Water resource developments have impacted on wetlands and their flood-dependent vegetation around the world, including in the Macquarie Marshes of the Murray-Darling Basin. There is an increasing focus on restoration of such areas, including Pillicawarrina an agricultural area in the Macquarie Marshes. It was bought back by the NSW and Australian governments in 2009, along with its water license.

We investigated the importance of seed banks or propagules in the soil as predictors of the recovery of wetland vegetation once flooded. This soil seed bank provides the obvious potential for recruitment and restoration success.

We conducted germination experiments (Fig. 1) on soil samples collected from fields with different management histories, stratified along an inundation gradient on Pillicawarrina. We determined how native and exotic species richness and abundance varied along these gradients.

**Key outcomes:** Native soil propagule banks were remarkably intact, providing a reservoir for restoration of wetland vegetation, even in paddocks that had been cropped for 20 years. Species richness and abundance increased with increasing flooding frequency and decreased with the more intensive land management had been (e.g. cropping for +10yrs). Native species had significantly higher abundances in more frequently inundated areas. Abundances of exotic and more terrestrial species were higher in areas of intense prior land use. Species richness was similar across the paddocks with different management histories. With appropriate inundation, soil seed banks in less degraded areas of the Macquarie Marshes allow for restoration but elsewhere it may fail.

**Recommendations:** Past land use and flooding affect the potential capacity for wetland vegetation restoration success. It is critical to identify targets for restoration that take into account this potential. Increased flooding may alleviate negative effects of prior land use.