

Wah Wah: Water, Wetlands & Wildlife

Context: As part of the Australian Government's water use efficiency initiatives, a major infrastructure upgrade has been planned for the Wah Wah district, north of Hay in the New South Wales Riverina. The \$44M replacement of open channels and ground tanks (farm dams) with a pipeline and trough system is set to recover around 9000 megalitres in water savings per year.

Since the 1930s, many wildlife species have come to depend on the ground tanks, and so in 2011 and 2012, a study initiated by the local Landcare group began. It assessed the biodiversity values of Wah Wah's ground tanks and although they were relatively poor compared to the large, natural wetlands, it found that some supported important habitat and significant wildlife.

With Federal Government Caring For Our Country funding, this lead to successul habitat enhancement trials, such as earthworks to increase ephemeral shallows and fencing to manage grazing, all completed with a view to mitigating the future loss of habitat when the pipeline replaces the old system.

Murrumbidgee Landcare was then successul in seeking funding from the Norman Wettenhall Foundation in 2015 to capitalise on the momentum and local interest and extend the work to five key natural wetlands by developing specific management planning guides with the resepective landholders.

The idea is that these guides will provide a first step in initiating postive management actions and future resources and funding. These plans are intended to be concise, adaptive, guiding documents, and not onerous in their scope and implementation.

Because each of the owners helped determine these management plans and developed their specific objectives, it is hoped there will be a strong sense of ownership moving forward.



Arthur Naismith showing the height and vigour of the Lignum stands at 'The Box', November, 2015.

"Changes to how a wetland is managed, even subtle tweaks, can yield huge benefits for wildlife, without hindering agricultural outcomes and often improving them."



'The Box' provides important habitat for woodland birds, including Spotted Bowerbirds, which are now very rare in the NSW Riverina, having become regionally extinct further south.



'The Box'

Description & History: This Black Box (*Eucalyptus largiflorens*) wetland is approximately 75 hectares and occurs along the Wah Wah Creek. It contains large, healthy stands of Lignum (*Muehlenbeckia florulenta*), some reaching 3 metres in height as a result of a favourable history of grazing management.

It is one of the largest high quality, remnant Black Box wetlands in the Wah Wah region, and also supports large, open areas of Canegrass (*Eragrostis australasiaca*). The deep centre, at approximately 1 metre when full, serves as a refuge for waterbirds like Black-tailed Native-hens and Grey Teal, and other wetland fauna.

'The Box' wetland is situated in a 153 hectare paddock. It was one of the original Gunbar Station blocks and has an approximately 150-year history of sheep and cattle grazing, which remain the primary land use. The swamp fills in all directions from its surrounding local catchment during substantial local rainfall events, and particularly from flows along the Wah Wah Creek.

Values: 'The Box' represents an excellent regional example of a Black Box-Lignum wetland. It provides important habitat for small woodland birds like fairy-wrens, robins and thornbills. The habitat diversity, ranging from dense stands of Lignum to open Canegrass and mudflats, attracts a great variety of wildlife. 'The Box' contains large amounts of fallen timber and numerous old, hollow-bearing trees.



Major Mitchell's Cockatoos breed in Belah trees adjacent to 'The Box'.

Issues: The key issues identified for 'The Box' relate to grazing management, and weed and feral animal control. The western boundary fences of the paddock that 'The Box' is situated in are no longer functional. This 1.7 km section of fencing is adjacent to a Travelling Stock Reserve (TSR), meaning that maintaining the present sympathetic grazing regime is threatened when the the TSR is being used. There are some areas of Galvanised Burr infestation in 'The Box'. This and other weeds are potentially further spread with the dysfunctional fence. The area is also known to support foxes and cats, which can impact heavily on wildlife and lambs.

Opportunities: To replace western boundary fence so that grazing management can be maintained irrespective of stock present in the TSR.

Key Objective: To secure management of 'The Box' as a private wetland conservation reserve in the Wah Wah region.

Key Actions: Secure independent grazing management by replacing western boundary fence (1.7 km at total cost of ~ \$7000/km = \$11 900). Implement Galvanised Burr, Fox and Cat control program.

Future Considerations: Consider legally binding covenant to protect 'The Box' in perpetuity, such as those offered by the Nature Conservation Trust of NSW. Consider supplemental delivery of environmental water via No. 3 channel, or alternatively, remove part of this channel to help restore pre-1930 flows.



'The Box' contains open areas with Canegrass that support large numbers of waterbirds when flooded.



'The Box' is an approximately 75 hectare wetland along the Wah Wah Creek and represents one of the largest, most significant Black Box wetlands in the region.

Monitoring: Photo points and aerial imagery could be used to track any changes in the extent and structure of vegetation. Waterbird and frog surveys could be used to help gauge the biodiversity response and support management that maintains the habitat diversity which is central to the significance of this wetland.

Implementation and funding strategy:

Michael Fayle (Riverina Local Land Services), James Maguire (New South Wales Office of Environment and Heritage), Erin Lenon (Commonwealth Environment Water Holder) and Karen McCann (MIA Renewal Alliance) are all aware of this site and the opportunity to secure independent grazing management and control introduced species, as well as the potential to reinstate flows and deliver environmental water. Site visits to organise and approve funding for could be undertaken as soon as possible. Funding and resources can be organised as needed with Murrumbidgee Landcare and Riverina LLS.

Ackowledgements: Marion Benjamin was successful in seeking Norman Wettenhall Foundation funding, while Ian Auldist and Michael Fayle helped select sites, and Karen Jamieson helped manage the project. Matt Herring developed these plans with the respective landholders.