

## **Local area planning: a collaborative approach to salinity management**

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### **Salinity management in the Goulburn Broken Catchment**

Land and water salinisation throughout the Goulburn Broken Catchment has the potential to devastate the highly productive agricultural zone worth \$7.8 billion per annum. Vegetation clearing in sensitive geographical areas, coupled with the introduction of irrigation has led to soil waterlogging and rising watertables (Syme & Eaton, 1989). The mobilisation of accumulated stored salts in the soil profile impacts pasture quality, limits dairy production and has the potential to devastate horticultural industry (CAS 1, 2005). Throughout the 1980's salinity cost the state an estimated agricultural production loss of 68 million annually and prompted public concern and government investment (Syme & Eaton, 1989).

State and local governments were concerned that gambling with larger scale salinity management solutions without the support of the community would be a poor political decision (Syme & Eaton, 1989). The multi-faceted nature of the salinity issue meant several departments were involved in the problem, but none had the capacity to approach salinity management on their own, largely due to the range of issues involved including community welfare, economic consequences and researching and interpreting geological processes (Syme & Eaton, 1989).

In an effort to rectify this situation a Salinity Pilot Program was established in 1986 and a local Advisory Council was elected as a representative of the diverse interests in the Shepparton Irrigation Region (CAS 1, 2005). The Shepparton Irrigation Region Land and Water Salinity Management Plan was developed and in 1990 was one of the first sub-regional plans to be endorsed by the Victorian Government (CAS 1, 2005).

In 1995 the Salinity Pilot Program Advisory Council transferred the role of salinity control policy management and development to the Goulburn Broken Catchment and Land Protection Board, now known as the Goulburn Broken Catchment Management Authority (CAS 1, 2005). This Catchment Board developed a key strategic document known as the Regional Catchment Strategy encapsulating the revised Shepparton Irrigation Region Land and Water Management Plan. This document sets the vision for management of natural resource management within the Catchment and, “promotes investment to generate triple bottom line outcomes and pursue integrated solutions,” (GBCMA, 2003).

### **Local Area Planning Initiative**

The Shepparton Irrigation Region Implementation Committee is a sub-committee of the Goulburn Broken Catchment Management Authority and is responsible for implementing the Regional Catchment Strategy in the Shepparton Irrigation Region. A major initiative of this Committee has been to promote the involvement of communities in decision making processes, an example of which has been the development and implementation of Local Area Plans.

Local Area Plans were prepared in priority areas within the Shepparton Irrigation Region in an attempt to harness the energy of vital communities, at a Catchment scale, and involve them in the implementation of the Regional Catchment Strategy. Local Area Planning has been a process of community consultation aimed at increasing community awareness and ownership of the Regional Catchment Strategy. This has been achieved by allowing the communities the opportunity to work together to prioritise the actions and issues of particular importance and value to them at the local Catchment level. This process helped to make the Regional Catchment Strategy more relevant to individuals within the catchments and allowed them to see how they fitted into the larger regional picture.

Local Area Planning is a “bottom-up” extension approach intended to encourage communities

and landholders to plan for the future in close collaboration with agency staff and the Shepparton Irrigation Region Implementation Committee (Lukies, 2006). Local Area Planning is aimed at accelerating the implementation of the GBCMA Regional Catchment Strategy through developing sustained, accepted and effective community solutions to resource management issues (Pagon, J 2006, Irvin & Stansbury, 2004).

The Shepparton Irrigation Region Implementation Committee decided upon the establishment of eight Local Area Plans with locations chosen based on where it was expected that the greatest impact could be achieved. Factors considered during this selection process included the existing uptake of extension programs, potential salinity threat, natural assets and the level of general community activity and participation (Lukies, 2006).

Public meetings were held in those selected areas to determine the communities' interest in the Local Area Plan process. From these meetings, community planning groups were established in each of the eight areas who then worked with agency facilitators for approximately two years to identify issues and actions to address local social, economic and environmental issues.

The resulting plans are distinctly different from each other and reflect the individual views of the communities including their own boundaries and priority issues (Pagon, 2006). The groups are now working on implementing the plans with the support of a Department of Primary Industries facilitator and a paid community member employed by the Goulburn Murray Landcare Network.

The Local Area Planning process is directed and driven by the community and has become a transformative tool for social change because it has enabled skill development and growth in confidence for the participants who were involved in the planning and implementation process. The expected outcome of the planning and prioritising process was the development of a strategy for the local catchment and the implementation of the subsequent on-ground works. However, there was also an unexpected outcome as a result of the processes of preparing the Local Area Plan which has also led to a strengthening of communities' confidence in their ability to work together. (Irvin & Stansbury, 2004).

This growth in confidence has led to strengthened community capacity and the community's ability to make informed, effective decisions that create long-term, community-driven solutions. The planning process has also helped the communities increase their understanding of the Regional Catchment Strategy by enabling them to identify how their local issues relate to the whole of catchment perspective (Lukies, 2006).

The following case studies illustrate how the identification of priority issues through the Local Area Planning process has increased awareness of salinity issues and led to the acceleration and enhancement of salinity management.

## **Case Study 1**

### ***Wyuna Salinity Management***

The Wyuna Catchment is located just to the west of Shepparton and comprises a total of 122 square kilometres of productive agricultural land (Nicholson, 2006). In June 1999 eleven people formed the Wyuna Catchment Planning Group and began meeting regularly to develop the Wyuna Local Area Plan. The plan was officially launched in June 2002 and the group have been working on implementing the actions identified for the past five years.

Salinity management was one of four top priorities for the Wyuna group and they have tackled the issue in their area with two distinctly different approaches. The Wyuna Local Area Plan hosted the first low volume groundwater pumping trial aimed at assessing the effects of low volume shallow groundwater pumping for salinity control. The trial also explored the effectiveness of solar energy as a potential power source (Nicholson, 2006).

The Wyuna Local Area Planning group were also involved in a DPI initiative exploring saline aquaculture as a way to diversify agriculture in the region. The group provided local

knowledge to assist in the identification of suitable sites to carry out research work which had the potential to add to current irrigation enterprises and encourage the multiple use of saline groundwater (Nicholson, 2006).

By identifying opportunities for such collaborative projects in the Local Area Plan, the groups' involvement in the research project has opened doors to inform the community on the potential to diversify farm businesses whilst practically managing the salinity problem. Two field days were held at the research site and both had encouraging attendance from the surrounding community.

## **Case Study 2**

### ***Muckatah Depression Drain Revegetation***

The Muckatah Katamatite Naringaningalook Local Area Plan (MKN LAP) Region covers 38,700 hectares with Katamatite, a township of 300 residents, the central point. The Local Area Plan began development in March 2002 and was officially launched in May 2004. Creating a sustainable agricultural community was important to the group and an emphasis was placed on effective and efficient irrigation and how this could be sustained in the area.

Management of surface water on irrigated land is critical for reduction of waterlogging and salinity management and this became a focus for the group. The Muckatah Surface Water Management System is a large regional drainage system within the MKN LAP that assists in the removal of irrigation induced rainfall run off and excess irrigation tail water in a controlled and equitable manner (CAS 2, 2005). A division of the Surface Water Management Program sits within the Sustainable Irrigated Landscape Goulburn Broken group of the Department of Primary Industries and they play a part in the community consultation, planning and negotiating processes associated with designing and constructing a surface water management system, in collaboration with Goulburn-Murray Water (CAS 2, 2005).

Surface water management was identified as a priority issue in the Local Area Plan and the Surface Water Management Program staff from both the Department of Primary Industries and Goulburn- Murray Water have since worked in collaboration with the community to approve and implement the Muckatah Surface Water Management System.

Following the construction of the Muckatah Surface Water Management System, Naring Landcare Group in conjunction with the MKN LAP, identified the opportunity to capitalise on the environmental benefits associated with surface water management construction and began planning for a revegetation corridor along the system. The group secured funding from the Australian Government Envirofund Program to fence and revegetate sections of private land adjacent to the system and the LAP and Landcare groups worked with local landholders to protect and rehabilitate 8.4 hectares of land in total. In addition salinity awareness and education was integrated into the project through a number of field days and three local primary schools have been involved in the planting process.

The success of this Naring Landcare initiative, which was identified through the Local Area Planning process, has motivated the neighbouring Muckatah Landcare group to continue the project by linking revegetation along the surface water management system into their specific area. Muckatah Landcare are now working alongside MKN LAP to implement stage two of the project and have recently secured additional funding from the Australian Government Envirofund Program.

## **Case Study 3**

### ***Nathalia and District Local Area Planning and Environmental Education***

Nathalia and District Local Area Plan comprises over 113,850 hectares of mixed irrigated and dryland agriculture with large areas of public land and state forest. The local plan for the area was launched in September 2002 by a community steering committee made up of representatives from other local environmental and community groups (Lukies, 2007). Environmental Education has been a focus of the Nathalia and District Local Area Plan with

all primary and secondary schools in Nathalia participating in a range of activities that began with a series of Wet, Wild and Wasted Days in September 2004.

The need for salinity education was identified through the development of the Local Area Plan. A series of Wet, Wild and Wasted days were developed by the Local Area Planning group in collaboration with other agencies such as Department of Primary Industries, Parks Victoria, Goulburn Murray Landcare Network and the Waterwatch Program. The education days provide an opportunity for the schools to focus on salinity and environmental issues by tapping into local knowledge and also external agency assistance. The program utilises environmental activities previously established by the Saltwatch and LandLearn Programs as well as other activities planned and devised by local community members (Lukies, 2007).

The education days have now become annual events organised entirely by the Local Area Planning Group with their ownership over the organisation of the project increasing, along with their confidence and knowledge of salinity and environmental issues. The group are now focusing on compiling an Education Day Kit that contains the resources and contacts necessary to coordinate other similar days to assist other communities replicate their success.

### **Partnership development through Local Area Planning**

Community involvement and consultation has been a priority for salinity management in the Goulburn Broken Catchment since the establishment of the Salinity Pilot Program back in 1986. The community consultation process has since evolved into an interactive partnership between the individual communities, the Shepparton Irrigation Region Implementation Committee and Government agencies through the Local Area Planning process.

Not only has the development and implementation of Local Area Plans built on the community driven success of the previous salinity projects, but it has also led to impressive results in terms of on ground salinity management and growth in community capacity.

All facilitators working with Local Area Planning Groups have reported that they have witnessed growth in the communities' capacity to manage local salinity and environmental projects with confidence and now regularly coordinate events and manage works with ease.

The relationships that have been built between the communities and agency staff throughout this process have also been vital to the success of the project. This has resulted in the agencies having an understanding of the priorities of the community. The communities also understand the various roles these agencies play, what constraints they sometimes work within and the best ways to work together to achieve collaborative outcomes (Lukies, 2007).

Communities have indicated through a review process that they have a clear understanding of how they fit into a bigger regional resource management picture and how their local actions link into a regional response (Lukies, 2007).

Local Area Planning has enabled the salinity management community consultation process to become a negotiation and partnership process between communities and Government Agencies. This negotiation process allows for an efficient transfer of knowledge and understanding which leads to the development of effective salinity and resource management solutions that are accepted and promoted by the local community.

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