

Bookmark Creek Complex Master Plan Project



Background

Bookmark Creek is an 8km anabranch, which bypasses 13km of the River Murray channel, including Lock 5, straddling the township of Renmark. The broader complex (encompassing areas from the Ral Ral Floodplain to Disher Creek, including wetlands along the creek and surrounding floodplain) has extremely high social and recreational value to the regional community, with an active and well-established local action group supported by industry groups and key stakeholders.

The River Murray and Mallee Aboriginal Corporation (RMMAC) holds native title over the River Murray and many floodplain areas within the Lock 4 and Lock 5 Reaches, including Bookmark Creek. The First Peoples intimate knowledge and understanding of Country and active participation across all levels is vital to the effective management of this landscape.

In pre-colonial times, Bookmark Creek was a natural creek depression that flowed during periods of high River flows. The Creek has suffered significant changes instigated by European settlement, which brought with it development of the first Australian irrigation district in the late 1880s and then construction of Lock 5 in 1927. These changes meant the Creek was used as a reservoir to supply irrigation water and later as an irrigation disposal basin. The Creek also saw permanent inundation at the inlet following the construction of Lock 5.

Today, as a result of bypassing Lock 5, a significant head difference exists between the inlet and outlet of the Creek. This head difference presents the potential for unique flowing habitat conditions preferred by a number of large bodied native fish species. Currently, however, a series of impeding structures along the Creek prevent it from flowing freely.

The combination of these factors has had adverse impacts on the ecological values of the site and have contributed to significant environmental degradation of the landscape. A lack of funding and available resources has meant that site specific and narrowly defined infrastructure solutions have been proposed in recent years in the absence of a strategic direction for the complex in its entirety. The lack of an overarching plan for coordinated future strategic investment has led to a loss of opportunity and constraints throughout the complex.

The Bookmark Creek Master Plan presents a key opportunity for future works around Bookmark Creek to result in hydrological connectivity through this region, unlocking a suite of environmental, social and economic benefits and supporting the growth and wellbeing of the community.

Project objective

The objective of the project is to develop a master plan for achieving environmental outcomes in the Bookmark Creek and broader complex through future investment initiatives, in collaboration with community stakeholder groups. The project's '*master plan*' will provide a dynamic, long-term conceptual layout to guide future investment in support of agreed objectives for River management throughout the Bookmark Creek Complex.

The Master Plan Project was informed through consultation and investigations, which identified and explored the feasibility of a suite of options and has made recommendations on a pathway to proceed, demonstrating the value of further investment. These proposed investments are a combination of infrastructure investments and operational investments, focused on achievement of environmental outcomes.

Following the finalisation of the Master Plan Project, the outcomes from implementing a program of works and measures in the Bookmark Creek Complex will include:

- Efficient and effective resource allocation (e-water, people, infrastructure) as a result of having a clear, prioritised pathway for future investment in Bookmark Creek Complex
- Confidence and increased flexibility in operations through having a detailed understanding of the outcomes of operational scenarios and how these contribute towards environmental outcomes
- Enhanced environmental outcomes as a result of increased hydraulic diversity and connectivity, particularly in improving unique fish habitat in the anabranch system
- Enhanced social, economic and recreational benefits associated with improved connectivity, amenity and condition of high value wetlands / floodplains throughout the region.

The finalised master plans will be a key milestone in the Sustaining Riverland Environments (SRE) Program initiative, which will deliver practical projects to improve river and wetland health, and support native fish in the River Murray. Projects that are included in the master plans will have the opportunity to receive funding under the SRE program. In particular those that align strongly with SRE objectives.

While significant investigations and local planning initiatives have been developed in the region, there is no governing strategic direction for the entire complex. Only after key threats, values and objectives have been clearly defined and holistic ecological and hydrological assessment undertaken with continued stakeholder engagement, can informed decisions be made in selecting the most feasible and appropriate infrastructure and management solutions for investment.

While the site has not been used as an irrigation disposal basin for many years, Bookmark Creek is still technically classified as a saline disposal creek which governs the operational guidelines and fails to define an environmental imperative (noting that a Wetland Management Plan has been developed). Redefining the objectives based around key ecological assets and values with all key stakeholders included in the conversation, will inform new operational parameters to reinstate a healthier hydrological and management regime. This will be integrated with other opportunities emerging in the region such as Lock 5 Weir Pool Manipulation and will also be considered in the context of other nearby regional environmental investments such as at the Chowilla and Pike floodplains.

Master planning process

The Master Plan Project began in July 2019 as an initiative of the South Australian Government's South Australian Floodplains Integrated Infrastructure Program (SARFIIP), funded by the Australian Government through the Murray-Darling Basin Authority. The project has occurred over two years and is a continuation of SARFIIP's Environmental Pathways Project (EPP). The EPP aims to ensure that the delivery of water for the environment is managed in an efficient and effective manner, improving the ecological health and resilience of the South Australian River Murray, between Locks 1-7.

Traditional River Murray planning approaches have started first with a set of discrete environmental objectives, to focus development of options for works and measures to best meet those objectives. The Master Plan Project was delivered using a new approach toward River Murray project planning and prioritisation, facilitating an open community forum to generate and collate ideas with a broad range of potential environmental objectives, rather than a single targeted objective. This resulted in a suite of potential '*options*' providing a conceptual layout to guide future investment, which can then be prioritised for funding under future programs based on their alignment with the various objectives of those programs.

Master planning at the site scale, including immediate surrounds, enabled an adequate project size for engagement with a variety of stakeholder groups and generated a variety of potential opportunities and outcomes. It also enabled a large enough project footprint to realise a coordinated approach to future management in the broader area.

The productive and beneficial engagement with the RMMAC Working Group through the Master Plan Project highlighted the need to further support opportunities for First Peoples to continue to engage throughout the application of the works and measures. This should be considered for the planning of future master planning projects and the next stages of project implementation.

Site option profiles

Working with key stakeholders within the Riverland community, a comprehensive list of ideas and initiatives to support environmental outcomes along the River Murray has been compiled, collated and refined to form the foundations of a Master Plan for the Bookmark Creek Complex. These ideas and initiatives have been summarised into 'Site Option Profiles', with some 'Sites' consisting of multiple and in some instances, scalable options.

A total of 5 'Draft Site Option Profiles' within the Bookmark Creek Complex have been developed as part of the Master Plan Project:

1. Bookmark Creek
2. Disher Creek
3. Goat Island Paringa Paddock
4. Bulyong Island
5. Ral Ral Floodplain (West).

