

# Irrigation in the Angas Bremer

***Irrigation Management Zone***

**2002-2003**

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Angas Bremer Water Management Committee Inc. Annual Report

*A Summary of the data collated from Irrigators Annual Report Forms  
and from Committee Activities.*



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# Activities of the Angas Bremer Water Management Committee Inc. 2002-2003

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## 1.1 Flood Plain Study.

This project started in 2001. Five new soil moisture monitoring sites were added in 2003 to make a total of 8 sites. All 8 sites have been equipped with data loggers which record soil moisture levels at 15 minute intervals. Soil moisture sensors are located every 0.5m down to the water-table which is at 6m at several of the sites. At each monthly download of the loggers, some of the original gypsum blocks are still read manually

Recording equipment (data loggers) has been installed at 10 observation well sites where a total of 20 loggers have been installed to measure the water levels in the confined and in the unconfined aquifers. In addition the unconfined water levels in each of four, 10m deep monitoring wells located in two Red Gum swamps are being logged. The data from these 24 loggers is downloaded once a month.

The goal of the Floodplain study is to measure the effect of flooding on the water table.

The soil moisture monitoring data shows the soil depth to which the flood water penetrates and the well water level loggers show how well water levels respond to flooding.

## 1.2 Irrigation Efficiency – FullStop

Improvement in Irrigation field application efficiency in the Angas Bremer Irrigation Management Zone is being encouraged by use of the CSIRO FullStop device.

This year is the second year that the FullStop has been used and it is the first year that the data from the FullStop has been included in the Irrigators Code of Practice

Irrigators who did not complete the FullStop record sheet will not be accredited under the Code of Practice.

The FullStop data is being summarized locally and it is also being analysed by the CSIRO.

Some irrigators have not yet installed FullStops. Some irrigators have installed additional sets of the devices.

## 1.3 Angas Bremer Land and Water Management Plan

Additional modules plus amended modules of the Angas Bremer Land and Water Management Plan have been posted to irrigators.

An abbreviated version of the history module is almost complete and the data it contains is fascinating.

## 1.4 Environmental Management System (EMS) Trial

The growing reputation of the Angas Bremer district for community participation and for a common-sense approach caused the Murray Darling Basin Commission to choose the District as the location for its EMS trial for irrigated viticulture.

The EMS trial builds on the Angas Bremer Irrigators Code of Practice.

Twenty Angas Bremer vineyards are participating in this trial.

## 1.5 Irrigation Annual Reporting.

This year the Irrigation Annual Reports have been collated into a new database which is being developed by computer consultant Andy Capp.

The capability to produce maps of the Angas Bremer area showing the groundwater levels, the groundwater salinity and the areas flooded each year has been linked to the database. After successfully seeking support from ESRI, the manufacturer, the ABWMC has purchased Arcview which is the Geographic Information System software used to display data as maps. ESRI provided their software at a huge discount from the retail price.

## 2 Summary of the Irrigation Annual Reports 2002-2003

The Committee mailed out 142 Irrigation Report forms. 135 were returned to the Secretary and 106 Irrigators have achieved Accreditation by properly completing the form., The remaining irrigators have been sent letters explaining why they have not been accredited and giving them the opportunity to be included on the accredited list for 2003-2004 by properly completing those sections of the form not previously completed. Five irrigators did not submit a report; the names of these licensees have been given to DWLBC and to RMCWMB.

Irrigators who achieve accreditation will receive a "Certificate of Accreditation" This certificate should be useful to irrigators in their dealings with Wineries and with other businesses.

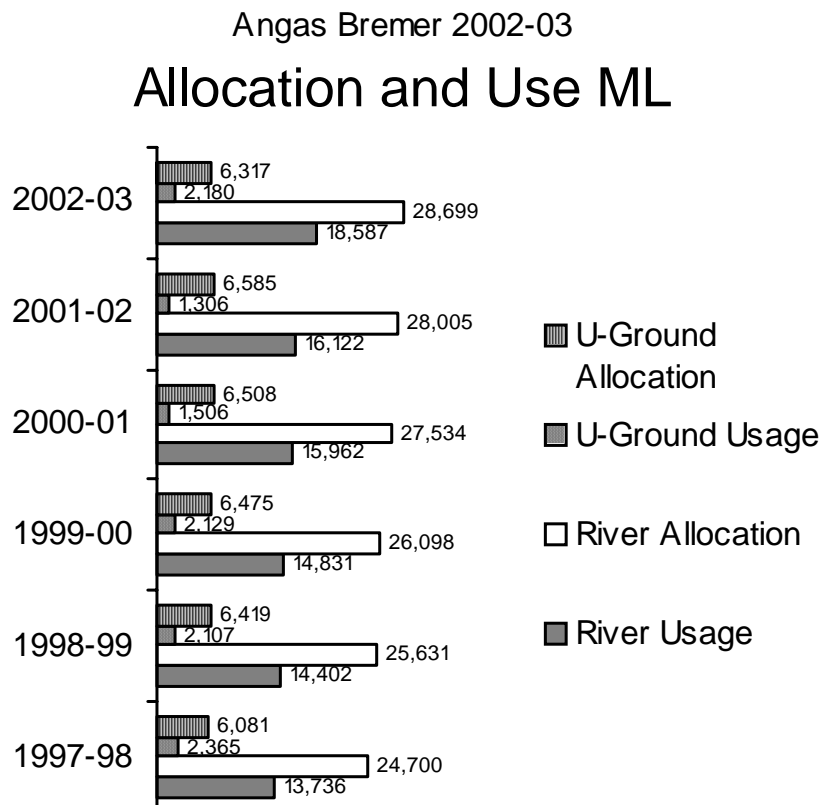
Accreditation has been recognised by the S.A. Wine & Brandy Association.

To ensure that the data used by ABWMC is consistent with the data collected by DWLBC a table showing name, licence number, allocation, meter number and meter reading has been provided to DWLBC.

### 2.1 Water Allocation and Water Used 2002-2003

The total water use was up by 19%. Because an additional 850ha of land was irrigated and it was a dry year. The district average ML per hectare for 2002-2003 was 2.6ML/ha which compared with 2.5ML/ha in 2001-2002.

**Chart 1** shows the water allocation and use for each of the past 5 years.



### 2.1.1 River Murray Water

Allocation: There was an increase in River Murray water allocation within the zone of 700ML, a 2½ % increase from the previous year.

Usage: River Murray water use for the year of 18,587ML was an increase of 2,465ML from the previous year, a 15 % increase.

Minimal flooding during the year meant that those crops usually watered by flooding were watered by other means, this would account for some of the increase in the volume of water used for the year.

### 2.12 Groundwater

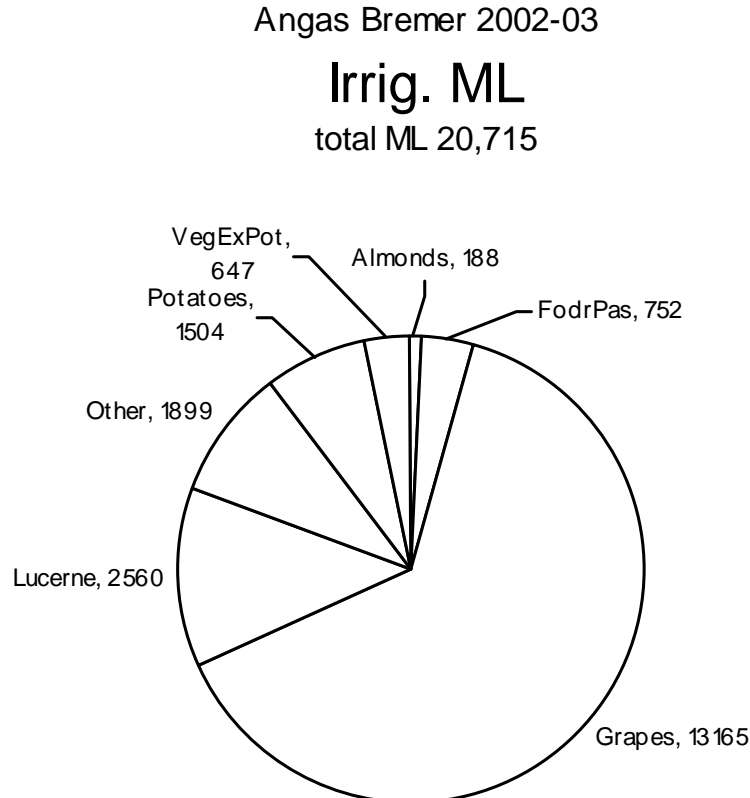
Allocation: Groundwater allocation decreased from that reported last year, by 268ML, the change is possibly bought about by irrigators previously including Stock & Domestic allocation or rollover and recharge credits. The irrigation allocation figure should remain the same, unless an irrigator relinquishes their licence.

Usage: The use of groundwater for the year was up considerably, an increase of 874ML or 67%. The increase was probably due to the very dry year.

### 2.2 Water use by Crop

The total water use (both ground and River) for the year was 20,767ML Of this total; 52ML was used for Stock & Domestic and Industrial use. With the exception of almond and vegetable other than potato, all other crops used considerably more water than in 2001-2002, as can be seen in Table 1.

**Chart 2** shows the volume of irrigation water used on each crop type.



**Table 1**

Table 1 shows the total water used on each crop and the number of hectares of each crop irrigated, the percentage of change between 2001-02 and 2002-03 for water and hectares is shown at the bottom of the table.

Year	Total ML	Total ha	Grape ML	Grape ha	Lucn. ML	Lucn. ha	Other ML	Other ha	Veg. ML	Veg. ha	Potato ML	Potato ha	Past. ML	Past. ha	Alm. ML	Alm. ha
1996-7	11,348	4,156	4,332	2,134	2,490	741	3,081		1,446					328		88
1997-8	16,100	6,545	6,001	3,645	3,700	876	2,248	872	2,670	679			1,526	369	147	61
1998-9	16,509	6,153	8,864	4,084	3,526	698	738	555	2,355	518			906	241	119	61
1999-00	16,961	6,625	10,021	4,665	2,491	418	1,354	777	761	121	1,812	485	358	96	164	58
2000-01	17,467	6,788	10,626	4,991	2,040	429	1,259	533	769	134	1,773	490	742	157	172	55
2001-02	17,428	7,089	11,159	5,357	2,051	471	1,286	583	651	103	1,719	425	316	97	246	55
2002-03	20,715	7,934	13,165	6,059	2,560	376	1,899	777	647	108	1,504	394	752	173	188	47
% increase 01-02 to 02-03	+19%	+12%	+18%	+13%	+25%	-20%	+48%	+33%	-1%	+5%	-12%	-8%	+138%	+78%	-24%	-14%

Note : Potato was included with Vegetable prior to 99-00

**Table 2**

Table 2 illustrates the percentage of the total ML used each crop and percentage of the total ha irrigated each crop 2002-2003

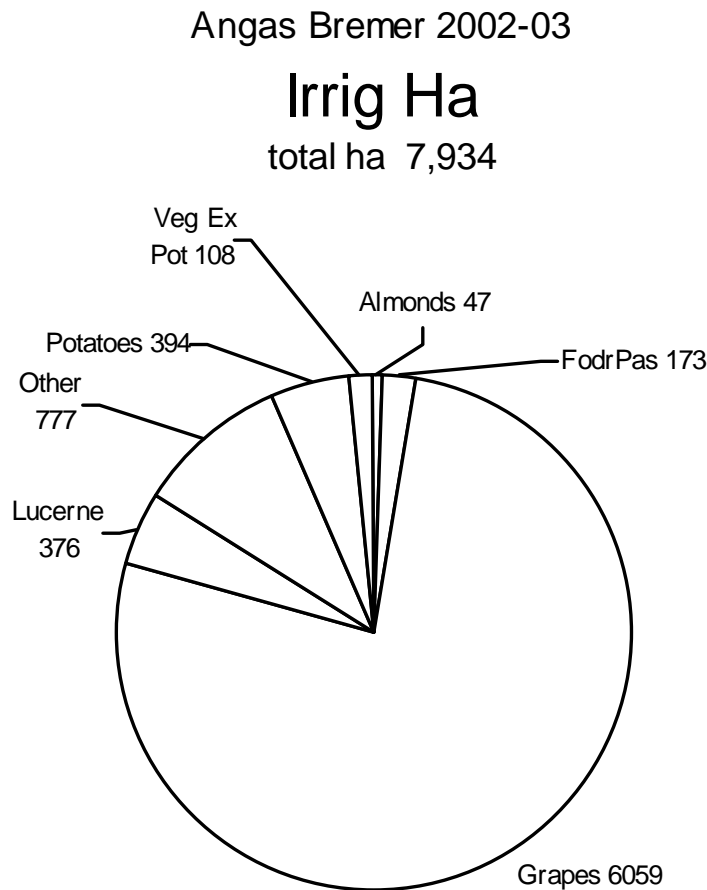
	Grape	Lucerne	Other	Vegetable	Potato	Pasture	Almond
ML used	64	12	9	3	7	4	1
ha irrigated	76	5	10	1.4	5	2	0.6

## 2.3 Irrigated Land use

The total area irrigated in the Angas Bremer Irrigation Management Zone in 2002-2003 increased from 2001-2002 by 12% (see table 2.) to 7,934ha. Some of this increase could be attributed to negligible flooding.

Fodder and pasture increased in area by 78% or 76ha, while other crops also increase by 33% to 777ha. Almond crop area dropped to 47ha while ha of irrigated Lucerne fell to 376ha, a fall of 20%. The areas of Lucerne and of Almonds are now the lowest since Annual reporting began in 1996.

**Chart 3** Shows the area in ha of each crop type irrigated.



Note; Table 1 (page 6) shows the difference in area of each crop 1996-97 to present.

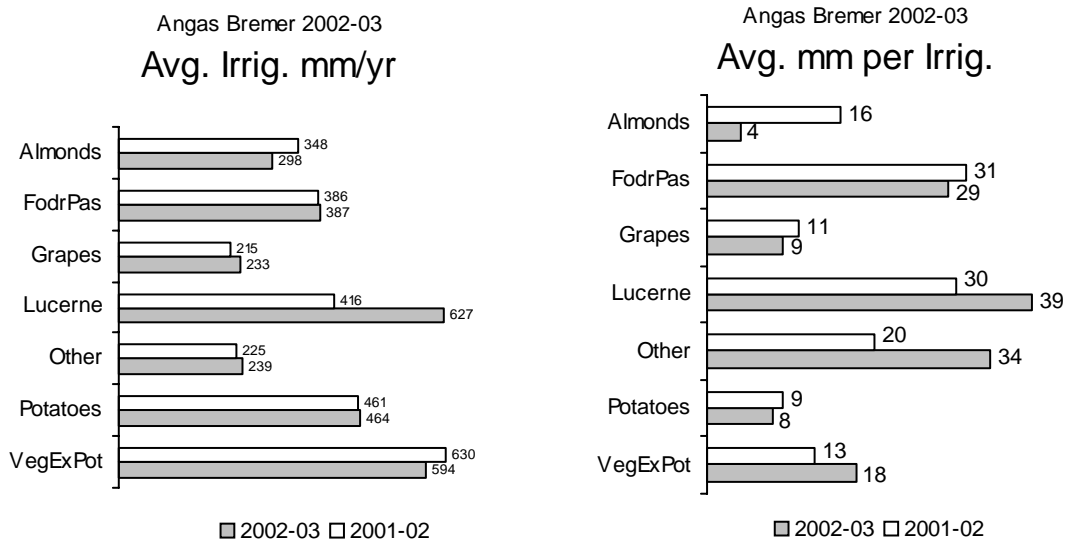
## 2.4 Average Irrigation in mm for each crop

Chart 4 (a) (below left) shows the average irrigation in mm per year for each crop.

Chart 4 (b) (below right) shows the average irrigation in mm per irrigation for each crop.

Both charts show the data for 2002-2003 and for 2001-2002.

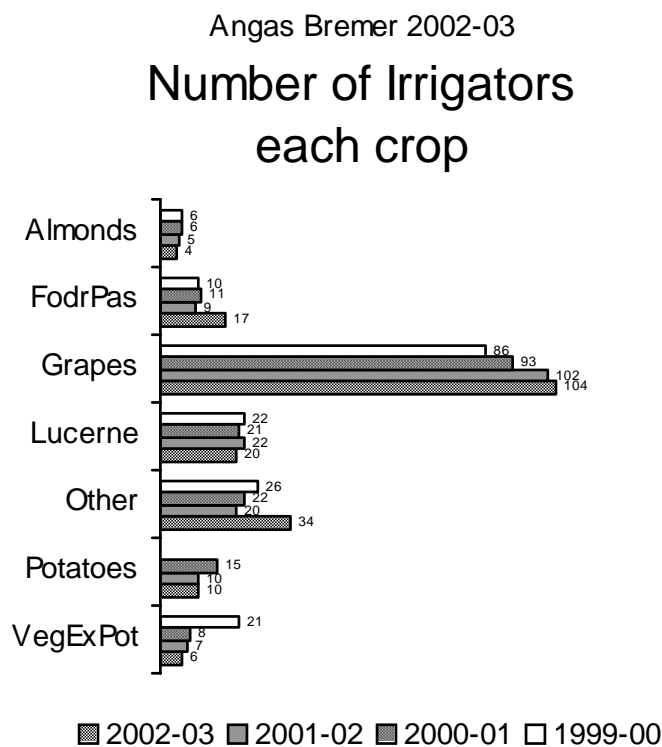
### Chart 4



## 2.5 Number of Irrigators each crop

Chart 5 lists the number of irrigators for each crop variety and compares with past years. Some irrigators grow several crop varieties.

### Chart 5



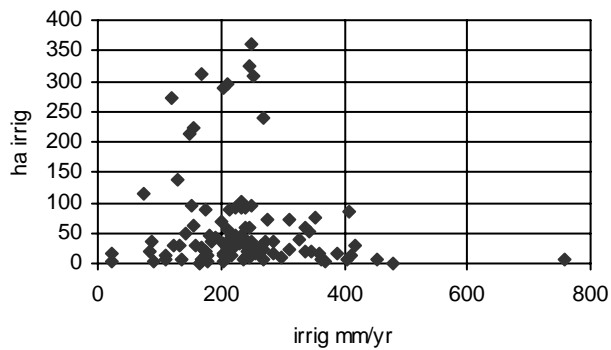
## 2.6 Volume of Irrigation Water applied to each crop type

The next 15 scatter charts show the volume of irrigation water applied to each crop by each grower, the first graph in each set shows the mm per year and the second shows mm per irrigation.

Each dot on the graph represents one irrigator and the volume of water applied by that irrigator.

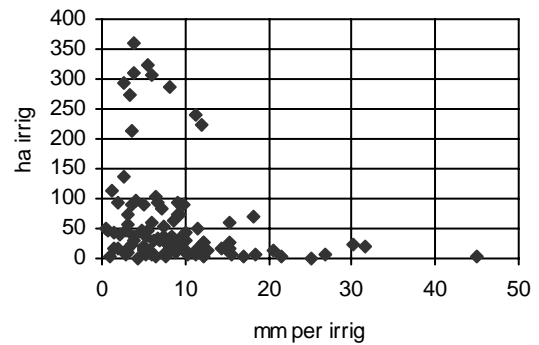
**Chart 6**

Angas Bremer 2002-03  
Irrigation mm per year  
Grapes



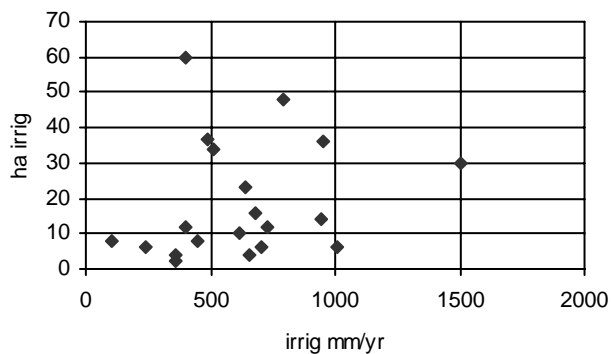
**Chart 7**

Angas Bremer 2002-03  
mm per Irrigation  
Grapes



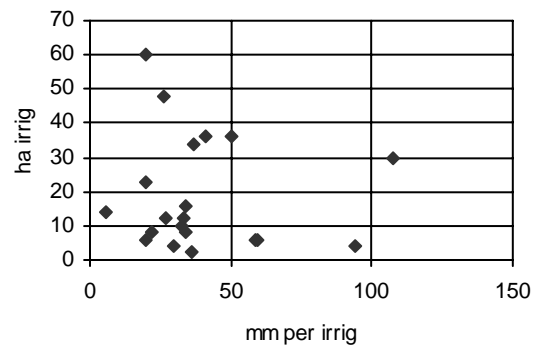
**Chart 8**

Angas Bremer 2002-03  
Irrigation mm per year  
Lucerne



**Chart 9**

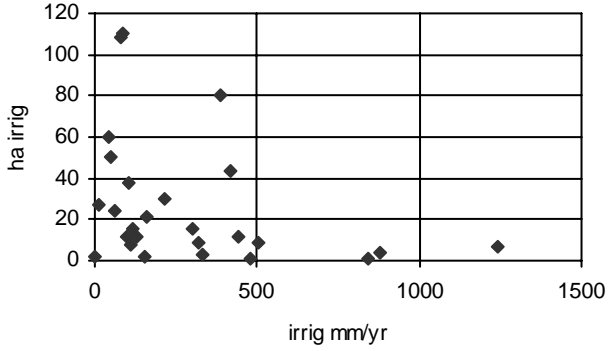
Angas Bremer 2002-03  
mm per Irrigation  
Lucerne





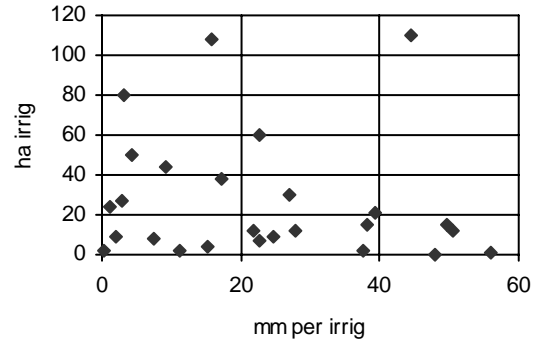
**Chart 10**

Angas Bremer 2002-03  
Irrigation mm per year  
Other



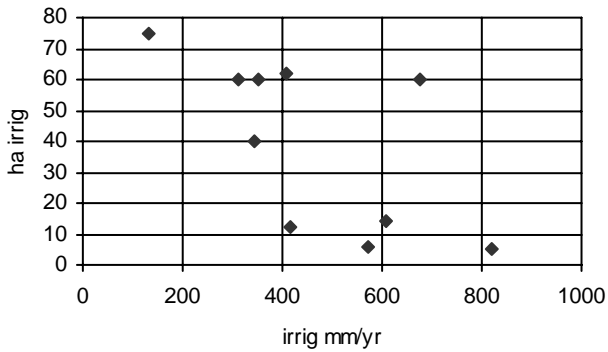
**Chart 11**

Angas Bremer 2002-03  
mm per Irrigation  
Other



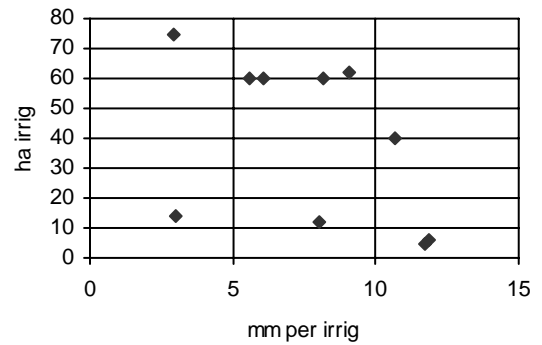
**Chart 12**

Angas Bremer 2002-03  
Irrigation mm per year  
Potatoes



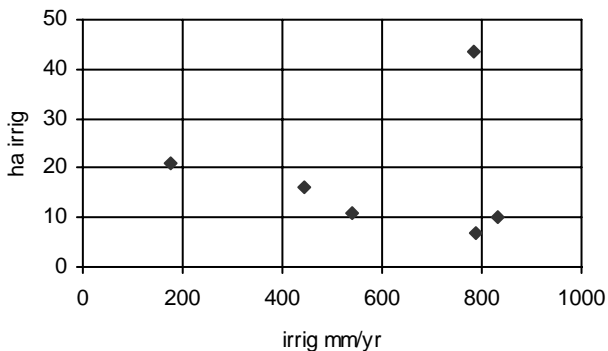
**Chart 13**

Angas Bremer 2002-03  
mm per Irrigation  
Potatoes



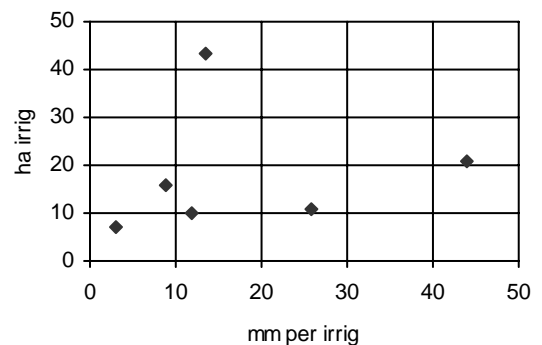
**Chart 14**

Angas Bremer 2002-03  
Irrigation mm per year  
Vegetables



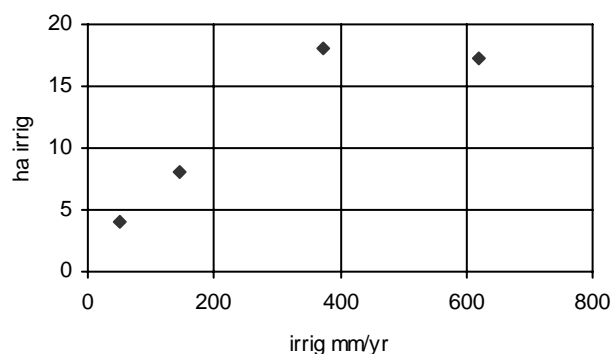
**Chart 15**

Angas Bremer 2002-03  
mm per Irrigation  
Vegetables

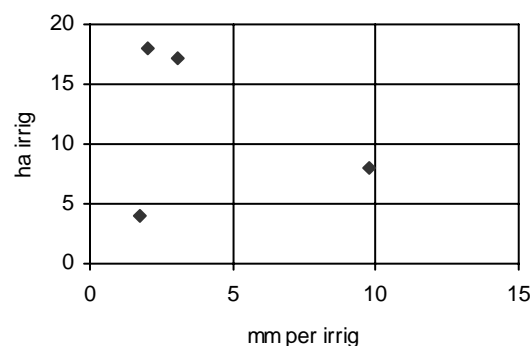


**Chart 16**

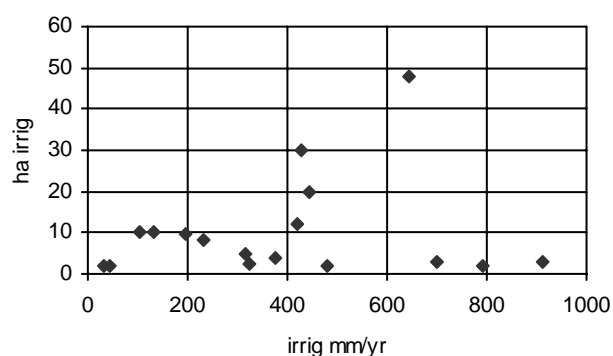
Angas Bremer 2002-03  
Irrigation mm per year  
Almonds

**Chart 17**

Angas Bremer 2002-03  
mm per Irrigation  
Almonds

**Chart 18**

Angas Bremer 2002-03  
Irrigation mm per year  
Fodr/Pas

**Chart 19**

Angas Bremer 2002-03  
mm per Irrigation  
Fodr/Pas

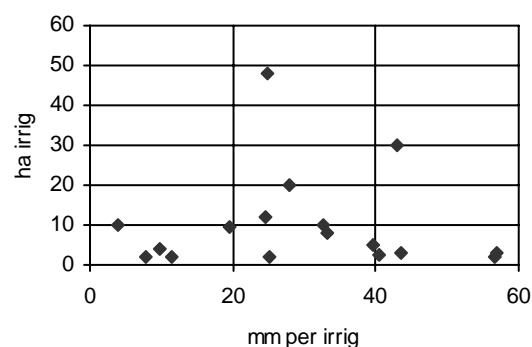
**Table 3**

Table 3 shows the volume of water applied per ha per crop for each of the years for which data has been collected.

ML per ha

	Grape	Lucerne	Other	Vegetable	Potato	Pasture	Almond	All crops
1996-7	2.0	3.4		4.0				2.7
1997-8	1.6	4.2	2.6	3.9		4.1	2.4	2.5
1998-9	2.2	5.1	1.3	4.5		3.8	2.0	2.7
1999-00	2.1	6.0	1.7	6.3	3.7	3.7	2.8	2.6
2000-01	2.1	4.8	2.4	5.7	3.6	4.7	3.1	2.6
2001-02	2.1	4.4	1.7	5.1	4.0	3.3	4.5	2.5
2002-03	2.2	6.8	2.4	6.0	3.8	4.3	4.0	2.61

## 2.7 Grower Monitoring Wells

An additional 12 grower wells were put down during the year making a total of 173. A further 3 well applications have been passed to the Drillers.

Some of the newer monitoring wells to the north and west of Langhorne Creek have been drilled to a greater depth than 6 meters. This has been done so that data can be collected from those wells rather than them being dry at all times. Irrigators putting in new monitoring wells in areas where the water table is known to be deeper than 6 meters, are being encouraged by the Committee to install deeper wells from which useful water table data can be obtained.

September 2002, 75 wells had water in them, 75 were dry and 23 were not reported on.

December 2002, 77 wells had water in them, 74 were dry and 22 were not reported on.

March 2003, 77 wells had water in them, 75 were dry and 20 were not reported on.

June 2003, 85 wells had water in them, 83 were dry and 5 were not reported on.

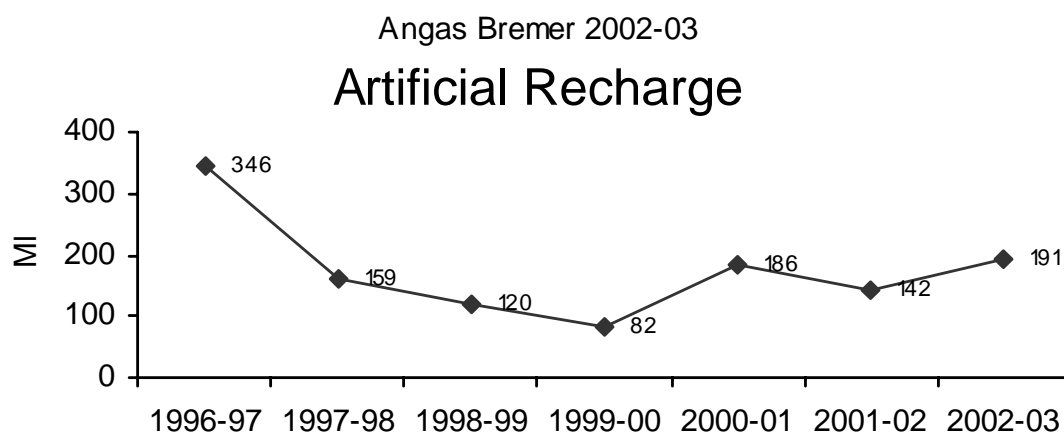
Note: of the wells not reported on 12 are new wells installed in early 2003.

## 2.8 Recharge Wells

12 irrigators reported on their Recharge Wells in 2002-2003, of these only 4 reported a total recharge of 190,575kL.

Chart 20 shows the recharge for each of the past 7 irrigation seasons.

### Chart 20



## 2.9 Flooding

Minimal flooding occurred during the 2002-2003 season. Only 3 irrigators reported flooding with 2 on the Bremer River and 1 irrigator on the Angas River. One grape crop, 1 almond crop and 1 fodder & pasture crop. Areas flooded varied from 4 to 25ha over a time period of between 24 and 72 hours. Flooding of non crop area; only on one property where 6ha were flooded. The total area flooded for 2002-2003 was 77ha. A map of the small area flooded was not produced for 2002-2003.

## 2.10 Water Salinity

(a) Groundwater: 30 irrigators reported the salinity of their groundwater and the readings varied between 760 and 4500ppm. One irrigator who reported a reading of 1150ppm suggested that the low reading was due to recharge from the previous year.

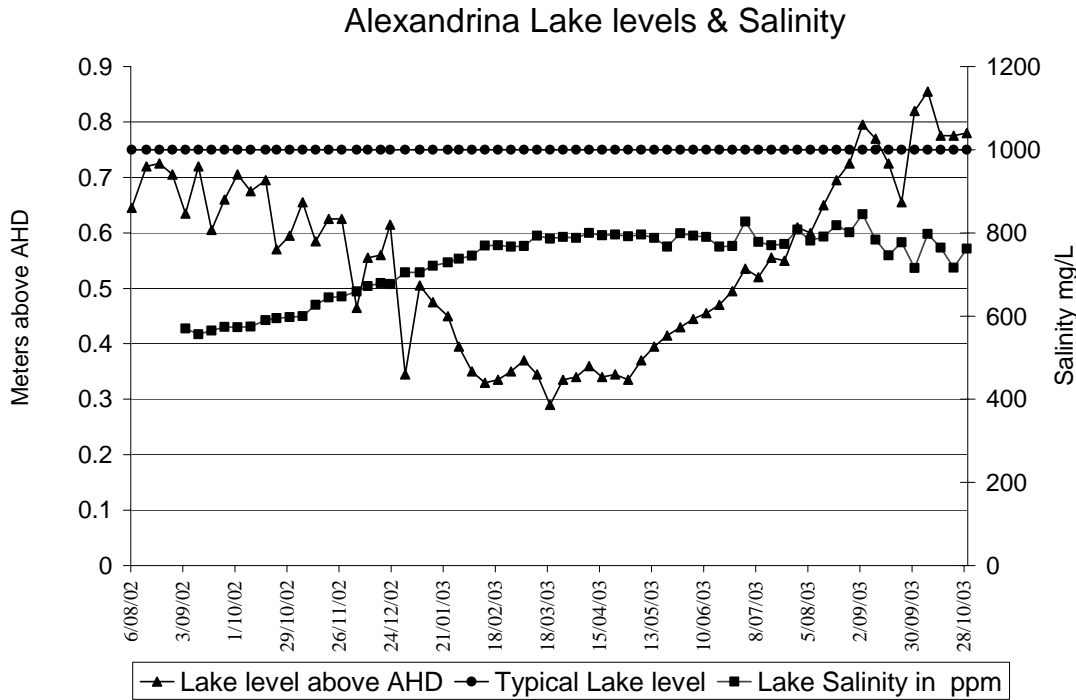
Appendix "B" (page 20) shows the Observation well salinity levels of both the unconfined and confined aquifers at July 2003.

A salinity testing service is available for irrigators who can leave water samples at the Langhorne Creek Post Office and the samples are tested and the results advised to the irrigator.

(b) River Murray Water; During the year a number of Lake water samples were tested for salinity, the readings varied according to where the sample water was taken from.

As well during the year the Lake level and salinity were monitored once a week (from a fixed site) and continues to be done. A graph showing the Lake level and salinity for 2002-2003 is shown in chart 21 (below).

**Chart 21**



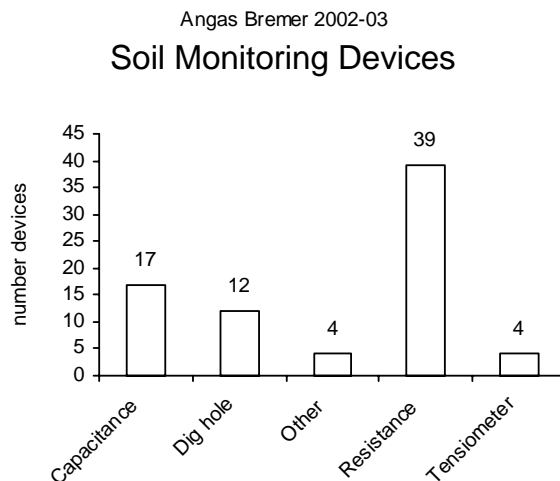
**2.11 Soil Moisture Monitoring**

The number of irrigators using soil moisture monitoring devices is increasing. Chart 22 shows the types of devices in use and the number of each device.

As well, over 100 irrigators have installed at least one set of “FullStop’s”.

In Chart 22, Capacitance devices include Sentek Enviroscan and Diviner, Agrilink ‘C’ probe and Dataflow Gopher, Resistance includes Gypsum Blocks, and Tensiometer includes Irrrometer.

**Chart 22**

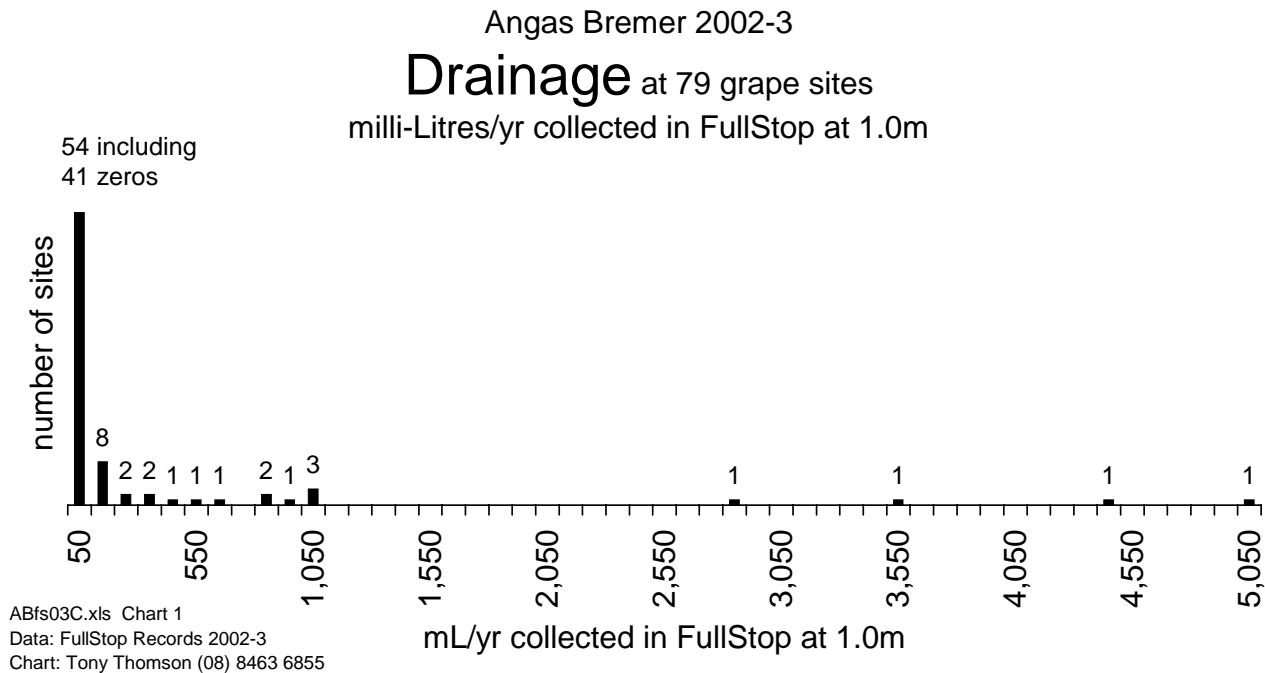


## 2.12 FullStop data from Growers.

Chart 23 gives a summary of the data from the FullStop devices. The chart shows the annual volume of drainage that growers collected from the 1 meter deep FullStop. The vertical bars are the numbers of irrigators while the "X" axis (along the bottom) indicates the millilitres collected for the year from each of the growers. In the first bar on the left-hand side of the chart (0 to 75mL/yr), 41 out of these 54 growers reported nil drainage in their FullStop.

Note: the FullStop record sheets that were submitted late, are not included in chart 23.

### Chart 23



## 2.13 Revegetation

In the revegetation sections of the Irrigation Annual Report (IAR), irrigators have indicated a total of 1090ha of un-irrigated vegetation located on their properties or on leased land.

Only 2 irrigators do not have sufficient un-irrigated vegetation for the current WAP requirements and another 2 irrigators did not answer the Revegetation questions on the IAR.

The database, when completed and when properties are all identified, will enable the ABWMC to produce a map showing where the vegetation is located.

A Community revegetation scheme is being coordinated by the Committee; irrigators who have insufficient land of their own on which to plant the required area of non-irrigated vegetation are invited to participate in this scheme.

## 2.14 Aquifer water levels

Appendix "A" (page 19) shows the depth to water in the unconfined aquifer. The maps use data from both the Observation wells and the grower monitoring wells. The 4 graphs show the water tables at September & December 2002 and March & June 2003.

Appendix "D" (page 21) shows the depth to water in the confined aquifer observation wells at March 2003

### **A B Chairman's Report 02/03**

It is once again very pleasing to be able to table a very positive report on the year's activities and our progress and successes and I hope it is gratifying and an encouragement to all. In particular the Alexandrina Councils "Industrial Environmental Award" which was presented to the Angus Bremer Committee was a reflection and worthy recognition for the hard work and great cooperation of the whole irrigation community in this district. A few years ago when some of the suggestions and ideas were put forward about how as a district we could protect our livelihoods and make our industry and our region as sustainable as possible they were seen by some to be dreams and too hard to achieve. However to every body's credit many of these ideas have been developed and put in place and are now accepted in this community as the way forward and are being viewed with increasing interest from outside of our district with some of the inquiries being from national bodies. I must at this stage point out to the general community that these achievements have involved a tremendous amount of time and energy from a great many people. As previously mentioned every irrigator is playing their part and is now doing more reporting and recording than ever before but your committee is convinced that what we are collecting is vital if we are going to keep ahead of our potential problems and it is our aim to continually report back and keep you informed on how we are using your information and what the information you are gathering means. With your annual reporting and all of the other projects we currently have running, AB is probably one of the most studied irrigation areas in Australia however I believe all of that work is justified if we use the information in a practical and realistic manner and if we can avoid destroying our environment. Our studies so far are indicating that we have a rare opportunity in this district to stay ahead of major problems that have occurred in many other irrigation areas throughout the world however to do that I believe the work is far from over and the drive and enthusiasm of the committee working for and being supported by the community can achieve the desired results. Although our LWMP is almost complete and will provide a blue print for the way forward in this region for future managers I am sure that this document will need to be continually monitored and amended as conditions change as I know they will. Resource management is about understanding your environment and as much as possible, identifying the risks to the environment, understanding the way the different aspects affect each other and having practical and flexible enough policies to implement the changes needed in a timely manner. The success of this region has been based around these principals with a strong local community group who understand their local issues, being well supported by The Catchment Board, and working closely with Govt. agencies, fighting to have input into practical and flexible policies.

One of the many challenges in the future will be to protect these principles in another time of change namely the introduction of Integrated Natural Resource Management. We have met with Minister Hill to discuss our concerns in this matter and he assures us that INRM presents an opportunity for community groups to become better

supported and to play a vital role in the future. I would be very disappointed if your committee did not pursue this matter and use the opportunities to attend workshops and have some input into a model for the future in resource management that supports and enhances community groups.

As we collect data and try to get a more detailed understanding of how the different components of our environment interact with each other we can not sit and wait until problems arise before taking action. I believe we now need to work on the next phase of planning and have in mind” What will be the triggers that mean problems are arising and what actions should we take?” This will mean that your committee will again come back to the community to discuss with you the way to achieve this. Once again to achieve this some of the ideas put forward may seem too difficult , unachievable , to expensive or unnecessary but just remember a few years ago that is exactly what some people thought about Revegetation policies, Community planting schemes , Codes of practice and Annual reporting however all of those things are now accepted as standard practice. We need to have a vision, even a dream and some big picture ideas to stimulate discussion and then the process of public consultation will end up achieving what is best for our region.

Our achievements over the last twelve months have once again only been made possible by the hundreds of hours our project officers and your committee members have put in and the close cooperation we have had with supporting agencies. I must thank all involved for their continued efforts and I trust that they are feeling rewarded for their great input.

Thank you  
Rob Giles

## *Angas Bremer Water Management Committee Inc.*

### Minutes of the Fifth Annual Public Meeting held at the Langhorne Creek Football Clubrooms Friday 29<sup>th</sup> August 2003

The meeting commenced at 1945hrs.

The Chairman, Mr. Rob Giles, opened the meeting and welcomed all those in attendance, with a warm welcome to invited guests.

Chairman called for apologies; Guy Adams, Chris Duffy, Peter Osborne, Ron Nurse, Tony Nurse, Joe Borrett, James Wright, David Wotton, Bill Potts, Ben Potts, Brian Johnson, Barry Potts, Dale Wenzel and Ken Follett.

The Chairman presented his annual report (copy attached), on completion he moved his report be adopted, seconded Colin Cross, all in favour.

The Chairman outlined the revegetation Community planting scheme and introduced Jan Whittle from the Goolwa to Wellington LAP to speak about the scheme.

Jan told the meeting where the Committee is up to with Community planting, how the accreditation process is dependant on the irrigators complying with the CoP (Code of Practice) Irrigators who are accredited will be issued with a certificate; unaccredited irrigators may have their licences suspended after 3 years non-compliance. That a random audit of 10% of accredited irrigators would be carried out each year by DWLBC.

Jan outlined the requirements of revegetation in the WAP, where the reveg. can be planted and the benefits of a Community scheme; how a large area of revegetation will use groundwater effectively. Chairman thanked Jan and went on to state that those irrigators who are leasing water in to the zone, according to DWLBC, are responsible for the revegetation for that water. This and other DWLBC rulings of the WAP, to be discussed with Julie Cann (DWLBC).

The Chairman then asked Tony Thomson and Bruce Allnutt to present the Interim Annual Report data to the meeting.

Bruce Allnutt presented overheads of the data collected for the year and made comment where appropriate; copies of the interim report were handed out at the meeting.

Tony Thomson gave a report on the FullStop data collected for the year; 80 irrigators had completed their data sheets. Tony and Richard Stirzaker had visited 8 sites in May where irrigators were experiencing problems with their FullStop's, following testing all the units were found to be working. Tony related a "Rule of Thumb" calculation, where 60L of water on 1m<sup>2</sup> will penetrate to 1.0 meter depth, and 30L of water on 1 m<sup>2</sup> wets down to 0.5m depth. A dripper wets a maximum 0.6m radius or 1m<sup>2</sup> and a minimum 0.3m radius or 0.25m<sup>2</sup>. For FullStop to flag at 0.5m needs; max, if 1m<sup>2</sup>, of 0.5m x 60L/m x 1.0m<sup>2</sup> = 30L –min, if 0.25m<sup>2</sup>, of 0.5m x 60L/m x 0.25m<sup>2</sup> = 7.5L. FullStop data from 01/02 was presented and an explanation given of what the data means. Next, data from 02/03 was presented from 4 sites, this data included rainfall.

Of the FullStop data received 02/03 most irrigators got less than 100ml from the FullStop, from this it could be said that very little had gone through to drainage.

A fully extruded plastic FullStop is being produced, this is the next generation FullStop. The intention of the FullStop device is to manage salinity in the root zone and aims towards irrigation efficiency.

Tony asked for a show of hands from the meeting to indicate anyone having problems with their FullStop, anyone experiencing problems were asked to contact Tony.

The Chairman thanked Tony and Bruce for their work with data presented.

Next item on the agenda was "Consideration of Temporary Lake Water to Groundwater"; the Chairman said this question had been raised at a previous meeting and had been discussed at the last Committee meeting he then ran through the points raised at the Committee meeting, these being that there is approx. 6,000ML on licence plus approx 2,500 ML in credits (rollover etc) and approx 2,000ML used for the year still left 6,500ML available for use. There was a substantial gain by



some irrigators in 1996 when transferring from groundwater to lake water. Data shows that the water table is returning to pre-overuse levels.

On these grounds the Committee strongly recommends no changes to present policy.

The Chairman introduced Nick McDonald from Fabal Vineyards who presented a report on the Saline pumping project at the Kayinga Vineyards which the Committee had input into. Nick gave a resume of the background to the trial and then, with the aid of overheads, presented the report of the results to date. Several questions were asked and answered by Nick. A copy of his report is attached. Copies of the report were offered to the meeting.

Chairman thanked Nick for his presentation.

Model for Community involvement with INRM (intergraded natural resource management) was the next item on the Agenda. Chairman explained to the meeting what INRM was about and how Jan Whittle was working hard to achieve its aims and that the ABWMC was also working hard in the area as well. Jan Whittle added to the Chairman's explanation.

The Chairman then asked Colin Cross to tell the meeting about the changes that DWLBC and the EPA are making to ASR (Aquifer Storage & Recovery – recharge)

Colin told the meeting that those irrigators who recharged last year (2001/02) would have received a letter from DWLBC telling of the new requirements of ASR. Colin went on to detail what the new requirements are and the problems that the changes will cause. ABWMC are working towards a solution to the problems and towards this end a public meeting is to be held in the Bowling Club Rooms at Langhorne Creek on the 9<sup>th</sup> of September to discuss ideas, everyone who does ASR is urged to attend this meeting.

Chairman thanked Colin for his report and stressed the importance of the meeting on the 9<sup>th</sup> to those who use ASR, the Committee plans to put practical solutions to DWLBC following that meeting.

Next Agenda item was Annual Auditing; the Chairman detailed the auditing process that has been carried out by DWLBC in the past 8 months. The Chairman then introduced Paul Fitzpatrick from DWLBC based at Murray Bridge; Paul will be involved with the auditing process and has also been invited to be part of the Committee.

The Flood Plain Study was the next agenda item. The Chairman asked Tony Thomson to tell the meeting about this study.

Tony began by saying that the study was to determine what volume of water drains through below the flooded area. There are 12 sites at which the unconfined and the confined aquifer levels are being logged and 8 soil moisture monitoring sites. Graphs were shown of the water levels in the logged sites and the difference in the water levels was explained. A diagram was shown of the aquitard location, how the water levels in the 2 aquifers were less than 1m difference in the Bremer north, Bremer south and the Angas areas but in the Bremer central area the difference in water levels were about 4m.. Further charts and diagrams were shown of the Bremer flow v water levels, monitoring well levels 2001/02, soil moisture readings from one of the monitoring sites (A1) and soil moisture monitoring data from one site over a period of 18 hours when the Bremer flooded 9/9/01.

Several questions were asked of Tony from the meeting.

The Chairman thanked Tony for his presentation and asked John Pargeter, in Guy Adams absence, to present the annual financial report.

John referred to the audited financial report posted out to all irrigators and asked if there were any questions. As there were no questions John moved the financial statement be accepted, seconded D. Elliott.

Election of Members; The Chairman said that the 4 retiring members had all re-nominated and as there were no further nominations asked the meeting for the nominations to be received; moved D. Elliott, seconded T. McAvaney.

The Chairman then called for General business.

J. Follett requested the Chairman invite T. McAvaney to give a report to the meeting on the Murray River and the Lakes.

T. McAvaney told the meeting of the entitlement flows in the River and the possibility of some of the Barrages being opened if the lake reaches the "Pool Level" and further that unless there is further rain in the catchment the Lake may drop to lower than the last year.

Chairman thanked Terry and notified the meeting of the Annual General Meeting of the Bremer Barked Group to take place on the 17<sup>th</sup> of September.

G. Warren questioned the Chairman about revegetation policy and also the water leasing policy, that he had a letter from DWLBC stating that dry land Lucerne is not acceptable as revegetation and further that the Dept. has interpreted that those who lease water are responsible for the revegetation. The Chairman answered the questions by saying that the Committee is working to have dry land Lucerne accepted and that the Committee is meeting with Julie Cann (DWLBC) in October to discuss a number of issues and having Paul Fitzpatrick as a Committee member will be beneficial to the Committee and to the Community.

As there was no further business the Chairman informed the meeting that the full Annual report would be posted out to all irrigators as soon as possible.

The Chairman thanked everyone for their attendance, invited all to partake in the supper provided and declared the meeting closed at 2140hrs.

