Chair’s message

WISER extends a cordial welcome for 2009 to all our readers. The final year for the CRC IF, 2010, is rapidly approaching, along with many exciting challenges. Recent visits to our collaborating councils have reaffirmed the relevance of our work. See more details in this issue.

Our primary focus is to complete the current research and to fine tune our modelling tools. We remain open to further suggestions regarding future water research but please forward your ideas quickly.

Water management continues to be one of the key issues facing us regionally and nationally. The momentum achieved by the CRC IF is an excellent springboard to advise Commonwealth, State and Local Governments, the corporate sector and the community on water-wise policy from the perspective of peri-urban water use. It is therefore vital that we secure some guarantee of continuity by the time the CRC concludes its work on 30 June, 2010.

Our research has revealed disturbing trends in water availability versus water demand. It is clear we will need to explore all avenues of supply, be it stormwater harvesting, effluent reuse or ground water, in line with using water more wisely. There is also an urgent need to inform the community about the facts so that any decisions made will serve the community’s immediate and long term interests.

This imperative certainly must not be ignored. However, reshaping the way we approach the management of the water cycle cannot be achieved quickly. It will require massive investment in the right places, in the right way. It’s equally certain these changes will not be achieved without strong community support and only evidence-based facts can win that support.

To this end, we hope to sign Memorandums of Understanding with our collaborating councils. We hope these will form the basis for information sharing or research and implementation group that will, in turn, improve the engagement of the potential end users of WISER research.

From such a foundation, I believe we can continue to build WISER as an ongoing entity and ensure continuity of the valuable work done by the CRC IF.

Come with us on this journey.

Kevin Rozzoli AM

Recycling water

Construction is well underway on a new $250 million water recycling plant at St Marys. It will produce up to 50 million litres of high quality recycled water per day by 2010.

The Replacement Flows Project will increase the volume of water in Sydney by 75 per cent from 25 billion litres a year to over 40 billion litres a year.

It will be one of the largest recycled water schemes in Australia when completed.

The Penrith, St Marys and Quakers Hill sewage treatment plants will be connected by pipes to allow treated wastewater from all three plants to be further treated at the new recycled water plant at St Marys. Fifty two kilometres of pipelines will be constructed as part of the project.

The water will be filtered through extremely fine membranes and reverse osmosis units. As a result, the water will be low in nutrients such as nitrogen and phosphorous, helping increase Sydney’s water supply while maintaining river health.

The highly treated recycled water will replace water currently released from Warragamba Dam for environmental flows.

This will save around 18 billion litres of drinking water per year; enough water to supply more than 72,000 households or about 3 per cent of Sydney’s water supply.

Courtesy: Damian Kelly, Sydney Water
Part of the flow...  

Gavin Beveridge

What do you do? I’m on secondment from the UWS School of Natural Sciences to the position of Technical Manager of the CRC IF, Western Sydney node.

What are you passionate about? Natural resource assessment and management, and the necessity to collect sound scientific data to support informed decision making processes. I am also passionate about the protection and enhancement of the values associated with our natural environment.

Why are you involved in the WISER project? I believe my skills and knowledge can help capacity build the WISER Project, and to be challenged by actively participating in a research team that is working towards solutions for the future sustainable management of water resources in Western Sydney.

How do you plan to contribute to the WISER project? By developing and managing a comprehensive Geographic Information System that provides direct inputs into the Water Cycle Management and Productivity and Environment WISER research components. I also offer detailed knowledge of the natural resources of the South Creek Catchment.

What do you hope to get out of this? I hope to build on my natural resource management knowledge, especially the ‘harmonisation’ of the social, environmental, economic and political vectors. It will be beneficial to work with a professional group that strives to achieve positive outcomes for the communities of the South Creek Catchment and surrounding regions.

Consulting councils

The WISER Project Steering Committee recently updated the City Councils of Blacktown, Hawkesbury, Liverpool and Penrith on the progress of the WISER Project.

A highlight of the meetings included discussions about Memorandums of Understanding to formalise the current collaboration between the CRC IF and the councils, who are important WISER partners.

The consultations also created greater understanding of the councils’ needs and how the outputs of the WISER Project may benefit water management and planning in council areas.

The committee members found that while councils conduct some water cycle management activities independently, there are some aspects that are better tackled at catchment or regional level to achieve long-term water management solutions.

Some research outputs from the WISER Project may directly benefit councils, including: understanding broader regional impacts of local water management solutions; council access to the WISER models and databases such as soil, vegetation, stream flow, potable water; and the development of a total water balance picture specific to each council.

Bruce Simmons, Basant Maheshwari

In reflection

We have come a long way since we started the WISER Project in late 2006. One of our aims has been to bring together various stakeholders, agencies and interest groups and create a dialogue on the challenging water issues we face in future if no action is taken. It seems a simple task, but it takes a lot of energy and time to facilitate productive dialogue.

Our next challenge is to keep this dialogue alive while our researchers focus on tangible outputs and make them available for informed policy formulations and decision making. The next six to twelve months will see us put the pieces of the ‘puzzle’ together to help our partners see the future with some clarity. The timing of this process will be imperative for good outcomes.

It’s fascinating working in the peri-urban region of Western Sydney with its complexity of issues and challenges. It’s also interesting to see shifting policy aspects and the changing focus of people dealing with regional water resources. Our success and confidence in what we are trying to accomplish has been, to a large extent, due to the goodwill and support of individuals from our partner organisations. This year will be very interesting for us, thank you for your continued support in the WISER project.

Basant Maheshwari, Project Leader, WISER

Underground

Groundwater resources are a vital part of the water cycle and provide many beneficial uses such as agricultural and industrial water, drinking water supply and the protection of dependent ecosystems.

The CRC IF Water Cycle team has found there are no comprehensive studies of groundwater conditions within Western Sydney. This is unlikely to change as the area is not a priority due a lack of significant connectedness between the ground and surface water systems and a perceived lack of economic benefit.

In response to queries regarding the potential role of groundwater resources in the water cycle, the WISER Project is hosting a workshop on April 2, 2009 in conjunction with Western Sydney councils. It will investigate the potential uses of groundwater including water quality issues for stormwater, risk assessment and aquifer characterisation.

Gavin Beveridge

WISER Research Partners: Universities of Western Sydney, New England, Melbourne; CSIRO Land & Water; NSW DPI, QLD DNRW

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