

Community Involvement in Successful Catchment Management - Shepparton Irrigation Region, Victoria, Australia

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Abstract

The Shepparton Irrigation Region Land and Water Salinity Management Plan is recognised nationwide for the successful implementation of best management practices in catchment management. The Plan has been developed and refined with wide community input and involvement at all stages, and is presently in its tenth year (1999/00) of implementation.

The Shepparton Irrigation Region is located 160 kms north of Melbourne, and south of the Murray River. The Region is 500,000 ha in size, of which some 280,000 ha is irrigated for intensive dairying and horticultural enterprises. Over 35% of the Region is presently underlain by shallow watertables (<2m) with this expected to increase to around 60% by the year 2020 if nothing is done.

The Land and Water Salinity Management Plan is a partnership between the community, agencies, Local Government, State Government and Federal Government. It has a range of formal and informal processes in place to ensure that the catchment community (including environmental and industry bodies) remains actively involved. The Plan is overseen by a community Implementation Committee which in turn reports to the Goulburn Broken Catchment Management Authority.

The Plan has continuously evolved through its two years of formulation and ten years of implementation, both to integrate emerging issues such as nutrients and biodiversity, and to take into account changing circumstances such as Local Government amalgamations, privatisation of rural water authorities, and the creation of the Natural Heritage Trust.

The Plan has been extremely successful in achieving works on the ground, changing behaviour of land managers, and increasing community understanding of environmental issues. Targets set by the community for on-ground works such as whole farm planning, groundwater pump installation, surface drainage construction, wetland protection, fencing of remnant vegetation, waterways rehabilitation, and revegetation have all been met or exceeded to date. Full implementation of these works will completely protect in excess of 40% of the Shepparton Irrigation Region and reduce the rate and impact of watertable rise over the remaining area.

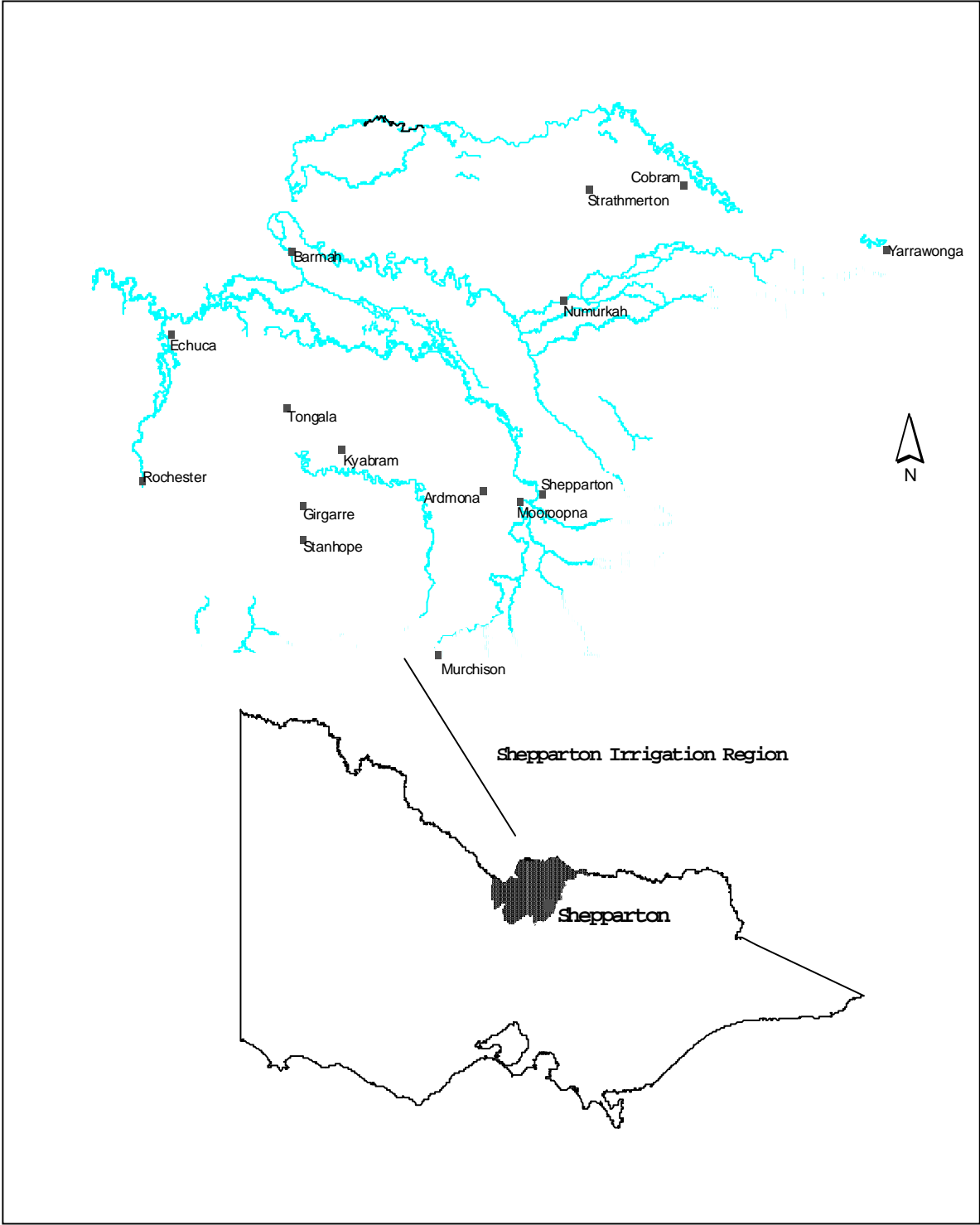
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Background

The Shepparton Irrigation Region is located 160 km north of Melbourne, and south of the Murray River (Figure 1). The Region is 500,000 ha in size, of which 280,000 ha is irrigated for intensive dairying and horticultural enterprises. Over 35% of the Region is presently underlain by shallow watertables (<2m) with this expected to increase to around 60% by the year 2020 if nothing is done (SIRLWSMP, 1989).

Figure 1. Location of the Shepparton Irrigation Region (SIR).



The Region is a major food processing centre – local processors include Kraft, Borden, Plumrose, Nestles, Unifoods (Rosella), Henry Jones, Tatura Milk, Murray Sunbourn,

Shepparton Preserving Company (SPC), Ardmona, Campbells Soups and Girgarre Foods (Heinz). In the 1993/94 financial year, economic output from the Region was calculated at \$4.5 Billion and it produced 25% of Victoria's export earnings. Agricultural output over this period was valued at \$816 Million, almost 19% of the total gross output for the Region (Econsearch, 1996). With this agricultural performance, the Region is justifiably referred to as the "foodbowl" of Australia.

The acceleration of salinisation of Victoria's (and the Shepparton Irrigation Region's) land and water resources in the 1980's began to jeopardise this agricultural growth imposing a major economic and environmental cost. The cost of irrigation salinity to Victoria is now estimated to be over \$68 Million/year which is equivalent to about \$70 for every family. The cost of the problem will treble in 20 years if nothing is done (Salt Fact Sheet, 1999). With this threat looming large, the Victorian Government released the "Salt Action : Joint Action" strategy in 1987 to manage land and water salinity in the State. As a result of this, the Shepparton Irrigation Region Land and Water Salinity Management Plan (SIRLWSMP) was created.

Community input into SIRLWSMP Development

The SIRLWSMP was developed during 1986-89 under the management of the community-based Salinity Pilot Program Advisory Council (SPPAC). This was done within guidelines provided by the Victorian Government. SPPAC comprised 15 members with, collectively, landholder, local government, education, conservation and industry backgrounds. SPPAC was appointed in 1986 on the basis of recommendations from the catchment community. SPPAC then established an Irrigation Sub-Committee, with wider community and agency representation, with the specific task of developing the SIRLWSMP.

Community input into Plan development was facilitated and encouraged in many ways. This included assisting the formation of landholder groups, close interaction with municipalities, regular information meetings with special interest groups, and "SPPAC CHATS" - a community issues paper. The "SPPAC CHATS" were prepared for major policy issues. These were distributed widely throughout the SIR and requested feedback from the broader community. The local media, particularly the press, were also widely utilised during this stage.

A major community education program was mounted at the same time to raise community awareness of the issues. University of Melbourne surveys indicated the number of landholders in the Region who believed "salinity was likely to affect their farm" increased from 38.9% in 1987 to 60.7% in 1989. This period corresponded to the time of Plan preparation. The increase in awareness was linked very much with the *Underground Flood* campaign - a series of coloured maps of the Region showing the inexorable rise of watertables on an annual basis.

Community response to Draft Plan

The Draft SIRLWSMP was discussed with the community at six public meetings attended by around 1,000 people during late 1988. Eighty-one written submissions were received from the community in response to the Plan, and were taken into account when SPPAC finalised the SIRLWSMP for presentation to the Government in 1989.

The role of the community in SIRLWSMP Implementation

The Plan has been in the implementation phase since June 1990. Until July 1995 this was under the direction of the community based Salinity Program Advisory Council (SPAC) and its Irrigation Committee. SPAC was responsible for overseeing the Goulburn Broken Dryland Salinity Management Plan as well as the SIRLWSMP. Since July 1995, a number of changes have been made to the way Catchment Management is implemented in Victoria.

On July 1997, Catchment Management Authorities were established in each of the nine non-metropolitan Catchment and Land Protection Regions. These bodies are now responsible for:

- the development, ongoing review and coordination of implementation of a Catchment Strategy for each region (referred to as the Regional Catchment Strategy - RCS);
- the provision of advice to Government on both Federal and State resource priorities at a regional level;
- the provision of all waterway and floodplain-related service delivery; and
- the negotiation with the Department of Natural Resources and Environment (DNRE) of an annual project-based works program for regional service delivery directed at implementation of the RCS.

The RCS identifies the land and water management issues within the catchment and develops broad scale strategies for dealing with them.

The responsibility for implementing the SIRLWSMP and the other components of the RCS in the Shepparton Irrigation Region now lies with the **SIR Implementation Committee** of the Goulburn Broken Catchment Management Authority. The SIR Implementation Committee is also developing strategies for other natural resource issues in the Catchment. These include pest plants and animals, threatened flora and fauna, soil structure, soil acidification, farm forestry, farm chemicals, sustainable agriculture and nutrients.

The SIR Implementation Committee meets on a six week cycle throughout the year, and is made up of:

- 8 community representatives.
- representatives from each of the key agencies - DNRE and Goulburn-Murray Water (G-MW).

In general, the Committee members were nominated because of their specific skills and their links with other community networks.

Working Groups have been established for the four action program areas overseen by the SIR Implementation Committee – **Farm and Environment, Surface Drainage, Sub-Surface Drainage and Waterways**. These Working Groups comprise community representatives (including representatives from each of the four G-MW Water Service Committees, Victorian Farmers Federation, local government and environmental groups) and agency representatives. These groups manage in detail, all aspects of the particular program - budget allocation, works programs, monitoring, policy development and research. These groups have had real power to influence a budget of over \$16 Million/year.

The SIR Implementation Committee is also supported by a Plan Coordination team, which provides executive and technical support for the implementation of the Plan. Agency staff also provide technical input through a Technical Support Committee, the Working Groups and specific Project Teams.

This seemingly complex structure is essential to ensure community input and ownership of the Plan as it continues to evolve during its implementation.

The Plan is a true partnership between the local community and all levels of Government - State, Federal and Local. There has been a tremendous commitment and ownership from both the community members and agency staff because they both have a real sense of ownership and responsibility for the Plan.

Effective communication throughout the Plan is essential to a successful outcome because the Plan is multifaceted and involves a range of organisations. The Goulburn-Broken Catchment Management Authority has a Communication Committee with a charter to oversee this important role within the Catchment. The SIR Implementation Committee has revisited its communication strategy to ensure complementarity.

The SIR Implementation Committee implements an active community education program which includes among other things Watertable Watch and Saltwatch programs involving 78 regional schools and 2,500 students. It also provides strong support for Community Action Groups. Landcare groups are an important part of Plan implementation. A lot of the planning and implementation is done by neighbours working together in Landcare (or sub-catchment) Groups, so there is a degree of peer group pressure to maintain their commitment.

Landcare commenced in the Goulburn Broken Catchment in 1986 with the Warrenbayne Boho Group. The first Shepparton Irrigation Region Group to form was the Stanhope-Girgarre Landcare Group in 1988. There are now 126 Landcare and Land Management Groups, and 7 Landcare Networks in the Goulburn Broken Catchment. Approximately 2,700 people, or over 30% of the land managers, are now involved in Landcare in the Goulburn Broken Catchment (O'Kane, 1999). There are presently 56 landholder action groups in the SIR actively involved in implementing the Plan. A number of these have now joined together to form the Goulburn Murray Landcare Network. Each of the landcare groups has an agency staff member as a contact and the SIR Implementation Committee has formal links with the network. A regular Landholder Link Newsletter is distributed to all these groups. The Program also employs a facilitator to assist the functioning of these groups. Active community groups are integral to all parts of the Plan and its overall success.

Most importantly, maintaining the community knowledge and understanding of all catchment issues as they evolve is seen as a major role of all involved in the Program. The SIR Implementation Committee receives excellent support from all sections of the local media in this regard.

The role of Local Government continues to increase in significance, especially due to the fact that it provides the legal underpinning of key elements of the RCS. The program jointly funds a municipal liaison officer with the municipalities and has regular interaction with Local Government at all levels.

Achievements of the SIR Catchment Strategy

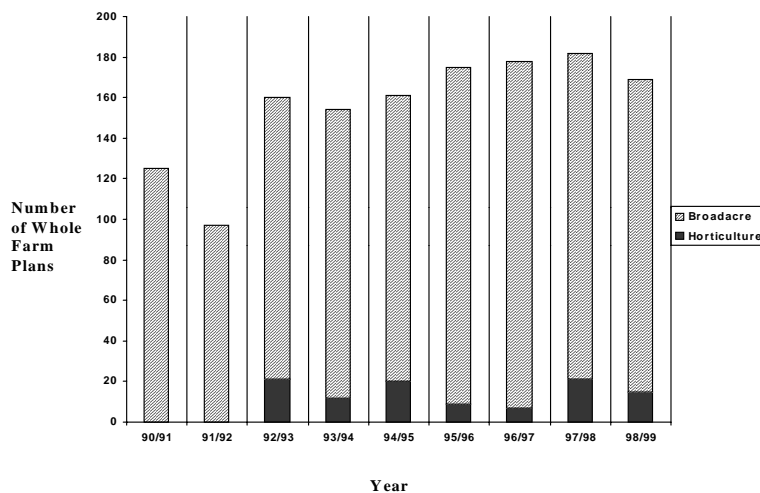
Landholders in the SIR have continued to put a major investment into salinity related activities on their farms and in their sub-catchments since the Government endorsed the SIRLWSMP. In the first nine years of implementation of the Plan they have spent over \$270 Million. Federal and State Government expenditure on the Plan over the same period has been \$100 Million.

Details of the progress have been published in nine annual reports. A summary of the major achievements for the Plan and each program are listed below. The mechanisms to ensure community ownership of these works programs are also described.

- **Farm Program**

The major focus of this program is to improve the efficiency of water use by reducing groundwater accessions, soil salinisation and waterlogging. The basis of this part of the Plan is to encourage improved water management by redeveloping the farm irrigation system using a whole farm plan prepared for the property. In the nine years of implementation, 1,595 whole farm plans have been completed for 116,850ha (Figure 2). This brings the total number of whole farm plans prepared under this incentive since 1987, to 1,940, covering 131,425ha. This is equivalent to 42% of the irrigated part of the Region.

Figure 2. Number of Whole Farm Plans completed in each year of the SIRLWSMP's implementation.



A whole farm plan is a prerequisite for other incentives available to individual landholders under the Environment and Sub-Surface Drainage programs.

Landholders have widely adopted the improved water use efficiency practices promoted in the Plan in the nine years of operation. Some estimates, based on the 1997 G-MW Census, are listed below;

- Over 113,000 ha has been laser graded bringing the total to over 60% of the irrigated area
- Over 2.7 Million native trees have been planted
- Over 2,500 ha of micro irrigation has been installed
- Over 2,500 reuse systems have been constructed bringing the total in the SIR to more than 3,400. It is estimated that these capture and reuse over 200,00ML/year of farm runoff (drainage and rainfall). The reuse systems trap water from about 50% of the irrigated area.

The SIR Implementation Committee worked closely with Local Government to introduce earthworks planning controls for the management of surface drainage over the original 13

municipalities within the Region. These are now incorporated into the planning schemes for the three new amalgamated municipalities.

The involvement of industry groups is seen as critical to the adoption of changed natural resource management practices. The salinity program co-operated with the dairy industry program to introduce a “Water-On Water-Off” program to all dairy farmers in the SIR in 1993/94. This program was subsequently offered to other broadacre irrigators. The salinity program has co-operated with the Regional Ethnic Council and the Shepparton Preserving Company (SPC) to provide a targeted extension program to the landholder groups of non-English speaking background in the Shepparton East horticultural area. The program is also working with the dairy industry presently to implement the nutrient management strategy.

The Plan has funded a significant amount of Research and Investigation work. A number of advancements have been made in the areas of groundwater research, conjunctive water use, irrigation management, pasture species selection, tree water use and interactions with groundwater, serial biological concentration of saline water, and tile drainage investigations. Involving the catchment community in these projects makes the research more focussed and relevant. This has been achieved through representation on steering committees, and presentations to the SIR Implementation Committee and its various Working Groups.

- ***Environmental Program***

A major achievement of the SIRLWSMP has been the incorporation of environmental considerations into all components of the Plan. Detailed environmental assessments are prepared for each surface drainage sub-catchment, and environmental protection and enhancement is incorporated into the design and construction of all drains. Detailed environmental assessments are prepared for each public pump proposal and environmental considerations are taken into account during the design, construction and operation of the public pumps. Environmental values are incorporated into the priority setting for each of the infrastructure projects. In the farm program, the natural environment is a key consideration in planning and works. There has also been a significant increase in community awareness of the values of the environmental features remaining in the Region.

In the early years, most of the environmental activities related to assessing and mapping environmental features and developing strategies for sensitive areas. The emphasis has evolved into works and implementation of these strategies. Since the SIRLWSMP began, over 2,390 hectares of wetlands have been protected by works on public land. In addition, over 1,000 hectares of wetlands have been protected through environmental assessments in the drainage program and incentive schemes for private landholders to complete works on their properties. Incentive schemes for landholders have contributed to 172 hectares of native tree planting and the protection of 267 hectares of remnant vegetation. Drainage assessments have also identified and led to the protection of an additional 500 hectares of remnant vegetation.

The environment program has been continually gaining momentum as environmental awareness has grown within both the urban and rural communities in the Region. Kilgour and Travis (1997) highlighted a number of successful case studies in the SIR that have involved strong community partnerships in implementing the environmental program – one such example is described below.

The Wyuna Bushland Reserve

The Wyuna Reserve is an area of bushland located north-west of Shepparton. This site was previously used for timber harvesting, cattle grazing and illegal rubbish dumping. The reserve

contains a range of local flora and fauna species, including the threatened Yellow Box and Bush Stone Curlew.

The **Wyuna Landcare Group** were keen to improve the environmental features of the reserve, following concerns by nearby landholders regarding its declining condition. Attempts to get funding through the National Landcare Program (NLP) were unsuccessful as the Landcare Group had not prepared a management plan for the Reserve. The Environment Program contacted **Melbourne University – Dookie Campus** and organised some students to conduct flora and fauna surveys and compile relevant information for a management plan.

The students liaised with the **Environmental Management Group of DNRE** during preparation of the plan. DNRE was able to help out with advice, and in conjunction with the **Shepparton Irrigation Region Implementation Committee of the Goulburn Broken Catchment Management Authority**, provided funding for the construction of cattle grids to protect the reserve from grazing livestock, extension signs, the purchase of indigenous trees and shrubs, and construction of nest boxes for native birds and fauna.

DNRE and the Wyuna Landcare Group worked together to organise and run a community day. Prisoners from the local low security **Dhurringile Prison** were organised under the State Government 'Landmate' program to prepare the sites for tree and shrub planting. Nest boxes were constructed by the **Goulburn Valley Centre for Intellectual Disabilities**. The **Shire of Campaspe** assisted in rubbish removal, and a local **excavation contractor** supplied soil at a reduced cost for the cattle grids. A **local supermarket** provided discounted meat and bread for the community day.

The community day involved students from a local **kindergarten, primary and secondary schools**, Melbourne University – Dookie College, the DNRE, the Wyuna Landcare Group and members from the SIR Implementation Committee working together to plant and water the trees and shrubs, and install the nest boxes. Members of the Landcare Group also installed the cattle grids and catered for the BBQ lunch. A representative from the Catchment Management Authority **Waterways Business** also addressed the gathering, whilst **local media** gave the day widespread coverage.

The outcomes of this activity was that an important area of bushland, containing threatened flora and fauna has been protected and enhanced, and landholders have a greater appreciation for the environmental features in the reserve. Landholders in the district now have a sense of ownership over the reserve following the work they have put into protecting it. The Goulburn Valley Centre for Intellectual Disabilities will regularly check the nest boxes for unwanted inhabitants, and the Landcare Group will monitor the reserve to ensure grazing and other damaging activities are not occurring. Awareness of environmental issues was raised in the wider community due to coverage by the local media. A detailed management plan is now being finalised.

- **Surface Drainage Program**

The first nine years of implementation of the surface drainage program has seen 105 km of arterial drains and 478 km of community drains constructed. These have together provided drainage outfall for 63,000 ha. Many more drains have been designed and are now ready for construction.

The Community Surface Drainage Program has been a real success story of the Plan. Economic analysis on this program indicates that the Benefit:Cost ratio of these drains averages approximately 2.6 as a result of the catalytic effect these drains have on other farm and catchment

activities. Just as importantly from the perspective of the SIR Implementation Committee is the significant benefit of these drains in community development. This is created by pulling together people living in the same catchment on a mutual task, which takes 4-5 years to complete. Since 1988, there have been 251 drainage groups established in the SIR. The outcome of this sort of community involvement is the healing of many long-term rifts and the rebuilding of social pride in these catchments.

A revised surface drainage strategy, completed in 1995, has resulted in a major reduction in the cost of supplying surface drainage to the SIR. Procedures to maintain and enhance environmental values of wetlands and remnant vegetation have been adopted in all aspects of the drainage program. The designed level of service for the surface drainage network was reduced from handling a 1 in 10 year rainfall event to a 1 in 2 year event, and more emphasis was placed on utilising natural storage within the catchment.

This surface drainage strategy is one of the major achievements of the Plan. It balances the need for regional drainage for both the productive future and environmental health of the Region with minimal adverse downstream impacts. The surface drainage strategy was developed over several years with a wide degree of community input. The Region was split into 23 sub-catchments and separate consultation strategies designed for each of the sub-catchments.

A feature of the surface drainage program is that the right for landholders to object still remains. The drainage program has been to the Victorian Civil Appeals Tribunal several times with positive resolution. It also had a major mediation process (known as the Muckatah Mediation Process) conducted prior to the successful judgement before the Planning appeal panel. The program also has its own formal appeals mechanism that relies on consensus and this has been utilised twice to date.

The Plan has made major contributions to the implementation of the Nutrient Strategy and its linkages with the SIRLSWMP. The tripling of the area served by drains must be accompanied by a 50% reduction in the phosphorus contribution from surface drains to the River Murray. The progress in this area has occurred particularly with the development of drainage diversion plans, the use of natural catchment storage in drain design, and the potential to further modify drain design to maximise nutrient stripping. Modification to drain design includes vegetated and flatter drain batters and the inclusion of in-line wetlands in the bed of the drain. The Plan has also actively supported the establishment of community monitoring to raise awareness of nutrient levels in the Region's drainage network and waterways.

- ***Sub-Surface Drainage Program***

During the first nine years of implementation of the SIRLWSMP, 169 new private groundwater pumps were installed and 55 upgraded, to provide groundwater protection for over 24,000ha and additional water for irrigation of pasture. A further 19 new private groundwater pumps were installed along with 16 ha of tile drains under horticultural blocks.

One of the features of this program is that priorities are given to group groundwater investigations. This is targeted particularly towards Landcare groups. This is a cost efficient method from the program's perspective and it also means much greater community awareness. Although only 17 public pumps, protecting 2,500ha, have been commissioned to date, 20 are in various stages of investigation and construction.

Groundwater is now an integral part of the water supply system for many farmers and there is a heightened awareness of the need for winter disposal. After wide community consultation, the

SIR has been declared a Groundwater Supply Protection Area. This will allow the development of a range of licensing measures to encourage consistent and responsible pumping of groundwater. In the consultation process associated with the Groundwater Supply Protection Area plan links were also made with Water Service Committees and the dairy industry to ensure maximum opportunity for community input.

- ***Waterways Program***

The Waterways Program in the SIR is now making some tremendous achievements with a focus on targeting specific reaches of the rivers and streams.

In 1998/99, 37 rock beaching projects were completed protecting 1 km of waterway. As well, 50 major grade control structures were completed and 8 gully/tributary control structures. Five fishways were also constructed. Exotic woody weeds were controlled at 20 sites over 147 km of river frontage. Over 25 km of frontage has been fenced and protected from stock. Management of large woody debris was undertaken at 17 sites within the SIR.

Many of these projects (12) were in priority areas in urban communities and opportunities were taken to increase community awareness of the program. This included regular bus trips and community 'clean-up' days.

Why is it working?

Lachlan Polkinghorne (National Landcare Facilitator) summarised some of the factors required for successful catchment management in his opening address at the Goulburn Broken Landcare Forum in April, 1999. He listed four major factors. These were; (i) human capital, and community health and vitality, (ii) physical land capability, (iii) Government commitment, and (iv) economic capacity. We have been fortunate in the Shepparton Irrigation Region to have all of these in varying degrees. But what has also been critical in this Region has been the enormous commitment and intellectual capacity of our community leaders. They have been behind the process from day one and have allowed the momentum to build with their 'role modeling' and continuity of service on the various community forums.

The "Salt Action : Joint Action" strategy initiated by the State Government in 1987 emphasised the importance of community input to reduce community/government conflict over the growing salinity problem. The process of community ownership of the SIRLWSMP has taken time and everyone has been committed to the long haul. Trust and respect has not been built overnight, but success has helped to create credibility all round. The support of the State Government in this process should not be understated.

The issues the SIR Implementation Committee and the SIRLWSMP are addressing impacts on all people in the local community;

- townspeople (through reduced employment opportunities and deterioration of public amenities, such as golf courses)
- Local Government (through road damage)
- environmental groups (through loss of native vegetation and birds)
- schools (through education programs highlighting future concerns)
- farmers (through productivity losses and economic loss to the region).

Therefore, all of the local community quite clearly have a stake in its success. There is continuing realisation by the local community of the importance for long-term commitment to tackling the Region's salinity problem. The Landcare survey completed in 1999 (Byron et. al., 1999) supports this by suggesting that most respondents were very concerned about the potential economic, environmental, and social impacts of a rising watertable. As a result of this

concern, the SIR community has embraced the Plan. This is particularly evident in areas where the Plan has provided surface drainage. The widespread change in views towards the environment has also helped this process. Departmental agencies have been supporting the Plan development through the community process (ie. the Implementation Committees and Catchment Management Authorities). Communities have in turn come to realise that it is important for the agencies to be involved if natural resource management is to be successful.

The messages delivered as part of the implementation of the SIRLWSMP are appropriate and are having real impact. A survey of 70 dairyfarmers in the SIR in 1997 by Farmanco (1997) found that despite 86% of respondents not being able to list any of the names of the Regional Natural Resource Management Strategies, over 80% had undertaken some changes in irrigation management and 70% had undertaken environmental improvements (mainly tree planting). A Landcare survey completed in 1999 further reinforces this level of awareness developed across the Region (Byron et. al., 1999). Respondents were asked what were the major problems existing on their properties; 90% of respondents stated weeds, 73% soil compaction, 56% rising groundwater and 48% salinity. When asked to indicate the most important issues, weeds had the highest rating, salinity second, and rising groundwater third. In general, respondents were more concerned about economic rather than social and environmental impacts, long-term as opposed to short-term issues, and impacts on the local area rather than impacts on their property. This indicates a maturing of views in the community relating to catchment problems, such as salinity.

Critical to the success of the SIRLWSMP has also been the significant amount of resources dedicated to getting works on the ground. Seventy percent of the total budget for the Program is dedicated to activities resulting in a direct change on the ground (ie. drain construction, farm development, groundwater pump installation, fencing, and revegetation). In addition, the Region's farmers have contributed significant funds to their proportion of the agreed cost-share for the Plan.

Findings from the Shepparton Irrigation Region survey also indicated that Landcare Groups in this area are experiencing historically high levels of activity (Byron et. al., 1999). Fifty-two percent of respondents (out of a total sample size of 300) considered 1997 or 1998 to be their most active year compared to 25% for 1995 or 1996. In addition, 36% of respondents said that this year (1999) was at least as active as their most active year.

Chamala et. al. (1999) described a Participatory Action Model as a continuum of community participation in a project from its idea to its research and investigation, through to the delivery of its solutions via extension and technology adoption approaches. As has been described in this paper, the Community Groups in the Shepparton Irrigation Region have obtained full participation according to the Chamala Participation Continuum (1999). This is even to the point at which the community SIR Implementation Committee has responsibility for budget expenditure and determining priorities for funding works on the ground. This has necessitated the Government, through its agencies, to release a degree of control and accept potential risks associated with making their actions transparent and fully accountable to a local community. The outcome of this has been true community empowerment and ownership.

The increasing maturity of the catchment community in tackling natural resource management is highlighted by the Local Area Planning process now being implemented. Local Area Planning (LAP) is a new initiative of the Goulburn Murray Landcare Network and the Goulburn Broken Catchment Management Authority which will focus on high priority sub-catchments to concentrate on-ground effort in a strategic manner involving the majority of local landholders. A vision for the local area will be developed and it is predicted that funding for on-ground activities will be more forthcoming with these LAPs setting out works programs for

the next 10 to 15 years. The process of developing these LAPs is very inclusive and every effort is made to also involve local townspeople and other stakeholders that may not interact directly with that local community.

The last, but by no means least, critical factor for the success in implementing the SIRLWSMP has been communication, communication, communication, communication, communication..... Communication strategies are developed using a formalised process and implemented for the major SIRLWSMP works programs and any new or changing policies.

Lessons for the Future

There are a number of challenges facing the SIRLWSMP as it prepares for the next five years of implementation in a constantly changing environment. These challenges will be overcome if the following success factors can be met:

- real community empowerment and ownership is retained,
- natural resource issues continue to be dealt with in an integrated way (Local Area Planning will play an important role in ensuring this happens at a sub-catchment scale),
- policy continues to evolve, based on sound science and complete consultation and participation,
- investment is targeted in a logical and consistent way,
- there is transparent accountability at all levels,
- the impact of bureaucracy is minimal, and
- the goal posts are not continually changed by one partner in isolation from the rest.

Summary

The SIRLWSMP is now recognised as one of the most successful natural resource management programs in Australia. In 1991, SPAC won the Banksia Award for Agribusiness in recognition of its achievements in natural resource management. In 1995, the SIRLWMP won the BP Landcare Catchment Award for Victoria. In 1998, staff working on the SIRLWMP were finalists in DNRE's Daniel McAlpine Award, which recognises scientific excellence in agriculture resource protection. In 1999, the SIR Implementation Committee was a finalist in the community group section of the Banksia Awards whilst its drainage program won the Institute of Engineers Award for the environmentally sensitive design of the Muckatah Surface Water Management System.

The Plan has resulted in the SIR playing host to a constant stream of visitors from Victoria, interstate and overseas to look at the achievements and the involvement of the community in natural resource management. Recent visitors include the OECD environmental audit team, the Murray Darling Basin Ministerial Council, the World Bank and ARMCANZ.

Funding bodies recognise the SIRLWSMP as a Plan that gets works on the ground. It has attracted funds from a wide variety of sources.

The SIR Catchment Strategy is a cooperative Plan, involving all sectors of the regional community, local, state and federal government, and their agencies. The achievements that have been made are a tribute to the successful partnership that exists between these groups. The continued success of community involvement in catchment management depends on the commitment of all partners to retain and build on this relationship.

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