



Site options profile #L1B

# Katarapko Floodplain (West)

## - Draft

### Lock 3 Master Plan



**Location:** River Murray anabranch, downstream of Lock 4.

**Land Tenure:** National Parks and Wildlife Service SA

**Wetland Size:** 322 hectares (Ha)

**Normal Pool Level:** +10.1 mAHD

| PROPOSED OPTIONS |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Option #1:       | Promote the conservation of the local regent parrot population, by supporting the installation of new embankments and structures enabling watering activities as described within the Regent Parrot Recovery Project.                                                                                                                                                                                                                                                                                                                                                                             |
| Description      | Katarapko Floodplain (West) falls within the 'Katarapko regent parrot floodplain habitat zone', identified as part of the Regent Parrot Recovery Project. There are a number of potential key watering sites within this area noted. Water from Katarapko Creek would be pumped into retention basins to support the conservation and improvement of vegetation important to the regent parrot. These activities are seen as a key part of the realising the conservation of the resident regent parrot population. Works would involve construction of regulating structures and blocking banks. |
| Outcomes         | <ul style="list-style-type: none"><li>• Conservation and improvement of vegetation important to the regent parrot.</li><li>• Support the conservation of the current regent parrot population.</li><li>• Improved soil moisture conditions.</li></ul>                                                                                                                                                                                                                                                                                                                                             |

#### SITE BACKGROUND

##### Description

The Regent Parrot Recovery Project sites are located west of Katarapko Creek, an anabranch of the River Murray downstream of Lock 4. Located within the Katarapko section of the River Murray National Park, this area provides nesting and foraging habitat for the regent parrot, as well as opportunities for recreational activities, including canoeing, kayaking, and camping.

##### Cultural Significance

The River Murray and Mallee Aboriginal Corporation (RMMAC) holds native title over the River Murray within the Lock 3 Reach. The First Peoples intimate knowledge and understanding of Country and active participation across all levels is vital to the effective management of this landscape.

##### Post-colonial Use

Since river regulation and the construction of locks and weirs along the River Murray, the water regime in the wetland complex has been altered. The lack of inundation in these areas has resulted in the decline of floodplain habitat within the wetland complex.

#### WETLAND ECOLOGY

**Ecological role:** The Katarapko Floodplain (West) is part of a larger protected area with diverse habitat and wetland types and is of high conservation value<sup>1,2</sup>. The floodplain area is within the Murray River National Park which is proclaimed to conserve a significant proportion of South Australia's floodplain environments which are not represented widely in other reserve systems<sup>3</sup>.

**Flora and fauna:** The major vegetation communities within the Katarapko floodplain include river red gum (*Eucalyptus camaldulensis*) and black box (*Eucalyptus largiflorens*) woodland, lignum and samphire/ chenopod shrublands. It is home to a wide variety of wildlife, some of them listed as species of conservation significance under national and/or state legislation<sup>4</sup>. Among the listed species is the vulnerable regent parrot (*Polytelis anthopeplus monarchoides*). Katarapko is a priority floodplain for environmental flows in South Australia and is currently the only Demonstration Reach for Native Fish in South Australia<sup>4,5</sup>.

#### WETLAND MANAGEMENT

##### Current Management:

The Department for Environment and Water's National Parks and Wildlife Service is responsible for the management of the Katarapko section of the Murray River National Park. The park is a popular destination for recreational tourism, including kayaking, fishing, camping and birding.

##### Infrastructure:

There is currently no permanent infrastructure to support water delivery within the Katarapko Floodplain (West) area, with current efforts utilising a series of temporary embankments. The installation of additional embankments and structures would support the current management efforts and increase opportunities for outcomes within the floodplain.

## ISSUES AND DRIVERS

As part of the Master Planning Project engagement process, an ongoing register of issues and drivers relating to sites and options was maintained. These highlighted key considerations and investigations that would need to be factored in and undertaken as part of any next steps towards realising the outcomes described within the option profiles. For Katarapko Floodplain, these included:

### Environmental

- There is a low to medium risk associated with acid sulfate soils at this site <sup>6</sup> and this would require further assessment before any construction works or wetting and drying activities are undertaken.
- Potential investigations needed into whether to hold water for evaporative drying or return flow from the floodplain.
- Need to consider potential impacts on water quality and connectivity during high flows, and ecological benefits for species other than for regent parrots.
- Note that current watering efforts are already occurring in the southwest site (12.4 mAHd).

### Cultural

- Strong First Peoples cultural interests in the area and within Gerard community. Construction works need to be mindful not to disturb areas of cultural importance.

### Community/Social

- Site has strong community and historical value; further construction may be unpopular.
- National parks management requirements are important for this option.

## KEY STAKEHOLDER INVOLVEMENT

- Central Irrigation Trust
- Commonwealth Environmental Water Office (CEWO)
- Floodplain and Wetlands Landscape SA
- Friends of the Riverland Parks
- Katarapko Advisory Panel (KAP)
- Loxton Waikerie Council
- National Parks and Wildlife Service SA
- Regent Parrot Recovery Team
- River Murray and Mallee Aboriginal Corporation (RMMAC)

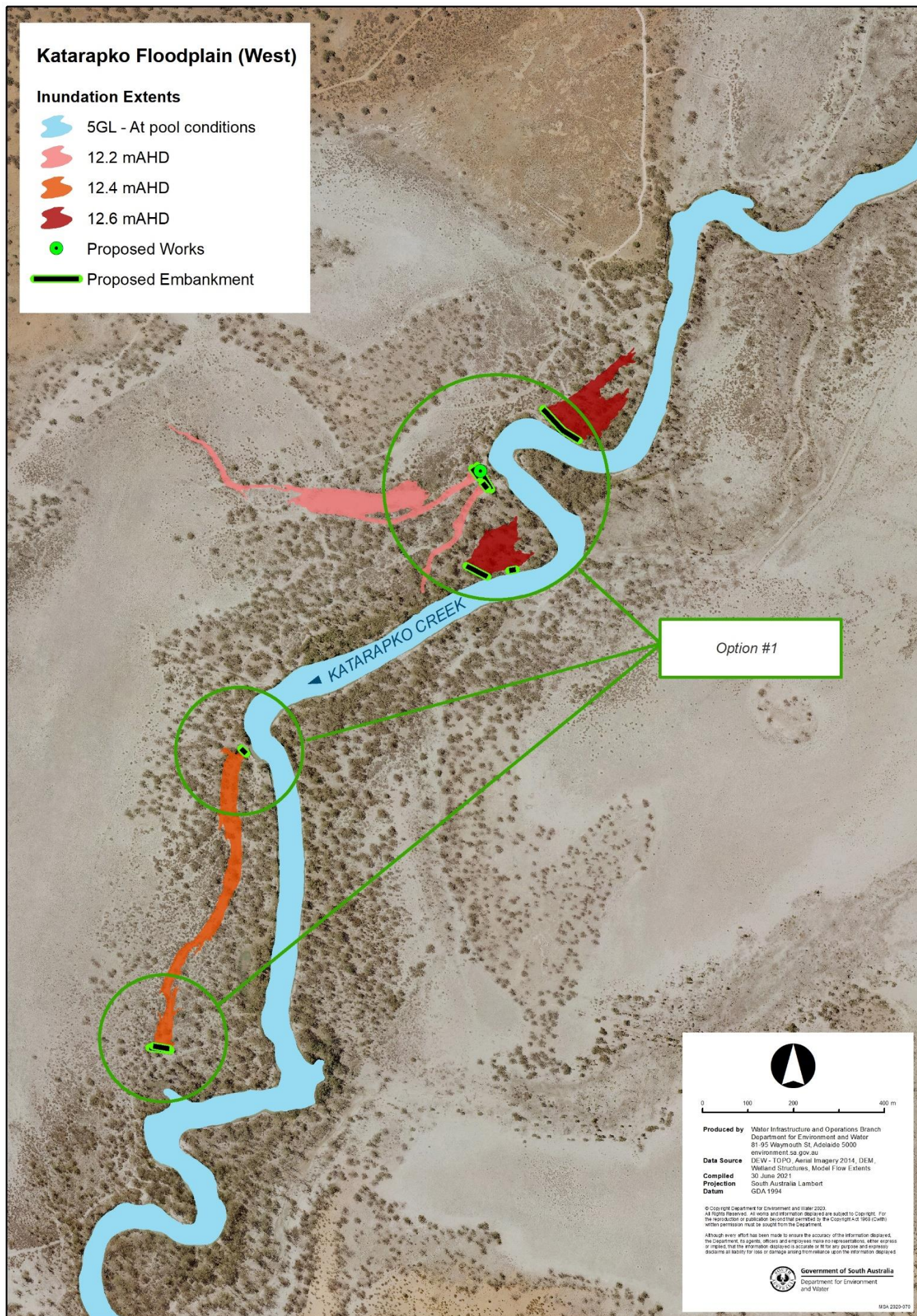
## REFERENCES

1. Jensen A, South Australia, Department of Environment and Natural Resources, South Australian River Murray Wetlands Management Committee. Wetlands atlas of the South Australian Murray Valley: a summary of current knowledge of Murray Valley wetlands as a basis for integrated catchment management. Adelaide: Dept. of Environment and Natural Resources; 1996.
2. Thompson MB. River Murray Wetlands - Their Characteristics, Significance and Management. Adelaide: University of Adelaide for the Department of Environment and Planning and the Nature Conservation Society of South Australia; 1986.
3. DENR. Murray River National Park Management Plan (Including Rilli Island, Media Island and Kapunda Island Conservation Parks). 1994.
4. DEW. EPBC Self-assessment- Operation of surface water management infrastructure on the Katarapko Floodplain. 2019.
5. Wallace TA. Eckerts-Katarapko floodplain Tree condition survey data April 2015-March 2019. Report produced by Riverwater Life Pty Ltd for the Department for Water and Environment, South Australian Government (Draft version released April 2019); 2019.
6. Grealish G, Shand P, Grocke S, Baker A, Fitzpatrick R, Hicks W. Assessment of Acid Sulfate Soil Materials in the Lock 1 to Lock 5 Region of the Murray-Darling Basin. CSIRO: Water for a Healthy Country National Research Flagship.; 2010.

# Katarapko Floodplain (West)

## Inundation Extents

-  5GL - At pool conditions
-  12.2 mAHD
-  12.4 mAHD
-  12.6 mAHD
-  Proposed Works
-  Proposed Embankment



Option #1



0 100 200 400 m

Produced by Water Infrastructure and Operations Branch  
Department for Environment and Water  
81-95 Waymouth St, Adelaide 5000  
environment.sa.gov.au

Data Source DEW - TOPO, Aerial Imagery 2014, DEM,  
Wetland Structures, Model Flow Extents

Compiled 30 June 2021

Projection South Australia Lambert

Datum GDA 1994

© Copyright Department for Environment and Water 2021.  
All Rights Reserved. All works and information displayed are subject to Copyright. For the reproduction or publication beyond that permitted by the Copyright Act 1969 (Cth) written permission must be sought from the Department.

Although every effort has been made to ensure the accuracy of the information displayed, the Department, its agents, officers and employees make no representations, either express or implied, that the information displayed is accurate or fit for any purpose and expressly disclaims all liability for loss or damage arising from reliance upon the information displayed.



Government of South Australia  
Department for Environment  
and Water

MSA 2020-070