Restoring wetlands of the upper Wannon River floodplain, south-west Victoria

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Following historic artificial drainage, wetlands are now bouncing back with the help of new partnerships and innovative wetland restoration techniques.



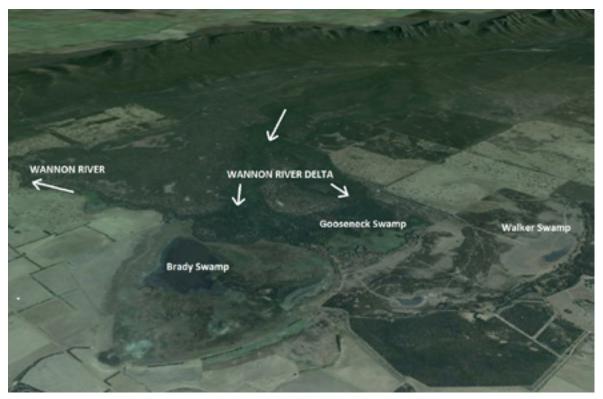
The Gooseneck Swamp Restoration Trial Structure was installed in August 2013 and is situated in the artifical outlet drain from the swamp (© Copyright, Mark Bachmann)

In a previous edition of *Wetlands Australia* (Issue 25, August 2014), readers were introduced to the initial results of a restoration trial undertaken at Gooseneck Swamp in the Grampians National Park, south west Victoria.

However, this wetland is just one of a series situated in the upper Wannon River floodplain that has been impacted by previous artificial drainage works. The early success of the Gooseneck Swamp Restoration Trial has led to a number of new partnerships across public and private land, resulting in some positive developments for other wetlands in this part of the catchment. With the critical support of private landholders (Todd and Roger Burger, Doug Craig, Vanne and Judy Trompf, and Macquarie Forestry), Parks Victoria and the Glenelg Hopkins Catchment Management Authority (CMA), and funding provided by the Australian Government, Nature Glenelg Trust (NGT) has installed a further two restoration trial structures in 2014 at Brady and Walker Swamps.

The structure at Brady Swamp was constructed in March 2014 with the support of 25 community volunteers. In spite of below average rainfall in the winter/spring of 2014, the structure is already having a positive impact on the hydrology of the wetland by increasing the retention level of water (and hence the duration of inundation) in the swamp, as well as re-invigorating flows in the adjacent natural Wannon River flowpath.

The second trial at Walker Swamp commenced in August 2014, with another team of NGT staff and volunteers doing a fantastic job — only this time in flowing conditions. While this makes things a bit more logistically difficult, it does have the advantage of enabling us to make an immediate assessment of the structure operating in real time.



Oblique view of the Upper Wannon River in Victoria, showing the wetlands associated with the floodplain and the direction of flow where the river exits the Grampians, before heading west towards Dunkeld (© Copyright, Mark Bachmann)

Although Walker Swamp receives catchment inflows and still certainly looks and behaves like a wetland for a short period each year, the drain that passes through the swamp (constructed in the 1950s) has caused the swamp to drain down rapidly every year as soon as inflows cease. The restoration trial at this site is therefore designed to prevent the swamp from emptying prematurely, but still enabling water to exit the swamp at the spillway height set for the structure, as negotiated with the private landowner. Importantly, during the trial phase planned for this site over the next couple of years, the spillway height can be adjusted to reflect a range of operating conditions. In the dry spring of 2014, the design of the structure worked perfectly by significantly extending the duration of inundation in Walker Swamp, long after catchment inflows ceased.

In a very positive footnote to this story, Nature Glenelg Trust has now received a Living Victoria Fund grant (awarded by the Office of Living Victoria) to permanently reinstate the natural banks of Gooseneck and Brady Swamp where they have been breached by artificial drains. This will capitalise on the results of the restoration trials by permanently protecting the re-instated hydrology of these important floodplain wetlands and restoring natural flow conditions to the upper Wannon River.

Nature Glenelg Trust will keep you up to date on the progress of its wetland restoration projects through our website: natureglenelg.org.au and future editions of the *Wetlands Australia* publication.





A restoration trial structure was installed on the outlet from Brady Swamp in March 2014. The site is shown here before construction in March and with the trial structure operational in August 2014 (@ Copyright, Mark Bachmann)



The restoration trial structure at Walker Swamp, installed in August 2014 (@ Copyright, Mark Bachmann)



The drain passing through the centre of Walker Swamp, August 2014 (@ Copyright, Mark Bachmann)