

Dr Malcolm Cox in mapping exercise with local <u>gro</u>undwater driller Henry van Tilburg.

An opportunity to express your views on water resources in the Howard Region

CSIRO (Darwin) and the Queensland University of Technology (Brisbane) are developing a 3D model of the groundwater levels in the Howard East Aquifer.



The project team would like to invite Howard Springs, Humpty Doo and Virginia residents with bores in the area shown above to be part of an anonymous survey. This will take 10-15 minutes and can be completed online, by mail or by phone. Please contact local CSIRO researcher Sharna Nolan on 8944 8420 for further details.

Your assistance will ensure that all bores in the study area are included in the final model which will be used to as an independent decision making tool in local water allocation planning. All participants will be given the opportunity to receive project findings and final report.

When will the survey take place?

Surveys and group mapping exercises will take place from May to August 2009.

If you live outside of this area, you can stay informed through project newsletters that are regularly updated on the project website: www.track.gov.au/project/howard-east

Tropical Rivers and

Coastal Knowledge

Water allocation planning is coming

The Howard Springs area relies on groundwater supplies to satisfy rural and urban residential, horticulture and commercial needs. However, despite recent and significant growth, there is no regional water plan in place to ensure that this resource is managed sustainably for future generations.

Water allocation planning will be required to manage the Howard Springs area

Good water planning relies on good information and a clear understanding of the water resource amongst the community. Ground water resources are difficult to visualise, prompting CSIRO and QUT to trial and develop a 3D model of the Howard East Aquifer. By representing the system as an entire unit, the model aims to build community understanding and encourage the informed participation of community members in local water allocation planning.

The model will rely on the best available data to answer the following questions:

- How does the Howard East Aquifer work?
- What effect does the current rate of pumping have on local ground water levels?
- Is the aquifer taking longer to recharge during the wet season?
- Can you see any effects of pumping on the surface water bodies (e.g. Howard Springs, Girraween and McMinns Lagoon)?
- Are older shallower bores likely to run dry in the future?
- What does a 3D model look like?

The model will be able to be 'interrogated' by community users to detail a cross section of the Howard East Aquifer at specific points of interest. Users will be able to see the surface topography and natural drainage systems, and watch an animation that illustrates the changes in aquifer levels over time and season.

The Howard East model will be available free of charge on CD between August and September 2009.



Griffith

Why is this survey important?

Local member, Gerry Wood has been supportive of the project and recently hosted a community meeting at Girraween Primary School to introduce the project to the public. He supports the aims of the project:

- to produce an independent model based on scientific information that can be understood by the community, and
- assist in making informed decisions about water resources.

'We've got to understand how much we can remove from the aquifer – we can't keep pumping more and more water until we know the effect this has on the environment and other bore users.' Local member, Gerry Wood, May 2009.



Local politician, Gerry Wood, hosting the public meeting with Malcolm Cox and Mark Dwyer at Girraween Primary School, April 21st.



Typical groundwater bore in Howard East area.



Howard Springs. Do you know which aquifer this water comes from?

Sharna Nolan (Research Officer) CSIRO Tropical Ecosystems Research Centre 564 Vanderlin Dve, Berrimah NT 0828 P: (08) 8944 8420 E: Sharna.nolan@csiro.au Associate Prof. Malcolm Cox (Hydrologist) Queensland University of Technology

Mark Dwyer (Modeller) Queensland University of Technology