

A National Code of Practice for Landscape Rehydration and Regeneration



+ PROBLEM

Land use in Australia has dramatically changed how water flows through the landscape. Vegetation clearing has removed our environment's primary mechanism for staying hydrated. Today, many rivers and tributaries are deeply incised and eroded, seriously affecting the capacity of our landscapes to hold and cycle water, sequester carbon, support agriculture, conserve biodiversity and moderate climate extremes. We have failed to objectively value the ecosystem services provided by our natural assets. With compounding pressures from climate change affecting an already arid continent, there is an urgent need for action.

+ OBJECTIVE: REBUILDING FUNCTIONAL LANDSCAPES THAT CAN WITHSTAND CLIMATE EXTREMES

Landscapes are resilient when biological processes drive the healthy cycling of water, carbon and nutrients. When land is degraded, these cycles don't function properly. We need to rebuild our landscapes so they can support agriculture and environmental sustainability, and be resilient to climate extremes. To do this, farming communities, who manage 61% of the Australian landmass, must be supported to adapt. They have the tricky task of producing food and fibre while also being stewards of our precious natural assets.

+ SOLUTION: LANDSCAPE REHYDRATION

Landscape rehydration projects, also known as 'natural infrastructure', 'conservation earthworks' and 'nature-based solutions,' can transform vast areas in just a few years. These projects use soil, rocks, logs, vegetation and adaptive management to slow the flow of water and repair 'landscape function': the patterns and processes by which a landscape retains and uses its vital resources as a biophysical system. Compelling scientific evidence is building global momentum for these solutions. Their multiple benefits truly stack up: they mitigate flood risk, foster drought tolerance, sequester carbon, control erosion, drive habitat recovery and filter pollutants from our drinking water. They are low-cost, low-tech and have negligible greenhouse gas emissions. They can also be scaled from a single erosion gully to the landscapes of an entire catchment.

HOW AUSTRALIA'S ENVIRONMENTAL LAWS ARE STALLING LANDSCAPE REHYDRATION PROJECTS

Paradoxically, the main obstacle is environmental regulation. Australia's environmental laws are complex and fragmented, with waterway-focused projects requiring approval from several agencies. Poor understanding of the benefits of natural infrastructure means projects are often rejected, bounce from one agency to another, stagnate due to the costs of commissioning expert reports, or are subject to the whims of just one overzealous agency representative.

For example, a common perception is that the in-stream structures function like dams, preventing water from moving downstream, or preventing fish passage along waterways. This reflects a lack of understanding of the nature and purpose of such structures. They in fact function the same way fallen trees, snags, organic debris and in-stream vegetation once did when we had well-vegetated landscapes. By creating pools, riffles and wetlands they dramatically improve aquatic and riparian habitat, water quality and downstream water availability.

Another concern that stalls projects is that their construction will disturb native plant and animal communities. Even where the project is designed to heal degraded ecosystems, biodiversity laws demand individual assessments of proposed structures, and costly offsets if there is perceived risk.

These and many other requirements mean legislation originally designed to prevent or lessen the harmful impacts of development is perversely stopping environmental restoration projects from happening.

REFORMING AUSTRALIA'S ENVIRONMENTAL LAW AND PLANNING SYSTEM

Environmental law and planning are failing the Australian environment. This is the clear message of multiple expert reviews and reports, including the State of the Environment Report, the Evaluation of the NSW Crown Lands Management Act and the Samuel Review of the Environment Protection and Biodiversity Conservation Act. A fixation on intricate compliance processes, rather than long-term environmental outcomes, is preventing rural communities from genuinely repairing their landscapes and mitigating climate risk. Other factors include the political and academic division of landscapes into wilderness for conservation, farmland for production, and the disbanding of Catchment Management Authorities in the 2000s. Experts agree that we need a whole-of-government, whole-of-nation approach to environmental sustainability outcomes, one that revolves around a set of standards matched to those outcomes. As Samuel writes: 'Standards

enable consistency and flexibility across decisions and recognise that the overall outcome is best accomplished by the collective achievements of all activities' (2020, p. 201).

The NSW Government has taken an exciting step towards reform, amending the NSW State Environmental Planning Policy (Transport and Infrastructure) 2021 to define landscape rehydration infrastructure as 'development without consent'. It has also created an accompanying *Landscape Rehydration Infrastructure Guide* outlining their benefits.

Governments have also funded parts of the Mulloon Rehydration Initiative in Bungendore, NSW – the leading example of catchment-scale landscape rehydration – and gully repair projects to protect the Great Barrier Reef from sediment influx. These are among a handful of projects that show Australia, and the world, what's possible. However, their success depends on both philanthropic and government funding, leadership from within government agencies and vocal community support. They remain exceptional projects when they should be commonplace. Farmers, Indigenous custodians and rural communities are cooperating in unprecedented ways in response to the droughts, bushfires and floods of recent years. Now is the time to capitalise on this groundswell and reform policy, channel financial investment and grow community capacity to implement these solutions.

A NATIONAL CODE OF PRACTICE FOR LANDSCAPE REHYDRATION AND REGENERATION

A 'Code of Practice' is a tried-and-tested way of integrating standards into a coherent compliance framework. Such codes are the norm in many sectors (see for example the *National Construction Code*, and Safe Work Australia's *Code of Practice*). A 'National Code of Practice for Landscape Rehydration and Regeneration' could incorporate regulatory safeguards around biodiversity, water quality and Aboriginal cultural heritage into a single governing instrument.

A single agency such as the Natural Resource Access Regulator could be responsible for ensuring compliance. This would relieve other agencies of costly administration, freeing them to work proactively with communities on code-compliant projects. Furthermore, an integrated national code with standards would align with the paradigm of 'adaptive management' that is now widely embraced as a strategic way to govern in the face of climate risk and uncertainty.

Images on next page:

TOP Westview November 2018

BOTTOM Westview December 2020

TAKING THE FIRST STEP

This paper outlines both a critical problem and vital opportunity for environmental governance in Australia. The Mulloon Institute brings considerable expertise to this situation. We are responsible for an internationally renowned landscape rehydration project and our staff navigate these issues daily in our interactions with government agencies, farmers, Landcare groups, Aboriginal custodians, natural resource management (NRM) organisations and international peers. We have confronted legislative barriers in all states and territories in Australia and witnessed the surprise and disappointment of many motivated individuals as projects have been stalled and money and volunteer hours wasted. These barriers have emerged even when significant government partners are involved.

In response, several environmental law experts have lent their support to our advocacy for policy innovation. With their help, we have drafted a skeleton Draft Code of Practice, reflecting in the first instance the legislative environment of NSW. Knowing that we have the support of a range of stakeholders, we intend to take this proposal to the Federal Government and seek liaison with the States and Territories to create a National Code.

If government, environmental agencies and the NRM sector take this opportunity to reform policy while building grassroots capacity, it would be the most transformative environmental governance initiative since colonisation. Communities could proactively hydrate their desiccated landscapes and adapt to climate change, and Australia could build an enduring culture of water resilience for future generations.



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