

Chowilla Surface Water Management Options Assessment

Client: South Australian Murray Darling Basin Natural Resource Management Board
Location: Chowilla Floodplain, South Australia and New South Wales



Under current conditions the occurrence of inundation within the Chowilla Floodplain system, a Living Murray Icon Site, is impacted by the flow regime in the Murray River, the operation of Lock and Weir 6 and the local hydraulic controls. The flow regime has been significantly modified by basin-wide flow regulation resulting in a reduction in the frequency of broad-scale inundation of the Chowilla floodplain. In contrast, the elevated water levels on the Murray River upstream of Lock 6 have resulted in increased groundwater levels and a continuous flow through parts of the Chowilla anabranch system which would naturally have flowed only during flood events.

Water Technology Pty Ltd (Water Technology) has been engaged by the South Australian Murray Darling Basin Natural Resource Management Board to identify surface water management options to increase the frequency and extent of inundation on the eastern portion of the Chowilla floodplain to improve ecological health. The Water Technology project team has undertaken field and desktop assessments, informed by topographic and hydraulic modelling to identify options for enhanced flooding. Within the constraints imposed by the hydraulics of the Murray River at Chowilla, a suite of potential options have been identified to achieve flooding on a local scale and the benefits and risks of each option have been assessed.

Key Services Provided:

- Hydrology and hydraulic investigations
- Waterway rehabilitation and design
- Fluvial geomorphic and process investigations
- Ecological assessment

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