

Interconnected Landscape Management Framework

Summary: MCG's interconnected landscape management framework effectively integrates BNAC aim to protect and conserve the living cultural heritage of the Ngunawal people, for inclusive stewardship outcomes.

MCG and BNAC Collaborative Partnership

The Molonglo Conservation Group (MCG) was formed in 2003 with the principal objective of developing the Molonglo Catchment Strategy. The Group now works to implement this strategy, supporting 25 Landcare, Park Care and Urban Landcare groups in ACT and NSW. MCG activities cover urban, peri-urban, rural and conservation landscapes in the Molonglo catchment.

The Molonglo Catchment Strategy has guided MCG's response to uncertainty and change associated with climate adaptation, especially concerning environmental and economic viability, and the implications of these challenges for environmental and social resilience.

In seeking sustainable, long-term outcomes MCG brokers cooperative management partnerships beyond the Molonglo catchment boundaries so that member groups and other key stakeholders may benefit from connections made through collaborative regional projects in support of MCG program delivery. As Traditional Custodians, the Buru Ngunawal Aboriginal Corporation (BNAC) is a key stakeholder.

BNAC was set up in 2002 to ensure that the living cultural heritage of the Ngunawal people would be protected and conserved for future generations. BNAC is a member of the ACT Government's cultural heritage body (Representative Aboriginal Organisations) and is registered with the NSW Office of Environment and Heritage. BNAC has representatives on committees and boards advising Landcare ACT and ACT Environment on Ngunawal cultural matters, including LACT Board, LACT Members' Council, and the ACT Government's Dhawura Ngunawal Caring for Country Committee.

BNAC shares knowledge and insights of Ngunawal traditional social and cultural values with Government agencies to improve community health and well-being and to minimise the impacts of urban development on cultural places.

Since 2013, BNAC has guided the stewardship efforts of MCG and the broader local Landcare community on the ground; to foster better understanding of the present-day urban, peri-urban and rural landscapes of the southern tablelands of SE Australia, in the context of past and continuing Ngunawal social and environmental practices (Caring for Country). This guidance is underpinned by traditional knowledge of the culturally defining ancient Murrumbidgee River system, the headwaters of which the Molonglo and Queanbeyan rivers are a part, and on which the ACT stands.

The collaborative partnership between MCG and BNAC has continued to evolve, coinciding with MCG's move away from a conventional asset management approach, where land, water, biodiversity and community assets are accounted for separately, to adopt an interconnected approach. The holistic understanding of an interconnected approach accepts that natural resource management involves consideration of ecological and social aspects that are interrelated, as an interconnected system. An interconnected approach analyses the factors influencing the whole socio-ecological system at different scales in space and time and assumes continuous change. It also acknowledges the level of uncertainty in our knowledge, understanding of future conditions, and is consistent with BNAC's aim to protect and conserve the living cultural heritage of the Ngunawal people.

In summary, MCG's natural resource programs connect ecosystems and communities and integrate science with Aboriginal biocultural knowledge. The relationship has strengthened

and grown so that all three ACT catchment groups – Molonglo, Ginninderra, Southern ACT, and peak body Landcare ACT collaborate across the ACT region.

Integrating Ngunawal knowledge and practice into landscape assessment and management.

Aboriginal consultation in cultural and some peripheral areas of landscape management has been acknowledged for some time by governments and natural resource managers. However, generally the broader community is still to realise the potential for creating new shared knowledge through cooperation that places this knowledge as a central tenet in natural resource management (NRM).

To assist in addressing this gap, MCG uses an Interconnected Land Management (ILM) framework to structure its strategic programs and projects in a way that is inclusive of social, cultural and environmental outcomes. ILM provides an over-arching practice-based framework for water and land management and research with a view to long-term sustainability. The framework can be used to facilitate knowledge exchange and deeper connections between landholders, land carers and Traditional Custodians, with the land and waterways. ILM weaves Aboriginal Caring for Country into biodiversity, NRM science, marketable productivity, research and technology outcomes for landholders and land managers.

The ILM framework provides an innovative method for assessing and managing landscapes while providing an opportunity to build connections and understanding between landholders and Aboriginal custodians for inclusive stewardship outcomes. Traditional Aboriginal culture is integrated into the framework, firstly by using the traditional Ngunawal territorial area to define MCG's understanding of regional landscape boundaries that were shaped by the ancient Murrumbidgee River corridor. Secondly, Aboriginal land custodianship and land management practices inform MCG's NRM approaches. The framework facilitates knowledge exchange and enables sustainable 'Caring for Country' on public and private property.

The exchange of knowledge and practice is part of a process that has, to date, included cultural site assessments, traditional cool burning and cultural awareness activities in association with ecology/biodiversity, soils/hydrogeology, cultural assessments, property planning and catchment monitoring. ILM has been used to facilitate deeper connections between landholders, Landcarers and Traditional Custodians, with the land and waterways.

ILM has provided an over-arching framework for water and land management and research, with an inclusive program focus on the following conservation outcomes:

LANDSCAPE PROGRAM – Outcome: Interconnection of people and environment

- **Cross-border policy and management:** grant applications, climate adaptation strategic mapping, environmental and heritage assessments and cross-border partnerships, monitoring and evaluation, NRM program design and management, regional agricultural economics.
- **Interconnected Landscape Management:** research and technology, NRM science, rural productivity, Aboriginal Caring for Country.

CAPABILITY PROGRAM – Outcome: Sustaining Resources

- **Management of Programs:** Community engagement, ecological connectivity, sustainable landscape management, waterway health.
- **Community Engagement:** Brokering stakeholder partnerships, facilitate forums and consultation and submissions and volunteer management.

- **Traditional Aboriginal Culture:** Cool Burns, Aboriginal plant food species, workshops and walks, partnerships with Ngunawal community.

KNOWLEDGE PROGRAM – Outcome: Landscape Planning

- **Rural Landscape Management:** Conservation Agreements, flora and fauna management, habitat value of trees, landscape planning and restoration.
- **NRM Technologies:** Bio-cultural Aboriginal knowledge, GIS mapping, science and salinity management (HGL mapping).
- **Citizen Science:** Waterwatch and Vegwatch, Frogwatch and Platypus surveys.

Sustainability in land and water management practices: MCG-BNAC partnership’s initiatives that promoted inclusivity within the community, engaged various stakeholders and facilitated broader participation.

2013 - 2015 - Ngunawal perspective walks and talks (Landcare and cultural heritage) integrating cultural landscape interpretation, Earth Sciences and Landscape Evolution, Water science and Ngunawal cultural perspectives. Collaborators: MCG, BNAC and University of Canberra.

2016-18 “Caring for Ngunawal Pathways” project – Integrating Aboriginal and Non-Aboriginal NRM in Canberra Northern Reserves - enabling Ngunawal cultural knowledge and traditional land management practices to be shared, applied and integrated in on-ground NRM works in Canberra’s northern nature reserves. Collaborators: MCG, BNAC, Friends of Grasslands, Park care groups.

2017 “Footprints of Royala” - Hydrogeological Landscape workshop for management of salinity and soil erosion by Royalla and Burra landholders, incorporating Ngunawal Aboriginal land management practices.

2017 “Sustainable Agriculture in the Majura Valley” workshop series - Landcare, NRM, agribusiness, scientific and Ngunawal cultural perspectives:

- “Introduction to traditional Aboriginal “Firestick Farming” in the 21st century”
- “Hydrogeology and water quality management”
- “Landcare in practice” – riparian restoration site, demonstrating Ngunawal cultural and sustainable rural land use perspectives.
- “Park Care and the peri-urban interface” – People’s perceptions affect management decisions.
- “Ngunawal Women’s Campfire” family history and language workshop.

2018 “Aboriginal Agriculture: Aboriginal Cultural Land Management and Sustainable and Productive Rural Practice for the 21st Century – An early evening conversation with Bill Gammage and Bruce Pascoe”. Facilitated by Peter Bridgewater (Chair Landcare ACT) and Wally Bell (Ngunawal Elder). Audience: 150 Landcare volunteers/local rural landholders. Video recording disseminated widely. Landcare ACT collaboration.

2018-2024 “Landscape species conservation—Pink-tailed Legless Lizard habitat in the Googong-Burra region”. Save Our Species project co-funded with Googong Township Pty Ltd. Ngunawal cultural assessments guide Aprasia habitat revegetation and restoration management in Googong township and participating outlying rural landholdings. Ngunawal cultural walks and talks inform new township residents.

2018-19 Traditional Ngunawal Cool Burn workshop series providing training for Landcarers, National Capital Authority, Rural Fire Services at Bullan Mura, and local rural landholders in Googong and Williamsdale area; before and after Vegwatch monitoring.

2019 Jerrabomberra Creek restoration - Wandiyali Restoration Trust. Ngunawal cultural assessments of riparian and woodland restoration sites guide ongoing woodlands and creek bank management, includes traditional cool burns.

2019 Black Mountain Walking Trail signage - Incorporating Ngunawal information and drawings about Aboriginal plant use in nameplates on walking trails on Black Mountain reserve. Collaborators: MCG, Friends of Black Mountain and BNAC.

2019 “Cultural Connections: Ngunawal stories of Lake George” Bungendore region workshop for small farm landholders to learn about the natural and cultural history of the local landscape and the interconnection of ecological and Ngunawal cultural values. Partnership: MCG, BNAC and Small Farms Network – capital region.

2021. Jerrabomberra Creek Workshops for rural landholders and Landcarers. Expanded Ngunawal Welcome to Country set the context for workshops and discussion of historical land use effects on Jerrabomberra Creek. Followed by workshops on native seed collection and erosion control, including banking erosion cuts with rocks and planting native grasses. Partners: MCG, ACT Parks and Conservation Services, Rivers of Carbon, BNAC.

2022 “Women’s Role to Water” – three-month journey, with activities along Jerrabomberra Creek, Duke of Edinburgh program. Collaborators: MCG, BNAC, Canberra Girls Grammar.

Impact of the partnership's efforts to integrate Ngunawal cultural practices into mainstream NRM and Landcare practices.

BNAC’s involvement has enabled environmental, community and personal (spiritual) perspectives to be deeply appreciated and included in management plans and procedures, thus into broader Landcare, cultural heritage, and land management strategies.

Caring for Ngunawal Pathways addressed gender imbalances in understanding of Aboriginal culture. BNAC Ngunawal Elder Karen Denny won the 2021 KPMG Indigenous Land Management Award (State: Australian Capital Territory) for her work, in collaboration with MCG, raising public awareness of traditional women’s culture for the protection and care of Ngunawal cultural places.

Landcare volunteers, landholders and land managers received training and an appreciation of the cultural aspects of management practice. They followed Ngunawal protocols and worked in gender-specific culturally sensitive areas and on sites of cultural features and artefacts that are seldom recognised.

The MCG-BNAC collaboration continues, attracting broader stakeholder engagement beyond the Landcare community. The breakdown of environmental connectivity across the urban footprint reflects community disinterest in connecting to nature. Renewing community and personal connection to nature fosters efforts to increase stewardship of new and proposed regeneration activities and support for re-naturalising paved waterways.

In 2021 “Following Sullivan’s Creek” focused on the cement-lined Sullivan’s Creek in innernorth Canberra - a collaboration involving MCG, BNAC, Create and Sow, Watermark – catchment studios and the Australian National University. The waterway was used to network people from local institutions, organisations and communities who were invited to tell important stories about the impact of colonisation. Participants used their own perspective to bring different aspects of the creek to life. Cultural knowledge, science and art were employed during curated walks, to uncover and tell unique stories of place, recorded through videography and public art. A symposium was later organised at the National Museum of Australia, as an offshoot, to explore more deeply the different ways people connected to the waters.

“Following Sullivan’s Creek” evolved out of the community coming to understand that the paved waterway was a creek and not a drain. Increasing government waterways funding for community engagement coupled with the re-naturalisation of Sullivan’s Creek, has meant that the journey continues and has spread into the other two ACT catchments. Sustaining the resources of Sullivan’s Creek, Ginninderra and Tuggeranong Creeks will benefit from long-term stewardship for proposed on-ground works.

2022-2023 saw MCG members in new suburbs of the Molonglo Valley collaborate with BNAC to produce interpretative artwork about plant species chosen to increase biodiversity in urban open spaces. The signs were designed to connect nature and culture while educating urban Landcarers and their multicultural community about interconnected management of their suburb.

In 2023-2024 Ngunawal cultural heritage walks and talks are focused on regional scale collaboration involving BNAC, all three ACT catchment groups and Landcare ACT. Two “Community Learning on Ngunawal Country” cultural heritage walks were held in 2023. Over the coming months “Interpreting Ngunawal Country” will target the broader community and specifically target Landcare stewardship groups to improve their ability to identify and preserve Ngunawal sites and artefacts, culturally important landscape context/practices and how to apply them as part of their environmental activities.