

BAROSSA INFRASTRUCTURE LTD

THE HISTORY OF THE BIL SCHEME

1997-2017

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THE HISTORY OF THE BIL SCHEME

1997 - 2017

QUALITY WATER

INNOVATIVE SOLUTIONS

ENVIRONMENTAL RESPONSIBILITY

LOWEST LONG TERM WATER PRICE

BIL | FORWARD

To tell the story of the BIL Scheme is to tell the story of the vibrant spirit and sense of community of the grapegrowers and vignerons of South Australia's Barossa Valley.

It all started when I realized that the history of the Barossa Water Project, as it was known in the beginning, deserved to be recorded.

Slightly daunted at the enormity of the task, I set to work sorting through the vast quantities of yellowing press clippings to produce the chapter - *'A Short History Through the Eyes of the Media'* (Page 73).

Next, the thoughts and recollections of the people who were there right at the beginning needed to be captured. Many were extremely busy both in Australia and abroad, so I proposed two options: respond to a series of questions which I felt covered the BIL Scheme to date, or allow me to interview them. The result is a mixture of responses and interviews in the chapter - *'The Pioneers'* (Page 11).

Finally, the logistics of the Scheme, the pipes and pumps and metered connections, needed to be included to complete the picture. This led to the chapter - *'The Scheme Logistics'* (Page 3).

The story is inspirational. It is a story of vision, leadership, courage and community which together resulted in the extraordinary achievement that is the BIL Scheme.

A handwritten signature in black ink that reads "Patsy Biscoe". The signature is written in a cursive, flowing style with a large, sweeping flourish at the bottom.

Patsy Biscoe AM
August 2017

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BIL | SIGNIFICANT DATES

May 1995	BREDA <i>Vision 2045</i> commissioned
Oct 1997	Barossa Infrastructure Group formed
Jul 1998	<i>Barossa Water Project Overview Strategic Plan</i> released
Sep 1998	Barossa Infrastructure Limited incorporated
Oct 1999	prospectus released
Oct 2000	final project approved
Dec 2000	construction contractor appointed
Dec 2001	pipeline opened / first water delivered
Feb 2010	re-cycled water delivered to customers on Gomersal Rd Tanunda
Nov 2012	installation of electronic meters completed
Oct 2014	scheme expanded to 8GL
Sep 2015	installation of enhanced electronic meters with remote data collection capability completed
Oct 2015	remote electronic meter reading commenced
Oct 2015	scheme expanded to 9GL
Jul 2016	final payment of the \$21.5 million bank loan
May 2017	scheme expanded to 11GL

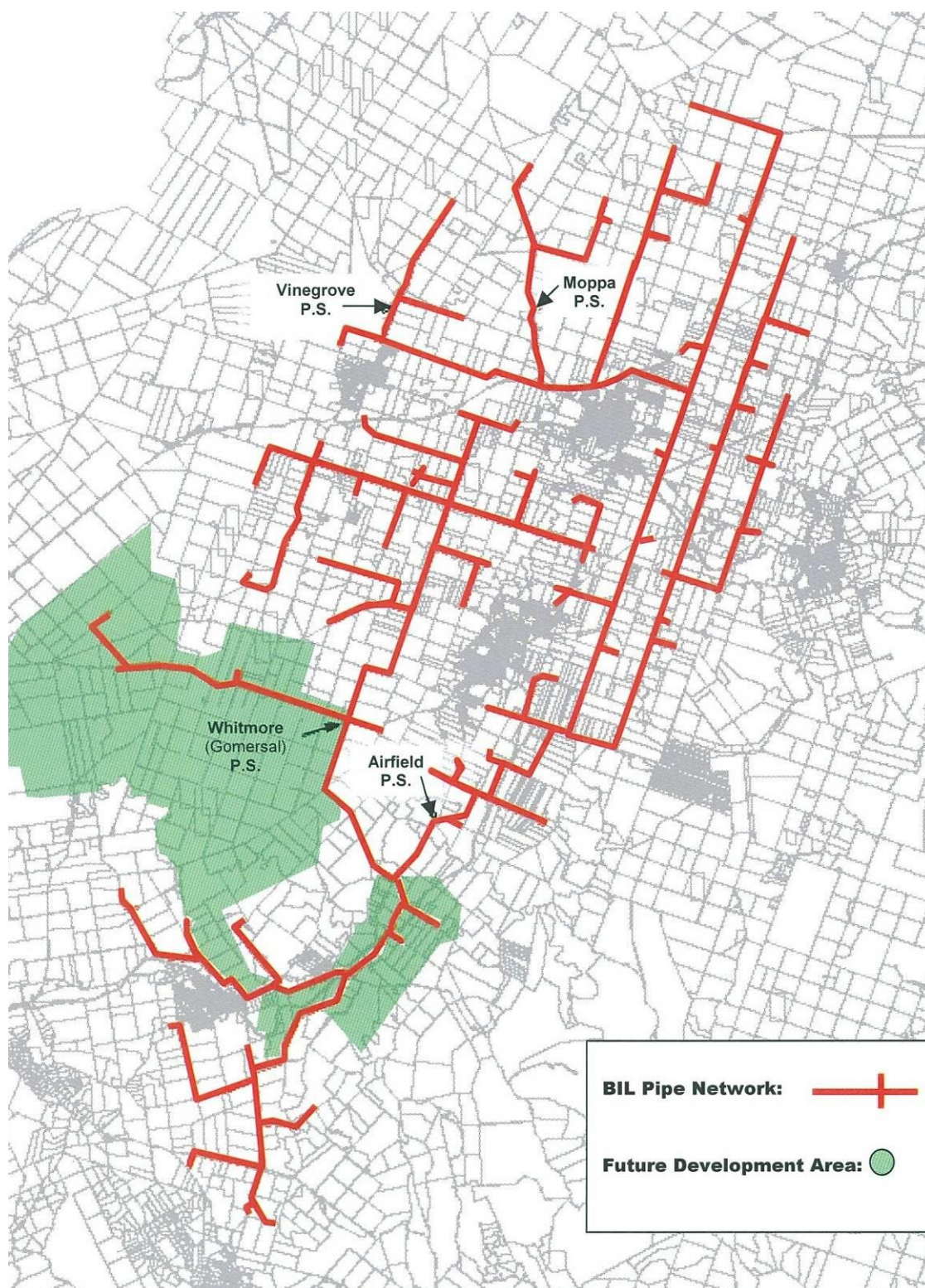
BIL | THE SCHEME LOGISTICS

BAROSSA INFRASTRUCTURE LTD

QUALITY WATER

ENVIRONMENTAL RESPONSIBILITY

INNOVATIVE SOLUTIONS



Our Vision

“To provide a high quality water supply in the Barossa which, when applied in environmentally and viticulturally appropriate quantities, sustains crop yield and quality through dry periods at a cost that is lower than other quality water sources.”

About

Barossa Infrastructure Ltd (BIL) is an unlisted public Company with initial capacity to supply 10,000 Megalitres per annum of non-potable supplementary irrigation water for viticulture in the Barossa. In response to demand the Scheme will expand to 11,000 Megalitres with ongoing negotiations for further expansions.

The Company was incorporated in 1998 with the purpose of meeting the demand to replace increasingly saline ground water with high quality water suitable for viticulture over a range of soils. A further purpose was to relieve pressure on the domestic water supply, which was unable to cope with the very high demand experienced during summer hot spells. BIL irrigation water is a supplement to natural rainfall, designed to drought proof vineyards in years of low rainfall.

BIL customers are the shareholders, in proportion to their contracted volume of water. The Scheme cost in the year 2000 was approximately \$30 million, funded 1/3 by share purchase and 2/3 by a long-term bank loan. The loan was paid off in 2016 and the Company is now debt free apart from a small seasonal overdraft.

On 26 July 2016 customers celebrated the final payment of the bank loan taken out to construct the Scheme. Tribute was paid to the many farsighted members of the Barossa community who supported the Scheme from its inception.

In addition to usage charges customers pay an annual infrastructure levy over a number of years. While no government funding was received during the construction of the Scheme, considerable assistance was provided during negotiation of the necessary permits.

Water Source

One of the most difficult early decisions was to find a suitable, drought resistant, source of high quality irrigation water. The use of the Warren Reservoir, supplemented with River Murray water via the SA Water Mannum-Adelaide pipeline, was the final decision.

The Company is grateful for the support of the South Australian Government and SA Water for the way in which a decommissioned reservoir and surplus capacity in the Mannum-Adelaide pipeline have been utilised. The Company contributes to the upgrading of the Warren transfer main to ensure there is sufficient capacity.

BIL is required to hold River Murray water rights for all water supplied to Barossa Infrastructure Ltd. This water comes from Water Access Entitlements, either purchased or in the form of long term leases, and annual Water Allocations purchased on the market.

It is the objective of the Company to achieve the ownership of two thirds of demand in the form of High Security Water Access Entitlements (or equivalent). Currently BIL holds less than a quarter of projected demand.

The Company has been active in seeking alternative water sources in the interests of sustainability of viticulture in the Barossa. During 2010, in cooperation with The Barossa Council, a scheme to use treated effluent from the Nuriootpa Community Wastewater Management Scheme (CWMS) was commissioned. This represents approximately 4% of demand.

Caring for the Environment

As is the case with all irrigators, the Company and its customers are dependent on a strong environmental commitment, to ensure business sustainability. Water supplied is supplementary to the average Barossa rainfall of 500 mm per annum. Severe summers over the past few years, with little winter and spring rain, combined with high spring and summer temperatures, have meant some customers using up to 2 Megalitres per hectare per annum.

For approximately 30 years prior to the commissioning of the BIL Scheme, supplementary irrigation water had been supplied from underground sources and via run-off from surface catchments during the drier summer months to ensure consistent quality grapes were produced. Existing water supplies were becoming inadequate to sustain market position in the wine industry and avoid overuse of SA Water's domestic supplies in the Barossa.

The supply of the additional supplementary irrigation is required to:

- ensure adequate water for the health of the vines and production of premium wines
- replace inferior quality (saline) water, either groundwater or surface water
- supply additional water due to annual variation in rainfall
- ensure Barossa catchment water harvesting is at sustainable levels
- correct the negative correlation between yield and quality with increasing salinity of ground water
- avoid mining of deep aquifer water for irrigation leading to the importation of salt to surface soils

It is necessary that all of the above be achieved without affecting the long-term sustainability of viticulture and this has been achieved with the use of either natural catchment water from the Warren or River Murray water from Mannum.

An analysis of the local catchment indicated more salt was being exported in the river flows than would be applied to the vines. Further, the River Murray salinity mitigation over the past few years meant it was very unlikely salinity at Morgan would exceed 800 EC for any significant period - the water quality was assured.

To support the sustainability of the Company an environmental study was completed in 2001 and a review carried out in 2015.

Environmental issues addressed included:

- the potential for the use of BIL water to result in a rise in regional water tables
- the effects on the salt budget and the potential for increases in the salt load entering surface drainage as base flow
- the potential for the creation of perched water tables with adverse effects on plant growth, and for migration off-site
- the effects of any changes in salinity and chlorine residuals on ecosystems and the implications of inter-basin transfer of water

Resolution of all environmental issues was required before approvals were granted and the Scheme constructed. An independent audit of the safety and environmental effects of the use of waste-water from The Barossa Council's CWMS was undertaken by the Company prior to supply of the water and ongoing annual reports on its impact are required.

Barossa Infrastructure Ltd commissions a report on the shallow ground water table every two to three years to ensure there are no detrimental impacts due to the use of imported River Murray water. To date there has been no detrimental impact on the environment. Over the past three years salinity in the water supplied to customers is between 200 and 300 parts per million.

The supply of water is also a good indication of the changing climate. Average use is increasing and the peak use days are, on average, becoming earlier.

One issue that was not anticipated was the prolonged drought in the catchment of the Murray Darling Basin. The introduction of water trading under the Basin Plan and Environmental Watering Plan meant supply was available throughout the drought, but at a considerable additional cost. It is anticipated this will continue in the future.

Scheme Capacity

The Scheme was originally commissioned in December 2001 with a capacity of 7,000 Megalitres per annum. Subsequently, additional capacity has been added with the Community Wastewater Management Scheme from Nuriootpa and 2 tranches from SA Water to give a capacity of 9,000 Megalitres per annum from the 2015/16 water year.

As already mentioned, the next step is now underway to expand the Scheme to 11,000 ML. An Offer Information Statement was prepared to invite participation and the response has ensured the expansion will proceed.

The challenge is to ensure that all customers benefit from the expansion and the identified needs are met.

Cost of the further expansion includes:

- payment to SA Water to upgrade the supply from the Mannum-Adelaide Pipeline at Birdwood to the Warren Reservoir
- significant upgrade of BIL Infrastructure and potential dam storage
- fixed charges to SA Water

Benefits of a further expansion include:

- further utilisation of the BIL pipe network
- additional and more secure wine grape production
- for each 1,000 Megalitres capacity, an increase in grape production of up to 5,000 tonnes per annum (with a potential wholesale value of between \$15 and \$25 million dollars)
- significant employment opportunities

Grant Funding

Although the Scheme was originally funded through the issue of shares and a bank loan, following the implementation of the Murray Darling Basin Plan the Company has received two grants as part of the recent government-initiated water saving plans.

Funding under the:

- *Private Irrigation Infrastructure Program* for South Australia allowed the Company to replace inaccurate mechanical customer meters with more accurate electronic meters
- *South Australian River Murray Sustainability Irrigation Industry Improvement Program* enabled completion of automation allowing growers to access their flow rate and consumption

Infrastructure

Thirty million dollars in 2001 purchased a considerable network of pipes, valves and pumping stations, including:

- 190 kilometres of buried pipeline ranging in size from the trunk main of up to 960 millimetres in diameter down to distribution mains of 150 millimetres in diameter
- a distribution area covering 450 square kilometres
- four booster pumping stations, the largest with a total pumping capacity of 630 kilowatts
- 32 pressure reducing valves on the lateral mains to protect both the mains and customers' equipment from high pressure

In the 2016/2017 water year there were approximately 300 customer / shareholders with 430 separate connections, each provided with a meter and flow control valve to ensure accuracy and maximise efficient water usage.

Replacement of mechanical flowmeters with accurate electronic flowmeters has enabled a web based system that downloads meter readings daily and provides access to this data by the Company and its customers. A similar system monitors pressure at pressure reducing valves and other critical locations. Pumping station upgrades allow live viewing of the system and control of critical elements.

Looking to the Future

Barossa Infrastructure Ltd is constantly seeking ways in which the effects of climate change and reduced water availability from the River Murray may be managed. It has become obvious over the past few summers that the impact of climate change is drier springs and hotter summers, resulting in an increased demand for water over short but critical periods.

Projects completed include:

- electronic metering and associated web based information collection
- access to live data from the pumping stations
- monitoring of flows and pressures using internet connection to flowmeters, resulting in
 - increased operational safety via monitoring of faults
 - automation of meter reading
 - increased Scheme capacity through monitoring of bottlenecks
- provision of the monitoring data to customers to allow integration with that from other sources such as weather stations and soil moisture gauges
- installation of above ground cabinets for control of pressure reducing valve chambers to avoid confined space entry when they are serviced every 2 weeks in summer; this also provided the opportunity to install pressure monitoring equipment to protect the mains and provide a better service to customers

Major increase in capacity and upgrade of infrastructure

As previously mentioned, an Offer Information Statement has been issued to expand the Scheme by 2,000 ML per year and the response has ensured the expansion will proceed.

Key points:

- Supply will be mainly to existing customers (70-80%) enabling them to become more sustainable and drought ready and, in some cases, to replace SA Water mains water
- Some new plantings will be required to meet increasing demand for Barossa wine
- Customer take-up will be over 3 years
- The construction loan will be financed by infrastructure levies and the issue of new shares

Projects for future consideration include:

- potential for storm water to be added to the Nuriootpa CWMS flows pending modification to the Water Allocation Plan (WAP)
- aquifer storage and reuse options to explore the potential for assisting customers in managing drought response; this may also assist the Company in the sale of Off-Peak water through underground storage for two to three years as permitted by the WAP
- other opportunities such as
 - The Barossa Council and Light Regional Council – Community Wastewater Management Schemes
 - North Para Environmental Control – incorporation of winery waste into the system
 - Bunyip Water – utilisation of surplus stormwater and Bolivar treated wastewater to supplement customers' supply in years of high demand

BIL | THE PIONEERS

STUART BLACKWELL
BIL DIRECTOR
1998 – 2004



Stuart's responses to a series of questions by Patsy Biscoe in 2014

(What are the issues facing BIL into the future?) '... Getting a knighthood for Mark Whitmore!'

What were the drivers that led to the concept of the BIL Scheme?

- Primarily to reduce/stop the usage of saline bore water in vineyards – it was beginning to show in the wines
- To find a sustainable water resource that would drought proof the Barossa
- To take pressure off the domestic mains water supply that was struggling and aged
- Secondly to allow some vineyard expansion in the Barossa

When conceived, what were the obstacles to be overcome including those in the community, in the grape and wine industry, and during the construction of the pipeline?

- Completing construction in one year (in winter, one of the wettest)
- Getting SA Govt support – financial / political will
- Getting SA Water to support – conceptually / water supply / access to existing pipelines / lease of Warren
- Placating some winemakers who were concerned about their brand erosion by increased competition and potential fruit oversupply; at the concept stage I don't think growers were concerned about the potential oversupply and competition
- Overcoming massive challenges during the construction in the very wet conditions, slippery road verges, difficulty in making good the roads
- Working through the oppositional and irrational attitude of the Light Regional Council's then CEO

Why is there a need for BIL water in the current decade and into the future?

- The original drivers still exist – poor, limited bore water – no mains capacity
- The infrastructure could be used to transport waste water – treat and distribute
- It's still the newest water distribution system in the Barossa – a massive asset
- The Barossa weather systems are not going to change into more mild / cooler scenarios so there is going to be an ongoing need
- The requirement for Barossa / Eden Valley fruit will not decline

What are the issues facing BIL into the future?

- Getting a knighthood for Mark Whitmore!



GRANT BURGE
BIL DIRECTOR
1998 –

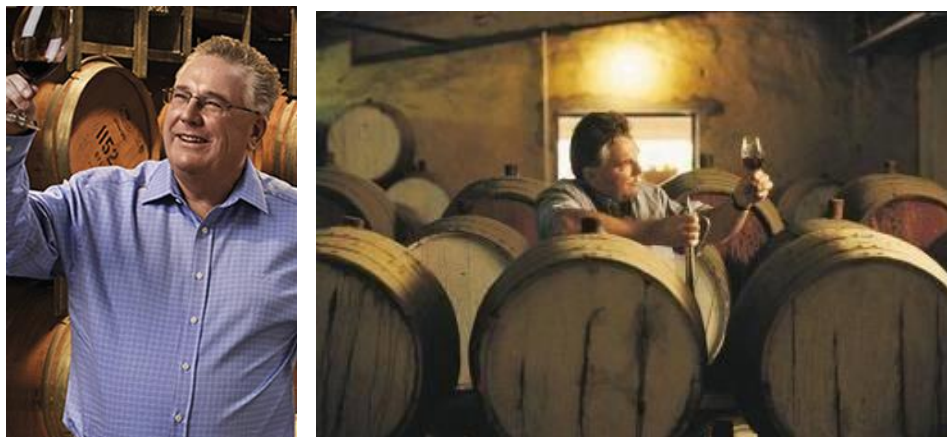


Grant's responses to a series of questions by Patsy Biscoe in 2015

'There would be no wine industry if we didn't have the BIL Scheme, particularly with rising temperatures and climate uncertainty.'

What were the drivers that led to the concept of the BIL Scheme?

I joined the government initiated Water Committee in the Barossa well before the BIG/BIL Scheme came to fruition. The Water Committee arose as there was a growing realization that there was a need for additional irrigation water in the Barossa, because in the 70's drip irrigation began to be used, putting a strain on the Barossa's natural water resources. Water levels were dropping in the bores and dams were being built, taking even more water from the natural water courses. Overuse, leading to a diminishing supply and increasing salinity, was becoming an issue. This realization led to licensing of underground water and accompanying usage limits. Licensing was expanded to include natural water-course water in the early nineties. This was also an era of significant expansion of the Australian wine industry, particularly in the export market, and a lack of water in the Barossa was having an adverse impact on the opportunities presented by the expanding global market. The Water Committee instituted a 50 year *Barossa Water Plan* that suggested a range of measures including, for example, a sizeable dam at Jacobs Creek. The various proposals suggested energized the anti-development faction into joining the Water Committee, resulting in an impasse in decision making. Then the growers, led by Mark Whitmore, united in a determination to find a way to access extra water for the Barossa. In addition to natural water sources, mains water was being used in increasing quantities for irrigation. This put pressure on SA Water mains delivery. People in the high areas of Lyndoch, for example, got virtually no domestic water delivery when grapes were being watered. Something had to be done. The Water Committee continued to be torn apart by the pro-development and anti-development factions and the result was inaction with no resolution in sight for a satisfactory solution to any of the water-related issues in the Barossa.



Stuart Blackwell, Mark Whitmore, Carl Lindner, Ed Schild and others got the growers involved through a series of public meetings, while I worked on my own through various contacts. I was still on the Water Committee and was aware I had to be careful of any perceived conflict of interest. The BIL group didn't want to be tied up with the Water Committee and, in their turn, the Water Committee divorced themselves from the BIL group. So, with grower meetings leading ever closer to the creation of the BIL Scheme, and the Water Committee paralyzed, I met with Premier John Olsen to discuss the various issues and present my and the growers' points of view. The Premier informed me that Regional Economic Development Boards were being established throughout the state, with Barossa being the last in the line, with a CEO currently being sought. I met with a Mr Don Swincer, the executive setting up the Boards and ultimately, accompanied by other pioneers of the BIL Scheme, with Brian Sincock the new CEO of BREDA who was supportive of the concept, contributing seed funding of \$50,000 for a feasibility study and assisting in facilitating the public meetings held to rally grower support for the Scheme. With BREDA support, grower support, and the expertise of advisers such as John Kerr of Capital Strategies, things started to fall into place, including undertaking a feasibility study and the requisite due diligence. Geoff Davis and David Klingberg also joined the team and collaborated with the founding Board of Directors and Managing Director to drive the Project. Meanwhile, the SA Government restructured the state's Water Committees, creating new, larger regional entities with subgroups (Peter Wall led the subgroup which included the Barossa). I wasn't invited onto the new regional committee for two reasons: I was too close to the BIL Scheme and I had a perceived vested commercial interest as a vigneron. The committee also included council and government representatives, all of whom had the best of intentions, but resolution was impossible to reach with the various factions involved. My position was that, put simply, the Barossa had to find more water. Since the BIL group was effectively drawing the growers together and proceeding with a feasibility study and making other significant progress, I joined them and started to look at the logistics of putting it all together. The fact that Premier John Olsen was absolutely in favour of the Scheme was of enormous assistance in it coming to fruition.

When conceived, what were the obstacles to be overcome including those in the community, in the grape and wine industry, and during the construction of the pipeline?

Issues of economy were huge. It was necessary to take the lowest quote for the construction of the pipeline just to get the Scheme up and running. As a result, pipeline faults have appeared regularly throughout the history of the Scheme and continue to appear, but are manageable to this point.

Resistance from growers, while not widespread, did exist. For example, one person said they couldn't support the Scheme as it would draw water from the Murray. When I queried how they currently watered their grapevines they responded, from SA Water mains (ie from the Murray)! There were many people who wanted to revert to no irrigation at all, to revert to the way things were in times gone by, with only dry grown grapes and no irrigation. Those people were, in essence, anti-development.

Resistance to the imposition of water licenses was also an issue. There were some very fiery meetings with the Water Committee when the extent of the conditions was released (including some 'crazy' conditions according to growers of the time, which inflamed the situation). Peter Wall was even threatened at one point. There was a lack of communication between the licensing body and the growers, resulting in some extremely disappointing outcomes.

People who had used water for years suddenly couldn't - and often because they weren't fully informed of their options in the first instance. The dissatisfaction was compounded by the view of the Water Committee that if you'd missed out and not applied for a licence, for whatever reason, that was it and the result was non-negotiable.

Why is there a need for BIL water in the current decade and into the future?

There would be no wine industry if we didn't have the BIL Scheme, particularly with rising temperatures and climate uncertainty. The industry would have gradually died. Without BIL water, the Barossa Wine Industry dies. To have an economic future, the Barossa needs an economical crop. With Mother Nature all over the place, quality water, used the right way at the right time in the right quantity, is the way forward. Additionally, the result is better than dry grown. The Barossa wine grape industry is now sustainable. Having said that, even with the BIL water supply, the Barossa will have to specialize. As New Zealand has taken over the white wine industry it is fortunate that the Barossa is famous for its stunning and eminently marketable red wines, so that is the way forward – being predominantly red (and as a significant bonus, growing red wine grapes requires less water than white wine grapes).

What are the issues facing BIL into the future?

While it is acknowledged that BIL's water supply is tied to the Murray, the wine industry will survive where other industries may not. The Barossa is producing a high value crop and even using BIL water (in sustainable quantities), the crop will still be viable – also current prices are expected to continue to increase over the next two years. Water is the key. As long as the Barossa has a sustainable and secure water supply, the industry will not only survive, but hopefully will thrive. Of course, BIL's Water Transport Agreement with SA Water is all important and while there is a political will for BIL to continue to supply water in the Barossa, all will be well. It should be borne in mind though, that political climates can change and there may come a time when the government of the day may not be in favour of the BIL Scheme and will not continue to allow the Company to draw from the Murray, even while appropriate water rights are held.

Of concern is the inflow of retirees into the Barossa, lack of employment opportunities with a resultant exodus of young people, contraction of the wine industry due to enhanced technology and dwindling markets, vineyards bought up by 'absent landlords', and overexpansion with properties subsequently abandoned and deteriorating. The Barossa as it has grown and developed since settlement in the 1800s is being eroded and there is a danger that the much loved heritage and traditions, the heart and soul of what the Barossa is all about, is being lost. The large percentage of corporate takeovers is also of concern. As the population influx currently being experienced isn't wine industry related, there may well develop an intolerance of the various day to day workings of a wine growing region (e.g. night time harvesting and grape transportation) and in response to complaints, the rules and regulations governing these activities may be increased. The worst case scenario is the demise of the wine industry as it is known today and with that the possibility of diminished tourist potential. The world renowned Barossa region currently has a viable wine industry and high grape prices predicted to increase further. Of concern, also, is that the next generation is not taking over and this trend needs to be understood and redressed.



Grant and Helen Burge

CHRIS CANUTE
BIL DIRECTOR
1998 – 2006



Chris' responses to a series of questions by Patsy Biscoe in 2014

'The Barossa will be hotter and possibly drier into the future.'

What were the drivers that led to the concept of the BIL Scheme?

- The inability of SA Water to provide supplementary water (especially at high use times) and supply to outlying areas; pressure of urban development which made supply inconsistent or non-existent for many growers
- Quality and quantity of bore water was diminishing

When conceived, what were the obstacles to be overcome including those in the community, in the grape and wine industry, and during the construction of the pipeline?

- The 'anti-watering' purists!! (a noble but uneconomic proposition)
- Convincing growers that the investment would be worth it into the future (luckily there was good money for grapes in those first few years)
- Getting enough growers on board to make it viable
- The fear of over production/large scale vineyard development/decrease in quality (become another Riverland)

Why is there a need for BIL water in the current decade and into the future?

- To maintain the stability and sustainability of current bores
- To combat global warming - the Barossa will be hotter and possibly drier into the future
- The SA Water system will be mainly for urban growth - unavailable consistently for agriculture



Chris, Dennis & Christian



Christian & Chris

What are the issues facing BIL into the future?

- Security of supply from SA Water and the River Murray (at a price!)
- Water quality from the River Murray and also from recycling schemes



Rusden Wines Barossa Vineyard

GEOFF DAVIS
INDEPENDENT DIRECTOR & COMPANY SECRETARY
1999 –



Extract from a speech Geoff delivered at the
2012 farwell dinner for inaugural Bil Chairman David Klingberg AO

‘... David’s leadership has been a major factor in BIL’s success.’

After a recent BIL Board Meeting some members posed the question, “How did David Klingberg become involved with BIL”.

A family connection?

Yes, his grandparents were married in a church at Bethany prior to moving to Loxton.

A professional connection?

Yes, he is a consulting engineer well versed in getting up projects much larger than the Barossa Water Project.

How was the connection made?

With all the modesty of Sir Lancelot in the musical Camelot I can say, “C’est moi, c’est moi” – it is me, it is me – I like to think this is one of my significant contributions to BIL!

Our respective families have always had a close connection and at the time that the Barossa Water Project was gaining community support, David was a regular golfing partner at Grange. At this time he had completed the sale of Kinhill (in which he had a significant shareholding), one of the largest and most prestigious engineering and consulting firms in Australia and South East Asia. It was sold to KBR, a large US engineering firm. David had become Chancellor of UniSA by this time but was winding down his duties at KBR and looking for another challenge.

David always needs a project/something to build, so to build a pipeline and drink great red wine was an easy recruitment sell. On meeting the Board of the newly formed Barossa Infrastructure Group he immediately charmed them and was appointed on the 29th of September 1998, a mere 15 days after incorporation.

The comments of former Premier John Olsen, Senator Don Farrell and former Minister for the River Murray and Minister for Water Security Karlene Maywald emphasize the importance of the BIL Water Project to the Barossa.

David's leadership has been a major factor in BIL's success. His intellect, his commanding presence, sense of humour and touch of larrikinism coupled with his extensive engineering experience and great business acumen were the qualities needed for this Project to succeed. It has certainly done that.

To go back to the very beginning:

May 1995 'Vision 2045' commissioned by BREDA.

Grant Burge, a current BIL Board member, together with Peter Wall, were the instigators of the report. New water sources were needed to take the pressure off the overtaxed aquifers.

Oct 1997 Barossa Infrastructure Group formed and initial committee elected.

The Premier advised that the Project should be done with private capital.

30 Jul 1998 Barossa community meeting convened – a watershed moment.

The meeting received the report 'Barossa Water Project – Overview Strategic Plan' prepared by John Kerr from Capital Strategies and Arup Stokes - consulting engineers. At this stage there was some government seed funding, but mainly significant community support through BREDA. Carl Lindner, at the time, lamented whenever he walked down the street everybody crossed to the other side to avoid being asked for more money for BIG. The Barossa showed again that it could stand on its own two feet.

At this stage, no David Klingberg. He must have been playing golf! A good golfer – great finish, well balanced – who likes to win. As you can see, he is wearing the 'yellow jersey'. It is obligatory to wear this ridiculous cap the next day if you won on our annual golf trips. Only David would stand outside a prestigious club like Kingston Heath wearing such a hat.



14 Sep 1998 Barossa Infrastructure Group incorporated.

29 Sep 1998 David Klingberg appointed inaugural Chairman.

Jan - Oct 1999 Water Transport Agreement negotiated.

David's negotiating skills, Mark Whitmore's tenacity and John Kerr's lateral thinking and commercial acumen, along with Borvin Kracman's support, saw an agreement reached which has served BIL and SA Water extremely well.

The time it took is instructive of the complexity and difficulty in reaching agreement. It is fair to say that, at that time, SA Water was a somewhat reluctant party, but with a little nudge from the Premier a sensible commercial agreement was reached. Subsequently, SA Water have been a most supportive partner in this Project.

Oct 1999 Prospectus approved by ASIC and sent to Barossa growers.

The aim was to raise some \$12 million of share capital and borrow up to \$25 million to construct the pipeline and other infrastructure.

By this stage the Chairman had changed the name of the company to Barossa Infrastructure Limited from the original Barossa Infrastructure Group as he was reluctant to promote the acronym BIG in a prospectus.

The prospectus contained some two pages of risks as should all good prospectuses, but never mentioned the risk of the River Murray running dry.

Dec 1999 Project to go ahead.

BIL Board determined Project 'certain' enabling expenditure of the initial \$500/ML capital raised to finalise design, firm up costings, obtain development approval and put in place borrowings.

David's presence and leadership no doubt helped in securing the \$21.5 million loan from Adelaide Bank – an extraordinary cash flow lend. The date to pay off that bank debt is July 2016. A remarkable achievement by Barossa grape growers.

Dec 2000 Pipeline construction contractor appointed.

Jul 2001 Paul Shanks appointed General Manager.

Dec 2001 First water delivered.

Jul 2003 River Murray water restrictions imposed at the start of the millennium drought.

As a result of the restrictions it was necessary to raise the price of water with a temporary surcharge of 10c/kL. The resolution was passed at the AGM with only one dissenting vote.

Jul 2009 River Murray water allocations only 18%.

BIL was able to source additional water for growers but at a significant cost to them at a time when grape prices were at record lows and the wine surplus at its highest, requiring balance between BIL's long term sustainability and sympathy for the customer/shareholders.

Feb 2010 Recycled water delivered to Gomersal Road customers.

Nov 2011 David Klingberg announced he would step down after the 2012 AGM.

June 2012 Rob Chapman appointed to the Board and accepted position of Chairman.



GEOFF DAVIS
INDEPENDENT DIRECTOR & COMPANY SECRETARY
1999 –



Address given at the 'Payment of Debt' celebration 26 July 2016

'... a recognition of the vision, the loyalty, the perseverance and great support of you, our customers and shareholders.'

Good evening. I would like to acknowledge David Klingberg AO – Inaugural BIL Chairman, Nick Champion MP – Member for Wakefield, Stephan Knoll MP – Member for Schubert, Bob Sloane – Mayor of The Barossa Council, Lewis Owens – Chairman SA Water, Roch Cheroux – CEO SA Water, Ivan Venning – Chairman Regional Development Australia Barossa, Anne Moroney – CEO Regional Development Australia Barossa, Patsy Biscoe AM – Executive Secretary Barossa Infrastructure Ltd, BIL Directors past and present, BIL customers past and present, BIL staff past and present.

A very special welcome to you all, to this milestone celebration of BIL becoming debt free and paying off, over the past 15 years, the \$21.5 million borrowed to construct this wonderful piece of infrastructure for our beloved Barossa Valley.

But who is this person speaking to you? Well I do wear number 19 and am straight off the interchange bench, to give an apology for our Chairman Mr Rob Chapman. No, he has not been dragged, nor is he sulking and skulking, around Kardinia Park. He is in fact in Singapore leading an SA trade delegation for the Premier. Apparently, as we speak, he is currently at the 15th of the 40 functions, presentations, lunches and dinners he is required to host this week. To say that he was a little dark that he was missing this party is quite an understatement. He had to leave Kardinia Park at ¾ time on Saturday to get a 12.04 am plane from Tullamarine to Singapore. That part might have been a blessing judging by the Crows poor third quarter on Saturday, but missing tonight made him super grumpy. He sends his apologies and wishes us all a wonderful evening.

We also have apologies from: Senator the Hon Anne Ruston – Assistant Minister for Agriculture and Water Resources, Tony Pasin MP – Member for Barker, Hon Rob Kerin – Past Premier of South Australia, Linda Bowes – Chairman Barossa Grape & Wine Association, James March – CEO Barossa Grape & Wine Association, Hon Michelle Lensink MLC – Shadow Minister for Water and the River Murray.

This celebration is a tribute to BIG – Barossa Infrastructure Group – the initiators of the Project – for their vision, courage and persistence to conceive the solution to the water problem in the Valley and then, quite remarkably, get the Project up, issue a prospectus as BIL – Barossa Infrastructure Ltd – raise the capital and borrow the \$21.5 million, way back in 2001.

The next phase of paying the loan down – on time and never missing an interest or principal payment over that time – is a testament to the character and quality of our shareholder/customers and the essence of what makes the Barossa great. The Project was conceived in the wine boom times of the 90s but the tough grind of paying off the \$21.5 million was through some of the toughest times in the wine industry – the great wine lake or surplus resulting in very poor prices to growers and even the rescinding of grape supply contracts. Coupled with this was the millennium drought when the River Murray water available was restricted to only 18% in 2009 and, finally, the GFC causing disruptions to markets and currencies around the world. Our State Treasurer would have to concede an even more perfect storm than the one last week that peaked our power prices in this state. Indeed they were difficult times, but our shareholders were always supportive and have seen this phase of the Project through. From the Board thank you to all our shareholders. From those in the community I am sure there is also a heartfelt thank you for they, like me, must wonder how the Barossa would have fared through the millennium drought years without BIL water being available.

The benefit of BIL to the Barossa is evident from the comments of customers, leaders in the industry and from those at all levels of government – federal, state and local. But it is people who make such things happen and with your indulgence I would like to mention just a few.

The first is the Honourable John Olsen AO who was the Premier at the time that water in the Barossa became a critical issue from both a quality and a quantity perspective. It was a buoyant time in the industry but ground water was becoming increasingly saline and in Nuri and Tanunda you could not flush your loos on a hot day in January as many growers in those days irrigated (sorry, used supplementary water!) straight from mains water. The Premier met with a group from the Valley, including Grant Burge and Peter Wall, seeking government help. His response was direct and showed great policy insight. He advised the delegation that this need by private enterprise should have a private enterprise solution but that solution would receive the support of his government. From this was born BIL. Other than some initial seed funding for a feasibility study there was no direct government money. However John Olsen did nudge the right people at the right time to facilitate the Water Transport Agreement between SA Water and BIL – the foundation of the whole Project. What has evolved is a wonderful example of the benefits of a partnership of a government corporation and a privately owned company providing benefits to the whole community in the Barossa and not simply to the company's shareholder/customers. It is held up in many quarters as a demonstration of the benefits of a well-managed third party access scheme. We again thank him for his vision and support, both then and throughout the life of the Project.

I have always wanted to ask Mr Olsen the veracity of the rumour that he welcomed the BIL Scheme, as it deflected the then Honourable Member for Schubert Ivan Venning's indefatigable campaign to have Gomersal road sealed. Ivan must have been a great lobbyist as both Projects got done. Well done Ivan! You always have been a great supporter as well.

The second person to mention, and to acknowledge his contribution, was BIL's inaugural Chairman Mr David Klingberg AO. David's professional engineering skills and experience and big project expertise in conceiving a project and taking it to fruition proved a most valuable and critical input for BIL. He directed the great efforts of Mark Whitmore (the British Bulldog as nicknamed by Stuart Blackwell), the rest of the Barossa Infrastructure Group (as it was then known) consisting of Stuart Blackwell, Ian Zander, Mrs Christine Canute, Carl Lindner and current Directors Grant Burge, Martin Pfeiffer, Ed Schild and Steve Wilson.

David led the team through the complexities of issuing the prospectus which sought to raise \$10 million of capital, the negotiation of the Water Transport Agreement with SA Water, the design and then construct of some 210 kilometres of pipeline, some 270 connections, pump stations and a multitude of pressure reducing valves (PRVs), and then the operation of the system. His personal attributes of clear logical thinking, quickly grasping complex issues, yet communicating with all from growers to engineers to bankers and to all levels of government, were a major contribution to the success of BIL. I am sure that his presence as Chairman helped enormously in securing the loan from the then Adelaide Bank, the repayment of which brings us together tonight.

We still joke that David's first decision on joining the Board on 29 September 1998 was to change the name from Barossa Infrastructure Group to Barossa Infrastructure Ltd. He was not going to lend his name to a prospectus that went under the acronym of BIG – hence the name BIL, now used with great pride and affection.

The third group of people to recognise is SA Water – represented tonight by the Chairman Mr Lew Owens and the recently appointed CEO Mr Roch Cheroux. A special welcome to you both. To say the relationship was a little tense and strained some 16-17 years ago would be another understatement. The Water Transport Agreement needed to be renegotiated as we, BIL, did not raise the funds envisaged in the prospectus and on which the original WTA was based, but with goodwill and some help from on high, a modified second agreement was nussed out and which serves us today. The relationship has matured over the years and is now one of cooperatively working together to achieve an outcome to the benefit of BIL and the Barossa growers as well as delivering the appropriate return to SA Water for access to their infrastructure and water delivery. Recent expansions of the Project have been achieved with some lateral thinking and operating savvy on the part of SA Water staff enabling the expansions to take place more quickly and at less cost. A win for BIL customers and a win for SA Water as you sell more water and achieve better utilisation of the assets used for the BIL Project. We are currently in the process of rewriting the Water Transport Agreement with the desire to eliminate redundant clauses. That will reduce the length by about 1/3. The nature of those redundant clauses shows that the initial drafters of the agreement did not expect the Project to get up!

With SA Water, we are together looking at the next 20 years and beyond and I sense a shared excitement by your staff along with the BIL team of making this Project even better for the benefit of the Barossa and SA Water. Please pass on our thanks to your staff involved and we look forward to an ongoing partnership for many years to come.

The final person to mention tonight is our General Manager Mr Paul Shanks. Paul joined us in 2001 during the final stages of construction and in time to turn on the taps in December 2001. The breadth and depth of his engineering skills and experience especially with water assets, were critical in managing this new, unproven and complex water system. There were continuous adjustments to the PRVs and customer outlets to control surge issues, sort out individual grower problems with their take off point having either insufficient pressure, insufficient flow or even fish in the customer's filter! Sorry Ivan, with your efforts to allow recreational fishing in the Warren Reservoir, I have to confess that BIL in the early days, did do a little destocking of fish numbers in the Warren – SA Water are still to replace the screen over the outlet in the reservoir!

An affable and unflappable man, Paul quickly won the trust of customers and the admiration of the Board. He fixed problems as promised and was always looking for better solutions. New technology including smart metering has been introduced. He has embraced new skills and knowledge and has a deep understanding of the operations of the Murray Darling Basin and trading in River Murray water rights. He serves on the Murray Irrigators Council ensuring BIL's needs are at the forefront of thinking. He has developed an excellent working relationship at all levels of SA Water. Above all he is scrupulously fair in his dealings with all customers whether they be big or small. In being a strong advocate of the community rated charging for water that underpins the Project he is the driver behind BIL's catch cry of *'quality water at the lowest price that is sustainable in the long term'*. His greatest compliment came from a customer who announced publicly, "I trust BIL" – a great endorsement of the quality of the leadership he provides.

The final endorsement of his leadership is that he kept demonstrating the benefits of BIL to growers through some difficult industry times. This ensured that levies were paid despite the negative industry conditions prevailing through much of the last 15 years, thereby enabling the bank loan to be paid down on time.

Finally, a recognition of the vision, the loyalty, the perseverance and great support of you, our customers and shareholders. I have made mention of the difficult times through which you showed great strength of purpose to keep BIL going, having taken the initial courageous step of signing up for BIL. Very early on you could see the benefits that BIL brought to your vineyards and, it seemed to me, always gave it a priority in your operations. It is that long term perspective that is a quality of grapegrowers, especially Barossa growers.

Even as we look back and rightly celebrate a magnificent milestone, BIL is looking forward to the next 20 years. As I mentioned, work has started on a new Water Transport Agreement with SA Water. BIL is responding to a new additional demand for water from a more buoyant wine industry, especially in the Barossa. We are looking at ways of de-risking the Project and further drought proofing the Valley as well as responding to climate change. With the paying down of the debt we are looking at setting up a sinking fund to replace aging assets. The Board has started on a process of renewal to ensure the skills, the vision and the drive to maintain a project that sustains the Barossa, has the right mix of skills, views and people that are relevant for the next 20 years.

Please raise your glasses for a toast to the Barossa and BIL. It seems that plagiarism is now the norm for public utterances, so I will borrow a phrase that may have been somewhat overused for the past couple of months. What an exciting and great time to be part of the Barossa Valley! What an exciting and great time to be part of BIL! To an innovative and prosperous future!

I would like to thank Mr Tony Robinson Editor of The Leader Newspaper who is our roaming photographer for tonight and also to thank Wendy Allen and Tony Brooks from Pindarie for hosting us tonight.

I would now ask Mr Roch Cheroux the CEO of SA Water to address us.



SAW Chair Lew Owens, Patsy Biscoe AM, David Klingberg AO, SAW CEO Roch Cheroux



Grant Burge & Geoff Davis



John Kerr, Borvin Kracman, Stuart Blackwell & Jennifer Tobin

JOHN KERR
ADVISOR TO THE BIL BOARD 1996 — DIRECTOR 2017 —



John's (personal) responses to a series of questions by Patsy Biscoe in 2016
'A healthy sustainable river system is essential to a healthy sustainable BIL.'

What were the drivers that led to the concept of the BIL Scheme?

The need for a supplementary water resource for the Barossa Valley was being broadly discussed in the mid-90s and highlighted in the Vision 2045 Report which identified the need for identifying sustainable long term water resources for the region.

The drivers were stated to be a requirement to develop appropriate and economic ways to increase the availability of water in the Barossa region over the next 50 years so that agricultural, industrial, tourism and urban development activities can expand whilst maintaining the character and environmental assets of the region.

From a more narrow perspective, the BIL Scheme itself was driven by, firstly, a need for improved supplementary irrigation water to address deterioration in certain groundwater assets and, secondly, to provide additional water resources for the continued growth of the Barossa Valley region, with size having been identified as a key required attribute in the future.

When conceived, what were the obstacles to be overcome including those in the community, in the grape and wine industry and during the construction of the pipeline?

Community

- Concern re being considered an 'irrigation' district
- Cost issues
- Impact of introducing additional salt load to the Valley and environmental issues generally

Grape & Wine Industry

- Concern that additional development could lead to oversupply (tension between wine grape growers and wine companies)

During Construction of the Pipeline

- Cost issues
- Handling of key tourism sites, i.e. Seppeltsfield Road tree line

Why is there a need for BIL water in the current decade and into the future?

BIL water remains required by its current users as it now acts as an insurance policy against the reliability of other water resources and as a mitigant against potential climate change impacts.

What are the issues facing BIL into the future?

The wine grape industry has changed dramatically in the first 15 years of BIL operations. The aggregation of the major retailers in Australia over the last decade has resulted in a significant change in the economics of the Australian wine industry. To retain or maintain some level of market power, areas will need to produce premium products which can find direct access to high-end Australian consumers and overseas markets. BIL also will need to ensure that issues associated with the River Murray and climate change are managed carefully. A healthy sustainable river system is essential to a healthy sustainable BIL.

DAVID KLINGBERG AO

INDEPENDENT DIRECTOR & INAUGURAL BIL CHAIRMAN

1998 – 2012



David's responses to a series of questions by Patsy Biscoe in 2014

(Among the greatest obstacles were) '... obtaining the political support (Ivan Venning and John Olsen in particular) and pressurising SA Water.'

What were the drivers that led to the concept of the BIL Scheme?

- Perceived restrictions on Barossa growth
- Increasingly saline underground water
- Independence from government
- Economics

When conceived, what were the obstacles to be overcome including those in the community, in the grape and wine industry, and during the construction of the pipeline?

- Overcoming and sidelining the resistance from convinced 'dry grown' grapegrowers
- Galvanising the vast majority of Barossa residents in favour of the Scheme
- Obtaining the political support (Ivan Venning and John Olsen in particular) and pressurising SA Water
- Designing a commercial structure attractive to growers
- Raising the equity funds
- Selecting the only contractor whose price was within our budget and managing the consequent risks
- Managing the local councils who in some cases saw our contract as an opportunity to upgrade road infrastructure

Why is there a need for BIL water in the current decade and into the future?

- Climate change
- Growth
- Maintaining the Barossa as a premium grape growing region
- Economics

What are the issues facing BIL into the future?

- Infrastructure maintenance and replacement as needed
- SA Water contract
- Market conditions
- Board renewal



DAVID KLINGBERG AO
INDEPENDENT DIRECTOR & INAUGURAL BIL CHAIRMAN
1998 – 2012



David's opening address
 Launch of the BIL Scheme 20 December 2001

'...we have a viable, privately funded, environmentally sound Project which secures the long term for the Valley with its economic importance to the state.'

The Premier of South Australia the Hon. Rob Kerin, The Hon Mark Brindal, The Hon Malcolm Buckby, the Hon Dr Michael Armitage, The Hon John Olsen and Julie Olsen, Mr Ivan Venning Member for Schubert, Mayor Brian Hurn of The Barossa Council, Mayor Des Shanahan of Light Regional Council, Councillors, James Porter Chairman SA Water, The Directors of Barossa Infrastructure Limited, Shareholders, Distinguished Guests, Ladies and Gentlemen.

Welcome to you all to the opening of the Barossa Water Project. We have some 450 people here today which I think speaks for itself about the excitement that everyone has with this Project giving the Valley a new long term position as Australia's premier wine growing district. I want to thank Grant and Helen Burge for hosting the event on their property today. Grant and Helen are providing all of the wines for the celebration which is an extremely generous gesture on their part.

In fact, it is very appropriate that we are on Grant's patch today as he initiated the Project in 1995 with the then Minister for Industry, the Hon John Olsen, along with support from Peter Wall and some of the major producers such as Southcorp who highlighted the problems the Barossa would face without a secure source of supplementary water. So Grant, the Valley is indebted to you and your fellow visionaries and we are delighted that the first water will be turned on at your property here today.

Briefly the history from these early discussions is worth recapping:

- The Vision 2045 report was commissioned by BREDa and completed in 1996. The report provided substantial evidence of the huge value of the Barossa to the state and confirmed that groundwater resources at that time were being used at their sustainable limit and surface water resources were nearing their sustainable limit.
- Mark Whitmore and a group of growers and winemakers took on the recommendations of the report and the Barossa Infrastructure Group was formed in October 1997 and seed funding was raised from interested parties in the Barossa and the SA Government. A Scheme was conceived, specifically aimed at developing a supplementary water supply based on using excess capacity in the SA Water infrastructure and Barossa Infrastructure Limited was incorporated in September 1998. A Water Transport Agreement was negotiated with SA Water and sufficient engineering and commercial work done to issue a prospectus, which closed in December 1999.
- We had a setback at the close of the prospectus with less water sold than our surveys had indicated and the Board, with the assistance of the then Premier John Olsen and SA Water, restructured the Scheme between January and August 2000 by putting in place a Deferred Water Scheme and renegotiating a new Water Transport Agreement for a smaller overall Scheme with SA Water. The restructured proposal received overwhelming approval at the Barossa Infrastructure Limited AGM on 4 October 2000.
- The environmental report was then finalized and I am pleased to say the draft environmental report confirmed our earlier work which suggested that, properly managed, all of the supplementary water that is applied to the vines during the hot growing season will be used by the plants. On a regional basis, the total quantity being imported is insufficient to affect regional water tables and on a local scale, good irrigation practices will avoid adverse effects. There is no risk to vegetation and fauna. With Minister Brindal's Department, as part of ongoing management, we have already established a network of monitoring wells in particular soil types.
- We then sourced our water from the Murray and we were very much helped by our Premier, in his capacity then as the Minister for Primary Industries, as he undertook to make available some of our future requirements from rights held by the state.
- Project financing arrangements were then concluded with Adelaide Bank, our Construction Manager AMEC Engineering was appointed, and procurement and construction contracts were awarded progressively from January this year. Pipe supply came from TYCO, Eurapipe and IPLEX, the pumping station contracts were awarded to O'Donnell Griffin, and our pipe installation contract was awarded to Mitchell Pacific Pty Ltd now Mitchell Australasia Pty Ltd. Customer connections are by Amiad.
- The construction proper started in February of this year and unfortunately or fortunately, depending on your point of view, we hit one of the wetter winters and springs which caused delays with progress and problems with road reinstatement. However, as of today, water is flowing into the pipe. It reached this point yesterday and most of our customers will be connected before Christmas and the balance should all be connected as early as possible during January. You can probably appreciate it takes a few days to fill the pipe.
- Earlier this year we appointed our General Manager Paul Shanks to run the Project operations.
- The Scheme provides supplementary water from the River Murray which will be largely used from November to April each year with average quantities ordered by growers equivalent to an extra 70mm of rainfall each year. The average rainfall in the Barossa is 550mm.
- We have some 240 customers and shareholders and will supply to 344 properties. It is a community rated scheme averaging out costs to growers.
- We have a transport contract with SA Water for 20 years, with a 20 year extension option, for 7GL with 5GL of Premium water ie water that can be taken over a period of 50 days if required over the summer, and 2GL of Offpeak water. The Scheme uses capacity in the SA Water Mannum to Adelaide pipeline and dedicates the Warren Reservoir to the Barossa. SA Water has constructed additional headworks to support this contract.
- For most customers the water will be received at sufficient pressure to enable direct irrigation.
- We have sold all of the 5GL of Premium water available. We have an option to extend the Scheme by a further 3 GL but this will depend on demand.

- The Scheme in the Valley consists of 187 kilometers of pipeline ranging from 150mm to 960mm, extending from Williamstown to just past Greenock in the North and Gomersal in the West. There are 4 pumping stations – 2 major ones and 2 inline boosters. The major pumping station is 630KW and we have 30 pressure reducing valves.
- Water rights have been leased from the Renmark Irrigation Trust, individual rights holders, some shareholders – Southcorp in particular – and we have an undertaking from the state to support us to the extent of 2GL from 2003.
- The capital cost of the Scheme is over \$30m and is funded through \$8.7M equity contributed by shareholders and a commercial banking loan for the balance from Adelaide Bank.

So, in summary we have a viable, privately funded, environmentally sound Project which secures the long term for the Valley with its economic importance to the state. It also breaks new ground (pardon the pun) in that it provides a return to the state for an asset that was able to be utilized more efficiently.

Now it is important to thank a number of people who have contributed substantially to bringing the Project to where it is today

- Firstly, the Directors of BIL - Grant Burge, Stuart Blackwell, Chris Canute, Martin Pfeiffer, Eddie Schild, Steve Wilson, and my independent Director colleague and Company Secretary and Accountant Geoff Davis.
- Mark Whitmore our Managing Director whose resolute determination to have this Project succeed has been a very important factor. He was the bulldog who pushed and cajoled to take the Project from concept to feasibility and onto issue of prospectus. He and others have worked very hard through the construction phase to ensure the completion within reasonable costs. He has kept us all focused on the basis of the whole Project to deliver quality water on a secure basis at the minimum possible cost.
- Recently retired Directors Carl Lindner and Ian Zander.
- Ably supported by our staff Patsy Biscoe, Lisa Buckley and our computer consultant, Frank Brookes. I thank them all sincerely.
- I also thank Brian Fry and now Don Lester from Orlando and Doug Lehmann who attended many meetings as observers, also Brenton Baker from BRL Hardy who made an early contribution.
- I also want to acknowledge BREDA which funded the original Vision 2045 report.
- Also Clive Wright from Eurapipe and many of the Barossa wineries and growers who contributed to the prospectus funding.
- DIT who lent us \$200,000 on a matching basis towards the prospectus.
- The government's Major Projects group, particularly Borvin Kracman who played a pivotal role in getting the Project underway.
- Borvin is now MD of Arup Stokes who are our consulting engineers. Thanks to them for their support from the earliest days and diligence in reworking the Project a number of times, particularly to Roger Stokes and Campbell McKnight.
- To the Catchment Board.
- To our environmental consultants Eco Management Services Pty Ltd.
- Creagh O'Connor our Project Manager whose experience and good humor guided us through a number of difficult phases, and also Trevor Ellis from his office.
- Our Construction Manager AMEC who successfully coordinated, supervised and controlled the various construction sub contracts and in particular Colin Bazely who bore the brunt of the responsibilities and also thanks to Greg Columbus AMEC's GM Engineering and Construction.
- Our Construction Contractors Mitchell Australasia and its principals Peter Williams and Wayne Mitchell and their tireless team who have been working extremely cooperatively in getting the Project to this point.
- ETSA Utilities who upgraded and supplied new power distribution.
- The councils who put up with us, Maloney Field Services, Transport SA.

- A special mention to our commercial consultants Capital Strategies, particularly John Kerr. John is the author of the commercial and financial structure of the Scheme which is proving appropriately robust. I also want to mention Jennifer Tobin from Minter Ellison, Will Marryat from Cossoff Cudmore, Peter Fisher from Norman Waterhouse and Victor Daminato from Johnson Winter and Slattery.
- The KPMG team Gary Savage and Peter de Cure.
- Also, Bruce Mc Dougal from Southcorp made a great contribution to the structuring and due diligence.
- To Adelaide Bank who are our financiers. Barry Wilhelm GM Business Banking and Brenton Parsons Business Manager who have taken direct responsibility. Adelaide Bank's Chairman Dick McKay is here today.
- We are indebted to the Department of Premier and Cabinet particularly Richard Angove who worked directly for the Premier in dealing with Project structuring issues and expediting approvals. Also many thanks to Robert Jenkins from DIT who chaired many meetings with both councils to ensure the Project kept moving forward.
- Ivan Venning who has been a consistent and great advocate for the Project in and out of government circles.
- Thanks to SA Water Chairman James Porter and your Board and the engineering and management team who worked with us to find engineering and commercial solutions and ultimately accommodated a significant revision to the Water Transport Agreement. Particular thanks to Roger Perry who led most of the effort.
- Minister Brindal and Dr Armitage MP who have been great supporters.
- And our special thanks to the Hon John Olsen who was in right at the start and officially launched the Scheme as Premier in October last year. I do not think we would be here now without the commitment from him to help find a way through the restructuring of the Scheme last year. I hasten to emphasise that this support was not through handouts. This Project stands on its own feet. John personally led a whole of government approach to the issues and the Barossa very much recognizes and appreciates your leadership, commitment and support.
- And to you Premier for opening the Project today. As I said earlier, as Minister for Primary Industries he provided strong support for the Project particularly with securing comfort on water rights.

So it is very appropriate and my great pleasure to ask the Premier to officially open the Project.



David Klingberg AO, Chancellor of UniSA 1998-2008, congratulating his successor, Dr Ian Gould AM

BORVIN KRACMAN
CONSULTING ENGINEER TO THE BIL PROJECT
1997 –



Borvin's responses to a series of questions by Patsy Biscoe in 2014

'... an opportunity to work with good people who are happy to contribute and make something happen ... a Project I count as one of a handful of career highlights.'

What were the drivers that led to the concept of the BIL Scheme?

During the 1990s the expansion of Australia's and South Australia's wine industry resulted in an expansion of wine grape investments and plantings in several regions including the Barossa Valley, McLaren Vale and the Clare Valley.

As far as these three regions were concerned, sound investment in planting expansions were not constrained by suitable land and capital, but they were constrained by the availability of water for supplemental irrigation that was required to underpin the sustainable production of quality fruit and therefore wine.

During this period I had been involved, as the SA Government's project director, in the Virginia Pipeline Scheme which proposed to utilise the reclaimed water generated from SA Water's Bolivar Wastewater Treatment Works for mainly vegetable production in the Virginia region just north of Adelaide. This Scheme was developed as a private-public partnership and was planned and negotiated between 1993 and 1997 when it was commissioned.

At about this time, I was tasked with providing assistance to both the Willunga Basin Water Users Group and the Barossa Infrastructure Group. The Willunga Group wished to develop a wine grape irrigation scheme that utilised the reclaimed water generated from SA Water's Christies Beach Wastewater Treatment Works. That project was successfully negotiated, approved and developed.

My initial involvement in seeking water supply solutions for the Barossa Valley was in 1996-97 when I had been involved in discussions with John Olsen's staff, when he was Minister for Infrastructure, and with Bruce McDougall, then of Southcorp. This was about the potential to supply some of the reclaimed water from Bolivar to the Barossa. The major challenges were distance, elevation, storage and therefore cost, and discussions went no further.

In early 1998, I was an executive in the SA Government's Major Projects Group and I recall being requested through the offices of the then Premier, John Olsen and the Deputy Premier and Minister for Infrastructure, Graham Ingerson, to attend a meeting of the Barossa Infrastructure Group (BIG) to discuss the region's water supply issues. I drove to the Barossa Valley late one warm autumn morning to the meeting venue in the boardroom of St Hallett winery. There I was greeted by the then owners of the winery, Bob McLean, Carl Lindner and Stuart Blackwell, along with Grant Burge, Chris Canute, others to whom I apologise for having forgotten them, and last but not least, the unforgettable and irrepressible Mark Whitmore. A fine lunch with even finer wines was served as Mark and others in the group explained their issues and the great wine industry opportunity that presented itself, as long as the shortage of sufficient water for expansion could be solved.

Some preliminary and high level work into water supply options had been done by the Barossa Regional Economic Development Authority (BREDA), but what was now needed was a more focused investigation into those options along with cost estimates which would then lead to calculations of the revenue required to enable a Project to be financed. This would then lead to a pricing strategy and estimate of required water charges. This in turn would help determine whether potential customers would commit to purchasing sufficient water to give 'bankable' certainty to project investors and financiers.

During lunch, I quickly judged that such a study would require a budget of \$100,000 and I advised the group of this. Knowing that the wealth creation opportunities for the state were significant and that there was clear political support for such economic development, I decided there and then to exercise my financial delegation and part of my discretionary budget by offering a government contribution of \$50,000 toward such a study on the conditions that I had input into developing the study brief, and more so that BIG raise matching funding from its constituents. This proposal was well accepted. I extracted myself from the luncheon meeting and, resisting the offers of more tastings of St Hallett's finest, I drove back to Adelaide heading south along the Barossa Valley Way. I had long had an affinity with the Valley and as I drove through Rowland Flat recalled family visits, bush barbeques and roasting chestnuts on the banks of the North Para River on crisp winter days and trips to Tanunda in summer where we picnicked and swam at the community pool. These trips always included a diversion to a winery and an opportunity for my father to stock up on claret. I continued through Gawler and just as I entered the slip lane onto Main North Road my mobile phone rang in its hands free cradle. I answered the call and it was Mark Whitmore telling me that BIG had raised their \$50,000 contribution and asking when we could get together to write the brief for the study. I was pleasantly surprised by the speed of the outcome but not the outcome itself. I had sensed that the group were serious and were prepared to work hard and commit to get a result. I congratulated Mark and told him I'd check my diary when I got back to my office and phone him back to arrange a time. "Great", I thought as I continued to drive, "an opportunity to work with good people who are happy to contribute and make something happen." That day was the beginning of a Project I count as one of a handful of career highlights.

Mark and I worked on the study brief and within two weeks sought offers from three consultants to carry out the assignment. The selection panel chose a team led by consulting engineer Roger Stokes and Associates teamed with corporate commercial advisors Capital Strategies and marketing advisors McGregor Tan. I had worked on projects with Roger Stokes and with Paul Robinson and John Kerr of Capital Strategies previously and was confident that this team had the skills and drive to make a project happen. None of us were interested in generating reports to sit on shelves. We all got our rush from putting together the framework for good projects and making sure they got delivered well.

The Barossa Valley did not have a sufficiently large reclaimed water resource available to it on an economic basis but the Barossa region did have the benefit of a major pipeline from the River Murray, the Mannum to Adelaide Pipeline, which passed through the southern edge of the region. This pipeline was constructed to augment natural runoff into the Mt Lofty Ranges reservoirs, in particular the South Para and Kangaroo Creek impoundments. The pipeline was only operated when rainfall was predicted to be insufficient to yield enough water to supply consumers. This meant that the pipeline frequently had capacity that was not utilised. Furthermore, SA Water's operational requirements for the nearby Warren Reservoir had reduced due to a reconfiguration of the regional water supply system as a consequence of a water treatment plant having been constructed at Swan Reach. These two opportunities provided the basis of the BIG Scheme.

Over the next 3 years I spent quite a bit of time in the Barossa Valley, initially meeting with Mark, Stuart Blackwell, Grant Burge, Chris Canute, Carl Lindner, Martin Pfeiffer, Eddie Schild, Steve Wilson, Ian Zander and Leo Pech. As BIG evolved and the Project became defined it became evident that a more advanced governance structure was required. Geoff Davis, an accountant well known in the Barossa, and his friend and former Managing Director of Kinhill Engineers, David Klingberg, joined the group and assisted by John Kerr of Capital strategies and Jennifer Tobin of Minter Ellison they created Barossa Infrastructure Limited (BIL). David was appointed Chairman with Mark Whitmore as Managing Director.

Initially my involvement was on the government side, assisting with project concepts, briefing Ministers as well as executives and CEOs of various departments and agencies including SA Water, Primary Industries SA, Water Resources, Planning, Crown Law, Environment and Heritage, the EPA and the Economic Development Authority. I also got involved with briefings of The Barossa Council and Light Regional Council. The aim was to ensure agency and local government support and ultimately obtain development approval for the Project. It was also to assist BIL's negotiations with SA Water and obtain agreement to the commercial and technical terms of the Water Transport Agreement. These negotiations were complex and successfully led by David Klingberg with support from his advisory team including Geoff Davis and John Kerr.

In late 1999 I was approached by the consulting engineer for the Project, Roger Stokes. He told me that he wished to retire and had agreed to sell his practice to the global consulting firm Arup. A condition of the sale was that he find someone suitable to Arup to take over the leadership of the practice and he asked if I was interested. I was and after several meetings was offered the role. I commenced with Arup in February 2000. The BIL Board was making headway in getting the Project to financial close but they continued to need engineering advice, so we agreed an arrangement where Arup provided that advice at reduced cost in return for an undertaking to be the Project's designers on reasonable commercial terms, if it proceeded. Thankfully the final hurdles were overcome and we commenced detailed design. As with most projects, the BIL Scheme had its twists and turns. We looked at numerous alternatives for achieving the outcome wanted and just as we thought we had a final solution, Mark Whitmore would tell us that he'd found more customers or he wanted some adjustments made. The concept of 'design freeze' was something that Mark was not prepared to understand. Nevertheless, we got there in the end. Again, as with most projects, there were challenges through the tendering, procurement, construction and commissioning phases but a successful Project did eventuate and I fondly recall the outdoor luncheon held in December, I think of 2001, to celebrate. Since then Arup and I have had an ongoing association with the Project and I am pleased to say that I am still involved to this day.

Following the success of BIL, John Kerr and I were approached to talk to a small leadership group in the Clare Valley to see if there was a solution to their viticultural water needs. Given the Clare Valley lay between two major pipeline systems it seemed like the prospects were good. We spent a few months working on that potential project but the Clare group decided to accept a proposal from SA Water to provide a solution to their water needs. I suspect very strongly that they now wish that they had taken their cue from the Barossa.

In concluding my version of the early history of BIL, I'd like to record a summary of my work with Mark, particularly as he disappeared from the scene a year or two after the Project was complete and therefore is unlikely to contribute his version of events. As Barossa folk would know, he was a 'blow in' to the Valley but despite that, I'm sure all involved with the Project would agree that it was his tenacity, stubbornness at times, unpreparedness to take no for an answer, and plain hard work that helped get the Project across the line. I liked Mark and we got on well. I'd like to think that on some occasions he took my advice and took a more diplomatic approach to negotiating issues than he may otherwise have done. His background was interesting. He was originally from England and according to my conversations with him, he'd had a number of businesses in Melbourne including a furniture business. He'd done well with these businesses, sold up and decided to move to the Barossa Valley where he and his partner bought a vineyard with some old vine Shiraz plantings along with old buildings that they started renovating into a home. I believe he sold some of his grapes to St Hallett and he was very friendly with Stuart Blackwell. Once the Project was completed and operational it seemed to me that he just disappeared. Others I'm sure know more about his time in the Valley and perhaps where he went when he left. Whatever that story is, he was a key figure in making BIL happen.



Drilling to prove up a possible dam site as part of the 2017 BIL Scheme expansion

When conceived, what were the obstacles to be overcome including those in the community, in the grape and wine industry, and during the construction of the pipeline?

- Elements of the community fearing the Barossa brand being tarnished as an irrigated region.
- Elements of the community fearing and resisting vineyard expansion.
- Not aware of any obstacles from the industry.
- Budgetary, supervisory and quality of work challenges during construction.

Why is there a need for BIL water in the current decade and into the future?

- Without BIL there is not enough natural water (surface or ground) in the Valley to sustain existing quality plantings let alone expansion.
- Climate variability and the need for a sophisticated industry with global export customers to have predictable quantity and quality of product.

What are the issues facing BIL into the future?

- Renewal of the Water Transport Agreement with SA Water on reasonable terms.
- Asset aging and an increasing need for maintenance and replacement.
- Climate variability and how that might impact on River Murray water licenses.
- Succession planning for the Board and management.

DON LESTER
ADVISOR TO THE BIL BOARD
2000



Don's responses to a series of questions by Patsy Biscoe in 2015

'The water quality of Barossa aquifers was deteriorating ... '

What were the drivers that led to the concept of the BIL Scheme?

From Orlando's perspective, the:

- ability to purchase River Murray licenses
- availability of water via the Warren Reservoir
- high demand for wine grapes nationally, driven by strong domestic and export sales and the resultant expansion of vineyards, with limited scope for the Barossa to expand without additional water
- deterioration of water quality of Barossa aquifers
- evidence that Barossa soils were suitable for limited additional irrigation with quality water and that premium wines were produced from supplementary irrigation
- availability of efficient drip irrigation systems and soil moisture monitoring equipment to maximize use of high-cost water
- Barossa history of strong cooperation between wine growers to address issues

- vine improvement programs which had made available first class scion and rootstock planting material, largely eliminating viral and bacterial diseases, and mechanical pruning and harvesting which minimized labour costs
- maturity of the liaison between winery and grower to a point where Orlando was willing to provide both seed money and GLO staff time to support the preliminary investigation, as a benefit to suppliers
- support of qualified engineers for the feasibility of the Project and the plan for staged completion of the Project

When conceived, what were the obstacles to be overcome including those in the community, in the grape and wine industry, and during the construction of the pipeline?

- The entry cost was high per ML water delivered
- Growers required some additional support by way of extended grape contracts
- Growers in the traditional areas questioned the wisdom of expansion to the west

Why is there a need for BIL water in the current decade and into the future?

- The climate of the Barossa region is predicted to become warmer and drier and the provision of supplementary water to vineyards likely to become more frequent
- Margins from grape production are reducing as world competition grows
- Provision of supplementary irrigation minimizes extremes of production and quality
- There is no alternative

What are the issues facing BIL into the future?

- Continued access to River Murray water licenses
- Continued access to Warren Reservoir water in relation to wider public needs
- Cost of maintenance for infrastructure
- Long term use of STEDS (now CWMS) water
- Maintenance of the premium position of Barossa wines world wide

CARL LINDNER
BIL DIRECTOR
1998 – 2001



Carl speaking with Patsy Biscoe in 2015

‘Mark Whitmore ... was a pretty strong natured person, you couldn’t talk him out of things.’

I believe the start of all this was the strong viewpoint that Mark Whitmore had. He kicked it around with me and one person I can’t recall (probably Peter Wall). A bit later on, Stuart Blackwell and even Bob McLean and therefore St Hallett embraced the concept, because Stuart had that view of salt getting into the wine from using too much bore water on the grapes. But Mark was a pretty strong natured person, you couldn’t talk him out of things, and I believe one of the articles written at the time said that it sounded almost like a bit of a pipe dream that wouldn’t come off. But it was really driven by him not by anyone else. I don’t know how it got to the point where it got some momentum. I do know that once we knew it was a possibility, because I think there was a big meeting held, I had to go out and get seed money. That was my role; mainly from the smaller growers, where Stuart and a few others associated with wine making went to the wineries which gave bigger commitments.

There was some opposition to the Scheme. There were some fairly high profile people who didn’t agree with it, but I think anyone who had an interest in growing grapes needed this water, because the level of the bores was going down and they were bringing up more salt and this was worse in dry years. I didn’t think it was such a hard thing to work out and it was the way to go forward. But the ins and outs of how all that happened - Mark must have done a massive amount of canvassing to get to the point where we actually got started. I’m not quite sure how he pulled that off. I think he did it pretty much single handedly. But who he went to I don’t know. Maybe it was Ivan Venning to start off with.

There was just a little bit of bad publicity in the beginning but once the whole Barossa thought about it I think it was quite clear they wanted us to go forward. I know when they started laying the pipe there were a lot of problems with the Light Regional Council CEO who was strongly against the damage he felt the contractors were doing. There was nearly a chance we could have gone broke then and there, because he was hell bent on not letting us do another thing. I tried to meet with him, but he said, "Nuh you're not talking to me, we're stopping you." He was not happy with the finishing off of the contractor's work. I'm sure there would be a few early members out there who would remember that. In the end we got him to have a meeting. It was tough, but we got somewhere after that. There were a few blowouts and so on that took place, but generally I think, if we didn't have that water now ... !

It took a few growers a while to forget about using their bores, or to get used to using less bore water. Some probably shandied it. It just took a while for growers to embrace the concept. I think the wine people were one of our biggest support groups because they could see that this was going to be better for the industry. There were a few that said they didn't want more vines planted, for example on Gomersal Rd, and that was some of the stuff that worked against us. But generally, I think everyone now knows that it's one of the best things that has ever happened in the Barossa.

Mark Whitmore didn't have a lot of vineyard of his own; some, but not a lot. For him, lack of mains water pressure in Lyndoch during times of high water usage was probably the reason he pushed the BIL Scheme. It wasn't as if he was a large grower. Perhaps it was a community driven thing. He was very community minded. He had a bit of an artful flair and did some really good renovations to his onsite buildings.



Planted in 1843, Langmeil Winery is believed to have the oldest known surviving Shiraz vineyard in Australia. As part of a successful 18-month process of digging up, moving and replanting century-old vines, Carl used a custom-built spade digger.

BIL water's needed for the future. It's even more important now. We've got stronger demand than we ever believed we'd have and that's because of the strength of the 'Barossa' brand. It's increasing, not diminishing, so I think the demand is always going to be strong.

With the different rain patterns that are emerging it seems we are getting hot weather at the most critical times. There'd be a lot of growers who would like to buy more water at this time.

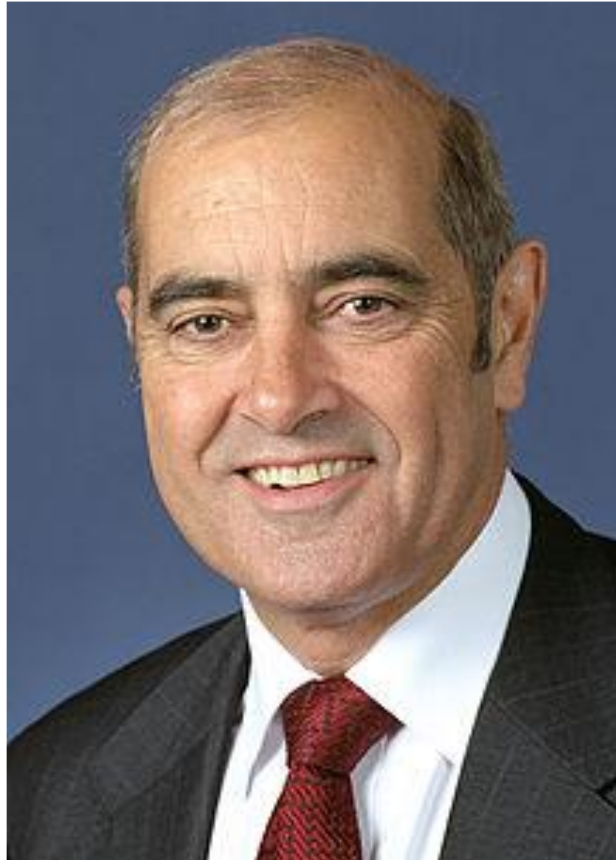
Expansion of the Scheme? I think it's a good time to be cautious, and not go in boots and all. A lot of the smaller growers have had it tough, let's be honest, and not many make too much money out of it. I know a life insurance guy who said he's got a lot of clients who don't know how they're going to get out of their predicament. I think that can only be by selling. Only little labels starting up want to buy those little patches and I think those little labels would probably be one of the most important aspects of the Barossa. They're not big by volume, but they're big by stature and they are making some high quality branded product. Those people will survive. However, the culture of the Barossa is going to change, as larger wineries are being taken over by international buyers.



Going into the future, I think smaller growers are going to fade out or sell off to strong wine brands, which I reckon will pick up the good vineyards.

The wine industry in ten years? I think it's going to be okay but there'll be a lot of difference in marketing; maybe an increase in online sales, but the cellar door is still a good thing. That's where you can form relationships and go the extra yard and really make people feel welcome. It depends how much time you want to put into it. Bit like me with my Jaguar collection. People drop in and have a look and it might be near lunchtime and I'll say where are you from and they might be from interstate and I say well come and have lunch with me, so that the Barossa does the right thing and welcomes them.

HON JOHN OLSEN AO
PREMIER OF SOUTH AUSTRALIA
1996 – 2001



Address by video link at the farewell dinner for inaugural BIL chairman

David Klingberg AO

17.10.2012

Good Evening,

176 years ago Wakefield established South Australia as an economic and social experiment under the domain *The South Australian Company*, and thus we embarked on a market driven venture in South Australia which brought new hope, new opportunity, new industry and a new approach.

We overcame our natural disadvantages by experimentation and innovation. And thus it is with BIL. Edwin Gibbon Wakefield would be proud of your achievement. A first in Australia, now copied by others. Fixing a problem and overcoming an emerging disadvantage in the Barossa Valley, addressing the question of water distribution, drought proofing one of the world's prestige wine regions, and overcoming the drawdown of the aquifers which were getting salt leached into the water rendering use of that water redundant. And for that reason the achievement of Barossa Infrastructure Ltd is something of which you all should be immensely proud. Of not only its establishment but what it has been able to achieve since then.

There were horrendous hurdles in the establishment of Barossa Infrastructure Ltd and on the journey and many hurdles remain to this day. But the achievement of getting this Project up and running is nothing short of outstanding.

From 1995, when the BREDA report established a fifty year vision for the Barossa Valley, through to 1998 when Barossa Infrastructure Ltd was incorporated, or in November that year when the South Australian Government passed through Cabinet authority for South Australia Water to use excess capacity in pipelines to distribute water from the River Murray to regions throughout South Australia, to the period of June 2000, the crunch time, when the prospectus of BIL had been issued and the '*drop dead*' date of the 30th of June when, if it hadn't been completed by then, the Project would have to have been aborted.

During this period of time Grant Burge, a passionate advocate of the need for water in the Barossa Valley, was unstinting in his advocacy. Constantly Grant would bring that to my attention, only to be eclipsed, Grant, by Ivan Venning with his advocacy of Gomersal Rd, which I hope never to hear of again!

This Project got off the ground without government subsidy, without a community service obligation within government and without a cross subsidy within government agencies. And that was the difficulty we experienced in getting government agencies and the independent SA Water Board to sign off on the Project.

And in those last few weeks, it wasn't until there was an instruction given to the agency to make this happen, that we eventually got on track, requiring the Department of Premier and Cabinet to report by noon Saturday the 24th of June 2000 that all the agencies had signed off on this Project, enabling the last week of June for the documentation to be completed in time.

Thus, BIL was born and it's an outstanding and great achievement.

All innovative and engineering projects and financial modelling of those projects require leadership.

Leadership that's calm, direct, focused and determined. And David, you've provided that leadership to this organisation. From the time of being inaugural Chair twelve years ago through to today, your leadership has established credibility and enhanced the reputation of the Company and enabled it to achieve what it has over this past decade or so.

You can look back with significant pride on this achievement, because history will show that it will benefit the Barossa region for generations to come – no less than securing the future of South Australia's premier wine region and one recognized worldwide. That was the importance of this Project, assisting that endeavor.

David, congratulations. Well done and thank you for your leadership and perseverance as Chair.

Julie and I are unfortunately unable to join you and celebrate your achievement and this extraordinary Project coming to fruition, as we're overseas. But I'm sure you'll have an enjoyable evening ...

... and have a drink or two for us!

LEO PECH
BIL CUSTOMER
1999 – 2012



Leo's responses to a series of questions by Patsy Biscoe in 2015

'The BIL Scheme has given the Barossa a long-term future ... not just the grape industry but the Barossa as a whole'

What were the drivers that led to the concept of the BIL Scheme?

The main driver as far as I'm concerned was the inconsistency of income, based on the rainfall. When you look through the records it's quite remarkable how many years we've had very low rainfall. For example, look at 1957-58. We had a very dry year in '57, very little harvest in '58, no fruiting wood in '59 coupled with a low rainfall in '59, so we experienced low yields four years straight. The concern that I had, being young and expected to take on the family property, was the resulting inconsistency of income. *Note: below is an historical rainfall chart, supplied by Leo, taken from a 1990 copy of The Leader newspaper.*

The second issue was that, bearing in mind my first vintage was in 1951 (so don't calculate how old I am!), there were small alternative incomes. There was dairying, pigs, poultry and so on. Very handy in a low income year, but it became very obvious in the fifties that the pattern was going to change and that the small units of alternative income were going to be phased out. Today it's all larger economy of scale which doesn't allow an alternative income outside the vine itself. They were my concerns. The inconsistent economics of the fifties to the early nineties worried me a lot.

The third thing that concerned me was the quality of the fruit because, if you lack moisture berries don't have the juice. And Leo Buring, which no longer exists, said Barossa fruit was not worth as much as the Riverland because, 'the Riverland will get 750 litres per ton; in a dry year we only get 550 litres out of the Barossa, so how can we pay you as much? The price we are paying is not only how many dollars a ton, but it's the extraction rate that comes from every ton'. So you could see the Barossa was facing some problems.

The other issue that was worrying me, probably later than the fifties, was that people were putting down bores. The bores were rather salty and the supply of water was very low, and as the number of bores increased so the water supply was reduced. So the supply from the bores reduced volume and the salinity rose. I became very concerned in the sixties, seventies and eighties, that something had to be done.

We also had a situation in the Barossa where a lot of fruit came in from the Riverland, Sunraysia and the Riverina and the wine was processed here and carried the Barossa label. I even remember seeing a wine label that said 'this product was aged in the Barossa Valley'. You don't see that anymore, because we were trying to export to Europe which had higher Geographical Indication (GI) standards, so we had to come up to their standards. Therefore, my concern when the negotiations with the GI and the Europeans commenced

was that the Barossa was not going to have the volume of wine for export under its name. That had to be rectified because we would lose the economy of scale and therefore efficiency. We had to get water to build up our volumes to maintain our economy of scale, to maintain our GI.

The other issue that concerned me in the sixties, seventies and eighties was that we were changing from a fortified wine industry to a table wine industry. Now, the varieties that were required for a table wine industry were not the same, so we had to what I call 'reconstruct' our vineyards from fortified to table wine grapes. You may or may not be aware that I was the Chairman of a 'reconstruction committee'. To give you some idea of who was on that committee, there was Ray Beckwith, Cyril Henschke and Neil Wilkinson. That was 1975.

Now the problem with 'reconstruction' in the Barossa was that the inland regions could get their new vines into production very quickly, but we couldn't because we couldn't irrigate. So our problems were far bigger than any in other area. So, you can see that the Barossa was facing major issues. We needed irrigation, yet the grower had no idea how to go about it.

There was one person I have a high regard for. That is Peter Wall. We set up the Barossa Wine Grape Industry Advisory Committee. I was the Chairman and Peter was on the committee. We had lots of discussions on the problems of the Barossa. Peter had more forward thinking and planning than any other winemaker around here. He also had more interest in trying to improve the viability of the grower in the Barossa and he had a big interest in viticulture 'reconstruction'. As far as I'm concerned he's had a major input into the Barossa and the wine industry.



The other point was that, because I was on the North Para Water Resources Committee and also on the BIL Committee, it was raised many times that there was a potential conflict of interest. Because there were certain personnel on the Water Resources Committee who were not looking favorably at the BIL Scheme, I thought it would be better for me to remain there rather than be on the BIL committee.

When conceived, what were the obstacles to be overcome including those in the community, in the grape and wine industry, and during the construction of the pipeline?

Well the first thing that concerned me was we had to find a decent Chairman:

I thought we needed a Chairman at a higher political level than we had in the Barossa. Now who in the world found (inaugural BIL Chairman) David Klingberg I've got no idea, but whoever found him needs to be recognized. If we hadn't had the Chairman we had, BIL wouldn't have been successful.

The second problem was the cost involved in setting up the Scheme:

The cost involved, in my calculation at the time, was there was a possibility that it would not be feasible. It was potentially not economical, but if we got a taxation advantage it could be. Someone negotiated with the tax department and the expenditure that we were repaying became a one hundred percent write-off in the year concerned. I'll go so far as to say that, if that had not been achieved, the BIL Scheme would not have got up. I was so concerned that had we not had the tax advantage, I was wondering whether I was even going to be part of it.

Then the price of BIL water came to my attention:

The price of BIL Water and the fact that I'd have to lease water on top of that cost made me say to myself, I'm going to own my own water and lease it back to BIL. Had I known what I know now I would have bought more water. I only bought the volume that I wanted. I should have bought more, but at that time I didn't know what BIL was going to pay me and I didn't even know whether the whole operation was going to be viable.

Another factor was the customer infrastructure levy:

We're now talking 1996 and I had enough insight into the industry that, when BIL came up with the proposition that we had to pay \$500 a megalitre every year for the first nine years, I could see the wine industry was going to have enough boom periods to finance the big repayments. I was also very conscious that the Barossa challenge was to actually produce more wine under its own label, under the GI, and to have a big enough economy of scale on the international market so the world could recognize us. And I was wondering whether the BIL Scheme would come into action early enough for that to actually happen.

In the early days we had a meeting in the Tanunda Club with SA Water:

There was a feller who addressed a meeting in the Tanunda Club and said the Warren Reservoir will never be available for you, so you'll have to find an alternative. He was not a good speaker, but he made it very clear that the Warren would never be available for a scheme of this nature. After that meeting Aubrey Rosenzweig and I drove around the Valley trying to find alternative sites for dams so we could have a BIL Scheme. And we couldn't! If I could turn it around a bit the other way I'm surprised that the Scheme actually happened, there were so many things against it and bear in mind we are talking 1996. You know in 1986 we had the vine pull. I was the sole negotiator for the vine pull. I negotiated with the government in October '85 and it came out in Paul Keating's budget in '86. Now the growers were really down and out in '86 and it would have taken them until about 1991 or 1992 to recover - and then somebody comes up with a smart-aleck idea of having a BIL Scheme that's going to cost \$46 million - and not in today's value, in those values. So you can see the line of doubt I had on the whole operation. Some were opposing it and I already had a lot of doubt over it too. But you know, I look back and realise that the BIL Scheme has given the Barossa a long term future; not just the grape industry but the Barossa as a whole.

Why is there a need for BIL water in the current decade and into the future?

We're fortunate to have the Barossa name and an image that's internationally accepted for quality. Our next issue is we have to maintain consistent quality and supply, which we cannot maintain without water.

Water is going to be a problem in the future. First of all, we may not have the natural rainfall to fill the Warren; secondly the River Murray, I can see, has got huge problems, because the Dartmouth Dam is much lower this year (2015) than last year, the Hume Dam is much lower this year than last year, more water goes down the Snowy River than under the previous arrangements, so you won't get the volumes that we've had in the past.

There will be restrictions - more so in the future than the past. South Australia will not get their percentage, but BIL may eventually be able to hook into water from the Bolivar Wastewater Treatment Plant. That water concerns me because of the quality, the salinity is far too high. You can mix it with BIL water, but River Murray water will be more salty in 50 years time.

What are the issues facing BIL into the future?

- Because of the changes from white to red varieties and because of the demand for high quality fruit and lower yields and the resultant harder pruning etc, last year (2014) the Barossa produced around 60,000 tons. We have in the past produced over 100,000 tons, so there are some sacrifices the growers have made in the change from white varieties to red and the raising of the quality of the fruit. And while the Barossa will never have an oversupply of Shiraz and Cabernet it will have an oversupply of A grade fruit and B grade fruit, because the quality of the fruit is not measured by an instrument, it is based on supply and demand and driven by market forces. This will have an impact on growers' income and ability to pay for their BIL water.
- The other big thing was that the BIG Committee sent out a circular to growers asking if they would be interested in a scheme like this and they indicated they were. A second circular came out asking people to sign up and at that point quite a few pulled the plug. If they hadn't there would have been enough water sold without including any Managed Investment Schemes. Because we had to include them to get the economy of scale, the whole Scheme cost more. I expressed my concern at the time about the cost.
- I'm concerned about the economics of the Barossa and in fact the whole grape industry because first of all the cost of production in this country compared to other countries, especially southern hemisphere countries, is going to make it very hard for us to export, even with our quality. For example, the southern hemisphere produces 57 hectoliters of wine while Australia only produces 12hL, and only 7hL of that is exported.
- Another point is the over-exaggeration of China saving the Australian wine industry.
- What is perhaps even worse is that the Australian Government is considering a Free Trade Agreement with Europe. Europe produces about 70% of the world's wine and they have a surplus and it's more economical than ours because their agriculture is subsidized. I fear a free trade agreement with Australia will see far more imported wines coming in. Our imports have risen from 2% of domestic consumption to 15%, which represents 22% in monetary value, proving Australians are buying high quality imported wines today, which the Barossa didn't have to compete against 20 years ago. Also, we have the mechanism to import wines more easily with the introduction of containerization. Some wine companies themselves have an import company, and they make their money out of imports. If Australia becomes a republic it will take away our strong trading ties with England and Canada.



Leo meeting Queen Elizabeth II in 1977 in the Barossa Valley

Leo's clipping from a 1990 edition of the Leader Newspaper

Angaston's rainfall for the last 108 years

Year	Jan.	Feb.	Mch.	Apr.	May.	Jun.	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total
1882	7	0	62	141	271	167	292	303	150	161	188	43	1785
1883	13	35	62	134	504	387	369	364	234	116	142	152	2512
1884	209	2	149	128	349	460	63	283	368	214	72	177	2474
1885	50	121	88	89	153	338	254	237	190	113	53	121	1807
1886	169	54	1	152	160	87	332	479	289	359	143	106	2331
1887	20	67	49	208	215	480	287	288	389	243	222	86	2554
1888	26	9	62	46	298	330	523	202	217	30	80	22	1845
1889	144	86	32	1175	288	530	103	446	332	286	128	97	3647
1890	269	41	182	125	202	538	479	447	216	344	351	23	3217
1891	75	12	58	58	23	187	272	205	129	255	114	129	1517
1892	59	60	32	143	61	200	258	393	214	426	70	178	2094
1893	16	1	13	332	482	403	265	247	349	195	136	27	2466
1894	30	11	340	166	106	296	434	383	223	306	6	276	2577
1895	117	7	65	354	48	233	338	167	110	45	19	168	1671
1896	142	2	136	284	106	217	80	111	72	15	27	176	1368
1897	12	36	61	64	107	199	118	255	249	51	72	6	1230
1898	15	123	48	255	215	408	215	254	75	216	153	93	2070
1899	155	126	92	171	263	430	64	82	231	75	133	32	1854
1900	70	18	213	293	146	301	97	485	287	81	34	39	2064
1901	94	3	32	105	50	456	191	125	160	257	62	66	1601
1902	39	50	234	17	61	264	199	175	135	237	61	398	1870
1903	78	188	118	433	165	493	313	306	282	49	303	121	2849
1904	180	95	31	133	127	340	269	247	87	202	113	0	1824
1905	117	36	15	250	270	388	414	161	220	399	26	3	2299
1906	0	9	241	107	167	491	319	391	331	257	390	69	2772
1907	0	19	35	342	148	248	251	240	211	198	196	66	1954
1908	71	35	156	36	430	280	180	284	510	227	84	35	2328
1909	112	52	76	279	432	247	441	573	197	195	252	51	2907
1910	108	0	418	17	410	381	378	209	311	334	181	228	2975
1911	25	276	72	62	299	348	305	111	329	48	21	172	2068
1912	3	43	102	96	33	373	367	369	508	164	244	145	2447
1913	7	446	359	75	87	15	123	257	398	189	138	70	2164
1914	75	38	125	159	180	57	206	22	56	7	174	110	1209
1915	71	3	55	163	434	629	201	343	525	150	72	53	2699
1916	85	47	56	129	124	828	446	553	197	261	414	111	3251
1917	85	121	137	116	548	299	482	425	398	255	127	174	3167
1918	32	62	66	232	400	222	303	310	73	173	34	12	1919
1919	15	279	9	14	200	174	116	254	246	132	24	177	1640
1920	38	3	90	50	242	448	231	368	265	345	262	149	2491
1921	220	173	274	20	389	194	181	204	269	210	183	87	2404
1922	205	31	11	161	531	174	433	285	142	161	2	312	2448
1923	26	0	0	11	757	564	436	258	445	198	93	228	3016
1924	151	118	94	70	271	394	77	241	421	436	187	27	2487
1925	68	117	65	156	178	175	264	260	487	71	78	3	1922
1926	0	47	21	150	494	190	350	469	180	337	88	21	2347
1927	60	91	65	48	298	173	311	389	119	62	200	157	1973
1928	129	243	134	103	250	291	145	70	242	357	24	35	2023
1929	57	32	20	82	127	332	132	167	199	70	160	418	1796
1930	0	80	8	95	173	66	359	361	238	378	109	100	1967
1931	36	15	106	198	321	348	369	388	400	62	24	2	2269
1932	36	133	110	289	154	442	324	406	200	202	58	52	2406
1933	198	3	59	121	395	46	149	373	403	98	95	84	2024
1934	66	28	41	159	19	96	189	272	319	260	194	40	1683
1935	77	1	202	187	154	347	223	420	278	252	78	55	2274
1936	222	147	27	140	231	136	328	220	67	209	59	262	2048
1937	245	158	46	111	177	232	178	284	395	42	125	256	2249
1938	189	246	10	424	57	144	254	286	68	64	50	12	1804
1939	38	249	49	151	206	264	264	677	114	85	460	33	2590
1940	157	64	69	291	157	76	233	146	186	110	105	85	1679
1941	431	49	195	84	89	183	328	267	377	233	104	54	2394
1942	76	17	31	318	501	412	307	397	358	72	218	94	2801
1943	62	118	16	217	60	313	234	360	256	126	69	103	1934
1944	30	84	26	121	304	58	212	75	43	145	236	135	1469
1945	52	124	0	9	112	274	124	271	203	331	280	114	1894
1946	144	324	189	92	214	162	392	152	68	132	225	318	2412
1947	8	311	406	179	155	172	486	281	224	242	117	150	2791
1948	8	37	24	379	204	217	173	407	75	340	213	89	2166
1949	92	177	11	17	175	104	229	111	128	484	225	23	1776
1950	22	159	82	195	566	205	110	184	154	154	80	27	1938
1951	36	90	12	322	410	430	475	389	77	374	40	200	2855
1952	153	23	19	253	566	462	184	162	230	315	317	64	2748
1953	74	20	17	117	142	321	266	290	299	244	121	181	2092
1954	94	4	50	345	79	267	252	140	104	304	89	125	1853
1955	22	228	119	152	543	545	234	453	166	253	163	94	2976
1956	65	4	84	258	473	402	403	322	404	244	66	36	2761
1957	2	4	55	82	135	232	288	160	129	168	116	22	1393
1958	5	17	169	72	399	47	306	298	313	326	65	42	2059
1959	14	115	86	15	60	53	71	194	142	210	37	164	1161
1960	29	208	81	295	657	119	234	242	330	63	144	15	2417
1961	12	66	25	510	123	249	210	205	183	54	209	49	1895

MARTIN PFEIFFER
BIL DIRECTOR
1998 – 2016



Martin's responses to a series of questions by Patsy Biscoe in 2015

'... water is becoming "liquid gold" and a scarce resource into the future, and with earlier and hotter seasons and climate change, there will be more reliance on good quality water to grow quality grapes at an economic level.'

What were the drivers that led to the concept of the BIL Scheme?

- The fact that we were beginning to see increased salinity levels in many bores within the Barossa.
- The fact that we were beginning to see hotter summers where increased supplementary watering was required.
- The fact that there was an increase in demand for Barossa fruit, and an expansion of vineyards in the Barossa.

When conceived, what were the obstacles to be overcome including those in the community, in the grape and wine industry, and during the construction of the pipeline?

- Getting enough growers to commit, given that they perceived that the cost was high and that SA Water costs were much lower and closer in cost to BIL at that time.
- Getting the Barossa community and the media to understand that the BIL Scheme was not going to over-irrigate and have a negative impact on the 'Barossa Quality' name which had been built up over generations.
- Getting the growers to look to the future to see that, long term, the investment would pay off; many were not used to thinking that far ahead or were not forward thinking enough to 'buy in'.
- Responding or not responding to negative media about the Project.
- Competing with SA Water for the sale of Off Peak Water and being price competitive.
- Battling extreme weather conditions during construction and difficulty in negotiating with Light Regional Council through the construction period.
- Ensuring that we put in place monitoring wells to enable us to show that we were not increasing salinity or causing rising water tables because of the introduction of the Scheme.

Martin in Whistler Wines Barossa Vineyard



Why is there a need for BIL water in the current decade and into the future?

- Because water is becoming 'liquid gold' and a scarce resource into the future; with earlier and hotter seasons and climate change, there will be more reliance on good quality water to grow quality grapes at an economic level.
- Recharge of the underground aquifer is lessening in frequency and volume, and those with access to this resource will have to supplement into the future.

What are the issues facing BIL into the future?

To:-

- continue to be relevant and responsive to the industry we serve
- ensure, as we pay off the existing Scheme, that we start building a 'Future Fund' for system replacement
- continue to explore and implement opportunities to access all sources of renewable quality water which will complement the existing sources
- ensure the right people and skills are in place to drive the business forward through Board renewal and succession planning
- find the right fit for BIL to become involved in the Northern Adelaide Water Scheme and
- continue to keep our customers front of mind when making decisions in the business

ED SCHILD
BIL DIRECTOR
1998 – 2016



Ed's responses to a series of questions by Patsy Biscoe in 2016

'The availability of SA Water was not sufficient as the existing infrastructure could not cope with the extra supply needed'

What were the drivers that led to the concept of the BIL Scheme?

There were three main points:

- 1) Salinity was increasing due to water being used from underground bores
- 2) In several areas in the Barossa, the salinity of the water supply was not suitable for use in vineyards and
- 3) The availability of SA Water was not sufficient as the existing infrastructure could not cope with the extra supply needed

When conceived, what were the obstacles to be overcome including those in the community, in the grape and wine industry, and during the construction of the pipeline?

Sourcing a reliable water supply and storage of that supply was a high priority. After much negotiating with SA Water, then State Premier John Olsen convinced SA Water that Barossa vineyards needed drought proofing, hence the Warren Reservoir was commissioned. Interestingly, at that time water stored in the reservoir was not deemed suitable for human consumption due to contamination from chemicals used on the nearby pine forests!

Why is there a need for BIL water in the current decade and into the future?

As the demand for Barossa grapes increases there will be further vineyard development and a need for more water.



WELCOMING WATER: Grower Ed Schild in his Lyndoch vineyard

Pipeline begins to bear fruit

GRAPE GROWERS around the region are beginning to glean the benefits of the irrigation pipeline project.

Seal problems have caused delays in some areas of water distribution, but the \$30 million 187-kilometre project has now been completed.

The pipeline has been overseen by Barossa Infrastructure Limited, which began the construction project early last year, and was backed by the State Government.

"We are having a number of minor problems to do with commissioning and that is not unusual," BLD managing director Mark Whitmore said.

"It is quite common to get seals playing up dur-

ing the initial stages of commissioning.

"I am reasonably happy. I am not happy with the problems we have had but you have to expect that of something this size.

"Growers would know that when they put a new irrigation system in, problems will take a little while to resolve but this is on a much bigger scale. We are going to get little issues that need to be resolved."

Mr Whitmore said BLD is working hard to make sure growers have access as soon as possible.

Renowned grape grower Ed Schild has vineyard properties at Lyndoch and Jacob's Creek, and is set to access the pipeline over the ensuing weeks.

cooler summer climate had relieved a lot of pressure on the need for water.

"Most of the growers have expected a few hiccups," Mr Schild said.

"It is a large project and you are not going to have a project of this size going through without a few hiccups."

With salinity causing problems for many growers, he said the fresh water from the River Murray was a god-send.

"Once the project is up and running people will look back and say it is the best thing that has ever happened to the Barossa," Mr Schild said.

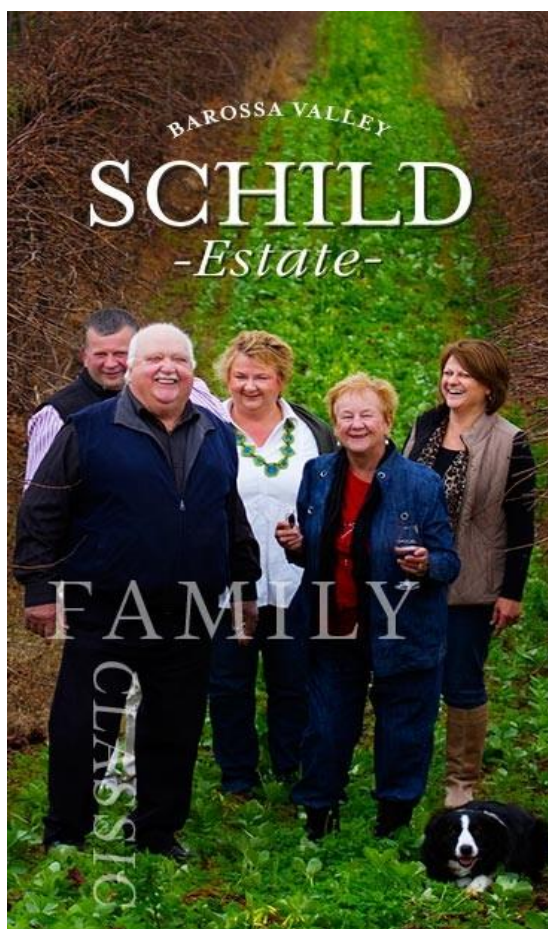
The Herald

6 February 2002

What are the issues facing BIL into the future?

I think there are several issues:

- Securing permanent water rights to River Murray water
- Harvesting of storm water from local towns and
- Storing that storm water and maybe some Off Peak water in BIL's own storage dams



IVAN VENNING

MEMBER OF THE SOUTH AUSTRALIAN PARLIAMENT

CUSTANCE 1990 – 1997

SCHUBERT 1997 – 2014



Ivan speaking with Patsy Biscoe in 2015

‘... good decision making right through, particularly getting David Klingberg on board.’

What were the drivers that led to the concept of the BIL Scheme?

I think for some time there had been concern about the availability and quality of water, particularly in the southern end of the Barossa around Lyndoch. Salt was increasing. So along comes Mark Whitmore with this harebrained scheme and we all thought, here’s a dreamer, but we put it through its courses and luckily we (the Liberal Party) were in government at the time and it fell on fertile ground and bit by bit we worked our way through the concept and got the government to agree.

Then we had to get SA Water to agree and that was a different ballgame. Their chief engineer was sitting on the fence. I remember many discussions with him, which can’t go on the record, as he was in a tight place because he was an SA Water employee and his brief was to help the BIL Scheme where possible.

Then we had to work out the infrastructure. Because of (then Minister, later Premier) John Olsen and a few others, and persistence by Mark and other Barossans, it’s now a reality. The SA Water Chairman was James Porter, previous Federal MP, who was keen but hesitant. SA Water Chief Operating Officer (later CEO) was John Ringham, who thought the same as James Porter. They felt water and the delivery of water was their game, that it was SA Water’s core business and that it was foolhardy to give any part of that away to anyone else. They felt they had the franchise. Olsen said, “No you haven’t got the franchise. These people want to do this, they want to take all the risks and they don’t seek any government assistance.” That went on for six months and I said to Olsen, “If you don’t get over this, the whole thing’s going to die, because the whole thing relies on them being able to negotiate directly to buy their water allocations and if they have to pay commissions to SA Water that would make it unviable.” Eventually, Olsen delivered an ultimatum. SA Water just didn’t like anything water related to be outside their control. This definitely was. That’s why the BIL Scheme is unique, and it really is unique anywhere in Australia.

Mark Whitmore was the driving force, he never let up. He had Leo Pech, prominent Barossa grape grower, with him on one occasion when he came to Parliament House. Leo was a good friend of mine and he got me on side early and even though I thought, this Mark’s a dreamer but I’ll give him a go, I did wonder how he was going to use the infrastructure from Mannum. I knew there was extra capacity in the pipeline, but I wondered whether they would overreach that capacity, and of course the Adelaide supply had to be maintained.

Growers, including Leo, were taking off-season water from SA Water and recharging. Everyone was doing it, so this BIL Scheme gave them a tremendous option. They could have their own pipeline and take water at a price they negotiated.

When the delegation came to Adelaide, I remember speaking to Minister Ingerson at the time and telling him that he had to give these fellers a go, that it was a good idea and there was a real opportunity to make it happen. The Warren Reservoir had only just gone basically offline because of the brown colour of the water causing domestic staining issues in Lyndoch, so it was available for storage. So it was a bit of luck, providence, whatever you like, but it was a project of the time and all I can say is that the people involved took the opportunities and didn't look back and there's a model for anybody when you work with government: seize the chance, don't let up and do your work, do your lobbying.

When conceived, what were the obstacles to be overcome including those in the community, in the grape and wine industry, and during the construction of the pipeline?

Firstly, in the community there was no initial obstacle apart from during the construction phase, when we had a few problems with dirt on roads and it happened to rain like hell. It was a wet winter and there was all sorts of grief, people putting mud back in the pipe - rocks and all I presume. They were very difficult conditions and cars were getting stuck along the pipeline. They'd sink down two or three feet, because you couldn't compact wet dirt. There was pandemonium for a fair while. Generally, in the average community, people didn't have any concept of how big this was, how complicated this was.

Water for the Barossa had to be good. In the grape and wine industry the great concern was salinity, as I've already said, and even the opposition to BIL were starting to say you could taste the salt in the wines. I was very careful in every press release I did, I didn't mention that word 'salt'. Never. I talked about water quality, particularly in Lyndoch. The southern area, where Mark Whitmore came from, it was salty and they needed another source of water to at least shandy this stuff to bring the salinity to lower levels.

Yes, there was opposition in the grape and wine industry, particularly from the traditional grape growers, especially one family who said you shouldn't water premium grapes because it will destroy their quality. We all know that if you overwater you can up the tonnage and drop the quality. I just said all along to give people a choice. If they've got the water they can use it, if they don't want to they don't have to. If your grapes can exist and flourish on the other water, for sure, don't use it. So there was debate. Several public meetings were held and one particular family was quite strong in their opposition. But I just noted that there were often two sides to the story.

As I said, during the construction phase there was pandemonium and there was trouble with the contractor, there were frustrations all round. Light Regional Council was getting plenty of complaints. I was getting plenty of complaints. I went out there several times with my boots on and splashed around in the mud, standing with the Light Council CEO, scratching my head and thinking, what could you do? Scrape the mud off the roads so people weren't getting stuck in it? Impossible. Working the stuff was just like pushing soup around. It was horrific. Luckily, we got to summer and they went around and compacted the soil and that's of course why we had the leaks, because rocks were pushed into the pipeline. It was extremely frustrating; summer coming up, the system still not up and running, SA Water saying I told you so, etc, etc.

Why is there a need for BIL water in the current decade and into the future?

To maintain the quality of the growers' water.

The quality of our grapes absolutely relies on the quality of our water. We don't want people saying they can taste salt, particularly for the premiums on the upper end. Now they are using BIL water to grow grapes. In many cases they're recharging aquifers.

The Fromm family from Williamstown were strong backers of the BIL Scheme. In fact, when they first put the pipes in it missed them because they were back behind the starting point. Oh boy, Ronnie Fromm had plenty to say about that - I can remember it clearly even after all these years. But they got them on somehow.

I think it's been a fantastic Project. So much so that everybody wants one. The one in Clare is set up the same, but it's not the same because they haven't got the total independence this one has. BIL buys its own water and does its own deals and it's worked extremely well.

Other irrigation areas around Australia are looking at this Scheme because it's grower owned and grower managed but with a professional Board and a professional Chairman. David Klingberg was excellent. I miss him. A very good diplomat too. When the '...' hit the fan, so to speak, he was great. Didn't fluster, didn't flap, and didn't go overboard, although he did get a bit toey about the contractor. But then, we all did!


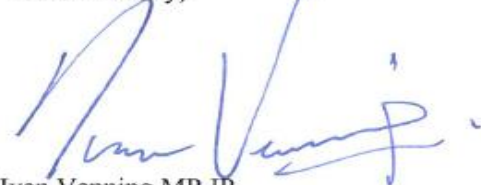
What are the issues facing BIL into the future?

Infrastructure replacement.

I would hope there's enough money going into the kitty now. It's great to hear that all bills have been paid and in July 2016 BIL will be level with the bank, so that's the time to start putting money aside to replace all the aging infrastructure.

I think there will never be any trouble with demand for BIL water. There will be a flood of people wanting to join the Scheme. I think that BIL has a terrific future. The BIL Scheme should have had more accolades than it has had, really. But then it had plenty in my original speeches, I never missed an opportunity to rattle the keg and Premier Olsen was wringing his hands because I kept accosting him in Parliament House at every opportunity to plead the case for the BIL Scheme. I spoke to him only yesterday and said I was talking to you today and he asked me how it was going. I said, "Even better than I said it would!"

You could say BIL has had a charmed run, but I don't think that's the whole story. I think it's been good decision making right through, particularly getting David Klingberg on board.

ELECTORATE OFFICE 81 Main Street KAPUNDA SA 5373		Ivan Venning MP JP MEMBER FOR SCHUBERT Chairman - Environment, Resources & Development Committee Ph: (08) 8566 3311 Fax: (08) 8566 3488 Parliament toll free: 1800 182097
9th August 2000		
TO WHOM IT MAY CONCERN		
I understand the matter of the Barossa Infrastructure Limited project is to come before Council for discussion and consideration in the near future.		
I have given and will continue to give my full support to this most vital and important project to bring non-filtered water from the Mannum to Adelaide pipeline, via Warren Reservoir, into the region's vineyards.		
This is a \$34 million project funded by the growers themselves, who will use the water. An arrangement has been agreed to by B.I.L., S.A. Water and the State Government to see this project to fruition. This is the first time an arrangement of this nature has been contemplated and it is a most welcome outcome.		
I firmly believe it is the way forward to ensure the Barossa's sustainability as Australia's premium wine growing region. It will not only allow "off peak" water to flow into the Barossa, it will also add surety to our wine industry and insurance in adverse seasons.		
I am most happy to discuss this matter with you further.		
Yours sincerely,		
		
Ivan Venning MP JP Member for Schubert.		

Ivan's reminiscences about the pioneers of the Scheme:

John Kerr from Capital Strategies was in the Scheme from the beginning - a very valuable member of the team.

The government also offered as much assistance as possible and Borvin Kracman from Special Projects was a hero along with Mark. He is a whirlwind - incredibly positive and gets things done.

Geoff Davis was a very cool operator, involved from the beginning.

David Klingberg was the litmus to sell the concept; he was the one. I don't know who convinced him about the benefits of the Scheme, but once you had him believing in a thing, people like Olsen just said yeah, yeah yeah!

We had to have the practical will to do it and the key supporters who spoke to me initially, along with Mark Whitmore, were Martin Pfeiffer, Leo Pech, Grant Burge and Bob McLean. They were the four who took me out to dinner and said they were totally committed to the Scheme and told me they were also financially committed.

The Leader 11.7.12

Ivan Venning's adventure as a state MP

Mr Ivan Venning, aged 66, has been a Member of Parliament for 22 years and was elected to the seat of Custance after a bi-election in 1990.

He covered half of Port Pirie through to Clare and Kapunda until boundary changes forced an office move from Clare to Kapunda, where he commenced representing the Barossa in 1993.

However, Mr Venning's seat of Custance was abolished in 1997 and recreated as Schubert to cover predominately the Barossa but also parts of the Adelaide Hills in addition to Kapunda and Truro through to the River.

Boundary changes in 2004 brought Mr Venning's office to Tanunda, where he is based today.

Mr Venning, a fourth generation farmer, moved away from the family farm in Crystal Brook to continue to represent the electorate.

"I moved away from the core home at Crystal Brook... that was hard but the extra adventure of that is a new life and new experience but there's been a price and that's family," said Mr Venning.

"I will be going home to the family and will do for my wife what she has done for me over many years."

The path Mr Venning takes

after March 2014, is not clearly defined yet with Mr Venning saying opportunities have been offered.

"I'd like to do some seasonal work... seeding, harvest," said Mr Venning.

"I have quite a fleet of vintage cars and tractors, to restore and play with and I'll still find a few to collect."

"I will be going home to the family and will do for my wife what she has done for me over many years."

— Mr Ivan Venning

With eight grandchildren Mr Venning said he will teach the next generation of farmers but has also acknowledged he looks forward to the change.

"There is a bit of unknown," he said.

Looking back over his years in politics and Mr Venning recognises a lot has been achieved, except for the Barossa Hospital.

"The BIL scheme has

been one of our successes," said Mr Venning.

"It was totally without precedent that a private scheme provides water."

"Gomersal Road, that was heavy lifting with that one, while I sat on the public works committee for four years."

"I walk away with things locally that have been achieved and it doesn't bother me that I've not been a minister."

"Being a Shadow Minister and the Opposition Whip have been very rewarding."

Mr Venning has already indicated his intentions to continue to serve constituents until March 2014.

Making his announcement in Parliament yesterday, Mr Venning spoke of certain things he must do before he retires.

Among them were continuing the push for a Barossa Hospital, seeing the Barossa Wine Train back on the track, pushing for an assessment of council boundaries and painting Robin Bridge in Nuriootpa.

"There's a few surprises in the can," said Mr Venning.

"But most importantly, I will go to the last day at full throttle."

"One of the saddest things for me, I like to think when you



Member for Schubert, Mr Ivan Venning says there will be a few surprises before he leaves his role.

are doing a job that you leave it better than it was found but this state is nowhere near as good as it was in 2002 when the Liberals left office."

PETER WALL AM

CHAIRMAN, REGIONAL DEVELOPMENT AUTHORITY ADVISORY COMMITTEE'S

BAROSSA 2045 VISION FOR WATER RESOURCES



Peter speaking with Patsy Biscoe in 2014

'A great story of the Barossa which has its beginning in the eighties.'

Discussions around water supply to the Barossa were brought up in a Water Resources Committee meeting. It was after the flooding event in 1983, a lot of which related to the precipitation in the upland area of Flaxman Valley. That was where half an inch of rain fell in a minute, then all the structures, the main culvert under the Penrice railway line for example, were blocked by big trees and the water banked up and up causing a flood and then it broke through and huge amounts of water suddenly appeared in the area around Nuriootpa and they were evacuating the old folks' home and it was dramatic.

Since the ground water allocations started in 1989, we knew that people wanted more water and we thought, we'll put a dam in the Penrice Gorge and that will act as flood mitigation and also give us the opportunity to harvest some water. It was suggested that the filtration plant could be in Swan Reach or Blanchetown, where it did eventually go, and we said, "Why don't you put it up the other end of the pipeline, the Stockwell to Swan Reach pipeline, and then we can take raw water and filter it at the Barossa Valley end, rather than filtering it at the river end." So then it came down to how much capacity was in the Swan Reach to Stockwell pipeline and the E&WS engineer involved had an entrenched position that there wasn't enough capacity.

Through other 'intelligence' we were led to believe that that this wasn't the whole story, but the politics ebbed and flowed and the E&WS were committed to that as their opinion, so we were stuck with the position that we would use the other pipeline and bring water to the Warren Reservoir.

Brian Harris from the Department of Primary Industry, Mining and Energy, initiated a costing, so we had a rough idea that we could distribute water to Barossa operators, horticultural and viticultural, for around 7 cents an aggregate cost for the pipeline. As it turned out those costings were marvelously optimistic, but that was the point at which it started to involve discussion between Stuart Blackwell, Mark Whitmore, myself and others. I recall saying to Grant Burge that it would be good to have someone sympathetic on the 'inside' (of the WAPAC process) and someone like him (who had been on the WAPAC) on the 'outside' and therefore not subject to any statutory restraints.

Most of my input was at the initial Working Party level with Mark and Stuart. I knew David Klingberg and it was a matter of all the parties having confidence in one another.

We started to brainstorm and we knew that wherever we found the extra water, we would need the infrastructure. And I said, "You're better to have an agent like me who is not conflicted chairing the Water Resources Committee and you guys go on and do the other part of it." So we worked together and it allowed no conflict of interest on my part. We negotiated to start the Northern Adelaide and Barossa Catchment Water Management Board. Then we had an agency which could commission the environmental work we needed and take the Project forward around the economic use of water as well as the environmental use of water. Unfortunately, in the current era we've lost that – the need in the Act to address the economic, social and environmental need for water. In that era when we started BIL and the Catchment Board, we had a clearer vision of how those things would integrate. It was a climate for people to talk in a practical way instead of getting lost in theoretical discussion. So the need, the process, the people who were going to take it forward, and the allocation of responsibility, were all identified.

Grant Burge and I met with Premier John Olsen and by that stage the SA Government was committed to the use of government assets in economic development. That was a critical meeting, because the government then committed at a senior level to the Project. I thought we really got on top of the environmental impact working with the Catchment Board and Arup Stokes, the agent we eventually found to do the work.

Poor quality ground water giving rise to the need for BIL water is an issue that surfaces from time to time. It was thought that importing River Murray water would increase salinity, but we knew that wasn't the case. We had objectively done the work that said that the major input for salt in the Valley was the 3,000 tons of salt historically precipitated in rain each year. We were fortunate that there was an average precipitation of 500-600 mm across the whole area, a net salt shed of about 900 tons, so we were actively shedding salt out of the system. That was necessary because we were getting salination just through natural processes including the leak of about 1,400 tons of salt out of the lower geological strata in the Valley that was being brought to the surface. So, there is a terrific benefit from using River Murray water. It avoided lifting that saline water out of the underground water system and putting it on the surface. In terms of a degradation of the water table, every player won a prize.

The Barossa has a reasonably friable surface soil, but if you go down a metre there is a clay layer that acts like a rubber blanket. Water tends to seep down to the clay level and run laterally towards the creeks and waterways. Most of the waterways on the Valley floor are manmade structures. Whichever waterways were incident in running through vineyards, where they crossed roads, which was everywhere, were diverted into table drains and into road embankments. The drains then carried the water in completely artificial structures which led to quite a rapid shed of water in any precipitation. Because the roads were graded they got rid of the water much more quickly than the old meandering streams which went wherever they went. I think the Valley is seen by environmentalists as a pristine environment with waterways in it that are habitats for indigenous populations of whatever was there 200 years ago and that's a fantasy, because the waterways have been replaced with roadway drains. The whole issue about the negative environmental impact of production agriculture is incorrect. We did it.

Humanity came in, restructured everything, and now we live in a completely artificial environment and the remnant bits of the old ecology live remote from that, they live in little waterways, for example on the Duckponds Creek, and no amount of water conservation or restrictive use of water will bring them back. Those of us who worked in the boundary area between the economic support of the Barossa Valley and the environmental care of it, were aware of that. It's only the outside environmental protagonists who don't have that knowledge and say, "These redneck exploiters of the natural environment are doing all the damage." But that's not so. We as a community are doing it and that's the reality of modern life. You're never going to get the toothpaste back into the tube.

Expansion of the Scheme and the future need for BIL water comes down to the funding issues of viticulture and wine making. The major problems for long term economic security are variable production and the cyclic nature of the economy that's around wine and grapes. So, one of the issues is the impact of water availability to each individual vine. That has many interactive components, but it's only when you solubilize nutrients that you can deliver it to the grapevine. The vine has got its own timetable. When it's initiating shoot growth the roots don't grow and when that phase is finished it grows roots and when that's finished it concentrates its efforts on flowering. So, *when* you put water on the vine and supply the nitrogen necessary to make sure that you get a good fruit set is very important and we don't have that knowledge of each vine to supply water and the nutrients relative to its immediate needs at that moment. People think about vines by the hectare, not each individual vine on the hectare and all of that contributes to this problem of variability.

So, I see a future where there is more control. The technology now exists for real-time analysis – in the business of big data we're crossing into that boundary – and this is an opportunity in future viticulture to have equipment which you can send into the vineyard. Robotic devices which will sample and analyse viticulture at the individual vine level. If we crack these problems there's going to be a need for water and I perceive that if that is the case you might find that you need more water to be delivered quickly at certain times in the growing cycle, so your infrastructure system has to be clever. Cleverer than it is now. It has to be able to respond to peak demand or low demand. You won't get real-time management and you won't get big data solutions except through mobile technology. The future is going to be to address grapevine variability and its impact on supply, demand and marketing. You go down that synergistic, logical analysis path but you end up saying at the bottom end of it, we need Barossa Infrastructure Ltd. That's a vital component to be able to deliver that water and the 'solubilized nutrient' that you need for each individual vine. In the mid-eighties we had a vine horticultural conference and I was one of the speakers, being the chair of the local Water Resources Committee, and I stood up and as part of my delivery I said I envisaged a time when all viticulture in the Barossa Valley would be irrigated and the next day the papers said what an outrageous suggestion this was and that the quality would go through the floor. You know, I see it that it's been a long journey ... that's 40 years ago, and we've gone on and on and it's getting better and better and will continue to get better.

Should grapes be dry grown? The trouble is that the vine has got mechanisms to deal with water stress and what it does is, if it's running out of available water in the root zone, it goes into senescence. It knows that the first thing it's got to do is to ripen the seed in the grape. That's what its focus is. It just accelerates that, it ripens the seed and then it shuts down. That's the conservative mechanism to stop the vine dying through extreme water stress. So you have to keep the water levels in the soil such that you don't push the vine into senescence early, because if that happens it doesn't develop the flavor precursors that you need to give you the best wine. I think, with protagonists of that counter view – that you shouldn't have irrigated vines – that you do get some concentration of flavours through desiccation, so that if you're growing dry grown grapes, it's going to have high Baume, it's going to have high alcohol (alcohol can be seen as the monosodium glutamate of wine; if you've got higher alcohol the flavor is increased). I argue you can do that and if you want to put the vine into water stress you've got the ability to let that happen, but you can't do the reverse. You can't keep the wine growing and developing these flavor precursors unless you've got available water. That comes down to how you manage the water.

People still talk in terms of a hectare of grapes. They say they get 10 tons per hectare, but they should say they get two kilos per vine and that's bringing it down to the average performance of each vine, because it's there that the flavor is developed it's not in a hectare, it's in a vine. So these come back to deep philosophies about viticulture and I don't think that irrigation is bad. I think it is good.

MARK WHITMORE
BIG CHAIRMAN 1997 – 1998
BIL MANAGING DIRECTOR 1998 – 2002



The reminiscences of Patsy Biscoe AM - BIL Executive Secretary 1997 -

'It took two special qualities to pioneer the BIL Project – the vision to see the value of water for supplementary irrigation of Barossa vineyards and a sheer, single-minded determination to ensure those vineyards were drought proofed.'

Mark Whitmore was a man who, in my opinion, had the two special qualities mentioned above and as he is no longer here to speak for himself it falls to me, as his friend of more than twenty five years, to endeavour to paint a picture of the man who pioneered what has become one of the most widely admired community-based supplementary irrigation schemes in Australia.

In the eighties and early nineties water was regarded in South Australia as a commodity which, barring a few isolated dry years, was in adequate supply. It rained, frequently, on Barossa vineyards and when a top up was needed there was always bore water, dam water or 'mains' water.

What made Mark recognize water for the valuable, tradable commodity it was to become? I think some of that recognition came from conversations I recall he had with people such as Grant Burge, Stuart Blackwell and Leo Pech. I remember too his extreme frustration at the lack of 'mains' water pressure in the southern Barossa during periods of high use and I suspect this was also a catalyst for the BIL Scheme.

When I moved to Lyndoch in the late eighties it had a population of just a few hundred people and a main street badly in need of a spruce up. Mark, Lyndoch grape grower Roly Chatterton and I formed the Lyndoch Mainstreet Committee and got to work. I remember the moment in 1997 while we were pacing out the mainstreet working out how many trees we needed to plant, when Mark asked me, as a community commitment, to take the meeting minutes for a new group he was involved in, the Barossa Infrastructure Group (BIG), which was later incorporated and became Barossa Infrastructure Ltd (BIL).

BAROSSA INFRASTRUCTURE GROUP LTD

WINE INDUSTRY MEETING

Water for Viticulture

June 23rd 1999

PLEASE NOTE NEW STARTING TIME 6.45pm

Faith Campus

Brenton Langbein Theatre

Update Report

- Results of negotiations with SA Water - costing and supply conditions
 - Investment in pipeline supply infrastructure
 - When will the Project be completed?
 - Working out how much water you'll need
 - The next stage

Meet BIG's new Chairman

David Klingberg, ex CEO of Kinhill Engineers

Contact details: Mark Whitmore managing director
Phone: 8524 4710 Fax: 8524 4114

The Herald 9.6.99

Two decades later, BIL has grown to be of enormous importance to the Barossa grape and wine industry. Mark, with his love of a grandiose scheme and his sense of excitement about life in general - and the Barossa in particular – probably always imagined it would be so.

There were many in the Barossa wine industry who were vehemently and very vocally opposed to the Scheme. There were several meetings in the Benton Langbein Theatre in Tanunda, one of which was televised for an ABC current affairs programme, and I recall a highly respected vigneron leaping to his feet to speak emphatically against the idea of any irrigation of Barossa vineyards, as he feared losing the Premium Wine status of the region. Many others spoke in favour of the BIL Scheme, in particular to reduce the use of the increasingly saline ground water.

I think that most people, even those who opposed it in the nineties, now realise that Mark's vision, '*quality water applied in sustainable quantities to drought proof vineyards*', has become a vital part of the ongoing wellbeing of the Barossa wine industry.

Mark's determination led him, as in all things in his life, to simply bulldoze through any obstacles. The BIL pipeline was laid during one of the wettest winters on record and the result was mayhem on the unsealed, now torn up, muddy, rural roads.

Through it all Mark kept his eye on the end point, and I remember preparing frequent press releases to reassure irate ratepayers that the roads were being reinstated to their former condition as speedily as possible. He couldn't help also adding that it would all be worth it in the long run, although the anger of parents driving axle deep in mud as they attempted to take their kids to school unfortunately didn't diminish - the complaints kept pouring in.

The structure of the Company, in which the grape growers and vignerons were the customers and also the shareholders was a masterstroke. It was the result of Mark's collaboration with those early corporate architects: Company Secretary Geoff Davis, capital project strategist and advisor to the BIL Board John Kerr, BIL's legal advisor Jennifer Tobin, and inaugural Chairman David Klingberg. Mark's belief in his vision achieved what seemed at various points in the process to be nothing short of miraculous.



Local Member for Schubert, Mr Ivan Venning; Premier John Olsen; Barossa Council Mayor Brian Hurn; Chairman of the Board of Barossa Infrastructure Limited, Mr David Klingberg; and Managing Director, Mr Mark Whitmore at the official launch of the Barossa Water Project.

The Launch of the Barossa Water Project
November 2000

In the pipeline

The Herald 21.3.2001

CONSTRUCTION of the \$30 million Barossa pipeline has begun after years of planning.

Contractors have already started the pipe-laying process, and pipes are being stored on roadsides around the region in readiness for work to begin.

Plans to complete the 240 kilometre pipeline are on schedule for completion on October 1 this year.

The pipeline provides relief for grapegrowers around the region who will link up with the source to ensure they have constant access to quality water.

Barossa growers have been plagued by water shortages, and following several dry summers this project has become vital for the sustainability of the region's grape growing industry.

Pipeline has already been laid on Vinegrove Road near Greenock, and crews will soon start work on Gomersal Road before it is sealed.

Two teams are currently working on the project north of the Sturt Highway and have 20 kilometres completed, while a third team is expected to start within the next month.

Four pumping stations will also be installed, with a major unit on the Tanunda side of Jacob's Creek and on Gomersal Road, while a smaller pump will be installed on Moppa Road and the Kapunda to Greenock road.

Pipes to be laid vary in size from one metre to 15 centimetres, and all will be installed underground. Residents will be kept informed about the work progressing and will be given notice when work will be performed in front of their properties.

Barossa Infrastructure is overseeing the project, and company managing director Mark Whitmore said he was extremely pleased with the current progress.

CONTINUED, page 2



IN THE TRENCHES: Barossa Infrastructure's managing director Mark Whitmore is ecstatic to see the Barossa pipeline project come to fruition

The first water was delivered in December 2001 and, having achieved everything he set out to do for the Barossa, Mark was now ready to move on to his next project and so, with regret, his resignation was accepted.

Mark died at a relatively young age after moving to a country town in Victoria, where he had again made his mark with his innovative, adventurous schemes and where, as in the Barossa, he will never be forgotten.

Valé, Mark, the Barossa salutes you!

STEVE WILSON
BIL DIRECTOR
1998 –



Steve's responses to a series of questions by Patsy Biscoe in 2017

'... I feel the greatest threat to ever getting this Project off the ground came from the very people who should have embraced it with open arms.'

What were the drivers that led to the concept of the BIL Scheme?

A few people within the industry, grape growers and winemakers, had enough foresight to realize that the Barossa was heading into a very serious problem with saline underground irrigation water.

At that time (mid 1990s) this means of irrigation was the primary source of water and had been since the Valley first started irrigating vineyards way back whenever (date unknown by me, but a long time ago). Underground water levels were dropping in the majority of wells, water supply was diminishing as a result and salt was steadily increasing, to the point where there was obvious damage to vine health and wine quality.

In retrospect, the industry was lucky that those few people who happened to be savvy enough to realize the seriousness of this effect on the continuing reputation of the Barossa as a premium wine region were the most determined, driven, focused, bull headed individuals known to man! They needed to be to get the concept of BIL, as we now know it, off the ground.

I think it is worth a brief account of the way I was introduced to the concept of the BIL Scheme. Although I mentioned before that a few within the industry were aware of a developing problem, I personally think it was the work of Mark Whitmore that gave everyone else the initial jumpstart into this Scheme.

It's hard to describe this man, but his personality can perhaps be described as slightly eccentric! I had known Mark for many years before the Scheme was proposed in 1996 and it's fair to say that he was a good friend.

On many occasions he would ask me to give an opinion on his latest brainstorm, some of which I became involved in and some not. It was usually something that no sane person would attempt in a fit, but the outcome was always for the best and some of his community 'projects' are still evident around his old home town. So, the phone call from Mark one night after work was no surprise in that I knew it would be more than a 'how are you going'. There was always more than that going on in his head, but when he boldly said he had this idea to run a pipeline through the Barossa and link all the growers in the Valley to it and asked would I be prepared to give a hand, I was a little lost for words!

Mark reminded me a little bit of a sailing boat captain from a bygone era who would comb the docks with a couple of mates 'acquiring' a crew by any means at hand and I think this is pretty much how this Project started. He just kept ringing people he thought would help and the result is the Scheme as we know it.

For someone looking at this Scheme now it would be logical to assume that, like most large projects, it was initiated with collaboration from government funded organisations - the movers and shakers of industry teleconferencing from office to office, and highly paid advisers having bucket loads of cash thrown at them to come up with a solution. Not quite the case this time although, as the Scheme started to get some momentum, we certainly did have some great backing by government and ended up with some of the best professional people on the team you could ever hope to meet - but there were no bucket loads of cash!

Linfield Rd Barossa Vineyard



When conceived, what were the obstacles to be overcome including those in the community, in the grape and wine industry, and during the construction of the pipeline?

Community:

I am not sure if the community as such really presented any serious road blocks at the concept stage, which is understandable, due to lack of information filtering down. As the media started reporting on the Scheme we did have some adverse comments coming in but nothing that was unexpected, nothing that ever posed a serious threat.

Grape and wine industry:

Personally, I feel the greatest threat to ever getting this Project off the ground came from the very people who should have embraced it with open arms. Got to be careful here, because there were some who didn't take any convincing and even invested seed money with the knowledge they may never see it again.

There were many who could see the merit of the Scheme after some convincing, but there were way too many who wanted 'to sit on the fence and see how things panned out'. I think this is fairly common in any group of people (primary industry especially), but it is particularly so in the Barossa.

I could ramble on for ages on this subject, but in brief the Project could have been a whole lot easier to get off the ground, been a lot more help to a lot more people, been larger at concept and saved a lot of sore heads banging into brick walls for the people on the steering committee, if there was a little less apathy at that stage.

Construction:

Yes, there were hassles. In a project like this you would expect nothing less, but we had a great team backing us up and anything can be overcome. I think people like Mark Whitmore, who had no idea of the concept of admitting defeat, probably helped a lot at this stage.

Steve, his 95 year old father Arnold and his son Daniel

... in the vineyard



... in the winery



Why is there a need for BIL water in the current decade and into the future?

BIL water has ensured that the Barossa is one of the premium wine growing regions on the world stage.

In years to come water will be the new gold in an industry such as ours and with the ethos of BIL backing the Barossa, the future is bright.

We cannot take our foot off the pedal, but that never was an option by all who have been, are now, or will be directing and managing BIL in the future.

... pruning



... vintage



What are the issues facing BIL into the future?

The ongoing issue of water at an affordable price - we are perhaps luckier than some other wine regions, as the Barossa does attract premium prices for the majority of varieties.

Notwithstanding that, we as an industry have a lot of competition when it comes to buying water.

And then there is the little hurdle of getting the water to where it needs to be ... !

IAN ZANDER
BIL DIRECTOR
1998 – 2001



Ian speaking with Patsy Biscoe in 2016

'The impact of salinity was only just beginning to be realised about the time that BIL was first talked about.'

The original drivers that led to the concept of the BIL Scheme were falling bore water levels, right across the Valley virtually, probably because of overuse, and also the dramatic increase in salinity of the bores. There weren't significant decreases in rainfall, so it was overuse of bore water, not a decrease in rainfall that led to the salinity issues. You get your odd year that's down, but I've been keeping records at home for 35 years and other than the first year, the rainfall hasn't changed much at all. The first year I recorded the rainfall, it was 14 inches at home, which was about half of an average year and then there was a wet one, I can't remember when that was - it might have been '92 - where we had over 46 inches. That's the driest and the wettest years we've had over the thirty five years. It's been trending down very slightly in recent years, but a wet year like this one (2016) will bring the average right back up again.

The impact of salinity was only just beginning to be realised about the time that BIL was first talked about - the realization that salinity levels were getting so high in some vineyards, that it was halving the size of their crops. Because of the amount of salt in the water, the best they could hope for was about 50% of the crops they would get if they had clean water. The wineries were still taking the grapes at that stage, although they were starting to make protest noises. Salt in wine is normally a result of poor processing, for example in America, but not in Australia where it was the residual effect of the saline water.

There was quite a bit of talk in the community about the proposal to bring Murray water in through the BIL Scheme. Murray water at that stage was regarded as being an already depleted supply, but I don't think a lot of people realized a significant quantity of River Murray water, while it was allocated, was never ever used. The second issue was that the community felt that the use of Murray water would import salt into the district. But by the time BIL started, Murray water wasn't all that saline any more. The salt intervention schemes up river, for example at Ramko and so on, had made a heck of a difference to the salinity of the Murray.

A lot of non-grape growers were quite apathetic about the Scheme. They were convinced the Barossa didn't need any more water, but they weren't in the situation where the bores were going down and the salinity was going up, as the grape growers were. Another point was that a lot of people didn't think the big wineries should have been able to take large amounts of BIL water, but if it hadn't been for them, the Scheme wouldn't have gone ahead, it wouldn't have been viable.

I can't remember much about the problems while the pipes were being laid, but I do remember that the system ultimately worked very well. There were a few pressure problems here and there which needed a bit of sorting out and our ground crew did that very adequately, but all things considered, it worked very well and you don't hear too many complaints these days from growers, so obviously the system's working.

A lot of growers committed themselves to taking out a multimillion dollar bank loan. It was a great leap of faith and it's marvellous that the loan has now been fully repaid. I think that the fact those growers committed themselves in the first place, meant that they realized it was fairly important for them. They must have had vision.

I guess the main reason I was part of the early days of the BIL Scheme was because I hoped water could be pushed over the hill to our vineyards, but that proved to be definitely uneconomical and you can understand why. Up in our region, Flaxman's Valley, there are isolated vineyards, so you would have needed miles of pipeline between properties – probably two or three kms.



The need for BIL water into the future comes right back to the first point I made, the overuse of bore water. The levels of the bores have risen and the salinity has dropped, thanks to the BIL Scheme, but if they start using bore water again, they'll be back in the same boat.

Thinking about BIL into the future, it's probably getting to the stage where they'll have to think about replacing pumps and some of the infrastructure before too long.

At the moment, the demand is coming back for grapes. The market is definitely improving and grape prices are going up and there is more interest from the wineries, making BIL water more important than ever.



Ian receiving the Barossa Grape and Wine Association's 2014 Grape Barossa Grower Services Award
at the
Barons of Barossa 2014 Declaration of Vintage

BIL | A SHORT HISTORY

THROUGH THE EYES OF THE MEDIA

BIL | 1997 - 2001

THE NEED FOR SUPPLEMENTARY IRRIGATION WATER IDENTIFIED – VISION 2045

THE BIRTH OF BAROSSA INFRASTRUCTURE GROUP (BIG)

GETTING BAROSSA GRAPE GROWERS ON BOARD

LIAISON WITH GOVERNMENT & SA WATER

BAROSSA INFRASTRUCTURE LTD (BIL) INCORPORATED

BIL PROSPECTUS RELEASED

PIPELINE CONSTRUCTION COMMENCED

PIPELINE INFRASTRUCTURE ISSUES ADDRESSED

-Fax from Mark Whitmore to Dr Andrew Scott 16.11.97-

BRIEFING PAPER FOR DR. ANDREW SCOTT, DEPARTMENT OF TRADE & INDUSTRY

SUPPLEMENTARY IRRIGATION WATER OPTIONS FOR THE BAROSSA

Vision 2045 identified various options for consideration to alleviate water shortage issues. In brief these options with potential are listed below:

Bolivar

Investigations indicate 15 ggalites are available in winter only. The pipeline length to supply Barossa supplementary irrigation needs would be 40 km and due to the timing of availability a storage facility to enable irrigation in summer will be required.

In addition, water available from this source has 1,500 parts per million of salt, which is considered too high for long term viability of vineyard production in the Barossa given our current salinity problems.

Building large dam(s) for run off catchment

This option would need to accommodate sufficient capacity to store two to three years use, as historical records indicate a high probability of insufficient run off due to drier than normal years in at least two years in a row. Capacity also needs to take into account evaporation loss.

Vision 2045 indicates many of the selected sites will have problems with high salinity.

Given the volume of water required for the Barossa's supplementary irrigation, building a large storage dam of this type would only be able to satisfy some of the stakeholders. This would take customers away from a purpose built pipeline system from the Murray making it less viable.

SHORT TERM SOLUTION

Based on information available at the time, a public meeting on 1st October 1997 voted unanimously for a short term solution of using the existing mains infrastructure to provide the required supplementary irrigation water.

LONG TERM SOLUTION 2 TO 3 YEARS

Having reviewed the above options, the BIG committee believes that the longer term option of developing a new pipeline is essential to provide sustainable water supply for future irrigation needs.

BAROSSA INFRASTRUCTURE GROUP NEWS

Volume 1, Issue 1

29th May 1998

Volume 1, Issue 1

Committee members

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Ian Zander
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When Barossa Infrastructure Group was being formed I said that the Barossa would have to work together if we were going to achieve our goals. This has happened with Wineries, Growers, Government and SA Water all working closely together, which has made the current progress possible.

Following the public meeting in October a committee was formed comprising Growers, Winemakers and Viticulturists from major wineries. In December representatives from the committee met with the Premier to put the Barossa's case for additional supplementary irrigation water.

Work also commenced on putting together a project brief to achieve our goals. The final brief required us to: establish the extent of water problems (salinity, dams not filling, etc.), estimate actual water requirements for existing vineyards, infill and additional plantings, work through the proposals in Vision 2045 and any other options, and then to work out preferred options taking into account price, low salinity levels, time to get the project off the ground, etc. This brief had the support of Barossa Winemakers and Grapegrowers Council.

To be able to implement the project \$36,000 was raised in 2-1/2 days at the start of vintage.



MARK WHITMORE

Every generation of Barossa wine-makers and growers has handed on a better vineyard or wine. The Barossa has this once only opportunity to hand on to the next generation a reliable quality supplementary irrigation system, which is essential if we are to maintain and improve our status as Australia's premium wine area.

If we don't achieve this now opportunities in the future will be extremely limited, if not impossible. Interest rates are currently low and water prices on the Murray River are rising dramatically and Growers tell me they are prepared to invest in water thanks to grape prices. Our industry is in a growth phase which needs Barossa high quality fruit - this makes it an ideal time to get this project off the ground.

BORVIN KRACMAN OF GOVERNMENT'S PROJECT DELIVERY TASK FORCE TO WORK ON BAROSSA WATER PROJECT



BORVIN KRACMAN

"This is a once in a lifetime opportunity for South Australia to ensure it stays the premium Wine State and for us to demonstrate our collective capacity to excel in water management despite our challenging environment" said Borvin Kracman.

Late in 1997 the South Australian Government created the Project Delivery Task Force and assigned it with the role of managing the delivery of significant State development projects, particularly those that required a high level of collaboration between the public and private sectors. The Government identified a number of priority outcomes. Working with the grape growing and wine making industries in the Barossa Region to solve their water resource and water management needs is one of these priorities. Borvin Kracman is the Task Force Project

Director assigned to the job. Borvin has a professional engineering and project management background spanning more than twenty years. He commissioned and operated the Morgan Water Filtration Plant for the former E & WS from 1986 to 1989 then moved to the United Kingdom to manage two major water treatment projects for Acer Engineering Ltd. More recently he has managed the Government's interests in both the Virginia Pipeline and the Christies Beach to Willunga Pipeline schemes. He has been involved in the Barossa Water Project since January this year.

THE CONSULTANCY

Earlier this year, the Barossa Infrastructure Group, assisted by the Government's Project Delivery Task Force developed a consultancy brief aimed at taking the information in the Vision 2045 Report to the next level. The brief included developing a commercially viable and sustainable solution to the Barossa's water needs. A number of Consultants were invited to tender to do the work. The tenders were assessed and following a final interview, the team led by Capital Strategies Pty. Ltd. was selected.



John Kerr
Capital strategies



Phil Kordahi

BORE TESTING IS IMPORTANT IN ESTABLISHING THE CONDITION OF OUR GROUNDWATER.

Phil Kordahi will contact you by 'phone the day before visiting to request your assistance in obtaining a salinity sample from bore(s). It would help if the bore(s) is ready to be operated before he arrives - he will need to run the bore for a duration of ten (10) minutes. Your assistance will be appreciated as there are a large number of bores to be tested in a short space of time.

WATER FOR BAROSSA



NES FERNANDEZ

S.A. WATER

Vision 2045, identified a number of strategies to assist development in the Barossa. One of those strategies is to use the spare off-peak capacity in SA Water's infrastructure.

Both SA Water and BIG are investigating options for the long term security of bulk water supplies to the Barossa. Taking up the SA Water offer will not preclude you from moving to any other arrangement that may be made in the future.

HORRARD. 2 X WEEK \$150 X 2 WEEK = \$300
 LORAIN. 85 64 2035 \$162 X 2 WEEK #

m/w

BAROSSA INFRASTRUCTURE GROUP



WATER FOR THE BAROSSA'S VINEYARDS

**FAITH AUDITORIUM 7.45 P.M. SHARP
THURSDAY, 30TH JULY 1998**

Grape growers, winemakers and anyone else connected with the wine industry should attend. This important meeting will affect the future of the Barossa for years to come.

Water is fast becoming one of the world's rarest commodities – find out how you can secure your future water supplies.

Results of Questionnaire and bore testing

How it will all work – Consultants report

Why this is the best option from a cost/quality point of view for the Barossa.

Costs and conditions – financial benefits of better quality water

Committee's recommendation on next stage

Mark Whitmore ph 85 244710

30th July, 1998.

Barossa Infrastructure Group

C/- B.R.E.D.A
6/109 Murray Street,
Tanunda SA 5352

Dear Grower,

The Barossa Infrastructure Group are asking you to support the continuing process of accessing supplementary water supplies for the Barossa Valley Region.

With the assistance of the State Government and the private donations of individual growers and winemakers we have been able to complete a thorough Stage 1 Study using the Capital Strategies Consultancy Team. This has clearly shown us the problems that need to be overcome and also given us the likely solutions.

The recommendations now need to be advanced to a workable and practical solution.

I support the efforts of the Barossa Infrastructure Group in accessing supplementary water supplies for the Barossa Valley Region.

I offer a \$500 contribution to the continuing process required to achieve the above.

Cheque to be made payable to BRED A (BIG Project)

_____X_____X_____X_____X_____X_____

PROMISORY NOTE

I, _____ of _____

_____ P/Code: _____

Phone: () _____ Fax: () _____

Promise the sum of \$500.00

Positive progress on water project

Following the State Government's promise of \$ for \$ matching of funds raised in the Barossa, the appointed consultancy team is now four weeks into the first stage of establishing a permanent solution to the Barossa's supplementary irrigation needs.

Committee members of the Barossa Infrastructure Group, members from the Capital Strategies consultancy team, S.A. Water, Borvin Kracman from the State Government's Project Delivery Task Force and a number of Government Departments have been working together in order to achieve the goals of the initial project brief.

An integral part of the Barossa Infrastructure Group's project brief was to review and validate the findings of Vision 2045

tem to a majority of properties in the Barossa have also been completed and it appears this option could be a viable approach to resolve water needs.

Much of this work has been completed using currently available information, but Barossa Infrastructure Group now needs the assistance of all grapegrowers, wineries and other businesses.

A Newsletter has been sent out. This newsletter will arrive in a large white envelope addressed 'To the Grower' with a note 'Important information about future quality water from Barossa Infrastructure Group S.A. Water'. with the new question they or

All growers are asked to complete the questionnaire no matter where they live, regardless of whether they have filled in previous questionnaires.

Mr Mark Whitmore explained that "If we don't know where you are, what your needs are, we will not be able to include the grower or region in any planned delivery system.

"Information provided by individuals will be treated in confidence as the questionnaires are to be returned to our

The Leader

The Barossa's Favourite Newspaper

-July 1998-

BAROSSA WATER PROJECT

SA Water Presentation
Overview Strategic Plan

July 1998

OVERVIEW OF PRESENTATION

- Introduction
 - Project Criteria
 - Recommended Solution
- Delphi Interviews with Key Influencers
- Demand Issues : Growers & Wineries
- Supply Issues & Distribution System
- GIS, Salinity & ASR Overview
- Project Viability and Implementation Issues
- SA Water Issues

CRITERIA FOR PROJECT

- Water quality to be suitable for sustainable premium grape production
 - Water needs TDS < 800mg/litre (av)
 - River Murray TDS < 180-540mg/litre (av) (Scholefield)
- Supply on demand to as many growers as possible
- Max coverage 2mm/day: Annual cap 1.5-2/ML/ha
- Flexibility for new plantings and drought years
- 20+20 year transferable contracts
- Long term maintainable price <70c/kl no cap cont.
- Requires GI Water Management Plan

RECOMMENDED SOLUTION

- Vision 2045 and other options considered
- Recommended solution (concept plan only):-
 - Stage 1 : New weir South Para Reservoir & dedicated ring main distribution (5GL)
 - Stage 2 : ASR Borefield off ring main (4GL)
 - Stage 3 : New Valley Reservoir and upgraded Barossa delivery ex Mannum/Adel. pipeline (4GL)
 - Stage 4A/B : Extension of delivery system to suitable development sub-regions with appropriate storage (eg Sheoak Log/Turretfield) (7GL)
- SA Water input and detailed analysis required

DELPHI INTERVIEWS - KEY INFLUENCERS

- In depth and follow up interviews with six key influencers selected from wineries, growers and approval authorities identified:-
 - General support for the recommended solution
 - Acceptance of requirement for new reservoir, however, siting and environmental issues critical
 - Support for both pricing mechanisms
 - Divergence of views on ownership
 - Growth rate predictions from 3% to 20% pa compound
 - Need for growth with careful planning and control
- Effective feedback to stakeholders essential
- Follow up telephone demand assess't deferred

DEMAND ISSUES - GROWERS

- 600 questionnaires distributed / 146 returns
- Respondents own 6,356ha in Barossa GI with 3,134ha of vines, 348 of other crops and 2,412ha of additional suitable vineyard land.
- Major issues arising:-
 - Bore salinity advised (80) from 700 to 3,000 mg/l
 - Incremental water requirements to Y2009 : 3.85GL
 - Requirement ex SA Water current off-peak offer : 1.0GL (possibly included above)
 - Preliminary grower demand appears less than indicated winery requirement
- Final demand will increase with awareness

DEMAND ISSUES - WINERIES

- Interviews with key executives of 3 major wineries undertaken by PDTF/CSPL
- Major issues arising:-
 - Demand for Barossa GI wines far exceeds supply
 - All intended increasing Barossa GI plantings/contracts
 - Long term forecast indicates 5-10% pa growth in demand with character and environment maintained
 - Project concepts including staging options explained to and endorsed (in principle) by interviewees
- Supplementary water supply agreed as critical for Barossa GI future growth and quality

SUPPLY ISSUES & DISTRIBUTION

- Criteria for selecting engineering solution:-
 - Optimum use of existing SA Water infrastructure for bulk water supply
 - Independent ring main distribution system with flexibility for connection to SA Water pipelines and new storage options
 - Capacity to address BWP supply and quality criteria for early connection to the maximum number of growers
 - Flexible staging to accommodate industry cycles
- ASR identified as potentially the most cost effective new storage solution
- Concept prelim only: SA Water input, final demand and agreed growth areas required

GIS, SALINITY & ASR OVERVIEW

- GIS will be provided on CD-ROM
- Kordahi salinity testing progressing, > 800mg/l indicated to date - Boresites (per Appendix B)
- Key issues re. ASR:-
 - ASR in SA now past research stage
 - East rim of Valley indicates suitable storage potential for 3-6GL
 - Low transmissivity anticipated therefore communal borefield linked to ring main proposed
 - Bulk water ex either SRS and Mann/Adel pipelines
- ASR trial program needs priority

PROJECT VIABILITY

- Assessment based on capital cost estimates (first order only - \$90.0m), industry std. operating costs and estimates of possible SA Water pumping and tolling charges.
- Recommended option assessed against:
 - assumed 12% pre-tax 40yr project IRR required
 - three levels of grower contribution (gearing)
 - av. coverage of 125.0/12.5mm summer/winter
- Project viability at 32.5-69.0c/kL (98/99\$) dependent upon gearing/grower contribution

IMPLEMENTATION ISSUES (1)

- The Overview Strategic Plan concludes the Project appears financially viable and environmentally sustainable
- Pending feedback from the key stakeholders, the Plan is yet to conclude on:-
 - A timetable, budget and source of funding for the Project Definition Stage
 - The preferred project ownership, management and funding option(s) and BIG's continuing role
 - Range of above ground storage options and the relative environmental and other issues for each option for benchmarking against ASR

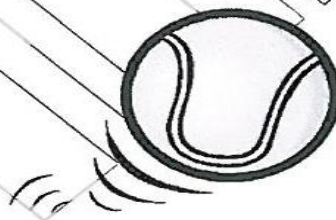
IMPLEMENTATION ISSUES (2)

- The recommended concept plan now requires:-
 - Endorsement by BIG for presentation to and evaluation by the key stakeholders : SA Water, Growers, Wineries, DEHAA, NA&BCWMB, the Barossa community and the State Government
 - Update to reflect preferred ownership, management and funding outcomes and SA Water's advice re. water supply and costings
 - Resolution of River Murray water rights for the project
 - Further update of the engineering plans and financial forecasts to confirm continuing viability as a basis for a multi-party Memorandum of Understanding (MoU)

-Public Meeting Nov 1999-

The Ball's In Your Court Now!!

David Klingberg



1

Agenda

1. Introduction
2. Timeline of the project
3. Project Benefits
4. The need for quality water
5. The environment
6. Impact of water on yields & returns
7. The required investment
8. Tax and financing issues
9. How to apply for shares and water
10. Summary and questions

David Klingberg
Mark Whitmore
Geoff Davis
Winemakers & Growers
Borvin Kracman
Geoff Davis
John Kerr
John Kerr
Mark Whitmore
David Klingberg

3

What are the problems with the current water supply ?

- **Bore** salinity levels average 1500ppm
- **Dams** fill 1 in 3 to 1 in 5 years
- **Mains** could be stopped at any time. Low flow
- **SA Water's Off peak**-winter only, 10 years max
- No additional water for dry/drought years

6

How Does The Project Resolve These Problems?

- By completely replacing your current water supply with high quality water in normal rainfall years
- Dry/drought years, using your old water supply as a supplement to the new water supply, giving you the ability to increase irrigation levels from 100mm to 150mm

7

Price Benefits

- Delivery of water at the lowest sustainable price 35c per kL + Infrastructure levy
- Returns to shareholders through cost benefits rather than dividends

11

Project Timeline

October 99

- Australian Securities & Investments Commission approval received

November 99

- Agreement finalised with SA Water
- Prospectus released
- Prospectus close Tuesday November 30

14

Project Timeline

December 99

- Board reviews Project viability
- If satisfied, funds released to Company by the Trustee

December 99 – March 2000

- Engineering design, development and finance approvals finalised

15

Project Timeline

March 2000

- If Board satisfied with progress, balance of investment called for

1 March – 30 June 2000

- Balance of equity capital to be provided by shareholders

March-November 2000

- Project design completed
- Construction starts

16

Project Timeline

1 December 2000

- Targeted date for first water deliveries

17

Overview

- Sustain yields and quality
- Improve yields and quality
- 'Insurance' factor
- Enhances value of property
- Long term sustainability
- Environmentally responsible

29

Overview Of Structure

- Public company and water contract
- Owned & controlled by landowners
- Not intended to pay dividends (other than by lower water prices in future)
- Designed to retain and enhance long term value
- Shares and contracts – saleable and transferable
- Agreement with SA Water
- Developed engineering concepts
- Commencing environmental approvals
- Bank funding

47

Required Investment

- Each ML of Premium Water requires:-
 - \$1,750 in capital
 - Agreement to fund infrastructure levies (\$795 falling to \$420 over 15 years - total of \$8,175)
 - Agreement to pay minimum price for water
- May also order Off Peak Water

48

-Excerpts from a 1999 Media Release-

Press Release

"Despite delays in SA Water reaching agreement with BIG for the transport of bulk water to the Barossa Infrastructure Project, a high degree of cooperation and support has been provided by the South Australian Government, the Barossa Council and the District Council of Kapunda and Light.

The Minister for Government Enterprises, Dr Michael Armitage has recently approved that BIG's concept of a community funded pipeline system be designated as public infrastructure. This means that the process of gaining the necessary approvals to construct the project will be largely dealt with at the local government level. This is a valuable outcome as it will save time and money. It will also mean we can deal with local issues at the local level.

The Minister for Industry and Trade, Iain Evans has through the Department for Industry and Trade, made available a \$200,000 loan to BIG Ltd to assist in the upfront costs of creating and issuing a prospectus to raise investment funds for the project. The loan is subject to terms and conditions that

Two of the main conditions are firstly that the loan is subject to equivalent funds being raised from within the community, that is it needs to be matched dollar for dollar. Secondly the loan is subject to BIG having entered into a water transport agreement with SA Water.

Therefore to keep things moving we need to do two things. We need to raise more funds from the community and we need to move quickly to finalise an agreement with SA Water. We need the community to help us demonstrate we are dead serious about getting this project started so at least some extra water will be available next summer.

Wine industry wins Web site

SOUTH Australia's wine industry will stay a step ahead of international competitors with the launch of a comprehensive industry Web site.

Co-ordinated by local firm Barossa Infrastructure Ltd, the first phase of the Wine Industry Network (WIN) site offers up-to-date information aimed specifically at the wine industry.

The managing director of Barossa Infrastructure Ltd, Mr Mark Whitmore, said much of the site would require a code to gain access.

He said the structure of the WIN site had been designed to allow all sectors of the wine industry to have input in its overall concept and development of the site.

"As the site unfolds, it will allow participants to fine-tune it to better suit their needs," he said.

Development of WIN included discussion with various sectors of the wine industry to determine the content of the site.

As a result, a comprehensive range of topics includes information on:

- **FRUIT** maturity reporting during vintage;
- **FEEDBACK** from wineries to growers on characteristics of last vintage;
- **SHORT** and long-term weather forecasting and local weather conditions;
- **LATEST** research information and availability of training;
- **OPPORTUNITIES** to exchange viticulture ideas;
- **WEED** type identification and recommended best practice for eradication;
- **INDEX** of trade publications.

Mr Whitmore said the WIN site would provide a central information base for people working within the industry.

mation from one site," he said.

"We'll only be creating additional information pages where there is a lack of information or accessibility.

"For the people in the front line of the wine industry - the winegrowers and winemakers - there is a need for one point of access to all relevant information."

The software package will bring together in one location all relevant information links on the Internet and other specialist information pages, ensuring the needs of the wine industry are easily accessed without hours of searching.

Mr Whitmore said the Barossa had maintained a good balance between tradition and innovation.

"The Wine Industry Network will support the needs of the Barossa wine industry and supports the Barossa's innovation in winemaking, winemaking technology and viticulture practices," he said.

The Advertiser
Make the most of every day.

- 1999 -

Bountiful Barossa

Pipeline a \$90m boost for valley

By NIGEL AUSTIN

BAROSSA Valley vineyards will produce more grapes as a result of a \$30 million pipeline from the Warren Reservoir at Williamstown, north-east of Adelaide.

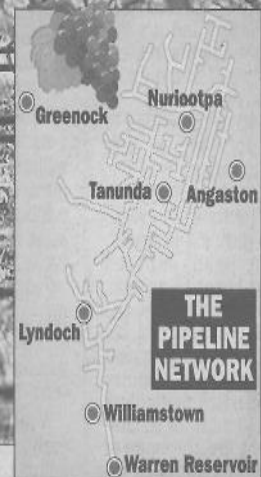
In a major boost for the region, the scheme will help "drought-proof" the region.

The privately owned pipeline - funded by 240 wine grapegrowers - will be built by Barossa Infrastructure Limited and is estimated to boost annual production by \$30 million.

The project will consist of 180km of buried pipelines taking water to 340 properties in an area covering 450 square kilometres. Launching the scheme yesterday, Premier John Olsen said it would generate economic activity in the state worth up to \$90 million a year.

"This unique agreement to bring additional water to the region will greatly enhance the Barossa's continued economic prosperity," he said.

"Obviously, this also will have a positive impact on jobs with direct employment from the project estimated to reach 125 new jobs within four years."



LOOKING AHEAD: Chris Canute checks her vineyard's irrigation system yesterday. Picture: DEAN MARTIN

PRESS RELEASE

Barossa Infrastructure Ltd

START OF CONSTRUCTION

2.2.01

For grapegrowers in the Barossa the start of construction of a \$30 million Barossa pipeline network begins a new era of a reliable water supply, bringing to an end years of problems.

On Friday the 2nd of February 2001, Barossa growers and wineries celebrated the start of construction of a 240 kilometre pipeline which will bring water to approximately 240 vineyards. Work is due to be completed by 1st of October 2001. Work will start at the northernmost part of the Barossa. After the section above the Sturt Highway is completed, work will commence on the Gomersal Rd section before it is sealed. The exact schedule will depend on availability of pipe supply, but generally work will flow from the northern end of the Barossa to Williamstown.

Mark Whitmore, Managing Director of Barossa Infrastructure Ltd, said this week, "This summer has seen increasing problems. For example, several growers are having to cart water to their properties in tankers, costing about \$3 per kilolitre. Many growers have rung the Barossa Infrastructure office seeking an assurance that the water Project is really going ahead, because they say that they just can't go through another summer like this one and they are very relieved when I tell them that the Project is definitely going ahead."

Mr Whitmore continued, "For many years the Barossa has been plagued with a shortage of water for supplementary irrigation. This shortage has been caused by a range of problems such as low quality or quantity from bores and dams filling only two out of five years, leaving some people with no water supply at all. These problems have been made worse with three or four drier than normal years in the last decade. This has led to an increasing use of SA Water mains water for irrigation, which in turn has caused problems, with some householders having very poor water pressure while growers are irrigating."

"Credit for the success of the Project is shared by many people", Mr Whitmore concluded. "Some of them are the Premier John Olsen, who has always been there at critical times during the Project's development, Ivan Venning our local member who has tirelessly lobbied for this Project on behalf of the Barossa, our local councillors and staff, our Chairman David Klingberg whose perseverance and major construction experience has been invaluable, the Board of Directors who have worked tirelessly together through all the problems and last but not least, all our shareholders who shared the vision and kept faith in the Project."

END

Further information: Patsy Biscoe 0419 861 561

The Leader

Volume 82, No. 4141

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Barossa Valley, Wednesday, February 7, 2001

90c

56 PAGES

Telephone: (08) 8564 2035

\$30 million Barossa pipeline network commences



A TOAST: Celebrating the beginning of the Barossa Pipeline network last Friday were (L-R): Mr David Klingberg, Chairman of Barossa Infrastructure; Mr Mark Whitmore, Managing Director; Mr Ivan Venning, State Member for Schubert; Mr Neil Andrew, Federal Member for Wakefield.

For grapegrowers in the Barossa the start of construction of a \$30 million Barossa pipeline network begins a new era of a reliable water supply, bringing to an end years of frustrating water problems.

Mr Ivan Venning, Member for Schubert, launched the start of construction on Friday of the 240 kilometre pipeline which will bring water to approximately 240 vineyards.

Barossa growers and

invited guests gathered in a marquee at one of Southcorp's northern vineyards to celebrate with Barossa wines and an array of local foods.

Work is due to be completed by October 1, 2001 and will start at the northernmost part of the Barossa.

After the section north of the Sturt Highway is completed, work will commence on the Gomersal Road section before it is sealed. The exact schedule will depend on availability of

pipe supply, but generally work will flow from the northern end of the Barossa to Williamstown.

Managing director of Barossa Infrastructure, Mr Mark Whitmore, said, "This summer has featured increasing problems. For example, several growers are currently carting water to their properties in tankers, at a cost of about \$3 per kilolitre.

Clean-up slows pipeline progress

WORK ON the Barossa pipeline stalled last week as contractors were directed to repair a number of roadside sections.

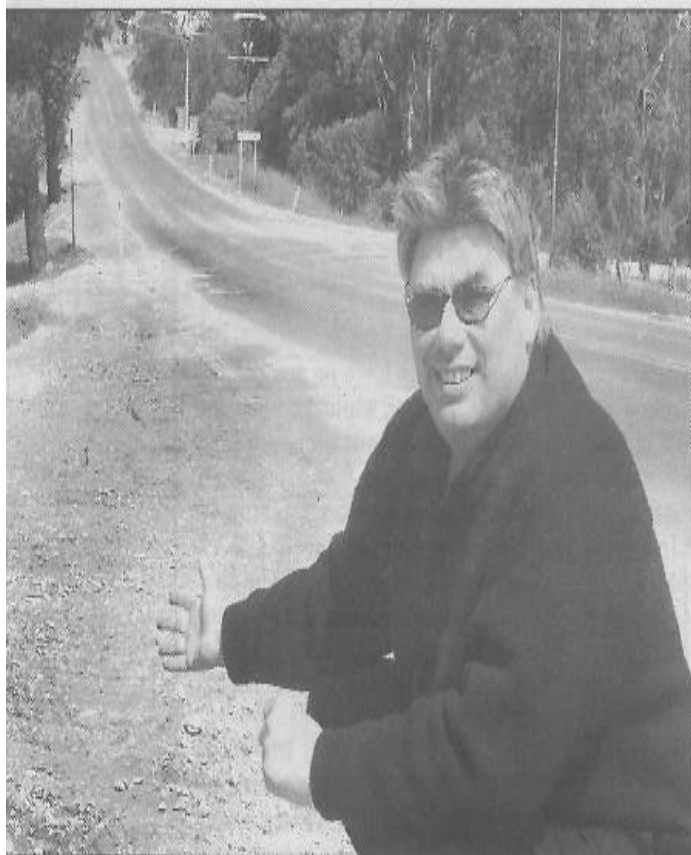
Barossa Council ordered the stop-work following complaints from the community and dissatisfaction following regular inspections.

Construction of the \$30 million pipeline began earlier this year, and is designed to provide much needed relief for the district's grapegrowers with consistent access to quality water.

Winter rains early in June interrupted the project, with one third of the 240 kilometre pipeline complete.

Herald barossa.herald.com.au

-27 June 2001-



Barossa Water Project nears completion

Mr Mark Whitmore, Managing Director of Barossa Infrastructure, reports that he is pleased with the progress of the Barossa Water Project to date.

Mr Whitmore said, "The Barossa Water Project is nearing completion, scheduled for December 2001. The majority of pipework is now in the ground and pump stations are almost complete.

"With better weather on the way, the hotter days and drying winds will allow final reinstatement of roads throughout the Barossa."

Mr Whitmore continued, "Full reinstatement work has been delayed by the wetter-than-normal September weather, which has frustrated ratepayers, Council and Barossa Infrastructure alike.

The Leader

The Barossa's Favourite Newspaper

-10 Oct 2001-

Herald barossa

-Fri 2 Nov 2001-

Delays to pipeline

ABOUT 100 Barossa grapegrowers are waiting today to hear whether a ban on work on a \$30 million irrigation scheme will be lifted in time for vital water to get to vines.

A concern over road safety issues has led Light Regional Council to stop work on the Barossa Infrastructure Ltd scheme, which would supply Murray water to more than 200 vignerons through a 186km pipeline.

-Sat 3 Nov 2001-

Talks avert delay to vines pipeline

TWO days of negotiations have secured the completion of a \$30 million irrigation project in the Barossa Valley, with vines expected to receive the piped water by December 15.

Concerns for the safety of road users previously put the project on hold.

Begun in February, the 186km Barossa Infrastructure Ltd pipeline to supply River Murray water to more than 200 grapegrowers was meant to be completed by October 1.

But ratepayers voiced concerns about access to properties and road safety.

Poor signage and low visibility at a worksite on the Greenock road

had been blamed for a four-car accident there, and a motorcyclist was injured when he hit pipes lying on the side of a road.

Light Regional Council and contractors Mitchell Australasia have now agreed to continue laying the remaining 40km of pipeline.

Light Regional Council chief executive officer Peter Beare said yesterday: "Work on the Barossa Valley water pipeline project could recommence as early as the end of next week."

While the council welcomed the economic benefits the project would bring, it was concerned about future liabilities, he said.

- Bryan Littlely

BIL | 2002 - 2017

CONSTRUCTION PHASE COMPLETED

FIRST WATER DELIVERED

QUERIES RAISED RE SALINITY LEVELS

SA GREAT AWARD RECEIVED FOR 'SCIENCE AND SUSTAINABILITY'

CONCERNS RAISED RE MANAGED INVESTMENT SCHEME (MIS) PLANTINGS

FIRST RE-CYCLED WATER DELIVERED

FINAL PAYMENT MADE OF \$21,500,000 BANK LOAN

SCHEME EXPANDED TO 8GL

SCHEME EXPANDED TO 9GL

SCHEME EXPANDED TO 11GL



IT'S A GOER: Welcoming the first drops of the Barossa pipeline project were (from left) Member for Schubert Ivan Venning, Barossa Infrastructure Limited managing director Mark Whitmore, Premier Rob Kerin, Barossa Infrastructure Limited chairman David Kingberg and Minister for Water Resources Mark Brindal

Pipeline's premiere

GRAPEGROWERS around the region have gained access to irrigation water courtesy of the completion of the \$30 million pipeline project.

Officially opened by South Australian premier Rob Kerin at Grant Burge Winery in December, the pipeline is now providing water to the majority of its 240 subscribed growers.

A small amount of pipe is still to be laid, as final

touches are placed on the 187-kilometre project.

Construction of the pipeline began in March last year, with scheme director Barossa Infrastructure Limited faced with several problems during its creation. BIL was locked in negotiations with Light Regional Council which delayed the project, after the council stopped work due to safety concerns.

Final adjustments and commissioning will be completed in the ensuing weeks, while a team from Mitchell Australasia will be on-hand throughout summer to deal with any problems.

Premier Rob Kerin welcomed the pipeline, and said the partnership between the State Government and Barossa grapegrowers would not only provide relief to growers but also improve mains water pressure for local residents.

"Wine is now South Australia's biggest manufactured export item with more than 800,000 bottles exported out of the state each day," Mr Kerin said.

"The wine industry is one of the state's biggest success stories and the Barossa Valley is undoubtedly one of the industry's premier regions.

"This scheme is about Barossa wine growers investing in their future and the State Government will continue to support these investments."

Herald herald.com.au

-9 Jan 2002-

The Leader

"I see a drip!"

Mr Ivan Venning, Member for Schubert said these are the graphic words of Mr Grant Burge as the first water flowed at the BIL scheme grand opening at Rowland Flat on December 20.

Some 300 people attended the opening by the Premier Hon Rob Kerin, accompanied by the previous Premier Hon John Olsen

Chairman of BIL, Mr David Klingberg made note of what a very important day this was in the Barossa's history.

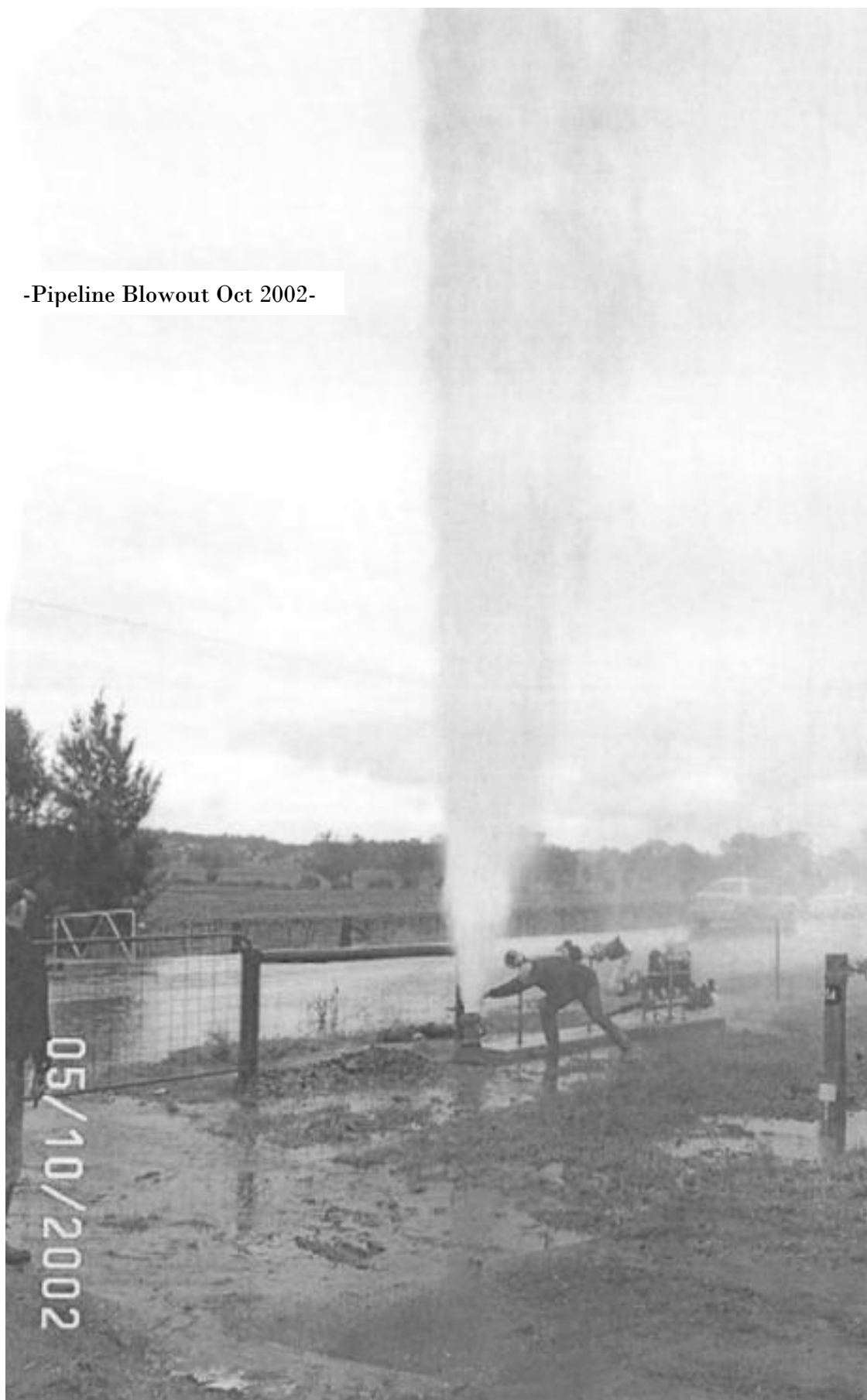
He mentioned the problems that occurred during construction and also the ongoing debate in relation to irrigation and wine quality.

He also thanked Mr John Olsen for facilitating the project and Mr Ivan Venning who never let the Premier forget the importance of the project. Also the great leadership of Mr Mark Whitmore

I believe the greatest accolades should be reserved for Mr Mark Whitmore, who over many years championed this project and who first came to my office with what looked like a pie in the sky scheme - too good to be true and how would you get the bureaucracy to work through it?

"At great personal cost to him, he has been successful, with many a phone call to me, often in despair, very concerned about the lack of progress at times and all the logs put in the way to jam up progress.

-Pipeline Blowout Oct 2002-





PRESS RELEASE
26.11.02

Chairman of Barossa Infrastructure Ltd David Klingberg announced today, "It is with regret the Board of Barossa Infrastructure has accepted the resignation of Mark Whitmore, one of the founders of the Barossa Water Project. Mr Whitmore was Chairman of Barossa Infrastructure Group from 1997 – 1998 and Managing Director of Barossa Infrastructure Ltd from 1998 – 2002, subsequently remaining on the Board as a non-Executive Director."

Mr Klingberg continued, "240 local grapegrower-shareholders own and fund The Barossa Water Project, designed to bring much needed supplementary irrigation water to vineyards in the Barossa region, and Mark's vision and persistence have been an inspiration to all those involved in the Project. To acknowledge the high esteem with which we regard Mark, the BIL pump station on Gomersal Rd is to be named '*The Whitmore Pump Station*' and a commemorative plaque will be displayed on the site."

On behalf of the BIL Board and shareholders, Mr Whitmore was presented with a brass presentation plaque as a memento.



Front row (L-R): Patsy Biscoe, executive secretary; Mark Whitmore, retiring director; receiving a commemorative plaque from David Klingberg, chairman of Barossa Infrastructure Ltd.; Martin Pfeiffer, director. Back row (L-R): Ed Schild, director; Geoff Davis, company secretary; Stuart Blackwell, director; Steve Wilson, director; Paul Shanks, general manager.



BURST PIPE DISTURBS TRAFFIC: Mr Marcus Thorton, operations engineer for SA Water, Barossa Valley Region and (top) Mr Keith West, Amec Engineering, inspect the damage caused by a burst pipe on Gomersal Road on Monday. Mr Paul Shanks, general manager of Barossa Infrastructure explained that they were still investigating why the pipe failed as it is still under warranty. Damage was caused to the edge of the road and traffic was restricted to one lane whilst the damage was being repaired.

Less God, more Mammon

The Advertiser
Make the most of every day.

-11 June 2003-

The Barossa's famous vines are under pressure and so too is its renowned food and wine culture, PHILIP WHITE reveals.



-Key Excerpts from the Article-

'The high-volume introduction of River Murray salt water into the Barossa's vineyards, thence into the completely enclosed, undraining aquifer beneath, is a terminal injection of steroid.'

It might look muscle-bound, but the Barossa's gonna burst its heart.'

'Tragically, the salt's killing the old unirrigated vines first.'

It falls quickly past the shallow roots of the new industrial vineyards, down to the clay, then follows that layer until it hits the ancient, much deeper roots of the dry-grown vines, turning their wine salty and eventually poisoning them.'

Salt attack leaves bad taste in Barossa mouths

ALLEGATIONS that the Barossa's vines are being strangled by salinity have raised concerns around the region.

While there is no evidence of the district's lifeblood choking, irrigation practices of grape growers are set to come under scrutiny.

Much of the Barossa's criticism has stemmed from an article by *Advertiser* wine writer Philip White, who in the June 11 edition accused the Valley of "filling up with salt".

Rural Solutions SA senior salinity consultant Terry Evans said the story had stirred some contentious points, although it seemed many facts had been distorted and over-simplified.

"Philip White is technically incorrect in most cases, but he has raised some real issues about salinity in the Barossa," Mr Evans said.

"However, there isn't any proof that the old dry-grown vines are dying.

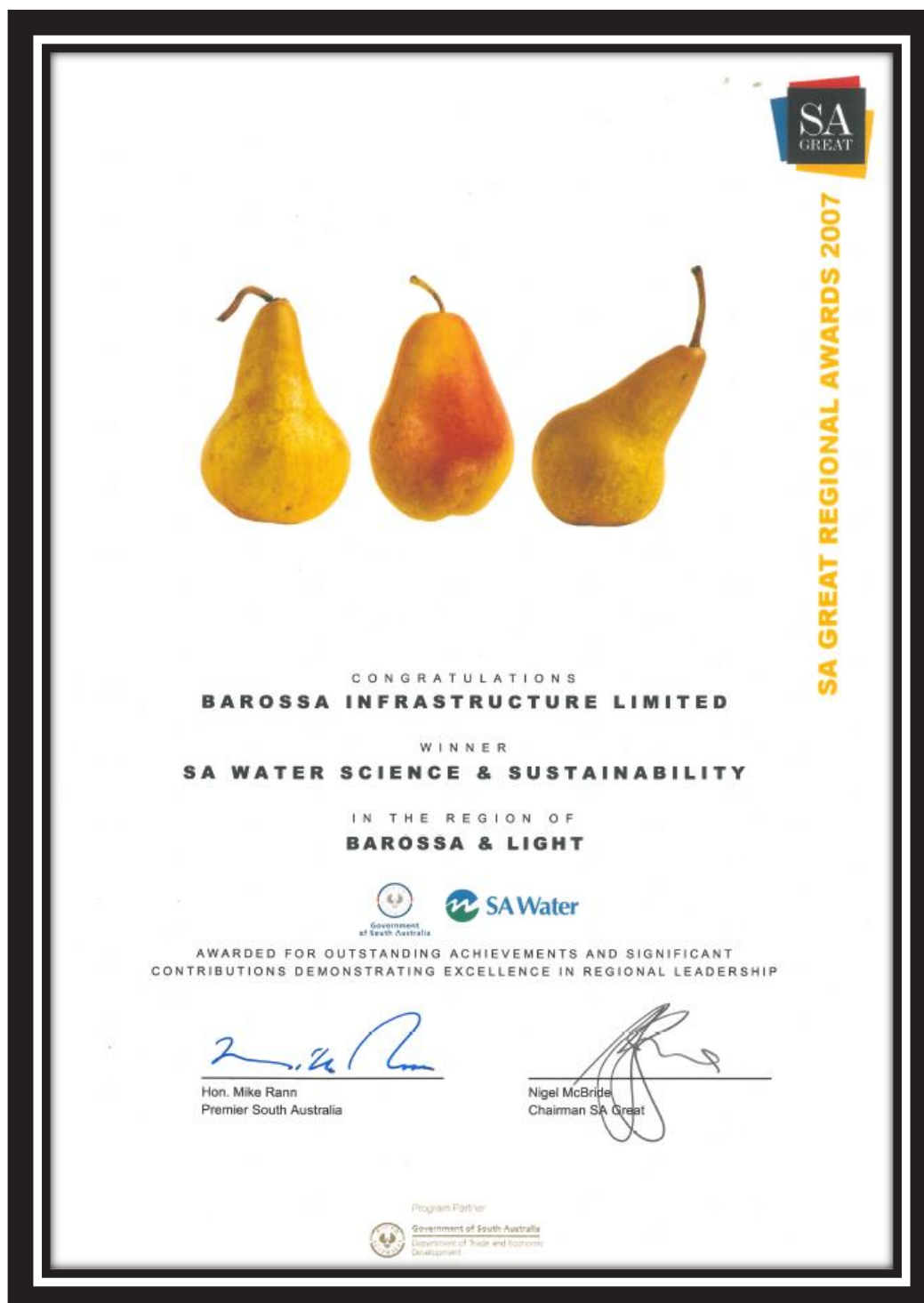
"The original justification for the BIL water was to replace the use of increasingly saline bore water in the central area of the Barossa, which may still have problems if not managed properly. However, the expansion of vineyards into new areas need not become a problem if irrigations are scheduled correctly.



MOISTURE TEST: Rural Solutions SA senior salinity consultant Terry Evans said over-irrigation had begun to cause salinity problems in the Barossa

Herald barossa Herald.com.au

-9 July 2003-



-SA Great Award 2007-



*John Geber, Trevor Wilksch, Dennis Canute, John Pfeiffer, Christian Canute,
Robert O'Callaghan, Chris Canute*

The future of the Barossa as a world-renowned wine region is under threat from massive vineyard investment schemes, say traditional stakeholders. PETER HACKETT investigates.

Long-time growers and winemakers of the Barossa say the vast new plantings could plunge the industry into crisis – and threaten the very culture of the Barossa Valley.

It has the potential, they say, to swamp the market with cheap wine, from a premium wine region.

What about the water needed for all these new plantings?

The MIS companies are exploiting a scheme established in 1998 aimed at drought-proofing Barossa growers.

Barossa Infrastructure Ltd is a grower consortium which holds an agreement with SA Water for a dedicated water supply to the region. But this water comes at a price – and those who can afford it most are the cashed-up MIS operators.

Extracts from a response to correspondence received from a BIL customer in September 2008 which proposed that the BIL constitution be amended as noted below

MinterEllison |
LAWYERS

22 September 2008

We act for BIL generally. We refer to your letter dated 14 July 2008, which has been provided to us by BIL.

We note your proposal that BIL's Constitution be amended, to prevent BIL supplying new water to Managed Investment Schemes (MISs), irrespective of whether the promoter of the MIS has previously bought water for previous MISs promoted by them. We understand that BIL currently has a number of MISs as customers.

We have considered the potential legal implications for BIL, and have advised BIL that:

- there is a risk that refusing to supply water to all potential customers falling into a particular category would amount to substantially lessening competition, since there is only one other supplier (SA Water) and that supplier is unable to provide water on the same terms as BIL; and
- accordingly BIL would risk being in breach of the *Trade Practices Act 1974 (Cwlth)*, with serious adverse consequences, including fines.

...

While we acknowledge that the commercial interests of many of BIL's customers are not well served by further plantings by MISs, BIL is constrained by its legal obligations. Accordingly we have advised the Board of BIL not to take any action concerning the proposed amendment.

-5 Nov 2008-

Water re-use scheme to benefit irrigators and the environment



The Barossa Council and Barossa Infrastructure Ltd representatives.

Back: Ian Baldwin, Director, Development and Environmental Services; David Morcom, Chief Executive Officer, The Barossa Council; Paul Shanks, General Manager, Barossa Infrastructure Ltd; Geoff Davis, Company Secretary, Barossa Infrastructure Ltd.

Front: Mayor of The Barossa Council Brian Hurn OAM; David Klingberg AM, Chairman, Barossa Infrastructure Ltd.

The Barossa Council and Barossa Infrastructure Ltd (BIL) have signed a significant agreement which will supply 265 megalitres of treated wastewater from Council's Nuriootpa Community Wastewater Management Scheme (CWMS) to grape growers for vine irrigation.

The Project, due for completion in early 2009, will have two important outcomes; firstly, the cessation of the dispersal of treated wastewater into the North Para River, which has occurred by design since the commissioning of the Nuriootpa township in 1967, resulting in the improvement of river water quality and biodiversity.

Secondly, the treated wastewater will be used for land based irrigation, reducing the need for drawing water from the depleted River Murray system.

The Chairman of BIL, Mr David Klingberg AM, said the implementation of the Scheme will contribute to BIL's goal to support the sustainability of viticulture in the Barossa.

The Leader

The Barossa's Favourite Newspaper

-25 March 2009-

Treated waste water headed for Gomersal vineyards

The contract for the construction of the Nuriootpa treated wastewater re-use pumping main has been awarded to Camco Pty. Ltd. with the key task of constructing approximately 12.2 kilometres of underground pumping main infrastructure to pump treated waste water from the existing Waste Water Treatment Plant and the new treatment/storage lagoon in Old Mill Road, Nuriootpa, to the Barossa Infrastructure Ltd water main located at the corner of Fromm and Gomersal Roads, Tanunda.

Mayor Brian Hurn said establishment of the work site and survey and location of existing services commenced on the March 2 whilst construction of the rising main commenced on the March 9. Council expects the contractor to complete the works early in June, 2009.



The Barossa Council's Cr. Patsy Biscoe, Cr. Barrie Stewart and Mayor Brian Hurn with the coloured pipes to be installed as part of the treated wastewater re-use underground pumping main infrastructure.

The Leader

The Barossa's Favourite Newspaper

-2 September 2009-

Drought proofing Barossa vineyards

Barossa grape growers will have access to 265 megalitres of treated wastewater a year for vineyard irrigation under a landmark partnership which was launched by Federal Minister for Climate Change and Water Penny Wong on Monday.

The \$2.44 million joint project between The Barossa Council and Barossa Infrastructure Limited (BIL) will transfer up to 800 kilolitres of effluent water a day from the Nuriootpa Community Wastewater Management Scheme (CWMS) via a new 13 kilometre pipeline.

BIL chairman, Mr David Klingberg said the B-class treated wastewater that was previously channelled into the North Para River would be reclaimed and reused for land-based irrigation at Gomersal, west of Tanunda.

"This will reduce the draw on the depleted River Murray system, protect the fragile North Para River environment and contribute to BIL's goal to support sustainable viticulture in the Barossa," said Mr Klingberg.

Most Barossa vineyards are not dry-grown and in addition to a minimum average annual rainfall of 500mm use an average of 90-100mm of supplementary water.



Mr Chris Russell, Acting Chief Executive Local Government Association of South Australia; Mr Brian Hurn, The Barossa Council Mayor; Mr David Klingberg, Chairman Barossa Infrastructure Ltd.; Senator the Hon. Penny Wong, Federal Minister for Climate Change and Water with the Hon. Karlene Maywald, State Minister for Water Security and the Murray River at Monday's launch of the Community Wastewater Management Scheme Water Re-Use Partnership held at Pindarie, Gomersal.

-27 June 2012-

ON THE LAND

Crows chairman appointed to Barossa Infrastructure Ltd.

Mr David Klingberg AO, retiring Chairman of Barossa Infrastructure Ltd (BIL), has announced that Mr Rob Chapman has been appointed Director and Chairman-elect. He will take up the Chairmanship in November.

Mr Klingberg said that Rob Chapman has had an outstanding career to date, is widely regarded as one of the state's most successful businessmen, and will bring a wealth of experience and expertise to BIL, a company which supplies supplementary irrigation water to its shareholders, Barossa vignerons and winemakers.

Rob recently returned to Adelaide after a two year stint as Chief Executive of St George Bank, prior to which he was Managing Director of BankSA.



BIL Board Members Geoff Davis, Company Secretary; Rob Chapman, Chairman-elect; Wendy Allan; David Klingberg AO, Chairman.

Rob can crow about Barossa



WELCOME: Incoming Rob Chapman (left) with outgoing David Klingberg.

HIGH profile South Australian business executive Rob Chapman, chairman of the Adelaide Crows, has been appointed director and chairman-elect of Barossa Infrastructure Limited (BIL).

Herald barossaherald.com.au

-27 June 2012-

Advertisement placed in the Barossa Media

-August 2012-

BIL | BAROSSA INFRASTRUCTURE LTD

Sustaining Barossa Vineyards

SECURE YOUR WATER FUTURE

Barossa Infrastructure Ltd is owned by its grape-grower and wine producer water users and has a 190 km pipe network providing supplementary irrigation water for sustainable use in vineyards in the Barossa.

There is a once only opportunity to expand the scheme in the next 2 years. We are seeking registration of interest from grape growers who are interested in joining the scheme between now and 2015 when this opportunity lapses.

More Information: www.barossainfrastructure.com.au
or
Paul Shanks
0407 901 651
PaulShanks@BarossaInfrastructure.com.au

2 Basedow Rd PO Box 665 Tanunda 5352 T8563 2300 F8563 1266

3/8/12

Barossa businesses benefit



EXPANSION: From left, Rob Chapman, Chairman BIL, Stephan Knoll, Member for Schubert, Hon Ian Hunter MLC, Minister for Sustainability, Environment and Conservation Minister for Water and the River Murray Minister for Climate Change, Nick Champion, Member for Wakefield and Jim McGuire, General Manager Commercial and Business Development SA Water.

ALMOST 100 businesses in the Barossa are set to benefit from the Barossa Infrastructure LTD Scheme Expansion.

Last Friday, Rob Chapman, chairman of Barossa Infrastructure Ltd, announced that a further 1.7 gigalitres of irrigation water would be delivered to Barossa viticulturists per annum.

The additional water is being delivered in response to demand resulting from the drier conditions experienced in the region in recent years.

Faces & places

Celebrating the BIL \$21.5 million loan re-payment

200 people representing Barossa grapegrowers and vignerons, customers and shareholders of Barossa Infrastructure Ltd (BIL) gathered at Pindarie Cellar Door to celebrate the repayment of a \$21.5 million bank loan. The loan was taken out by BIL 15 years ago to fund the community owned supplementary irrigation scheme for Barossa grapegrowers.



Lew Owens, chairman, SA Water; Patsy Biscoe AM; David Klingberg AO, first BIL scheme chairman and Roch Cheroux, Chief Executive, SA Water.

The Leader

The Barossa's Favourite Newspaper

3 August 2016



John Trezise with Philip Neldner.



Vic Patrick, Paul Shanks, Martin Pfeiffer, Elizabeth Brookes and Frank Brookes.



Marcus Schulz with Aubrey Rosenzweig.



John Ker, Borvin Kracman, Stuart Blackwell and Jennifer Tobin.



Mr Stephan Knoll, Member for Schubert; Helen Burge, BIL shareholder; Patsy Biscoe AM; Ivan Venning, former Member for Schubert and Vic Patrick.



Anne Moroney with Kay and Ivan Venning.

The Leader

The Barossa's Favourite Newspaper

-3 August 2016-



Sue Loveday and John Hage.



Dr Jack Urlwin, Patsy Biscoe AM and David Klingberg AO, first BIL scheme chairman.



Jenny O'Callaghan, Keith Hoffmann, Chris Canute and Patsy Biscoe AM.



Allan Hoey and Colin Beer enjoyed the food served by Linda Taylor, waitress.



Grant Burge, director; Geoff Davis, board member with Leo Pech.

The Leader

The Barossa's Favourite Newspaper

-3 August 2016-



Helen Schild with Jeanette Marschall.



Bill Holmes, Stephan Knoll, Dean Hoklas and Rod McDonald.



Patsy Biscoe AM, Wendy Allan, retired board member; Mayor Bob Sloane and Ed Schild, founding and current board member.



James Rosenzweig, Michael Steinborner and Alan Hoey.



Steve Wilson, Anne Moroney, Kay and Ivan Venning and Tony Brooks with Patsy Biscoe AM.

The Leader

The Barossa's Favourite Newspaper

-3 August 2016-



Steve Wilson, Dr. Gayle Grieger and Ian Zander.

Hon Michelle Lensink MLC



Legislative Council, Parliament House, North Terrace, ADELAIDE SA 5000 T: (08) 8237 9434 F: (08) 8212 7075 Toll Free Country Callers: 1800 182 097

14 July 2016

Ms Patsy Biscoe AM
Executive Secretary
Barossa infrastructure Ltd
2 Basedow Road
PO Box 665
TANUNDA SA 5352

Dear Ms Biscoe,

Patsy

Thank you for your invitation to attend the celebration of Barossa Infrastructure Limited's (BIL) major milestone.

The move to establish BIL was a bold innovation which has provided a critical water supply to Barossa growers. It continues to be an outstanding example of the benefits of well managed third party access schemes, and one which I have spoken publicly about numerous times.

I am very sorry that I can't attend the celebration as I am required to attend a public meeting in the Adelaide Hills. Mr Stephan Knoll MP, my colleague and Member for Schubert will be attending and looks forward to celebrating BIL's major milestone with you. I look forward to hearing about the success of the event.

I wish the shareholders, customers, board, staff and all attendees a wonderful celebration.

Yours sincerely

Michelle Lensink

Michelle Lensink
Deputy Liberal Leader in the Legislative Council
Shadow Minister for Sustainability, Environment and Conservation
Shadow Minister for Water and the River Murray
Shadow Minister for the Status of Women



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E: lensink.office@parliament.sa.gov.au FB: www.facebook.com/miclensink Twitter: www.twitter.com/miclensink

The Leader

The Barossa's Favourite Newspaper

-14 December 2016-

BIL | **BAROSSA INFRASTRUCTURE LTD** ABN 80 084 108 958

Sustaining Barossa Vineyards

Barossa Infrastructure Ltd - Proposed Scheme Expansion

Public and Customer Information Session

Barossa Weintal, 235 Murray St, Tanunda
9.30am Friday, December 16, 2016

An electronic form of the **Offer Information Statement (OIS)** in relation to Barossa Infrastructure Limited ACN 084 108 958 is available from the BIL website www.BarossaInfrastructure.com.au and clicking on "Barossa Infrastructure - Expansion Offer Information Statement for Share Issue (OIS)". Also available is a "Request for Customer Contract" that must accompany the application for shares. For a hard copy of the OIS, please contact the office in Tanunda on 08 8563 2300 or Paul Shanks on 0407 901 651.

Prospective investors should read the full text of this OIS, as the information contained in this newspaper is not intended to and does not provide a comprehensive review of the business and the financial affairs of the company or the shares offered under this OIS. If you do wish to participate in the Offer, you will need to obtain the OIS and complete the relevant application form.

The Company is not liable for any loss incurred from relying on this information, including from data corruption on download from the website.

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BIL | **BAROSSA INFRASTRUCTURE LTD**

Sustaining Barossa Vineyards

Barossa Infrastructure Ltd – Proposed Scheme Expansion

Public and Customer Information Session

Barossa Weintal 235 Murray St Tanunda
9:30am Friday 16 December 2016

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Sustaining Barossa Vineyards

Barossa Infrastructure Ltd Proposed Scheme Expansion

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NC7322

Herald

barossa Herald.com.au

-14 Dec 2016-

The Bungee

-14 Dec 2016-

NEWS RELEASE



Government of
South Australia

Hon Ian Hunter MLC

Minister for Water and the River Murray

Wednesday, 5 July 2017

New water investment grows jobs in Barossa vineyards

An \$11 million investment by the State Government will support growth in the Barossa Valley's wine industries by delivering an additional three gigalitres of irrigation water to the region's vineyards.

SA Water will upgrade sections of two major pipelines and a pump station to enable more raw water to be moved from the River Murray and Warren Reservoir to the Barossa Infrastructure Limited (BIL) water transportation scheme.

Increasing the BIL scheme's capacity to 11 GL per annum will create 17 new jobs over the 12-month construction period, with another 84 permanent vineyard jobs and 90 roles in wine production expected to follow.

BIL will also contribute \$7.4 million toward the capital costs of this upgrade and spend a further \$13 million upgrading their own infrastructure.

The increased capacity should be available by the end of 2018.

Background

SA Water uses its network to deliver raw water that BIL holds licences for, under a Water Transport Agreement.

BIL's network of 189 kilometres of underground pipelines and four booster pump stations then distributes the irrigation water over an area of 450 square kilometres.

The scheme was established in 2000 and supplies approximately 300 customers across the Barossa Valley, to ensure the consistent production of high-quality grapes.

This initiative supports the State Government's economic priority of 'premium food and wine produced in our clean environment and exported to the world'.

MEDIA RELEASE**5 July 2017****Barossa Infrastructure Ltd Scheme Expansion Will Boost SA Economy**

Barossa Infrastructure Ltd (BIL) will expand delivery of supplementary irrigation water to Barossa vineyards to 11,000 ML per annum by the end of 2018. The expansion is the result of demand from customers.

Chairman Rob Chapman said, “The interest in increased amounts of irrigation water has far exceeded our forecasts, which is a strong sign of the growth potential within the Barossa Valley. The additional delivery of water is significant and will drought proof many vineyards and create capacity for new plantings.

The economic impact for SA is also significant, providing additional income to growers of about \$12 million dollars per annum and export wine sales of up to \$50 million of keenly sought premium Barossa wines. BIL and SA Water will invest nearly \$20 million in infrastructure, which will create jobs and support local suppliers. This will also create many new jobs in viticulture, wine processing and sales.”

Mr Chapman highlighted that the expansion was in response to strong demand from BIL customers, with nearly 90% of the additional water going to existing customers for both new and current vineyards.

He went on to say, “BIL is a great example of what can be achieved by private investment, when it is supported by government and its utilities, in this instance SA Water.”

He concluded, “The aim of the Company has always been to provide Barossa Infrastructure Ltd customers with environmentally responsible quantities of high quality supplementary irrigation water at the lowest long-term water price.

BIL is proud of its environmental record, including the use of recycled water from the Nuriootpa township and its regular monitoring of the shallow ground water table and vineyard soils to ensure the sustainability of the customers and the Company. We are indebted to The Barossa Council and Light Regional Council for their support and advice during the planning stages, enabling us to maximise the benefit to the local community.”

The Bungip

-5.7.17-

\$11m investment in irrigation

LAURA COLLINS

UP to 300 Barossa grape growers will soon have access to an additional three gigalitres of irrigated water, creating close to \$40 million worth of new export income opportunity, following a new State Government commitment.

The government, today, announced it would invest \$11 million into helping upgrade sections of two major pipelines and a pump station to enable more raw water to be moved from the Murray River and Warren Reservoir to the Barossa Infrastructure Limited (BIL) water transportation scheme.

The improvements will increase the scheme's total capacity to 11 gigalitres per year.

The State Government investment is combined with BIL's commitment of \$7.4 million towards the capital costs of the upgrade, and \$13 million towards improving its own infrastructure.

BIL general manager Paul Shanks said the water will be positive for the growing industry, with 300 of their customers, who are also shareholders in the scheme, expected to benefit.

"We think that there is probably close to \$40 million worth of new export income



Barossa Infrastructure Limited director Vic Patrick (left) and general manager Paul Shanks (right) with Barossa growers Andy Kalleske and John Kalleske (centre).
PHOTO: Laura Collins

from these new vines once they become productive," he said.

"About 15 per cent are new customers and have already got vineyards in the Barossa that weren't watered before, or are planning to start a new vineyard, so it's giving them the opportunity."

Barossa growers, and father and son team, Andy and John Kalleske, who have

worked the vineyards, collectively, for 90 years, said the upgrades will allow them to grow in areas that water typically wouldn't reach.

"It means we can expand a little bit more and we can plant some vineyards in some really good-quality areas that we know, historically, have produced A-grade fruit," Andrew said.

"(It will create) a little bit more volume, and allow us to water when we need to, so when it's hot and there is heatwaves (it is) drought-proofing."

"Without the BIL scheme, we wouldn't see the vines out in some of the marginal country," John added.

"Some of the soil produces fruit in really high qualities, but, normally, you couldn't have grown the fruit there."

Both John and Andrew said the quality of grapes will also be maintained, which is highly important to staying competitive in the international market.

"Ensuring the grapes are quality is important when looking at China, who are looking for that quality product; they will only buy the best," Andrew said.

Increasing the BIL scheme's capacity is expected to create 17 jobs over the 12-month construction phase, 84 permanent vineyard jobs and 90 roles in wine production.

State Water Minister Ian Hunter said with the wine and tourism industries both being so strong in South Australia, "economic development projects like this are vital".

The increased capacity should be available by the end of 2018.

Vignerons soak up new investment

Region

AN ADDITIONAL three gegalitres of irrigation water will be added to the region's vineyards by the end of 2018.

The investment will drought proof many Barossa vineyards and create capacity for new plantings.

The \$11 million, investment made by the state government today, has been welcomed by Barossa growers like Andy Kalleske and his father John, who have collectively worked over 80 years in their family owned vineyards.

The upgrade, to be carried out by SA water, will involve two major pipelines and a pump station to enable more raw water to be moved from the River Murray and Warren Reservoir to the Barossa Infrastructure Limited (BIL), a water transporta-



WATER: Kalleske growers.

tion scheme.

In addition, the increase to 11 gegalitres per annum will create 17 jobs over the 12-month construction period, with another 84 permanent vineyard jobs and 90 roles in wine production expected to follow.

The BIL will also contribute \$7.4 million toward the

costs of the upgrade and spend a further \$13 million upgrading their own infrastructure.

Established in 2000, the BIL's network of 189 kilometres of underground pipeline and four booster pump stations distributes irrigation water over an 450 square kilometre area.

It supplies about 300 customers across the Barossa to support quality grown grapes.

According to Water and the River Murray minister Ian Hunter, "economic development projects like this are vital to ensuring our industries grow, and our communities prosper".

The investment "underpins the region's identity, which lures over 210,000 international and domestic visitors each year," he said.

Water investment brings jobs in Barossa vineyards



The Leader
The Barossa's Favourite Newspaper

-5.7.17-

Welcoming the \$11 million investment by the State Government which will deliver an additional 3 GL of irrigation water to the region's vineyards through the BIL scheme are BIL director Vic Patrick, Andy & John Kalleske, BIL GM Paul Shanks.

SA Water will upgrade sections of two major pipelines and a pump station to enable more raw water to be moved from the River Murray and Warren Reservoir to the Barossa Infrastructure Limited (BIL) water transportation scheme.

The \$11 million investment by the State Government will support growth in the Barossa Valley's wine industries by delivering an additional three gigitalitres of irrigation water to the region's vineyards.

BIL will also contribute \$7.4 million toward the capital costs of this upgrade and spend a further \$13 million upgrading their own infrastructure.

The increased capacity should be available by the end of 2018.

Barossa Infrastructure Limited General Manager, Mr Paul Shanks said BIL is a great example of what can be achieved by private investment, government and utilities working together.

"The interest in increased amounts of irrigation water has far exceeded our forecasts, which is a strong sign of the growth potential within the Barossa Valley," said Mr Shanks.

"The additional 3 GL of

irrigation water is significant and will drought proof many vineyards, and create capacity for new plantings."

Increasing the BIL scheme's capacity to 11 GL per annum will create 17 new jobs over the 12-month construction period, with another 84 permanent vineyard jobs and 90 roles in wine production expected to follow.

Grape growers, John and Andy Kalleske have welcomed the additional investment and added it helps to ensure premium quality of the region's grapes.

"Especially with China looking for quality of the wine," said Andy.

"With this we are able to expand a little bit more and plant vineyards in good quality areas."

Water and the River Murray Minister, Mr Ian Hunter said more irrigation water for the Barossa means more vineyards, jobs and wine to showcase South Australia to the world.

"Supporting viticulture – the engine room of the Barossa economy – underpins the region's identity, which lures over 210,000 international and domestic visitors each year, who spend money across a range of local businesses," said Mr Hunter.

-6.7.17-

Jobs to flow from Barossa water boost

ERIN JONES

BAROSSA Valley grape growers will receive an extra three gegalitres of irrigation water per annum, helping to increase production and create dozens of new jobs.

The State Government will invest \$11 million to increase the raw water capacity of the Barossa Infrastructure water transportation scheme over the next year, from 8GL to 11GL.

The infrastructure upgrade will create 17 jobs during construction, with another 84 permanent vineyard jobs and 90 roles in production expected to follow.

Barossa Infrastructure chairman Rob Chapman said extra water for its 300 irrigators would help drought-proof vineyards and give growers confidence to expand.

"The interest in increased amounts of irrigation water has far exceeded our forecasts, which is a strong sign of the growth potential within the Barossa Valley," Mr Chapman said.

"By expanding the scheme, it will make sure they have enough water when they need it, especially during hot spells, in turn giving them confidence to plant more vines and to protect the ones they have in the ground at the moment.

"The Barossa has the best shiraz grapes in the world so it's very important we provide this infrastructure."

As part of the project, SA Water will upgrade two pipelines and a pump station to enable more water to flow from the River Murray and Warren Reservoir to the local scheme.

Water and River Murray Minister Ian Hunter said the investment was as much for the Barossa community as it was the viticulture industry.

"South Australia... produces almost 80 per cent of the country's premium wine that generated over \$2.11 billion in revenue last year – up almost \$330 million on the year before," Mr Hunter said.

"Economic development projects like this are vital to ensuring our industries grow, and our communities prosper.

"Supporting viticulture – the engine room of the Barossa economy – underpins the region's identity, which lures over 210,000 international and domestic visitors each year, who spend money across a range of local businesses."

Barossa Infrastructure will contribute \$7.4 million towards the capital costs of the upgrade and spend a further \$13 million upgrading its own infrastructure, including building a 500ML dam.

The scheme's network includes 189km of underground pipelines and four booster pump stations, distributing irrigated water over 450sq km.

The increased water capacity for growers was expected to be available by the end of 2018.





Working together to grow jobs in Barossa vineyards

The State Government, SA Water and Barossa Infrastructure Limited are co-investing \$18.4 million in infrastructure, to provide an additional three gigalitres of irrigation water to the region's vineyards.

The project will create 17 jobs during construction, with another 84 permanent vineyard jobs and 90 roles in wine production expected to follow.

Lynda Hamden | Business Development Manager Customer Delivery SA Water

Paul Shanks | General Manager BIL



BIL

BAROSSA INFRASTRUCTURE LTD
Sustaining Barossa Vineyards

-July 2017-



‘This story is inspirational. It is the story of the vibrant spirit and sense of community of the grapegrowers and vignerons of South Australia’s Barossa Valley. Their vision, leadership and courage together resulted in the extraordinary achievement that is the BIL Scheme.’

*Patsy Biscoe AM
August 2017*

