

## **Healthy Soils Australia**

Proposal for a refining a joint action plan with K2C focused on;

### **Restoring Resilience on the Monaro**

#### **The reality and challenge of restoring the Monaro**

The rich granite soils and wetlands of the Monaro region east of the Australian Alps in southern NSW was, at European settlement, one of the most fertile and productive region supporting a diversity of crops, healthy farming communities and a fine wool industry.

However over the past 50 years much of the Monaro has seriously degraded with the collapse of soil organic matter and structures, pasture declines, widespread wind and gully erosion, desiccation, weed development, the loss of protective native shelterwoods leading to its systemic aridification and marginal viability, agriculturally and socially.

With the now inevitable intensification of climate change, the Monaro risks further serious aridification from increasing rain shadow, declining condensation capture and lower infiltration and soil water retention effects. Unless addressed this risks the further serious collapse of bio-systems on the Monaro within decades.

To arrest this degradation and avoid these risks we need to urgently;

1. Restore the natural protective shelterwoods on ridges and slopes to reduce desiccating winds, exposure and stress within restoring bio-systems.
2. Restore the former soil organic matter and structures so as to restore the infiltration, retention and availability of the reduced rainfall that does fall.
3. Restore and protect riparian areas to reduce water and nutrient loss and aid the recharge of valley fills and natural former hydrological cycles.
4. Restore the natural perennial grasses and the bio-productivity of pastures to progressively replace the now dominant but protective introduced weeds.
5. Rebuild natural herbivore bio-diversities and nutrient cycling while reducing adverse impacts from excessive feral and introduced herbivores and pests.
6. Reinforce the resilience of these bio-systems to sustain bio-diversity and growth in the face of inevitable increased stresses due to climate changes.
7. Re-build the diversity and interconnectivity of micro-habitats to help restore natural gene flows and the health of bio-systems from Kosiuszko to the Coast.
8. Restore the natural biological nucleation and capture of increased fog and rain falls to sustain the rehabilitation and health of these bio-systems and the Monaro.

However we may only have a decade to re-establish such natural restorative processes if we are to avoid the further collapse of bio-systems and communities due to intensifying aridification due to climate changes.

#### **Our response options.**

Fortunately highly effective practical means are available through which local land managers can sequentially and synergistically restore each of these key ecological processes, bio-systems and the health and resilience of the Monaro and its communities.

While the implementation of these restoration ecologies can be done profitably, to be most effective they need to be designed and applied within regional and farm restoration plans tailored to the particular needs of the Monaro and monitored and evaluated to ensure they serve performance objectives.

Consequently to catalyse the needed urgent changes it may be most effective if;

1. Local lead farmers and change catalysts work with appropriate specialists to develop such land system and resilience restoration strategies and tailored implementation plans for representative farms and the wider region.
2. These restoration and resilience building practices are applied within lead demonstration farms where their effectiveness can be evaluated, documented and used to promote and extend the wider adoption of such demonstrated improvements to interested farmers throughout the region.
3. The regional change catalysts monitor, aid and document the wider adoption of such improvements and their resilience outcomes throughout the region.

Subject to further discussion, Scottsdale, Bush Heritage Australia and the Kosciuszko to Coast initiative may represent a potential lead demonstrator and catalyst for how such restoration ecologies could be refined and extended for the wider Monaro region.

Healthy Soils Australia, a not for profit network of farmers and professionals similarly has access to leading practical technologies, science and specialists relevant to the refinement and tailoring of restoration ecologies in each of the areas identified.

The use of Scottsdale as a focus and demonstration site for such land restoration and climate change response strategies may also be consistent with your Bush Heritage mission of providing a showcase, accessible to Australia's national capital, of such restoration ecologies and their critical role in restoring Australia's natural bio-diversity.

### **Suggested next steps**

Should you be interested HSA would welcome further discussions on how best to;

1. Plan, implement and demonstrate such land restoration approaches at Scottsdale and throughout the Monaro.
2. Access the available CMA support for planning and then implementing such resilience restoration strategies (noting the 20 Feb closing day for EOIs for the current round).
3. Contribute to the Bush Heritage and K2C initiatives in refining, applying and demonstrating innovative practical ecologies relevant to restoring the resilience of the Monaro.

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