in the agricultural region.

Right: *Attending the Landcare Breakfast in the City from left: Member for Avon Max Trenorden MLA; Alcoa Chairman and Managing Director Roger Vines; Landcare Vision Chairperson Fay Chatfield, Minister for Primary Industry Monty House and Alcoa Landcare Manager John Collett.*

Focus catchment groups' planning well advanced

New Focus Catchments across Western Australia will contribute significantly to the fight against salinity.

Focus groups are providing opportunities for farmers to work together and communicate their efforts to tackle salinity issues at the catchment level.

In the Central Agricultural Region, Avon Hotham focus catchments are well advanced. Five focus groups have been finalised in the past 18 months, which include South Tammin, Morbinning, Westdale, Upper Hotham and Gabby Quoi Quoi.

Some of the initiatives decided on during the focus planning process included planting of high water use perennials, including pastures and maritime pines; planting of pines in alley or block plantations for sandier soils; planting of oil mallees; prioritisation of on-ground work using hydrogeology surveys; and identification of good quality water sources for both aquaculture and irrigation purposes.

A further three groups were selected following a competitive tendering process. The three new groups of Quanaminning, Monjerducking and Elashgin are at various stages of the focus planning process.

The call for new focus catchments was similarly welcomed in the Northern Agricultural region, with 10 applications received and three new focus catchments chosen.

State Salinity Council members (from left) Barry Court, Ken Pech, and Darrel Brewin visited a lucerne trial in the Westdale catchment. The Westdale Focus Catchment is one of a number of groups to be finalised in the Central Agricultural region.

New focus groups will commence work in February 1999. The new groups include Burakin/Bunketch (Dalwallinu), Nolba (Chapman Valley) and Boothendarra (Dandaragan).

The Boothendarra catchment is of particular interest as it is part of an area with increasing dryland salinity. This is unusual for an area of predominantly west midlands sandplain. Work with this group will involve an investigative drilling program of perched water tables prior to commencement of focus catchment activities.

New plans for south-west nature reserves

Draft management plans have been prepared by the Department of Conservation and Land Management (CALM) to protect significant wetlands and nature reserves east of Manjimup in the Perup forest and Lake Muir-Unicup areas.

The Lake Muir and Unicup nature reserves were identified as a Recovery Catchment under the Salinity Action Plan. Lake Muir-Unicup is the only network of its type in near pristine condition, with 50 species of waterbirds recorded in the region.

In addition, Perup forest is one of the most important reserves for native mammals in Western Australia. However, the ecosystems of these reserves are at risk from rising water tables, increased run-off and salination resulting from clearing in the catchment.

Work carried out in the region to date has included biological surveys and initial groundwater monitoring. More than 150 hectares of trees have been planted on neighbouring properties to control groundwater recharge and to rehabilitate discharge areas.

A Technical Advisory Group including representatives from Agriculture Western Australia, the Water and Rivers Commission and CALM has been convened. In addition, a Recovery Management Team including agency staff and community members has been established.

Managing Midwest reserves

Disused gravel pits on nature reserves across the south-west are being rehabilitated under the Salinity Action Plan.

In the Midwest region, rehabilitation of gravel pits and rubbish removal has been undertaken by the Department of Conservation and Land Management on 17 nature reserves in 11 shires. Direct seeding of local species has been carried out on two gravel pits and three areas which were cleared for agricultural purposes.

Preliminary work has been undertaken in 80 hectares of degraded salmon gum/gimlet woodland on the West Perenjori Nature Reserve, which is the only woodland of its kind in a Midwest region reserve. Weed control has been carried out on 40 hectares and a rehabilitation plan prepared. Monitoring bores will be installed next year to determine the effect of the rising water table on the mature salmon gums.

An illegal campsite on Karamarra Nature Reserve has been removed and tracks and hardened areas ripped to promote regeneration. Twenty hectares of the donated McGuarans block have also been rehabilitated.

Salinity Action Plan funds were used to buy 150 hectares of remnant vegetation in the Moora district, to add to the conservation reserve system. The land has several important vegetation types not adequately represented in the Midwest, including up-slope salmon gum, wandoo and york gum woodlands.

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

This Salinity Council Newsletter is produced with the support of Alcoa of Australia Limited

For more information please contact:
Don Crawford Executive Officer, State Salinity Council
PO Box 6740 Hay Street East Perth WA 6892
Telephone: (08) 9278 0300 Facsimile: (08) 9278 0587

Agriculture Western Australia
Department of Conservation and Land Management
Department of Environmental Protection
Water and Rivers Commission

47760/2.99/3m/BFS