

EPA Inquiry: Submission made by Trust for Nature (Victoria), November 2015

Background

Trust for Nature (Victoria) is a public entity established as a result of the Victorian Conservation Trust Act 1972 and our statutory objectives and functions are aimed at facilitating private land conservation and protection outcomes. The Trust sits within the Department of Environment Land Water and Planning portfolio and uses in perpetuity private land protection agreements registered on title as one of its primary mechanisms for achieving conservation outcomes. The Trust has a network of staff across the state with land management and ecology expertise engaged on our own initiated projects, but mostly, on a fee-for-service basis by both public and not-for-profit organisations. Partnerships are the lifeblood of how the Trust achieves outcomes.

Current activities are focused upon supporting Victorian landowners and communities by identifying ecologically significant areas of private land for protection, restoration and rehabilitation, and providing guidance and advice including activities that impact on wetlands, coastal and riparian environments. We do this by working closely with and providing services to support the efforts of Victoria's Catchment Management Authority network and other public (e.g. local government), private sector (e.g. mining interests) and not-for-profit (e.g Bush Heritage Australia, Greening Australia, Bank Australia) entities.

As at 2015 the Trust has responsibility for around 100,000 hectares of privately protected land (the majority of which is owned by individual Victorians and managed by them under conservation covenant agreements with the Trust) with significant ecosystem services and ecological processes protected in perpetuity, including wetland/riparian values and carbon stores. With the power to negotiate, deal with and enter into a range of land related agreements to protect natural assets, the Trust has continued to evolve the range of its services in response to changing environmental needs.

In recent years we have also facilitated a number of regulatory related and voluntary biodiversity, wetland and native vegetation offset agreements, protecting high conservation value areas of land. These offset agreements like all conservation covenants, are registered on title and recognised as part of the Commonwealth and state agreed framework for the National Reserve System.

Against this background we are aware of the critical importance of modernising regulatory mechanisms to protect the environment, water and air quality. We recognise the timeliness of the EPA Inquiry given population and competing land use pressures in Victoria and the need for climate change adaptation efforts to be scaled up and increased. Our brief submission is based on a belief in the EPA Inquiry presenting a once in a generation opportunity to consider how to better align the efforts of all environmental protection organisations for public, environmental and economic benefit.

What do you think are the key environmental challenges which will impact the EPA in the future?

The Trust submits that the Inquiry recognise in its final recommendations two (2) additional key environmental challenges from those already identified in the Discussion Paper. In identifying these two additional key environmental challenges we are mindful of the guiding principles outlined in the current Act, in particular:

- Precautionary principle
- Conservation of biological diversity and ecological integrity
- Principle of improved valuation, pricing and incentive mechanisms
- Principle of shared responsibility

1. Unsustainable rates at which Victoria is losing private land related native vegetation, biodiversity and high quality habitats critical to the ongoing health of the Victorian environment, air quality, streams, waterways and marine environments.

Victoria has the highest proportion (62%) of private land of any state and territory and is the most highly altered in terms of ecological health and vegetation loss. The rate of loss of land habitat also exceeds the gains being achieved through protection and management: ("Native Vegetation Net Gain Accounting - First Approximation Report, DSE 2008"). Victoria's public land estate does not and cannot realistically be extended to protect enough of our natural heritage assets needed for the future well-being and resilience of our environment, economy and future generations. Whether or not the EPA has responsibility for the strategic planning and responses designed to ensure the protection of existing natural heritage assets on private land that are under threat of decline or loss, such protection outcomes will be key to realising future EPA statutory objectives and guiding principles. The importance of this environmental challenge is confirmed by the Victorian Government's premier statutory advisor on public land matters, the Victorian Environment Assessment Council (VEAC) in its report, "*Remnant Native Vegetation Investigation 2011*", at p.4:

"Preventing habitat loss and improving the condition of native vegetation is, by many orders of magnitude, more cost-effective than revegetation and has significantly better conservation outcomes. Revegetation has an important role but, because of the cost and resources required, revegetation should be strongly targeted to key strategic areas. Recognising the primacy of retaining and enhancing existing native vegetation, VEAC has identified several areas where prudent investment can achieve measurable conservation goals provided adequate resourcing is available."

Removing public policy and structural barriers to protection of existing important natural assets on private land needs to become an important component of measures taken to effectively address this key environmental challenge: E.g. dedicated and ongoing land protection programs; removing land and income tax disincentives. International experience indicates that the effectiveness of land protection programs using incentives are greatly enhanced by reforms that ensure taxation incentives and removal of disincentives.

The economic and environmental benefits of large scale restoration of habitats, wetland and forest areas are also recognised: *Regional Case Study: A Natural Investment (2010) Victoria Naturally Alliance*.

2. The largely unquantified value of Victoria's natural capital assets and economic benefits

Regardless of whether found on public or private land; we submit the largely unquantified value of Victoria's natural capital asset base needs to be added as another key environmental challenge. The public benefits able to be derived from ecologically significant natural habitats, native flora and fauna, wetlands, marine and riparian areas are significant. These multiple public benefits are commonly summarised in the following manner:

1. The biodiversity of the natural environment provides a wide range of ecosystem goods and services that are integral to life, such as clean air and water, food, medicines, timber, fuels and genetic materials.
2. Biodiversity builds and protects soils, stores and cycles nutrients essential for food production, controls pests, breaks down pollutants in the environment, aids recovery from unpredictable natural or catastrophic events, and helps maintain a stable climate.
3. Healthy natural heritage contributes to the emotional and spiritual well-being of individuals and communities.
4. Distinctive native fauna and flora species are central to national and state identities. In Victoria the Helmeted Honeyeater and the critically endangered Leadbeater possum are the State's faunal emblems.

5. Indigenous traditions and culture are inextricably tied to the Australian landscape and its biodiversity.
6. A healthy natural environment has significant recreational value for many Victorians and domestic and international visitors to Victoria and benefits the Victorian economy.

The ability to mitigate the costs of addressing environmental risks and impacts by better understanding the value of protecting and rehabilitating natural ‘blue and green’ infrastructure solutions, presents both a challenge and future opportunity for the EPA and the Victorian community.

"CSIRO has estimated the value of Australia's ecosystems, its air, water, forests, flora and fauna at more than \$1,300 billion per year. For example, protected wetlands and water catchments purify the water we drink. Forests and plant life filter and oxygenate the air we breathe, native vegetation helps protect against floods and soil erosion. Healthy functioning ecosystems help plant pollination and seed dispersal. Healthy ecosystems also help maintain our biodiversity: the genetic diversity and resilience of our flora, fauna and micro-organisms."

Source: Department of Environment website October 2014 - Australian Government

The Trust recognises that Parks Victoria has recently completed a high level estimate of ecosystem service value to the Victorian community of lands under its management – *Valuing Victoria's Parks: Accounting for ecosystems and valuing their benefits: Report of the first phase findings (2015)*; and the Department of Environment Land Water and Planning is actively supporting development work on environmental accounting. These studies are necessarily at a high level given the early stages of ‘the art and science’ of environmental accounting. There have also been significant collaborations between private sector and not-for-profit organisations pulling together data on the economic value of land sector environmental protection. E.g. Victorian National Parks Association “Native Vegetation: Victoria’s Natural Equity (2013) and NOUS group’s “The Future Economy Project: The economic impact of diminishing natural capital in Victoria”(2014). Nevertheless, we believe more institutional support for prioritising and scaling up this work is required by protection agencies such as the EPA to underpin future regulatory and non-regulatory (e.g. use of market mechanisms) approaches to protecting Victoria’s environment.

To help put this in context we draw to the Inquiry panel member’s attention to the significant work occurring in this space internationally and the UN. One high profile and significant example comes from the UK National Ecosystem Assessment (2011) Report which provided a high level assessment of the value of Britain’s ecosystem services to the economy and well-being of the population and made specific recommendations about the importance of developing valuation metrics to underpin urgent and effective action to halt the loss of natural assets. Significantly, the Cameron government established a high level Natural Capital Committee to help it ensure the value of England’s natural capital and its potential to support growth is fully taken into account in decision-making. This committee provides advice on the state of English Natural Capital to the Economic Affairs Cabinet Committee, chaired by the Chancellor of the Exchequer and has recently completed further substantial work on integrating economic and natural capital interests; <http://www.naturalcapitalcommittee.org/>

The Trust recommends that private land conservation and protection be recognised and supported by the future legislative and administrative arrangements supporting the EPA as one of the key components to achieving its statutory objectives and responsibilities. That is, the Trust highlights the value of ecologically significant habitats and vegetation in addressing the environmental challenges faced by the Victorian community now and in the future. In response to the Discussion Paper questions, areas highlighted by us include –

Protecting water quality:

Vegetation and private land riparian area protection and rehabilitation play a key role in protecting the health of Victorian waters. The current condition of Victorian waters indicates a lot more needs to be done to improve the health of our bays and waterways and initiatives to harness the potential of private land protection and conservation to assist with this task should

be recognised as a tool the EPA should use in the future. In summary, protection of significant natural areas on privately owned land needs to be recognised as one of a range of strategies for reducing pollutants entering Victorian waters and marine environments including wetlands, riparian waterways and catchments.

Climate change: The preservation and conservation of vegetation on private land has a critical role to play in mitigating the environmental and human health impacts of climate change by :

- (I) maintaining the diversity of our natural species upon which future generations of all life forms will depend;
- (II) effective air, water and soil quality stewardship;
- (III) landscape connectivity enabling species movement as climatic conditions change; and
- (IV) maintaining existing stores of carbon as well as providing the means to sequester future carbon.

As potential participants in the emerging carbon markets promoting avoidance, reduction and offsetting of greenhouse gas emissions, both private land owners and industry could enjoy potential economic benefits by supporting private land conservation. Currently, the national regulatory frameworks for quantifying land-based conservation contributions to emissions reduction and carbon management do not adequately recognise the scientific, ecological and economic benefits of the carbon stores within existing native vegetation, aquatic and marine environments. The Victorian environmental protection authorities could scale up their efforts to ensure appropriate regulatory and market mechanism recognition of existing carbon stores, particularly on private land.

Protecting liveability (land use planning) – the Trust supports EPA's involvement in higher-level planning decisions at a municipal, precinct and State-wide level to help ensure environmental risks are adequately considered early in the planning process. The Trust recognises that private land conservation in land-use planning decisions can help protect residents from the impacts of dust, noise and odours, improve certainty for business investment from urban encroachment, improve landscape connectivity, and mitigate impacts on local waterways.

Being strategic and proactive to prevent environmental problems – the Trust recommends that EPA recognise and support the development of natural systems/'green and blue' infrastructure approaches for addressing diffuse sources of pollution to Victorian air, water quality and high risk areas. Private land habitat represents a substantial component of all aquatic and coastal ecosystems in Victoria. Land tenure, use and management have implications for catchment management , air and water quality. For example, 'green and blue' engineering can help avoid water treatment infrastructure costs and meet the challenge of restoring modified water environments to a standard that protects beneficial uses.

Environmental justice – the Trust supports the principle of Environmental Justice, in particular the related concept of restorative justice. Opportunities exist under the current EP Act for courts to direct those convicted of wrongdoing to apply any financial penalty towards a project that benefits the environment. While this opens up the possibility of financial penalties being directed towards the costs of working with private landowners to secure permanent environmental outcomes, e.g. using conservation covenants to protect catchments or critical coastal private land areas, this court related mechanism is uncertain, ad hoc and unpredictable. The Trust encourages reconsideration of restorative Justice mechanisms and development of new options to enable aggregation of fines and penalties imposed or for example collected as a result of negotiations, mediations, licensing fees etc to be used for strategic environmental protection outcomes that are capable of delivering the best returns for investment, including private land protection outcomes. For example, the Trust understands American examples exist of low or no interest loan funds being used to enable public entities to realise timely environmental protection projects.

Regulatory approaches – There is a need to enhance community confidence in the processes and systems that are in place to ensure the protection and sustainable management of native vegetation on Victoria’s private land estate. The Trust notes that audits are conducted under the Victorian Government’s Forest Audit Program are conducted as a statutory environmental audit under the auspices of the *Environment Protection Act 1970*. As we understand these audits aim to ensure that timber harvesting is undertaken in compliance with regulatory requirements and that relevant environmental, social and cultural values are protected.

The Trust recognises that a review of Victoria’s native vegetation clearing regulations is currently underway at the same time as the EPA Inquiry. We believe this provides a unique opportunity to align the EPA environmental audit system with future native vegetation clearing regulations. That is, in the absence of another independent regulator being authorised to do so, there is a unique opportunity to consider expanding the EPA auditing system to include future native vegetation clearing regulations, enforcement action against illegal clearing and monitoring of compliance with permitted clearing.

What aspects of the EPA’s work do you value and wish to preserve in the future?

The Trust supports and values EPA’s independence and all the work EPA undertakes.

The Trust’s core business is directed at working with and supporting landowners to implement effective land management practices that can support our natural biodiversity, threatened species, native vegetation and ecosystem services derived from private land. Protecting the values of wetlands, riparian waterways and catchments for the purpose of conserving ecologically significant vegetation and species is therefore integral to the Trust’s operations and who we partner with. It would assist the Trust’s daily operations and longer-term strategic planning if EPA’s current role and powers were expanded or better utilised regarding –

Setting standards – The Trust supports higher standards being set for pollutants entering Victoria’s environment and surface waters to guide major industry subsectors reliant upon private land and ecosystem services derived from that land. That is, the general community including private landowners, Agri business industry bodies, professional advisors and finance houses, could benefit from such standards.

Scientific capacity: The Discussion Paper recognises the potential for EPA’s scientific capacity to be more widely utilised as a source of authoritative and independent advice. We note in this context that entities such as the Department of Environment Land Water and Planning, and Its portfolio agencies such as the Trust, have additional but complimentary scientific capacity that could bolster EPA capability in appropriate partnerships.

Incentives/market mechanisms – The current rate of vegetation clearance poses one of the greatest and most immediate threat to Victoria’s biological diversity and ecological integrity.

If the EPA used the existing legislative principle relating to improved valuation, pricing and incentive mechanisms to include the valuation of private land natural assets and services, the use of market mechanisms and incentives could be escalated. That is, the Trust encourages the EPA to invest more in developing its leadership position in economic measures for the purpose of providing an economic incentive to avoid or minimise harm to the environment using private land conservation tools in the future.

Despite continuing to invest Trust resources in better understanding how market mechanisms can and do help private landowners benefit economically from preserving and conserving ecologically significant vegetation on their land, we recognise the scale of the environmental challenges are such that Victoria needs regulators such as the EPA to become increasingly engaged in this area.

We would be pleased to discuss our experience and knowledge in this area further with the Panel or staff assisting it, if desired.

Strategic tools and powers to prevent harm – The Discussion Paper recognises that it is far better for the environment and public health if environmental problems are prevented in the first place and that prevention can be much less expensive. Similarly, in its *Native Vegetation Investigation Final Report 2011*, the Victorian Environmental Assessment Council (VEAC) found that preventing habitat loss and improving the condition of native vegetation is, by many orders of magnitude, more cost-effective than re-vegetation and has significantly better conservation outcomes. The Trust strongly supports EPA being further empowered and resourced to develop and implement proactive strategic tools in collaboration with other protection agencies.

Related to this, we draw to the Panel's attention that the Trust's strategic approach is informed by science and guided by Victoria's first Statewide Conservation Plan (SCP). Released in 2013, the SCP is the first comprehensive statewide analysis of conservation priorities for private land in Victoria. Based on scientific data obtained from government agencies and numerous not-for-profit conservation bodies, the SCP assesses the occurrence and status of Victoria's natural heritage terrestrial ecosystems, aquatic ecosystems and threatened species of native fauna and flora on private land. From this analysis, the Plan then identifies the highest priority ecosystems and species to target for conservation and protection using the conservation covenant and the best opportunities for strategic, cost-effective conservation investment in Victoria. This strategic approach is underpinned by Victorian and national public policy strategies, including the National Reserve System Strategy 2009-2030 (NRS), which with the agreement of all state governments contributes to Australia meeting its international obligations under the UN Convention on Biological Diversity.

How can the EPA effectively work in partnership with other government agencies to meet the environmental challenges of the future?

Reference is made to other sections of our submission to inform the Panel of our perspective on the potential for the EPA and the Trust to work together to meet environmental challenges of the future. We also note that respectful private landowner engagement through partnership and cooperation with individuals and communities is a key capability the Trust relies upon in its activities. Both the Trust and EPA work with a number of key protection agencies in common and this could be built upon.

How could statutory frameworks more effectively prevent future environmental risks and land use conflicts?

The Trust supports EPA having a greater role in higher-level planning decisions at a municipal, precinct and State-wide level as a proactive strategy to help ensure environmental risks are considered early in land-use planning processes.

Poor land-use planning decisions have contributed to extensive habitat loss in Victoria with nearly 80% of the state now classified as consisting of 'fragmented landscapes'. The ecological consequences of habitat fragmentation include threats to species diversity and population viability and disruption to ecological processes such as pollination, seed dispersal and water flow.

The Discussion Paper recognises that climate change means that the natural environment will become less resilient to the impact of e.g. industrial activities. Improving landscape protection and connectivity will also help build resilience, including allowing species succession and

evolution as habitats change and adapt to the impacts of a warming climate such as bushfires and droughts.

EPA's greater involvement in land-use planning decisions provides an opportunity to improve landscape protection and connectivity while helping to prevent land-use conflicts. For example, using private land conservation as a tool for the rehabilitation of former industrial land, and as a planning tool in the form of a buffer, as protection from future residential encroachment near industrial and farming sites.

What can the EPA do to avoid potential future problems?

The Discussion Paper recognises the growth of smaller, unlicensed and often diffuse sources of pollution that are more difficult to track and manage using EPA's traditional tools and approaches. Also recognised is the trend for some activities such as agriculture and primary production to become more intensive with fewer, larger farms and the risk of potential impacts on the surrounding environment.

The use of 'natural solutions', or investment in 'green and blue infrastructure' is increasingly regarded as an important strategy to mitigate against the future cost of 'grey' or built infrastructure for protection and restoration works regarding wastewater and water quality issues. That is, a planned and proactive strategy to mitigate the effects of pollution implemented strategically to target areas at greatest risk. The Trust notes that development of natural systems approaches for managing air pollutants, waste water and water quality issues might be supported through the introduction of 'trigger' levels of pollutant concentration or nutrient loads that require protection agencies to collaborate on more strategic and planned natural solutions.

What role should the EPA play in reducing greenhouse gas emissions?

The Trust has in the last month (October 2015) received the results of an independent analysis report of the contribution made to Victoria's emissions control and management by privately protected areas under conservation covenant or which it owns and manages directly with the assistance of the community and local interest groups. In summary, using the most conservative metrics based on Australian Government methodologies, carbon stored within this land bank is very conservatively estimated to represent at least 10,000,000 tonne of carbon. We now have the institutional arrangements in Australia enabling us to place an economic value on this carbon store and therefore project the cost benefit ratio of future investments using carbon alone as a proxy for assessing alternate uses for natural capital. The same applies to the technology and institutional capability within the EPA already existing to enable water quality baselines and improvements to be measured and quantified in economic valuation terms. The Trust would be pleased to share further information about the study with the independent review panel or staff assisting it.

We believe the EPA has a valuable future role to play in greenhouse gas emission reduction and regulation of permissible activity impacting on carbon stores as well as carbon emissions. Making transparent to the Victorian community the estimated value and quantity of carbon stored within natural capital assets on both public and private land (e.g. via Land Victoria Information Systems) will be a critical part of managing our future risks and creating incentives for maintaining and creating new land-based natural carbon stores that have multiple biodiversity, ecosystem service and community benefits.

In summary, the Trust supports EPA's continued role in this area given its past experience and role in regulating GHG emissions and energy efficiency programs.

What can we adopt from other regulators and regulatory models to implement best-practice approaches and ensure that the EPA can rise to key future challenges?

There are many international examples of regulatory models including programs designed to avoid over reliance upon regulatory responses around land-use decisions while recognising the economy's significant dependencies on the natural environment for ecosystem services. Specifically, the Trust is aware of a momentum building internationally for payments for ecosystem services (P E S) to landowners by ecosystem service beneficiaries e.g. environment protection authorities, water retailers; sand miners; timber companies; fishing industries et cetera are seen as a potential significant source of funding. For such mechanisms to most effectively support regulatory frameworks in the future, as previously submitted, we need to much better understand and quantify the value of our natural capital and the ecosystem services derived from the benefits of biodiversity and natural assets.

We provide two examples of these approaches for the Panel's reference:

- a) Local government and water authorities in America routinely investing hypothecated water levy funds to secure in perpetuity on title protection of private lands and forests within upper catchments affecting water quality and nutrient loads downstream. These initiatives are also accompanied by ongoing stewardship guidance and support for landowners entering into permanent and shorter term protection agreements.
- b) Nutrient trading programs from which economic benefits, effective water quality management and lines of income for private landowners are derived. Specifically and quoting directly from the World Resources Institute (<http://www.wri.org/>)

"Preliminary analyses indicate that the economic benefits of a baywide nutrient trading market for nitrogen could be significant for the agricultural, wastewater, and municipal stormwater sectors in the Chesapeake Bay watershed. Depending on credit prices, trading potentially could:

- * Generate new revenue for the agricultural sector and other credit generators at an amount comparable to current levels of annual public funding for agriculture conservation cost-share programs for the bay;
- * Reduce nitrogen removal costs for some in the wastewater sector by as much as 60 percent; and
- * Save the municipal stormwater sector hundreds of millions of dollars per year."

Prepared by: Trust for Nature, November 2015