

An aerial photograph of a river system, showing a main river channel and several tributaries. The water is a deep blue, and the surrounding land is a mix of green and brown, indicating different vegetation and terrain. The title 'WATER RESOURCES MANAGEMENT' is overlaid in large, white, bold, sans-serif capital letters on the left side of the image. A thin white horizontal line is positioned below the title.

WATER RESOURCES MANAGEMENT

Water scarcity is one of the great challenges of our time. Our team are driven to deliver the coordinated development and management of water to maximise the environmental, economic, and social outcomes.

We play an enabling role to ensure effective dialogue between all stakeholders which includes irrigators, diverters, and agencies with their role of managing public assets. We play a significant role in working with institutions and ensuring the matching of responsibilities, authority, and capacities for action. We help decision-makers to make rational and informed choices between alternative actions.

We lead the industry in understanding and balancing consumptive and environmental flows in waterways, and bring a deep understanding of water quality science water quality offsets thinking. We have supported the development and advancement of environmental flows assessment methodology and state level water quality offset frameworks.

Why Alluvium

Eco-hydrology understanding

We bring to projects an advanced understanding of how hydrology and water quality impact on vegetation, invertebrates, fish, and the geomorphic form of a waterway/wetland.

Water balance modelling

We deliver effective water balance modelling to support the resources and agricultural industries to provide advice on surface water demands and discharge requirements.

Modelling strength

At a catchment scale we pride ourselves in being able to model whole of basin processes by combining hydrological modelling in *SOURCE* catchments with river regulation and water resource management in *SOURCE* rivers. We are intimately involved with the further development of these models and have active links with research organisations such as CSIRO.

National exposure

The evolution of water management across Australia has been varied with both different environmental conditions and local governance having major impacts on approaches. Our technical water resources team is focussed at sharing lessons across the country.



Environmental flow determination

Alluvium has been instrumental in assessing and addressing the issues of water stressed systems across Australia. We have played a key role in the development of environmental water plans, balancing competing environmental and consumptive needs. We understand river hydrology in exceptional detail and we are a lead agency in the provision of environmental flows studies around Australia.



Water balance assessment

Water balance estimation is an important tool to assess the current status and trends in water resource availability. Alluvium delivers water balance assessment and modelling to support the resources and development industries to strengthen water management decision-making and infrastructure planning strategies.



Eco-hydrology relationships

Our ecohydrology response modelling has included development of conceptual models, application of software such as eWater CRC developed RAP and Bayesian belief networks.



Water Quality offsets

We have a deep understanding of water quality science as it relates to water and waterways. Our people we instrumental in the science behind the stormwater quality offsets charge (\$/kg N) for Melbourne and we continue to deliver high level water quality planning projects, such development of a Statewide water quality offsets framework for the State of Victoria.



Policy & regulatory solutions

We understand the policy and regulatory frameworks both federally and in all States and Territories. We advise governments and regulatory bodies on policies for the regulation and protection of water resources.