

Mr Kevin Goss  
Chair  
Soil Land Conservation Council  
Department of Primary Industries and Regional  
Development  
3 Baron-Hay Court  
**SOUTH PERTH WA 6151**

Dear Mr Goss

**SOIL AND LAND CONSERVATION COUNCIL WESTERN AUSTRALIAN SOIL  
HEALTH STRATEGY DISCUSSION PAPER**

Thank you for your invitation to the Environmental Protection Authority (EPA) to contribute to the Western Australian Soil Health Strategy.

The EPA Board is appreciative for the presentation you provided on 14 July 2020 regarding the *Western Australian Soil Health Strategy – Discussion Paper*.

In response, the EPA provides the following submission regarding the *Western Australian Soil Health Strategy – Discussion Paper*.

Yours sincerely



**Tom Hatton**  
CHAIRMAN

27 July 2020

Att – Environmental Protection Authority Submission to the Western Australian Soil Health Strategy – Discussion Paper

## ENVIRONMENTAL PROTECTION AUTHORITY SUBMISSION TO THE WESTERN AUSTRALIAN SOIL HEALTH STRATEGY – DISCUSSION PAPER

27 July 2020

### Background

The *Western Australian Soil Health Strategy – Discussion Paper* represents a key opportunity to address the State's soil health, which is vital for the sustainability of the agricultural, horticultural and pastoral sectors. The EPA commends the proposed vision underpinning the strategy, which aims to deliver the benefits of healthy and diverse soil ecosystems now and into the future.

The EPA notes the Western Australian (WA) State Government's re-introduction of the Soil and Land Conservation Council, under the *Soil and Land Conservation Act 1945*, after a period of hiatus. The EPA commends the WA State Government's initiative to address the challenges associated with sustainability of soils in WA's agricultural, horticultural and pastoral sectors. In doing so, the EPA notes that while Part IV of the *Environmental Protection Act 1986* (EP Act) provides for independent advice on matters including potential impacts to soils and terrestrial environmental quality, land managers and administrators and the wider community benefit from clarity in government direction and regulation. As such, while independent, EPA advice is developed with an understanding of how the State's policy and regulatory environment also serves to protect and enhance the environment.

It is in this context that we provide the following comments:

### Western Australian Soil Health Strategy

The *Western Australian Soil Health Strategy – Discussion Paper* recognises that soil health encompasses the physical, chemical and biological components of the soil ecosystem and the services this ecosystem provides.

The EPA recognises the need to maintain the quality of land and soils so that environmental values are protected and similarly, its own consideration of soils encompasses the chemical, physical, biological and aesthetic characteristics of soils. Regardless of the land use, soil health strategy should recognise that soils support ecosystem health values, which provide critical ecosystem services, including carbon sequestration.

Of these, the EPA considers the most significant policy intersections relate to the following issues:

- *Pastoral land management* – The EPA notes that ecological sustainability is a key responsibility for pastoral lessees and for which soil health is a benchmark for sustainability in the pastoral rangelands. The pastoral land reform process currently underway has at its core the maintenance and improvement of



rangeland productivity and condition. There are long-standing concerns in this regard, across a pastoral estate covering about one third of Western Australia. The State Soil Health Strategy should recognise the importance of land stewardship and long-term sustainability in managing Crown land assets on behalf of all Western Australians.

- *Carbon offsets* – Carbon offsets, including carbon farming are being touted as an effective mitigation for greenhouse gas emissions. Clarifying the effectiveness of soil carbon in the context of genuine carbon pollution reduction would be a strategic research pursuit. Research learning should be considered in policy extension for both carbon pollution mitigation and rangeland productivity.
- *Water management* – Soil health management and the protection and management of our water resources are intrinsically connected, and manifest in issues of water quality, dryland salinisation, and the maintenance of groundwater-dependent ecosystems and wetlands. A State Soil Health Strategy should ideally and clearly connect with policies and regulations protecting water resources and dryland salinity mitigation, and vice-versa.
- *Climate change* – Land managers, across agricultural, horticultural and pastoral sectors, will need to factor climate change into their soil management practices to adapt to the changing environment and ensure long-term sustainability to their operations. This may include significant shifts, modification and adaptations to traditional business models, including consideration for better alignment of land use with land capability.
- *Land rehabilitation* – Land rehabilitation is continuing to evolve in both policy and practice, across varied land management sectors including pastoral and agricultural land uses. This extends into the research requirements for understanding retention of biodiversity within soils (e.g. seed banks) to sustain long-term healthy functioning ecosystems across land use. Land rehabilitation activities may also be associated with offsets (i.e. carbon farming). A State Soil Health Strategy should ideally embrace the opportunity to improve data capture and coordination of land rehabilitation activities that will enhance the outcomes and improve sustainable land management practices for the whole of the state.
- *Monitoring and soil health* – Monitoring soil health is an important element of examining sustainability of land management practices across sectors and is not exclusively a compliance tool. However, a State Soil Health Strategy should consider links to other state strategic initiatives that aim to deliver state-level synoptic views and ensure that the appropriate technical capacity is supported and resourced within government.

## **Soil Health Strategy Key Themes**

In part because of the above challenges, the EPA supports the proposed key themes addressed in the soil health strategy: research and application, carbon sequestration and soil governance. It is essential that support for technical expertise and capacity to deliver the key themes of the state strategy are appropriately resourced and sustained. Government and land managers should ensure best practice and adaptive management under-pin soil management practices across land use. Soil health management and long-term sustainability should be prioritised and monitored, as decisions and management of soil ecosystems can influence soil health beyond land use and tenure boundaries. This is particularly relevant across the agriculture and pastoral sectors, with the economic sustainability for some of these businesses reliant on mixed-land tenures and business models that cross sectors.

The EPA suggests that any state strategy for soil health consider regionally-tailored soil governance and management recommendations in accordance with variation in environmental pressures and impacts, recognising differing geographies. This approach aligns with other significant state strategies, including the Native Vegetation Strategy, which has intrinsic links to soil health. Considering clear synergies between the Native Vegetation Strategy and a State Soil Health Strategy has the potential to strengthen the fundamental aim to deliver improved vegetation cover across sectors.

Furthermore, soil governance and research should consider the various pressures and threats that may contribute to cumulative impacts to the health and function of soil ecosystems and the overall soil productive capacity across land use. A regionally-tailored approach may provide an opportunity to incorporate specific values, pressures and threats to a particular area, including existing, emerging and future considerations and potential recommendations and soil governance for appropriate management strategies.

## **Conclusion**

In summary, the EPA is supportive of a State Soil Health Strategy that will improve the transparency and robustness of land management practices to ensure the sustainability of the State soils now and into the future. Supporting the State Strategy, the EPA encourages the development of strategic monitoring methods, mechanisms and information tools that facilitate the identification and management of regionally important elements (i.e. values, assets and threats) pertaining to impacts to soil health. Furthermore, the EPA strongly encourages innovation and data capture that supports reliable, accurate metrics on soil health and ecosystem functioning to improve decision-making for both government and land managers alike.

The EPA welcomes this opportunity to provide input to the process, and would similarly welcome the opportunity to provide input and expertise on the issues outlined above as the State Strategy is further developed.