

## A River Styles database for NSW

*Geomorphologists from the Water division of NSW Department of Planning, Industry and Environment and Macquarie University have been collaborating for the last 20 years to produce the NSW River Styles database.*

The database is the largest and most comprehensive dataset of geomorphic river character, behaviour, condition and recovery available in Australia. It uses the River Styles Framework, developed by Macquarie University, to characterise over 219,000 kilometres of stream length in NSW.

Users will now have access to consistent information for all third and higher order rivers in NSW. This information can be used to develop river management tools, systems and strategies at a range of scales. It serves as a decision-support tool for integrated river management.

### About the database

The NSW River Styles database was developed to store classifications of NSW rivers, as assessed using the River Styles Framework. The framework classifies rivers based on geomorphic qualities that include river type, fragility, sensitivity to disturbance, condition, rarity and recovery potential.

This characterisation means that users can consistently compare the geomorphic attributes of rivers. Grouping rivers based on their similarities can help develop ways to manage individual rivers, or predict how they will behave in the future. It can also help to target rehabilitation efforts to where they'll be most effective.

### Usage of the database in river management

The River Styles Framework can help us identify rare and threatened river forms across NSW. It can also help to describe individual rivers, assess their current geomorphic condition and forecast whether a river is degrading or recovering. This information will help inform our management of our rivers.

The department will use the database and framework to support and improve river management in several ways. These include:

- knowing what kind of river you're working with
- recognising and treating underlying physical environmental issues, rather than just the symptoms
- developing and using monitoring, evaluation and reporting protocols that measure physical condition for the river type in a consistent way
- integrating and aligning environmental decision-making across agencies and disciplines by using a consistent and verified framework
- understanding the relationships between the physical structure of river systems, habitats and ecological populations
- prioritising management actions to be more strategic and efficient with use of water resources.

These changes will help us to manage rivers in NSW more effectively.

## Acknowledgements

The River Styles Framework was developed at Macquarie University by Professor Kirstie Fryirs and Professor Gary Brierley (now University of Auckland).

The NSW Government proudly supported and worked with Macquarie University to co-develop and deliver the database project.

The database was developed in a partnership between the Water division of NSW Department of Planning, Industry and Environment and Macquarie University through 20 years of continuing collaboration.

### Our partners:



River Styles



MACQUARIE  
University

## More information

For more information on the NSW River Styles database, contact Fergus Hancock on (02) 4904 2618.

For more information on the River Styles Framework and its use in Australia and internationally, contact Dr Simon Mould, Macquarie University on (02) 9850 8395.

Find out more about the River Styles Framework at [www.riverstyles.com](http://www.riverstyles.com)

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