

For immediate release: Tuesday 15 April, 2014.

Sense-T tool used to prevent “cease-to-take” notice and maintain water access for 70 farmers in Ringarooma catchment

More than 70 farmers along the Ringarooma catchment in Tasmania maintained their water access, avoided regulatory intervention and protected the health of the river, thanks to an early online Sense-T prototype.

The simple online dashboard presents real-time data about water flows in the Ringarooma, drawing data from sensors owned by the State Government, the Bureau of Meteorology and CSIRO.

Just weeks after releasing the prototype dashboard to a group of farmers in the initial stages of a two-year research project, Sense-T, which is based at the University of Tasmania (UTAS), recorded an early result.

Farmers monitoring the dashboard noticed water levels were about to reach critical levels that would trigger a “cease-to-take” order from the regulator (below 40 ML per day). They collaborated to release enough water from their own dams to keep water levels in the catchment at healthy levels.

Thanks to this action, regulatory intervention that would have stopped around 70 farmers from drawing crucial irrigation water was avoided.

Sense-T Director Ros Harvey said it demonstrated the power of putting real-time data into people’s hands.

“Everybody in this scenario won – farmers kept access to irrigation water, the regulator saved time and resources and the environment was protected. It shows how people can be empowered through accurate and timely information,” Ms Harvey said.

The Sense-T Adaptive Water Management Project is led by scientists from CSIRO and UTAS. It also involves the Department of Primary Industries, Parks, Water and the Environment (DPIPWE) and the Tasmanian Farmers and Graziers Association (TFGA).

TFGA and DPIPWE have long been working together on ways to effectively manage water use to meet agricultural and environmental objectives. Farmers would often informally collaborate to schedule irrigation in order to maintain healthy river flows.

The Sense-T project offered an opportunity to facilitate and promote this collaboration, making it simple for farmers to monitor relevant data on one simple website. With easy access to real-time information, farmers were able to respond quickly, working together to manage water resources and the environment, within the policies set by government.

CSIRO scientist Dr Philip Smethurst said it was fantastic to see these outcomes so early on the project.

“This was the very first prototype of the online tool. Further versions aim to include additional sophistication, including weather and stream flow forecasts, and real-time data from even more sensor points,” he said.

UTAS social scientist Dr Stewart Williams leads the project with Dr Smethurst. He’s conducting in-depth research into the sociology of how people use technology to work together in making decisions.

“The most important thing is that we continue to develop technology in a way that builds trust between all the parties involved. In the end, it’s not the technology that’s important but how people use it to achieve a shared set of goals,” he said.

One of the hallmarks of Sense-T is its approach to getting the interested parties around the table and working towards a shared goal. In this project, that meant farmers, industry representatives and the regulator taking lead roles in setting the agenda and being involved in every stage of the research.

Ms Harvey praised the organisations involved.

“In some parts of Australia that would’ve been fraught with conflict. In Tasmania, everyone worked together proactively towards an outcome that we could all benefit from. Technology has helped build trust,” she said.

The Adaptive Water Management Project could have national and international applications. Organisations such as the World Bank and CSIRO are keeping a keen eye on the project to identify any potential applications in developing countries, where water access and availability is one of the most pressing issues.

Quotes from project participants

Jeremy Carins, Ringarooma farmer and Chair of the Water Users Group: “If you had told me 15 years ago that this was possible, I wouldn’t have believed you. There has been a real shift in the way we approach water management – it’s less about the individual and much more about getting in and sorting it out as a community before the regulator needs to intervene. I need water from the catchment to irrigate pasture for dairy cattle. If those guys hadn’t released water and we were issued a cease-to-take order, my productivity would’ve taken a big hit. I was one of the lucky ones to benefit this time and I’ll remember that in the future.”

Wes Ford, General Manager Water and Marine Resources, DPIWRE: “The management of low river flows requires the water needs of the farmers and the environment to be balanced. Having access to real time data from more than a few locations allows for finer scale and more pre-emptive management of river flows. The early trial is encouraging, demonstrating that having access to this technology will improve co-operative management of the river at time of low flow”

Jan Davis, CEO TFGA: "Tasmanian farmers are highly skilled and very innovative. They are early adopters of any technology that will provide efficiency gains or a competitive advantage. It didn't take long for them to get their heads around the possibilities that Sense-T offers, and to come up with a suite of ideas as to how these tools could be put to work. Even at this early stage, the outcomes of our Ringarooma project have delivered a range of benefits to farmers – some straight to the bottom line, but some also in terms of opportunities to achieve benefits through cooperation."

Media contact: Megan Tudehope (03) 6226 2292 or 0450 452 733

About Sense-T

sense-t.org.au

Sense-T is based in Tasmania, Australia. It is creating a real-time digital view of the State's economy, drawing data from public and private sensors and combining it with other important data sets. Data can then be available through online tools and smart phone apps that support people to make better decisions. Sense-T is a shared data resource available to businesses, governments, researchers and communities. It respects privacy and is transparent about data use. Sense-T brings the power of big data to communities, helping us all to be more efficient, competitive and sustainable. Sense-T is a partnership between the University of Tasmania, the Tasmanian Government, CSIRO (through the Australian Centre for Broadband Innovation) and IBM. It is also funded by the Australian Government.