

8ASM Conference Abstract

Gaskill, S et al. – Drought refuge management

Drought refuge management: putting some clout into drought.

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Abstract

Drought refuges provide critical habitat to support the survival of species through drier periods. Some of our most endangered and iconic biota rely on permanent pools, usually supported by groundwater, in drier times. Riparian vegetation also supports good drought refugia by shading pools, keeping temperature low and maintaining good dissolved oxygen.

The project has identified and prioritised drought refuges for further investigation in the Melbourne Water region. Its main outcome is an 'Environmental Water Action Plan' template that includes eco-hydrological knowledge on the sites and proposed management actions to enhance the site. The EWAP assigns triggers to the environmental water requirements e.g. a flow or duration below which a species may not survive.

By understanding the environmental water requirements, sites can be enhanced through proactive and reactive management actions. Identifying proactive management actions to build up resilience during the good times is as important as responding reactively during the tough times. Proactive management works includes catchment management planning to invest in onground capital projects to undertake revegetation, water resource management planning and other activities.

The EWAP is in a standard format that helps the manager understand the site in a constructed approach, which is transferable and informative. Developing and sharing the EWAPs is a great communication tool to enhance collaboration on the sites and help improve the likelihood of survival of important ecological values.