

Lower Burdekin Water Futures

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Newsletter

Issue 4 – May 2009

Chair's Message

The Burdekin has been approved as a UNESCO-IHP HELP Basin (see article below), which brings exciting new opportunities to the region. Having the capacity to reach out to other catchments across the world keeps the Burdekin at the forefront of integrated catchment management.

LBWF is planning a Water Forum later this year with special guest presenter, Professor Shahbaz Khan from UNESCO's Sustainable Water Resources Development and Management Section. We encourage your participation, and will provide further details when they are confirmed.

There have been several recent developments which impact on regional water management. These include the Department of Natural Resources & Water being incorporated into the Department of the Environment & Resources Management, the Burdekin Dry Tropics NRM becoming NQ Dry Tropics, and state government decisions on the future of regional water boards. In these times of change, LBWF is remaining focused on the long-term sustainable future of the region's water resources by working together and maintaining a whole-of-system approach. *Lyn McLaughlin, LBWF Chair*

Burdekin approved as UNESCO-IHP HELP Basin

The Burdekin catchment has recently been approved as an Operational HELP Basin in the third phase of the UNESCO-IHP HELP Programme.



UNESCO (United Nations Educational Scientific and Cultural Organisation) was founded in 1945 to promote international co-operation between member countries in the fields of education, science, culture and communication.

HELP (Hydrology for the Environment, Life and Policy) is an initiative of the IHP (International Hydrological Programme) and was established to promote new approaches to integrated catchment management. These include the creation of a framework that brings water law and policy experts, water resource managers and water scientists together to work on water-related challenges.

The aim of HELP is to strengthen field-oriented experimental hydrology, highlight the need for sustainable development and encourage active involvement of policy experts and land and water resource managers to ensure scientific results benefit both society and the environment. Being part of the HELP network allows the Burdekin to share experiences, data and knowledge with a range of other catchments throughout the world, helping us implement more effective integrated water resources management.



Professor Shahbaz Khan

Professor Shahbaz Khan, chief of the Sustainable Water Resources Development and Management Section of UNESCO's Water Sciences Division will address a Water Forum in the Burdekin later this year. He will speak about the UNESCO-IHP HELP program, as well as emerging international water issues and how these relate to our region.

Find out more about HELP at

http://portal.unesco.org/science/en/ev.php-URL_ID=1205&URL_DO=DO_TOPIC&URL_SECTION=201.html

The Lower Burdekin to host Groundwater Users Management Group

A special interest group which is focused on groundwater issues will visit the Burdekin later this year.

The Groundwater Users Management (GUM) group was launched at the Irrigation Australia Conference in Melbourne last May, and plays a vital role in keeping Australian groundwater users informed about current science research and development in this field.

Lower Burdekin Water executive officer and LBWF member, Mr Andrew Kelly, has been appointed Chair of the GUM group for the next two years. Members include representatives from the National Water Commission, State Departmental officers (Australia-wide), and groundwater managers and users.

Last year the GUM group visited Griffith NSW, to discuss current issues and research activities, and to visit groundwater irrigation sites throughout that region.

The group will be in the Burdekin on August 10 and 11. The visit will incorporate one day of presentations on current research and challenges, followed by a one-day tour of the local area. The conference is expected to attract groundwater users and managers from across Australia.

LBWF will be participating in the event, taking the opportunity to highlight regional challenges and achievements.

Further information can be obtained by contacting Andrew Kelly on (07) 4783 1988 or manager@nbwb.com.au



Farmers and researchers inspecting a groundwater pump

BSES - GREAT2009

On May 18, BSES showcased some of the cutting-edge research and innovation happening throughout the region.

The forum, GREAT2009, allowed over 60 researchers, growers and industry personnel to share their findings through a series of short presentations, as well as through question and discussion time.

Topics covered at GREAT (Grower Research Extension Activities and Trials) included: Variety improvement and smut epidemiology; irrigation systems; water monitoring; harvesting; agronomy and environment.

Winners of the 2008 Burdekin Productivity Awards were also announced as follows:

Highest sugar producer (tonnes sugar/ha): Dino and Joanne Codega (Inkerman), Josie and Connie Ybarlucea (Kalamia), Clive Williams (Pioneer), Scott Harness (Invicta)
Highest CCS: Tylah Nash
Highest tonnes cane/ha for plant crop: Brad Hanson.

Burdekin Falls Dam Statistics as at May 12, 2009

courtesy of Sunwater

Burdekin Falls Dam full supply level is 1,860,000 megalitres. The dam started overflowing on January 5, 2009 and, by early May, 23,910,469 megalitres (or 23.91 teralitres!) had spilled over the wall.

Inflow totals to the Burdekin Falls Dam storage from January to May were:

- Burdekin River at Blue Range 6,057,208ML
- Bowen River at Myuna 1,252,952ML
- The gauging station on the Suttor River is quite erratic so inflow totals are not available, and the Bogie River does not have an automatic gauging station

As at May 12, the dam had been overflowing for 128 days. The record overflow period for Burdekin Falls Dam is 158 days, which was set in 1999 (November 1, 1998, to April 7, 1999).



Gorge Weir, Burdekin River, where the Burdekin-Moranbah pipeline commences

Name Change

In a move to embrace a whole-of-region focus, Burdekin Dry Tropics NRM has changed its name to NQ Dry Tropics with a tagline of 'land and water solutions'.

The dry tropics region covers an area of 140,000 sq km with about 210,000 residents. The majority of those people live in Townsville (over 160,000) and other rural centres such as Charters Towers, Ayr, Home Hill, Bowen, Collinsville, as well as the Alpha and Clermont districts.

The new name, NQ Dry Tropics, reflects the entire region. The web address is

www.nqdrytropics.com.au

NQ Dry Tropics, through Scott Crawford (NRM Operations Manager and LBWF member), have continued to work with regional stakeholders and the LBWF to bring funding and research into the Burdekin region to improve water quality, and work towards long-term strategic solutions for the land and water resources of the region.



Reef Rescue Proves a Massive Success

Farmers in the region came out in their droves to support the region's Reef Rescue program with over 170 expressions of interest, resulting in more than 100 formal applications and 95 projects funded.

In the region the program was split into four main areas: sugar cane, horticulture, grazing and wetlands.

Sugar cane applications proved the most popular with 105 submissions. Once all the expressions of interest were assessed, this translated into 59 applications requesting \$2.5 million in Reef Rescue funding with contributions of \$2.7 million committed by cane farmers.

Forty-six expressions of interest were received for horticulture which resulted in over 20 applications requesting \$910,000 in funding with over \$1 million committed by landholders. Nineteen projects have been approved in horticulture with a total funding value of \$470,000.

Applications have now closed for the current round of Reef Rescue.

NQ Dry Tropics Reef Rescue project manager Linda Hygate said: "overall, this reflects a large commitment by landholders, to improve their water quality by participating in the Reef Rescue program. We are extremely happy with the level of interest shown in this program."

Reef Rescue is funded by the Australian Government's Caring for our Country program and aims to improve the health of Australia's iconic Great Barrier Reef by giving technical and financial incentives to improve water quality through better land management practices.

\$3.5 million was made available for works during 2008/2009 that improve land management practices in the region. NQ Dry Tropics is responsible for coordinating the funds in this region.

Great Barrier Reef image courtesy of NQ Dry Tropics



3rd Yangtze Forum

Jeff Camkin (CSIRO, CRC for Irrigation Futures and LBWF member) was invited through UNESCO to present at the 3rd Yangtze Forum which was held in Shanghai, China, from April 19 to 21.

Mr Camkin delivered his address at a sub-forum on Integrated River Basin Management (IRBM) and the EU-Yangtze Dialogue Conference. These events focused on innovation in IRBM in China and internationally, and specifically on the innovation, benefits and costs resulting from implementation of the EU Water Framework Directive in Europe.

Mr Camkin's presentation "Integrated River Basin Management: the role of social learning and community knowledge in dealing with complexity and uncertainty" was well accepted and fostered great discussion. The presentation drew from the research of the Northern Australia Irrigation Futures project, the Lower Burdekin Water Futures and the development of the Lower Burdekin Knowledge Platform.



More information on the forum can be viewed at <http://www.yangtzeforum.com/>

Water Quality Market-based Incentive Project comes to an end

An innovative project has concluded where canegrowers and graziers received a total of \$605,000 in an incentive scheme designed to improve water quality on their properties.

Landholders were invited to bid for funds to undertake planned actions to improve water quality. The tender was open to all canegrowers in the lower Burdekin and to graziers in the Haughton River, Barratta Creek, and Stone and Landers Creek catchments. Over 85 applications were received for the project, with total bids of nearly \$2.2 million. From this, 37 applications were selected for \$605,000 with an additional \$891,000 worth of landholder contributions.

Some of the works that were completed as part of the project were the installation of trickle irrigation systems, tailwater recycle pits, GPS guidance systems, legume planters and rotation grazing infrastructure.

The project resulted in a number of significant reductions in the volumes of fertiliser, pesticide and sediment runoff. The project also had a research component whereby scientists at Central Queensland University, the University of Western Australia, and River Consulting investigated the impacts of growers bidding against landholders from other commodities.

To allow the comparison of the bids across the different commodities, a complex scoring system was developed to predict the volumes of sediment, nutrient and pesticide loads prevented from entering the Great Barrier Reef.

NQ Dry Tropics worked in partnership with BSES and the Department of Primary Industries and Fisheries to deliver the project, which was jointly funded by the Australian Government and Central Queensland University.

LBWF Members

Dean Sgroi and Wayne Smith (BRIA Irrigators' Committee)
Toni Anderson (BSES)
Andrew Kelly (North Burdekin Water Board)
Michael Hoey (North Burdekin Water Board and Deputy Chair, LBWF)
Robin Juffs and Michael Caspanello (South Burdekin Water Board)
Scott Crawford (NQ Dry Tropics)
Fiona Christie (SunWater)
Lyn McLaughlin (Mayor, Burdekin Shire Council and Chair, LBWF)
Trevor Williams (Burdekin Shire Council)
Gary Jensen and Graham Herbert (Natural Resources and Water)
Keith Bristow and Jeff Camkin (CSIRO & Cooperative Research Centre for Irrigation Futures)

LBWF Web Page

Please visit us at <http://www.clw.csiro.au/naif/casestudies/lower-burdekin.html>

Planning for the Future of our Water Quality

After three years of gaining knowledge on the condition of the region's land and water resources, NQ Dry Tropics is set to release the region's first Water Quality Improvement Plan.

The plan, which is due to be released in the next two months, aims to reduce the loss of sediment, nutrients and pesticides from sugar and grazing land. This is the first time a clear strategy and set of scientifically-valid water quality target reductions have been developed for the region.

Dr Ian Dight, author of the Burdekin Water Quality Improvement Plan and manager of planning and integration with NQ Dry Tropics, said: "Sediments, nutrients and pesticides lost from agricultural land not only represent a loss of productivity and a cost to landholders, but also result in environmental degradation. Ultimately, they impact on important aquatic habitats and ecosystems downstream and enter the Great Barrier Reef World Heritage Area."

Dr Dight said implementation of the broad range of actions and strategies in the plan would deliver more than better water; it would underpin a better quality of life and development of a more resilient community in the face of social, economic and climatic change.

"All members of our community have an interest and stake in good water quality and a healthy aquatic environment," he said.

The plan was developed in collaboration with a broad range of partner organisations and individuals, including landholders, industry groups, the scientific community, government and NQ Dry Tropics.



Member Profile – Graham Herbert



Graham Herbert leads the Ayr-based water management team for the Water Services business group of the Department of Environment and Resource Management, (previously Natural Resources and Water). The team is responsible for the management of surface and underground water resources between Townsville and Bowen and west to Mt Isa.

For the past 25 years, Graham has been involved with groundwater assessment, management and regulation in North Queensland, working across the region from Bowen, north to the Torres Strait islands and west in the Great Artesian Basin to the Northern Territory border.

Graham lived in Home Hill in the mid-1980s during the construction of the Burdekin River Irrigation Scheme and then moved to the Atherton Tablelands. His return to the Burdekin two years ago was inspired by the desire for some new work challenges and a need to live somewhere that had several boat ramps in close proximity to home. The Burdekin provides both in abundance.

Graham believes the Lower Burdekin faces some unique water-related challenges which can only be met by a united approach from all stakeholders.

"LBWF offers the opportunity for industry, science, water boards and government bodies to focus attention on both the issues and solutions to these challenges, and work towards the long-term sustainability of this exceptional area," he said.

The LBWF MISSION

To support a long-term, strategic, whole-of-system approach to understanding and managing the lower Burdekin water resources and associated systems, and thereby deliver long-term economic, social and environmental outcomes that ensure the region's sustainability