

## Addendum to the Blueprint to Repair Australia's Landscapes – March 2025

Since the publication of the Wentworth Group's Blueprint to Repair Australia's Landscapes (the Blueprint) in July 2024, the Inland Water chapter of the report has been updated based on the latest scientific data and methods. This updated analysis was published in a peer reviewed journal, *Marine and Freshwater Research*, in March 2025.

The Blueprint is a national assessment that needs to be updated as new knowledge emerges. Together, the journal paper and updated investment spreadsheet (Investment Spreadsheet version 2 – March 2025) reflect the latest scientific knowledge of the actions, investment and benefits of repair, and should be taken to supersede the Inland Water chapter of the Blueprint and the original investment spreadsheet (Investment Spreadsheet).

The journal paper, [Repairing Australia's inland river and groundwater systems: nine priority actions, benefits and the finance gap](#), found that improving vegetation on less than 2% of Australia's landmass could support healthier catchments and stronger communities, and could sequester 1.6 billion tonnes of carbon, equivalent to 37% of the carbon emissions reduction required under Australia's Paris Agreement obligations.

The paper shows that strategic investment of three billion dollars per year, less than point two percent (0.2%) of GDP, across 14.5 million hectares of degraded river corridors will unlock whole-of-catchment benefits for decades to come through reduced soil loss, healthier biodiversity, economic opportunities for regional and Indigenous communities, and resilience to climate change and extreme events.

Utilising high integrity carbon market methods, the sequestered carbon could generate up to 72% of the costs of the total inland water repair effort. Accounting for this revenue, the additional expenditure required could be as low as \$1bn/year over the next 30 years.

This latest research is our best available understanding of the nine practical repair actions for Australia's rivers, waterways and groundwater systems identified in the Blueprint: repairing riparian vegetation, financial incentives for landholders to retire strips of farmland alongside rivers and waterways, recovering water to return over-allocated rivers to sustainable levels of take, removing physical barriers which prevent water from reaching floodplain wetlands, installing fishways to improve fish movement and survival, capping and piping the remaining open bores in the Great Artesian Basin, and reducing unsustainable groundwater extraction.

While the nine actions remain the same as those published in the Blueprint, the methods and investment estimates have been revised overall, based on revisions to *Action R1.1-C - Restore, conserve and manage strips of healthy riparian vegetation riparian revegetation*, as follows:

1. Latest cost estimates for restoring riparian revegetation were included, based on new data provided by S. Andres based on the 2024 paper “A framework for ecological restoration cost accounting across context and scale”.<sup>1</sup>
2. A new analysis of carbon sequestration potential and carbon market revenue was undertaken using revised estimates of maximum potential biomass (MaxBio) across Australia.<sup>2</sup>
3. The methodology was refined to take into account the overlapping areas where major rivers, minor rivers and lakes buffer zones intersected spatially.
4. The journal paper identifies the specific National Land Use Mapping categories for cropping and grazing land used to inform cost per hectare revegetation estimates.

This journal paper is accompanied by an updated investment spreadsheet, Investment Spreadsheet Version 2 – March 2025, which reflects the revised methodology and updated costings for the Inland Water actions. The updated spreadsheet contains revised versions of all blue-coloured Inland Water tabs of the spreadsheet, as well updates to the Investment Summary, Master and Present Value tabs. It also contains new tabs capturing the new carbon sequestration and carbon revenue data for the Inland Water actions.

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<sup>1</sup> Andres SE, Mills CH, Gallagher RV, Adams VM (2024) A framework for ecological restoration cost accounting across context and scale. *Biological Conservation* **295**, 110671. doi:10.1016/j.biocon.2024. 110671

<sup>2</sup> Roxburgh SH, Karunaratne SB, Paul KI, Lucas RM, Armston JD, Sun J (2019) A revised above-ground maximum biomass layer for the Australian continent. *Forest Ecology and Management* **432**, 264–275. doi:10.1016/j.foreco.2018.09.011