



Lifetime achievement award goes 'behind the scene'

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in a nutshell

- Surveyor Clive Polkinghorne is the latest recipient of the IREC Lifetime Achievement Award
- Clive has been involved with the surveying aspects of irrigation development and design in the Murrumbidgee Valley for over 50 years
- The award recognises Clive's individual efforts and the fundamental role that surveyors have had in contributing to the success of irrigation in the region

Underlying successful and sustainable irrigation enterprises, are well-designed irrigation fields enabling efficient management of water. Recipient of the IREC Lifetime Achievement Award, Clive Polkinghorne has been involved with irrigation development and design in the Murrumbidgee Valley for over 50 years.

Clive's long-term commitment to agricultural surveying in the region is highly regarded. This commitment brings with it a very good understanding of the region and its farming systems, and the best way to apply design technology for continued improvement in water management. It is the quality of his work and his empathy with irrigators that has earned Clive a place in the IREC Irrigators' Hall of Fame.

Clive's nomination for the award was instigated by Mike Naylor, an irrigation designer from Leeton, and Arun Tiwari, Environmental Manager with Coleambally Irrigation Cooperative Limited.

Empathy & commitment

Mike believes that Clive's outstanding ability is to relate to and understand the requirements of irrigators in the Murrumbidgee Valley, and produce the best result for the production environment and its manager.

"All of the surveyors we have had through this region have done a good job.....the difference with Clive is he is still here! With that comes a wealth of experience, much of which has been passed on to new surveyors when they come to the area, highlighting Clive's excellent succession planning in his business," Mike said.

Arun Tiwari says many aspects of Clive's work are notable, and it is the combination of these things that make him a worthy recipient of the award.

"Firstly there is the sheer quantum of work that Clive has done throughout the region – on large area and horticultural farms. He has been involved in farm designs for contours

and laser levelling, and adapted established techniques with computer-aided design. All of these things have eventually become what we now call whole farm plans," Arun said.

"Clive has had a very positive impact on irrigators. Anyone I talk to knows Clive and the work he has done. He has had an excellent way of dealing with his clients."

Part of irrigation history

Polkinghorne have been involved with irrigation development in the region, right from the start.

Clive's father Francis Richard "Frank" Polkinghorne was one of the pioneers of the area. He worked for the Water Resources Commission from about 1918, driving a horse team during the construction of channels for the new Murrumbidgee Irrigation Area.



Figure 1: Clive Polkinghorne, recipient of the IREC Lifetime Achievement Award for his effort and commitment to surveying of irrigation layouts and farms.



"He then drew Farm 1171 at Hanwood and my two (much older) brothers and I grew up there. My brothers were in the Second World War and when they returned they bought Farm 20, at Hanwood as well. When I was in my second last year of school my father asked me if I was interested in farming, but I wasn't so we sold up and moved into town," Clive said.

"I finished school and spent a couple of years working for my prospective father-in-law – Owen Bested. He had a winery on Wickham's Hill, where the Orlando winery is now. Then National Service came in and I spent six months in the air force. When I came out, Owen told me he couldn't see a future in the wine industry and to get another job!"

At that time Clive responded to an advertisement for pupil surveyors placed by the Griffith surveying practice of Faulks and Hunt.

"There was no university course or degree in NSW at that time – it was all under the articulated pupil system. There was a Board of Surveyors and the Lands Department. I became articulated to John Hunt. I started on 2 January 1955 – the same day as Arthur West, who was articulated to George Faulks," Clive said.

Clive was attracted to the profession because "it involved a lot of outside work, and I wouldn't be cooped up in an office".

A career as an irrigation surveyor

The nature of surveying work in the Murrumbidgee area meant there was a lot of surveying to be done to develop irrigation farms, and so Clive progressed quite naturally into that area of work.

Tile drainage

"John Hunt wasn't here for very long after I started. He had a serious illness and had to leave the partnership, which was when the tile drainage was in full swing in the late 1950s. I took over most of the tile drainage work," Clive said.

"Tile drains started going in about 1954, and then '56 was a very wet winter and all the stone fruit trees went out. So they really had to start cranking up the tile drainage. At the peak there were about 13 different machines laying tiles in the area. I was doing the field work during the day, and then I would come home at night and I would have to deal with 12 or 13 foolscap sheets of calculations to keep each machine going. And then I would settle down with my books and do some study. It was pretty hectic then!

"Tile drains continued to be installed throughout my working life, with a resurgence as they developed rice farms for horticulture in the 1990s and new tile drains went down in those large vineyards."

Large area irrigation layout

Much of Clive's work was also spent developing large area irrigation farms, or redeveloping farms that had been laid out in the 1920s.

"We were involved with the development of the new farms at Kooba and Coleambally. We had to mark out the farms initially, and then mark out and calculate the areas of the paddocks for the landholders. When the landholders

worked up the paddocks, we would go back and contour them. There were only contoured fields at that stage – no landforming yet," Clive said.

"Each farm had a set area of rice (50-60 acres) so farms were designed to accommodate rice crops of that size on the land that could be used to grow rice. Rice areas were patrolled pretty rigidly.

"The Kooba and Coleambally farmers were given a farm design when they took up their holdings. The areas were grid-levelled by the Water Resources and Irrigation Commission and the farms designed from those levels. Landholders weren't required to follow the design and George Faulks virtually redesigned every farm we were involved with!"

As time went on, farm plans became more involved and Clive was very involved in helping irrigators to develop recycling systems for irrigation water on farm. This made it possible to manage water more closely without the risk of water loss to the drainage system, and rice growers and row croppers particularly benefited from the inclusion of recycling systems on their farms.

"The work at Coleambally took years and years and years. Coleambally was opened about 1962 and we were down there for 30 years or more, on and off," Clive said.

"There was also a lot of work reconstructing large area farms, particularly around Bilbul and Yenda, where they had had irrigation from the 1920s and 30s. They had grown rice there from an early time and most of those farms were laid out on a square contour system, which was devised by the Irrigation Commission. The Commission didn't run contours on the ground, they approximated where the contour lines were and then divided the paddocks into square bays.

"Those square bays were worked for years and years with one-way ploughs and they went round and round in the same direction all the time. The centre of the bays got hollowed out and eventually they had to knock down the square banks and bring in land-planes to try and put the dirt back. They did a reasonable job but it really wasn't 100%. They didn't get it right until landforming came in. There was a lot of contour work resurveying those old farms.

"Another large job we did was the subdivision of Corynnia Station. We managed to get to water out of the Barren Box outfall channel and we designed and located some channels to run water through the whole of Corynnia. It was divided into nearly 20 farms between four or so families."

Over the years Clive attended to and became expert in irrigation surveying and his partners over the years have tended to do most of the boundary survey work and title surveys.

Beyond the Murrumbidgee Valley

The work of a Griffith surveying practice wasn't always in the Griffith region. On several occasions Clive worked further afield.

"We had a couple of very wet winters (1974 through to 1976) and because we had big teams (about 30 employees) it was very difficult to keep them on and working through winter," Clive said.



"One year the Country Surveyors' Association negotiated a pipeline survey from South Australia through to Sydney and they distributed that work amongst country surveyors, and we were lucky to get part of that. We had a contract to do different sorts of surveys between Tibooburra and Condobolin and that was in the middle of one of those very, very wet winters. We were able to take a lot of our men out there. We camped in caravans or stayed in shearers' quarters on the properties where we worked. We spent two or three months away from home but that saved the practice in those years."

Clive has worked on a few jobs for brave entrepreneurs, once on a rice farm development at Humpty Doo near Darwin, and another time developing a property for rockmelon production in the Simpson Desert! Despite great hopes these developments were beaten by a range of factors in the growing environment.

Business succession

The practice in which Clive built his career has a history almost as long as that of irrigation in the region. And as Mike Naylor points out, Clive had trained and imparted his wealth of knowledge to many surveyors who have been employed in the practice over the years.

Clive believes that Reg Harnett started the practice in the 1920s.

"Then Harold Oscar Chauncy took over and he had the practice until he sold it to George Faulks. George came out of the army after the Second World War, had a couple of

years in Finley, and then came up to Griffith and purchased the practice in 1947," he said.

"I started with Faulks and Hunt in 1955. John Hunt left a few years later and then after I graduated I became a partner, and the practice became Faulks and Polkinghorne. We then took another partner to become Faulks, Polkinghorne and Budd."

Clive retired in 1998 when the business was Polkinghorne, Budd and Longhurst. Today the practice is Polkinghorne, Harrison and Longhurst – with the partners including Clive's sons, Gary and Brett.

Seeing water run

When Clive sees water running from tile drains or an even fill across an irrigation bay, he knows he has done a good job.

"What I did most of was farm designs (contouring) and tile drainage. You get a lot of satisfaction when you have contoured a paddock and see it from the road and see the water go on and spread out over each bay in a nice even fill," Clive said.

"I also get a lot of satisfaction from seeing the tile drainage pumps working in fields I have surveyed.

"As far irrigation survey work goes, you can see evidence of the work done. You don't see a lot of results for a boundary survey!"

Clive sums up his career very simply as "a great job - lots of fun and lots of different types of work". 🌱