**Transcript**

***Dr Ben Gawne – Freshwater ecology***

We look at a way that a variety of animals and plants respond to changes in flow. As you probably know there’s a lot of environmental flows the Commonwealth Government is buying a lot of water to use for environmental flows and they need to allocate that in a way that delivers particular outcomes. So we’re interested in whether fish breed successfully as a result of a flow. How the vegetation responds. Do you get more species emerging? Whether patterns of productivity, that is, the amount of organic matter that becomes available as food for animals is generated and where it goes and how it gets transformed. So it’s all about how rivers and wetlands respond to changes in flow. How we can protect their value such as biodiversity and also things like tourism and recreational values. How we can protect those by managing water in the best possible way.

We hope to underpin initiatives such as the Basin Plan and help them be successful. So they set out some fairly grand objectives around the balance between environmental health and agricultural production and urban use and we’re trying to inform those decisions so they get the balance right and achieve their objectives.

We would hope that this research would actually enable the community to be more sustainable over the long term. So, at the moment there’s the, there’s enough evidence, I think, to suggest that the way that we’re, our relationship with the environment isn’t sustainable and that over time degradation of water resources, degradation of soil resources and the natural environment will actually impact on productivity and quality of lifestyle for communities. And so if we can find better ways of living in harmony with the environment then the quality of life for people will be protected and so will their capacity to earn an income from the land through agriculture because the productivity and fertility of the system will remain, will remain high.