

THE FUTURE OF IRRIGATION IN SOUTH AUSTRALIA

Keynote Address at Seminar "Irrigation South Australia - Towards 2000"

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Opening remarks

It is not my task to speak for agriculture, as to a large extent this has been well outlined by previous speakers and speakers to follow. I have had a continuing interest in water and irrigation throughout my working life and have maintained this involvement since leaving SA in 1985.

I am confining my comments to South Australia itself. I firmly believe that there is great potential for further export of irrigation technology and the associated inputs of services and equipment. South Australia has established itself as a world leader in dry area agriculture. This should not only include the use of agricultural techniques and farming systems in harmony with low rainfall environments, but also the use of advanced irrigation technology in arid and semi-arid environments.

We all appreciate that attempting to predict the future is a very chancy business, requiring some heroic assumptions. The approach I intend to adopt is, firstly, to take a brief historical perspective of irrigation development, have a look at current attitudes and trends which seem to be emerging, and finally make some statements about the possible characteristics of the Industry in year 2000, which, after all, is only 15 years away.

The development of water storage and irrigation schemes was stimulated by the drive for regional development by State Governments in particular. Australia is a very dry continent and at that time (late 1800's and early 1900's) the development of suitable farming technology for the extensive low rainfall and infertile areas of Australia was still relatively in its infancy. The UK market provided a profitable and stable outlet for the produce of intensive irrigated agriculture. The absence of refrigeration, the relative lack of food processing industries, and the desire for all-

year-round supplies of fresh food also influenced these major public investment decisions. In addition, the convenience of establishing returned servicemen following World Wars I and II on government irrigation projects, led to further expansion. Water was made available at less than the cost of providing it as both State and Federal Governments of the time saw this as a legitimate public investment in the interests of growth and development.

In recent years, particularly over the last 15 to 20 years, there has been a significant change in general community attitudes which should be fully recognised. These changes are an inevitable result of the economic development process and broadly cover market, financial, resource management and environment issues.

There is no doubt that the majority of the output from intensive irrigation areas has been constantly in market difficulties particularly since the UK joined the ECC and subsequently since the CAP of the EEC led to surplus production being off-loaded onto international markets. Many of the products have been, and still are, significantly assisted by statutory marketing arrangements, e.g. dairy industry.

There also have been considerable concern at the level of public deficits associated with the irrigation schemes, particularly relating to operating and maintenance and the need for rehabilitation. Competition for scarce public resources is now very much to the fore, particularly given the demand for human services in the community on the one hand, the financial support required for those activities associated with economic development, and the increasing pressure on the taxation system. The economic rationale behind the allocation of resources to various industries, including agriculture and the irrigation industries is under close scrutiny particularly during the current downturn in world economic activity. The increasingly significant emphasis on deregulation and a freeing up of the economic system to allow greater capacity for market forces to influence the allocation of resources is an example of that trend. In public irrigation, this is reflected in the moves towards increased water charges to at least cover the cost of project operating and maintenance, to transferability of water allocations and a more critical scrutiny of new investment proposals including

applying water charges which reflect the cost of capital involved in construction as well as operating and maintenance.

Increasing competition between water users is evident - irrigators, domestic and industrial users. A freeing up of the existing institutional arrangements with transferability of water allocations, facilitates movement between users and will allow a more flexible and responsive approach to changing markets and community demands.

There is greater concern for environmental issues in the community. This is going beyond the production of an environmental impact statement for new activities to a re-evaluation of the environmental hazards of existing practices and a close study of the real beneficiaries of a particular form of land use.

We are all well aware of the River Murray salinity issue. Irrigators like all other farmers will feel the impact of these concerns for public health, public amenity and the aesthetics of their activities.

The community is becoming more affluent, at the same time less addicted to the work ethic and a higher proportion are unemployed or retired. This has an impact on the importance of amenity and aesthetic aspects of the urban and rural living and facilities, and has influenced the demand for urban irrigation systems, for landscaping, sport and recreation, and has resulted in the upsurge of do-it-yourself systems. In rural areas, the most dramatic amenity example is the great importance placed on gardens in Roxby Downs and similar mining towns and at Ayers Rock and other tourist centres which are all dependent on irrigation.

As agriculturists we recognise the problems of the individual landholder and have always focused on them. This has been done in the knowledge that the external systems of irrigation, drainage and water resource management can be perfect but of no value if the farmer is not matching their level of technology. What we have all come to see now is the problem of an irrigation-based

community in its entirety. The response to this has been support for the Riverland Redevelopment Council in concert with other Government Departments and community bodies developing various programs, including irrigation extension to take the new irrigation technology to the farmer. By innovative administration and institutional mechanisms this new information will be accessible to irrigators in a relevant and appropriate context.

All these changes in attitudes reflect an inevitable process associated with the economic and social development process.

Before commenting on aspects of the future of the industry, let me say that in South Australia we have done some very important ingredients supporting development. A good legislative framework (Water Resources Act 1976), the Water Resources Council and the network of Regional Advisory Committees. Good relations between government agencies in particular (E&WS and Agriculture) and between key government agencies.

Let's consider what the irrigation industry may look like in 15 years' time:

- In Southern Australia, there will have been very little, if any, additional public investment in new projects, although investment in rehabilitation and salinity control in existing projects may be significant.
- There will be some areas currently irrigated that have been removed from irrigation, mainly from existing government areas.
- Transferability of water rights will be well accepted both between irrigators, and between other users - domestic and industrial.
- Water prices will more reflect the value of water (productivity value) than the costs of providing water.
- Water districts will be managed by private agencies and the Government agency will provide water to and drainage from the district boundaries, and will be responsible for the overall management of the water resources.
- Metering of irrigation water whether from irrigation projects, rivers or underground will be the rule rather than the exception.

- Government control of total water use and pollution particularly in groundwater basins will be substantial.
- Private irrigation using local surface supplies will have expanded, firstly by purchase of water allotments, savings due to the use of more efficient application methods, and the increase in irrigation in higher rainfall areas
- Modern irrigation technology using sprinkler, drip, and low volume large scale units will have increased significantly.
- In irrigation projects, cropping patterns will be much more flexible with greater attention to annual cropping of high value crops rather than perennial crops.
- Irrigated crop management services and computer controlled irrigation systems will be extensively used, and I expect private consultants to play a more significant role in the future
- Use of reclaimed water, effluents and drainage water will increase.
- Urban and amenity irrigation will have increased.
- There will be an expansion of research, extension and educational facilities related to irrigation and water use.

The Irrigation Association of Australia is itself a response to the changing irrigation scene and the need for all components of it to integrate. The next few years will see some of the changes described above. It is the role of Government to be responsive to changes in community expectations and the I.A.A. could well be one of these community agencies which plays an important role in interpreting and transmitting these expectations.