

# NSW SUSTAINING THE BASIN *Irrigated farm modernisation*

## Update bulletin 14

March 2014

This bulletin provides updates on the NSW Sustaining the Basin: Irrigated Farm Modernisation (STBIFM) project. This project is funded by the Australian Government's 'Sustainable Rural Water Use and Infrastructure' Program.

The bulletin will keep interested stakeholders informed of key dates and activities for the duration of the project. It will also alert you to opportunities for training and learning more about emerging issues and technologies.

DPI encourages you to be involved and stay informed using this service. You can, of course, unsubscribe at any time.

For more detailed information on any aspects of the project please send an email to [IFM.info@dpi.nsw.gov.au](mailto:IFM.info@dpi.nsw.gov.au) or visit [www.dpi.nsw.gov.au/info/sustainingthebasin](http://www.dpi.nsw.gov.au/info/sustainingthebasin)

### Update on projects

Projects are progressing well.

So far 21 projects have completely finished and received their final payments.

The feedback from irrigators indicates that assigning a local DPI staff member to work with individual irrigators during the implementation phase of each project has worked particularly well.

Having a local project officer to call has meant any issue that arises can be dealt with quickly by staff who know the project.

Staff have also been terrific in helping irrigators to report project activities. While reporting is sometimes a less enjoyable part of the program, it is important. Since DPI streamlined the reporting process the feedback from participating irrigators has been very supportive.

### Completed projects

21 projects complete including three from Round 2.

A great achievement in 14 months!

### Certainty in an uncertain world

Water security and risk management have become buzz words in the irrigation world in recent times.

Many of our successful irrigators are now even more pleased with their decision to participate in STBIFM given the 'droughty' conditions NSW is experiencing.

For many, STBIFM has given them an opportunity to reduce the risk that weather can inflict on their farm businesses through the use of more efficient irrigation methods and training in the skills to use this equipment to its fullest potential.

Another great aspect of the program is the *extra* water that the upgrades bring irrigators. As only part of the water savings are passed back to the environment, the rest stays on-farm to boost farm productivity. Here's how . . .



Robert Hoogers, DPI discussing project details with Tony Quigley, Macquarie Valley. Image: E. Joshua



Guy Hebblewhite of Tamworth (above) with his new centre pivot. Image: P. Smith

Guy Hebblewhite of Tamworth says he wanted to improve his irrigation application efficiency and he has achieved that.

"I replaced two old systems including a travelling irrigator.

"The new centre pivot systems I have installed are great and showing their worth in the current drought.

"I couldn't have done it without the infrastructure funding," Mr Hebblewhite said.



It's easy to see (above and below) the benefits of irrigation from modernising infrastructure in 'droughty' conditions.



## When BIG isn't always better!

Barry Parton and his wife Lyn purchased a pivot as part of the STBIFM project.

Cease-to-pump rules mean that in this drought, large lucerne producing areas like the Cockburn Valley, which normally supply around 150,000 bales during the summer, has little water for irrigation, and can't supply a market hungry for hay.

With water tables dropping larger pivots are struggling to maintain the flow rate necessary to apply the volume of water needed to irrigate a larger area.

Barry says that he has received many humorous comments about the size of his pivot compared to other larger pivots in the Tamworth lucerne growing area.

"However, over the hot summer conditions with heat and evapotranspiration records being set, the little pivot is more than holding its own.

"The Reinke® two span 'Minigator', covers 3.3 ha, but because it's a small area I can slow it down and apply more water over fewer days.

Mr Parton applies 70mm per pass. As he only irrigates for 16 hours overnight, it takes him four nights to irrigate the circle: a quarter a night.

After four weeks Mr Parton cuts around 400 bales of winter active Wrighton 925 lucerne.

"The trucks follow me eagerly around the paddock as I am baling, they love the little pivot." Mr Parton said.

Barry Parton's little pivot looks like having a payback period of a little over a year and that has put a smile on its owners face!



Barry Parton's lucerne crop under the little pivot in February 2014. Image: S. Bray

## Knowledge is power . . .

Theory is always better when you can see how it works.

That was the experience for 16 STBIFM participants who recently attended a Pumps training course in Narromine.

Bill Williamson and Edward Joshua included visits to the 'Tenandra Scheme' electric pump station and a diesel pump station at 'Budda Station' as part of the training exercise.

Edward Joshua, Irrigation Development Officer at Dubbo said the field trips were good because Essential Energy staff were also on hand to field questions about electricity supply and pump management.

"Essential Energy staff discussed the variation in electricity supply, how that can be managed and how that relates to the efficiency of pump operations and cost.

"This was really useful for irrigators using electricity to power their pumps as they can now find the retail supply data and monitor pump performance and efficiency" Mr Joshua said.

The group attending the pumps training worked through formal theory exercises on determining pump duty, selecting a pump for that duty and developing a maintenance and replacement schedule.

Mr Joshua said the group looked at a variety of pumps available with a range of efficiencies to meet the required duty.

"They also looked at the cost of operation and the length of time it will take to recover the cost of a new pump for that duty compared to the current pump.

"Irrigators really focus on the theory when they understand the value of the course detail and this was a very valuable learning experience with energy costs a major focus for irrigators modernising their infrastructure", Mr Joshua said.

## What next?

After two successful funding rounds STBIFM will be announcing a third round of funding soon.

Irrigators who consider that the STBIFM program may be an option for them are encouraged to subscribe to the free update bulletin service to keep informed of progress.

Alternatively, irrigators can access extra information by emailing [IFM.info@dpi.nsw.gov.au](mailto:IFM.info@dpi.nsw.gov.au)



*Visit to the pumpsite (top), taking some field measurements (middle) and the classroom exercises (bottom). Images: E. Joshua*