

Teringie Wetland Pre-Feasibility Fact Sheet

The proposal for Teringie wetland seeks funding to undertake feasibility investigations for a Teringie Wetland Restoration Project. The proposal would contribute to the restoration of a wetland with significant ecological and cultural values, which forms part of the Living Murray Lower Lakes, Coorong and Murray Mouth Icon Site and the Coorong and Lakes Alexandrina and Albert Ramsar site.

The potential scope of works is to design and install flow control structures on the northern and southern inlets and to enhance connectivity between the eastern basins by reinstating the flow path. Sediment control work is also required at the northern inlet.

The specific design and management regime of the proposed structures would be determined during the feasibility investigations.

OVERVIEW

Teringie wetland complex encompasses an area of approximately 490 ha on Lake Alexandrina, of which 270 ha is envisaged as being actively managed. The wetland is located three km south west of the Raukkan Community within the Coorong District Council area.

The wetland complex has been classified as a back-basin, with lagoons closer to the lake shore having the classification of littoral wetlands.



Figure 1: Teringie Wetland Location

ECOLOGICAL SIGNIFICANCE AND CONDITION

Teringie wetland has important ecological values, specifically for wader habitat and submerged vegetation. The Teringie wetland complex was identified in 2000 as being one of six priority wetlands for restoration around Lakes Alexandrina and Albert and the number one priority for on-ground works.

Vegetation

Teringie wetland is dominated by salt tolerant species, notably samphire (*Halsarcia Pergranualta*) (Rogers, et al 2008). Tangled Lignum (*Muehlenbeckia florulenta*) also occurs at Teringie and are likely to increase in distribution with more frequent wetland inundation. There is also potential for an increase in the abundance of other vegetation communities, including *Cyperus* sedgeland and beds of submerged aquatic macrophytes.

The aquatic macrophytes identified in the lagoon include Amphibious Milfoil (*Myriophyllum simulans*) and *Ruppia tuberosa*.

Birds

Recent bird communities have been species poor. However, there is anecdotal evidence of use by grazing waterbirds, particularly Black Swan (*Cygnus atratus*) and Australasian Shoveler (*Anas rhynchotis*). Seven species were recorded in the River Murray Wetlands Baseline Survey, three of these are EPBC listed – the Cape Barren Goose (*Cereopsis novaehollandiae*), Caspian Tern (*Hydroprogne caspia*) and the Masked Lapwing (*Vanellus miles*) – all migratory species. Teringie is listed as a potential habitat for the Orange bellied parrot and migratory waders including Sharp-tailed sandpiper (*Calidris acuminata*), Curlew Sandpiper (*Calidris ferruginea*), Red-necked Stint (*Calidris ruficollis*) and Common Greenshank (*Tringa nebularia*).

Fish

In a fish monitoring program undertaken at Teringie wetland by Department of Environment, Water and Natural Resources (DEWNR) staff and the Raukkan Community Council, a total of 11 fish species were recorded in the northern basin, including Congolli which is listed as rare under the South Australian National Parks and Wildlife Act 1972. The most abundant species are Flat-headed Gudgeon (*Philypnodon grandiceps*) and Bony Herring (*Nematalosa erebi*). Significant numbers of carp have been recorded.



CULTURAL AND SOCIAL VALUES

The wetland is culturally very significant for the Ngarrindjeri people, the traditional owners of the region. Teringie is the Ngarrindjeri name for "burial ground". There are two significant sites within the wetland complex.

The wetland area encompassed traditional hunting grounds for the Cape Barren Goose, ducks and kangaroos. *Cyperus gymnocaulos* is still used by women for basket weaving and the wetland is still used for community recreation.

The Ngarrindjeri community recommends that environmental/cultural waters be allowed to enter Teringie lagoons again to allow rejuvenation of this once important nursery.

LAND OWNERSHIP AND SITE GOVERNANCE

A large part of the wetland is owned by the Aboriginal Lands Trust. The southern end of Teringie wetland is privately owned.

The site is managed by DEWNR wetland staff in partnership with the Raukkan Community Council.

MANAGEMENT HISTORY

Terlingie wetland was formerly grazed following the establishment of the Point McLeay Mission in 1959 and became severely degraded with limited native vegetation cover and extensive weed infestation. Reed beds that used to grow around the lake were significantly destroyed through grazing activity.

In the 1970s, a channel was constructed into the northern part of the wetland with the purpose of restoring the cultural value of the wetland through regeneration of native vegetation that could be used for basket weaving, bush food, etc.

A Wetland Management Plan was prepared in 2006 by the Coorong District Local Action Planning Committee.

Management actions that have been implemented in recent years include:

- reconnection of the main flow path to wetland basins following the drought;
- stock exclusion;
- revegetation of lakeshore reed beds to prevent wave erosion and terrestrial revegetation; and
- monitoring.

The main focus of on-ground works to date has been on terrestrial management due to drought and the inability to deliver water to the wetlands, thereby negating active management.

The restoration proposal outlined in this report was recommended in the Wetland Management Plan for Teringie wetland.

CURRENT CONDITION

Over time, the wetland has become degraded and prior to recent revegetation efforts there was limited native vegetation remaining within much of the wetland.

The management issues currently threatening Teringie wetland include:

- infrequent inundation due to sand build up caused by wave action and erosion along lake edge;
- groundwater salinity intrusion caused by infrequent inundation;
- loss of biodiversity resulting from vegetation disturbance and pest species invasion, lack of inundation and inability to manage water levels; and
- pest plant invasion, particularly boxthorn and artichoke thistles.

THE PROJECT PROPOSAL

The potential scope of works is to design and install flow control structures on the northern and southern inlets and enhance connectivity between the eastern basins by reinstating the flow path. The specific design and management regime of proposed structures would be determined during the feasibility investigations. Sediment control work is also required at the northern inlet.

Outcomes and Benefits

Potential outcomes include:

- improved connectivity between Lake Alexandrina and the wetland;
- improved capacity to regulate water levels;
- reduced invasion from pest species including carp;
- improved cultural values of this significant site and a demonstrated partnership approach to working with Aboriginal communities; and
- enhanced value of previous work undertaken at the wetland, including significant revegetation.

Potential benefits include:

- restoration of aquatic vegetation;
- reduction of sediment in the inlet;
- promotion of submerged aquatic vegetation and other habitat types that support waders, fish, frogs, tortoises and other species;
- establishment of a pro-active partnership with the Ngarrindjeri; and
- rejuvenation of fringing vegetation.



These potential outcomes and benefits were identified by community members at workshops held in June 2012 and a panel of DEWNR technical experts in September 2012. The potential to achieve these benefits was considered high by technical experts.

FEASIBILITY OVERVIEW

The feasibility stage of this project would aim to determine the volumes and flow paths of water into the wetland that will achieve the desired ecological outcomes; and identify the most appropriate structures, other on-ground works and management regimes required to achieve these outcomes.

Objectives of Feasibility Investigations

The objectives of the feasibility stage of this project would be to:

- Determine optimal water management regime for wetland basins
- Identify and assess ecological and other risks
- Identify significant cultural heritage sites
- Obtain detailed specifications and costings for recommended structures
- Support the ongoing community and stakeholder ownership and involvement in the project
- Determine ongoing operation and maintenance requirements, responsibilities and costs; and
- Identify approvals required to implement project.

Project Management

It is anticipated the project would be managed by DEWNR in partnership with the Raukkan Community Council.

ACKNOWLEDGEMENTS

The contribution of the South Australian River Murray Regional Community, including the many individuals and various local groups and organisations for their generous involvement and enthusiasm is greatly acknowledged. This partnership approach enabled the community ideas to be captured and prioritised by utilising and sharing local knowledge in the development of proposals.

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For more information

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