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Dear Submissions Manager,

RE. BIODIVERSITY LEGISLATION REVIEW

Thank you for the opportunity to make a submission on the “Biodiversity Legislation Review – Issues Paper”.

I am making this submission in my capacity as the Greens NSW spokesperson for the environment.

Biodiversity is fundamental to the sustainability of all life on earth and biodiversity conservation is crucial to maintaining ecological integrity, ecological sustainability, healthy ecosystems and providing ecosystem services.

Global, national, state and local reporting on the state of our environment recognise major and steady declines in biodiversity. The rate of species extinctions are higher than ever before and are predicted to get even higher if strong action is not taken.

With this backdrop of a worsening state of the earth, and with the impacts of climate change adding and exacerbating threats to biodiversity it is essential that we further strengthen our biodiversity and conservation legislation and policies, and provide adequate resources and funding for their effective implementation. Without clear and enforced policy and legislation working to protect the environment, large blocks of natural conservation and wilderness areas in NSW will be lost, and with it much needed and relied upon biodiversity.

Biodiversity is a deeply cross-sectional issue that needs to be managed by a broad range of laws and policies, including biodiversity, conservation, planning and assessment, biosecurity, weed management etc, that work together to protect the environment. In addition, there must be increased and meaningful public participation and transparency in any environmental decision-making, including ensuring that Indigenous Australians play an important role in the protection of biodiversity.

In order to halt further losses of biodiversity and to protect and enhance our unique terrestrial, marine and freshwater ecosystems, legislation must have the overarching objective to protect and conserve biodiversity and the principles of Ecologically Sustainable Development must underpin these laws.

Below is detailed discussion and recommendations on each of the key themes of the review.



Theme 1: Objects and principles for biodiversity conservation

Both the Australian State of the Environment Report (2011) and New South Wales State of the Environment Report (2012) highlight major declines in biodiversity. Trends on species distribution or abundance suggest that population size, geographic range and genetic diversity are decreasing across a range of species across every group of plants and animals. (Department of Sustainability, Environment, Water, Population and Communities, 2011).

In NSW, 989 species of plants and animals, 49 populations and 107 ecological communities are listed as threatened and 45 key threatening processes have been identified. Since 2009, 35 additional species have been listed as threatened under NSW legislation, including 11 terrestrial vertebrate species and these numbers continue to rise. The pressure affecting the largest number of threatened species in NSW (87%) is the clearing and disturbance of native vegetation, followed by invasive animal and weed species (70%) (NSW EPA, 2012).

Key pieces of biodiversity legislation such as the Native Vegetation Act 2003 have played a crucial role in reducing the clearing of native vegetation. A recent report by WWF estimates that the introduction of the Native Vegetation Act saw an 88 fold decrease of felling – this Act was essential to stopping the broad-scale clearing that was devastating the New South Wales environment and rural Australia (Taylor, M 2014). Recent moves by the Government are only serving to accelerate the clearing of native vegetation. In particular the recent implementation of the 10/50 clearing laws across NSW have seen the broadscale clearing of bush and trees from properties across the state, despite protections under local planning and environmental controls. The Threatened Species Act 1995 has also been critical in identifying and addressing threats to biodiversity and key habitat.

Despite these pieces of legislation, biodiversity has remained on the decline. Some of this decline can be attributed to the legacy effects of past broad-scale clearing practices that continue to drive further degradation and fragmentation of our ecosystems. Further, these high-level policies are not matched with implementation plans and resourcing that allows the objectives of these acts to be fully met.

Since 1788, 61% of the original native vegetation of NSW has been cleared, thinned or significantly disturbed, most of which has occurred in the last 50 years. A healthy environment, economy and farming sector depends on strong biodiversity outcomes.

Native vegetation also controls erosion through protecting soils and river banks, and improves water quality and availability. Farms with good native vegetation coverage can improve land value, increase production outcomes and reduce operating costs.

If the Government is serious about demonstrating leadership on environmental protection, not only should existing laws be strengthened but resources should be committed for their implementation.

Ecologically Sustainable Development (ESD) Principles

Australia was a leader and quite an early player in adopting the recommendations from the Earth Summit, producing a National Strategy for Ecologically Sustainable Development in 1992. The insertion of the word “ecologically” was deliberate in order to give primacy to the view that our societies and economies depend on a healthy environment. Therefore, protecting and enhancing our ecosystem is critical for our own wellbeing as well as that of the planet. In 1992 the Intergovernmental Agreement on the Environment, which included principles of sustainability, was signed by national, State and local governments across Australia. For over 20 years these principles have been trickling through to planning, natural resources and environmental legislation.

While the Brundtland Commission report provided broad aspirational statements about sustainable development, it is really the principles of ecologically sustainable development, and the institutional and organisational frameworks and associated tools that allow the practical implementation of strategies and actions that move us to a more sustainable society and economy.

This government has already made moves to remove ESD principles from NSW planning laws and other emerging policy frameworks such as the biosecurity framework, the framework for Biodiversity Assessment and the NSW Biodiversity Offsets Policy for Major Projects, and management of state conservation areas do not refer to ESD principles, including the precautionary principle, but rather some misunderstood ideas about adaptive management.

Similarly, the draft report on the “Active and adaptive management in Brigalow and Nandewar State Conservation Areas” indicates a lack of understanding of both ESD principles and adaptive management in recommending logging, grazing and burning woodlands for electricity as these activities will result in sensitive conservation areas being degraded.

The concept of ‘adaptive management’ can unfortunately be used to justify doubtful practices while waiting for further evidence (Dovers and Mobbs, 1997). It is critical that decision-making, when there is uncertainty, be underpinned by ESD principles including the precautionary principle which is about ensuring that serious environmental damage is prevented. Persisting with damaging activities when risks and impacts are not fully known does not constitute adaptive management or sustainability.

Impacts of climate change on biodiversity

Climate change is an emerging threat which has already affected Australia’s biodiversity and will continue to do so in the future. Evidence shows that the impacts of climate change on biodiversity are likely to be substantial due to widespread environmental change (Dunlop, M et al, 2012). Species and ecosystems will respond in a variety of ways to the consequences of global warming including rising temperatures, increasing levels of carbon dioxide, changes to rainfall and seasonality and extreme weather events (Australian report). Due to complex interactions

between ecosystems, the ramifications of climate change on biodiversity will be complex and numerous.

According to the NSW Office of Environment and Habitat (<http://www.environment.nsw.gov.au/biodiversity/climatechange.htm>), “The most vulnerable ecosystems include coastal ecosystems, alpine areas, rainforests, fragmented terrestrial ecosystems and areas vulnerable to fire or low freshwater availability. Species that could become endangered or extinct include those living near the upper limit of their temperature range (for example, in alpine regions); those with restricted climatic niches; and those that cannot migrate to new habitats due to habitat fragmentation or lack of alternatives”.

Priority must be given to mitigating climate change and building ecosystem resilience. This can only be achieved by adopting measures to achieve significant reductions in greenhouse gas emissions, management strategies that conserve species across a broad range of climatic regions including creation of secure reserves and an expansion of protected areas, interconnected by corridors, across all bio regions and land tenures so as to maximise habitat protection.

Recommendations:

- Existing biodiversity and conservation legislation must be further strengthened to protect native vegetation and biodiversity
- All biodiversity and conservation legislation must have an overarching objective to protect, conserve and enhance biodiversity, for its intrinsic value and for the sustainability of all life on earth, including human existence
- Protection measures must be directed at all aspects of life from the level of genes to entire ecosystems
- All biodiversity and conservation legislation must be underpinned by the principles of ESD, including the widespread application of the precautionary principle
- Legislation should be focussed on taking action to prevent habitat and species loss
- Commitment to immediately end broad-scale clearing of remnant native vegetation and assisting rural communities with targeted structural adjustments
- The impacts of climate change on biodiversity must be recognised in all legislation and subsequent management strategies/plans be developed and implemented
- Adequate funding and resources must be provided to ensure compliance and meaningful implementation strategies to meet the objectives of biodiversity protection and conservation.
- Biodiversity in NSW should not be considered in isolation to national and global issues. Loss of biodiversity in NSW (and Australia) has ramifications that extend beyond our borders and the conservation of biodiversity in NSW must consider Australia’s international obligations.
- Incorporation of biodiversity protection and conservation principles into a wide range of policy instruments.

Theme 2: Conservation action

Both the State and Federal governments have made a commitment to biodiversity conservation.

Goal 22 of NSW2021 states that the NSW Government will work with landholders to revegetate and improve land, manage weeds and invasive species in our national parks and improve the management of water to protect natural habitats. Alongside this is a commitment from state government to protect high value conservation land, native vegetation and biodiversity. Targets include identifying and seeking to acquire land of high conservation and strategic conservation value for permanent conservation measures, and the establishment of voluntary arrangements with landowners particularly over the next decade to bring an average of 20,000 hectares per year of private land under conservation management and an average of 300,000 hectares per year of private land for improvement to meet sustainable management objectives.

The National Strategy for the Conservation of Australia's Biodiversity 2010-2030 lists three key priorities to promote and extend the conservation and value of a strong biodiversity framework.

1. Engaging All Australians through mainstreaming biodiversity, increasing indigenous engagement and enhancing strategic investments and partnerships
2. Building Ecosystem Resilience in a changing climate by both protecting and reducing threats to biodiversity and maintaining and re-establishing ecosystem functions
3. Getting measurable results through improving and sharing knowledge, delivering conservation initiatives efficiently and implementing robust nation monitoring, reporting and evaluation

To follow through on both the State and Federal plans, it is evident that more needs to be done by way of strengthening our conservation and biodiversity legislation, not less. Individually and collectively we need to find ways to live sustainably and without destroying the biodiversity around us. These strategies require stronger policy and legislative guidelines so that both the government and the community know where they stand and what is expected.

With regards to trade-offs, neither offsetting nor biobanking is an effective means of conserving biodiversity. The draft framework for biodiversity assessment and the draft NSW biodiversity offsets policy for major projects represent a significant weakening of state policy regarding biodiversity.

The effectiveness of offsetting biodiversity loss as a policy for ecological restoration is not supported by evidence. There are numerous technical limitations to offsetting including poor measurability, uncertainty about recreating biodiversity which has been lost and time lags (Maron, M and Hobbs, R 2012).

The biodiversity offsets proposed by Whitehaven Coal Limited for their Maules Creek mine have been heavily criticised by a number of ecologists who have pointed out that the area set aside for offsetting is not white box-gum woodland. The dominant trees are stringybark, New England blackbutt, orange gum and Bendemeer white gum. This was not represented in the mapping of

offset areas and clearly shows that this is not an equivalent replacement for the biodiversity that will be destroyed by this coal project.

Another example is the offsets for the fourth Newcastle coal terminal, T4, which is proposed to be built on the edge of the Hunter Wetlands National Park. To facilitate building this terminal, 18.5 hectares will be removed. The Hunter estuary is an internationally recognised wetland protected by the Ramsar Convention. First, it is not appropriate for these wetlands to be considered replaceable either through biodiversity offsets or credits. Secondly, the proposal to acquire habitat areas at Brundee near Nowra and Ellalong Lagoon near Cessnock does nothing to offset impacts on species living in the Hunter estuary because they are not directly comparable. The proposed Ellalong Lagoon offset area, the proposed Brundee offset area and the proposed Tomago offset area will not be the same habitats as the area that will be destroyed. They are also located between 40 to 250 kilometres away, which means there will be little ability for affected fauna to migrate to the new areas even if they were directly comparable.

It is not possible to assure that biodiversity in two locations is the same or equivalent in quality. Biodiversity offsets are not established before the impacts occur. In fact, it could take hundreds of years before an offset replaces a destroyed ecosystem, if ever, and often enforcement and monitoring of offsets is inadequate.

Market-based processes and trading mechanisms such as offsets and bio-banking that trade-off high conservation areas for development only result in biodiversity losses. Conservation of biodiversity must be underpinned by the principles of ESD, including the precautionary principle. This is the only way of ensuring that further irreplaceable biodiversity is not lost.

Recommendations:

- Implementation at local, regional and state levels of the National Strategy for the Conservation of Australia's Biodiversity, consistent with the National Strategy's goals and timeframes
- Market-based processes such as offsets and biobanking must not be used as they result in biodiversity losses .
- Commit to widespread application of the precautionary principle in relation to biodiversity protection
- Commit to sound policy on biodiversity which is based on conservation science and underpinned by preventing damage to our ecosystem, not one that leads to irreversible loss our unique habitat and wildlife
- Develop and implement plans for large-scale restoration of habitat
- Activities inconsistent with conservation such as grazing and logging in state conservation areas, and others such as horses, recreational shooting, logging and mining activities which are inconsistent with the National Parks and Wildlife Act 1974 must be prevented.

- Strengthening legislation that protects biodiversity, such as the Threatened Species Conservation Act 1995 and the Native Vegetation Act 2003 and take legal action against agencies, including State Forests, that contravene species protection legislation;
- Strengthen Native Vegetation Regulation by reversing the changes made by the government in 2013
- Immediately ending broad-scale land clearing of remnant native vegetation while assisting rural communities with targeted structural adjustment;
- Increasing resources to ensure compliance with all biodiversity legislation
- Ensuring that at least 30 per cent of each bioregion (and ecosystem type) is managed for conservation to ensure the future survival of the natural landscape;
- Encouraging landholders and managers on all land tenures, through a mix of regulatory controls and incentives, to protect the biological diversity of their lands;
- Implement a coordinated legal framework to regulate and control threatening processes at their source across land tenures.
- Exclude commercial and recreation activities that compromise conservation of biodiversity in protected areas.
- Ensure the long term protection and conservation of biodiversity and natural heritage by expanding the system of protected areas over public and private lands that is comprehensive, adequate and representative.

Theme 3: Conservation in land use planning

Recent evidence suggests that developer access to government has never been greater than with the present Coalition government in NSW. In this light it is concerning that the issues paper prioritises greater certainty to developers over the conservation of biodiversity. Conservation aims will have to be compromised in order to provide this certainty to developers, landowners and the community. An easier path for developers would undermine the necessary strengthening of legislation to ensure biodiversity conservation consistent with the stated aims of the government to protect our natural environment. In order to be truly effective in the long term, all strategic planning needs to be underpinned by ESD principles.

Biodiversity certification will remove a crucial layer of environmental protection, namely the assessment of threatened species impact, by circumventing the requirement for site-by-site threatened species assessment under the Environmental Planning and Assessment Act 1979. NSW should aim to turn around the current rate of species extinction, not allow it to continue or even increase.

Biodiversity certification in NSW is flawed, especially concerning market-based processes and trading mechanisms. As an example, in Broulee (Eurobodalla Shire), the trigger point to actively manage the offset has been set at 80% of sales for the total development. Eurobodalla Shire Council is under no obligation to actively manage the offset site until this threshold is reached. Further, land proposed as an offset in the Biodiversity Certification Plan for Broulee was already

protected by a Property Vegetation Plan, so in essence Eurobodalla was double dipping, highlighting how ineffective offsetting practices can be.

Clearing of native vegetation poses the single greatest threat to biodiversity, offsetting practices will not guarantee that there is no net loss of native vegetation. The reduction in “red tape” set out by the terms of reference for the review is likely to contribute to an increased level of species extinction.

Recommendation:

- An acknowledgement that biodiversity certification is fundamentally flawed and is not an appropriate measure for biodiversity conservation;
- Maintain site-by-site threatened species assessment to identify the unique species diversity for individual sites that biodiversity certification does not adequately protect.
- Major additions to the parks and conservation system to achieve the survival of significant components of the state’s natural heritage and biodiversity.
- ESD principles need to be at the core of strategic planning decisions, and guide the implementation of state and local area plans.
- Incorporate Indigenous Custodian land use knowledge into biodiversity conservation practices.

Theme 4: Conservation in development approval processes

A commitment to protect biodiversity needs to be first and foremost at the top of any government’s agenda, not an easier road for developers and mining companies. The best way to facilitate conservation in development approvals is by incorporating ESD principles into all decision making.

A single integrated approach to development approvals without environmental and biodiversity conservation at its heart, will only serve to weaken current legislation. The Issues Paper quite one-sidedly talks of ‘lost development opportunities’ making no mention of an urgent need for environmental gains which are vital for the sustainability of our global ecosystem.

In reviewing any legislation protecting biodiversity, there needs to be objective and sound scientific evidence. ‘Rationalisation’ brings with it what promises to be faster processes, but fast is very often not better. Checks and balances are a necessary part of any process not an impediment and ensure biodiversity conservation.

As previously discussed biodiversity certification plans, biodiversity offsets and biobanking are not acceptable tools for promoting and enhancing strong biodiversity conservation outcomes. If the government adopted an objective approach to sustainable land use planning informed by ESD principles, there would be no perceived need for biodiversity offsets or biobanking.

Activities such as those proposed by the Natural Resources Commission for State Conservation Areas in the Brigalow area, burning native vegetation for electricity or opening up wilderness areas to horse riding trials result in sensitive conservation areas being degraded and managed in a way contradictory to their purpose of protection and conservation. The cumulative impact of these activities will lead to species extinction and severe environmental degradation.

Recommendations:

- The strengthening of all existing biodiversity and conservation legislation in order to protect our biodiversity and native vegetation
- ESD principles be at the forefront of all planning legislation and regulations
- Cumulative impacts must be assessed and addressed as a mandatory requirement of the planning and approval processes.
- Self-accreditation and codes of practice not be adopted as regulatory tools within development approval processes
- The government actively engages with a broad range of independent scientists and academic researchers who are acknowledged as experts in biodiversity conservation and state-wide conservation groups to robustly critique and where necessary, further inform the findings and recommendations of the Biodiversity Legislation Review Panel
- Development proposals with unacceptable impacts on threatened species, endangered ecological communities or their habitats should be refused.
- Protections for native vegetation should be strengthened to ensure that there is no net loss of native vegetation from development.
- Require that local councils prepare local environment plans that demonstrate effective protection of biodiversity.

Theme 5: Wildlife management

Although the NPW Act takes important steps towards addressing the threats to biodiversity, stronger measures are required in order to ensure native animals and wildlife are protected in NSW, and a healthy ecosystem is maintained and strengthened. The act outlaws “importing or exporting protected fauna, and exhibiting it without a licence” (Part 7:106), however the consequences for this fall well below those allowed by the act, and these crimes continue.

Invasive plants and animals continue to be the second greatest threat to biodiversity after habitat loss. According to the NSW DPI Pest Animal Survey (2004-2006)ⁱ pest animals “inhabit all regions of the State, and are well-recognised as causing significant losses to primary production, damaging environmental assets, threatening native species and communities, and impacting on social values.”

Some methods used in the past to control feral animal populations have been shown to be ineffective, for example recreational hunting on public land. The Invasive Species Council states about recreational hunting in NSW that “there are no defined objectives, no assessment of

whether ground shooting is an effective and appropriate method for the purpose, no integration with other programs, no quality control, no monitoring.”ⁱⁱ

The NPW Act provides vital and broad protection to native animals within wilderness and conservation areas. It states that “a person shall not harm any fauna” (Division 13, Section 70), and also outlaws trapping, nets, dogs, and damaging the critical habitat of threatened species (subsection 6B). Whilst the Prevention of Cruelty to Animals Act does outlaw committing an act of cruelty upon an animal (Section 5), it does not provide for the multiple ways that native animals can be disturbed, for example by habitat destruction, or excessive interaction. These disturbances are stressful, prevent the animals from having the freedom to express their normal behaviour, and affect their welfare, but may not be classed as cruelty.

There are many threatened species in Australia, in fact 967 species are currently listed as threatened under the Threatened Species Conservation Act of 1995ⁱⁱⁱ and many have already become extinct. The measures outlined in the NPW Act are designed to address the precarious nature of our native animal populations, and will not be sufficiently managed by the Cruelty to Animals Act. The welfare of each individual native animal is vital to the biodiversity of our state, particularly animals who are classed as critically endangered, for example the Yellow-Spotted Bell Frog, with only a single known population remaining.

The NPW Act makes special provision for marine mammals stating that “A person must not approach a marine mammal any closer than such distance as may be prescribed by the regulations or interfere with a marine mammal” (Section 7A, 112G), and strongly restricting the circumstances where marine mammals can be taken for exhibition. These provisions are vital, as it has been shown that the behaviour of some marine mammals is deeply disturbed by interaction with humans, for example dolphins whose feeding and resting are interrupted by dolphin-watching parties^{vi}. However dolphin-watching vessels, and other commercial and recreational vessels, often approached marine mammals at distances less than the state regulations outlined. When this was taken to court, the fines distributed were substantially less than the Act allows for (Act allows for \$110,000 fine, and actual fines ranged from \$400-\$5,000)^{vii}.

The Act also establishes a Marine Mammals Advisory Committee, to be constructed of knowledgeable parties from government, academia, and conservation, but there is little evidence of their recommendations, or actions taken from these. We would suggest this body be replaced or supplemented by an independent statutory body to ensure best practices in all decision-making regarding the marine resources of NSW including ecosystems, habitat types, and species. It is vital that we continue to monitor the status of marine mammals in the water of NSW, particularly as they face ever increasing loss of habitat and encroachment from humans.

The current licensing framework for wildlife licensing, offences, and defences lacks transparency and is poorly enforced. There is little data available regarding how many licenses are distributed and for what purpose. It has been shown that the reasoning behind distributing licenses, particularly for recreational hunting, is flawed and not based on evidence. Licenses were given to recreational hunters in state forests with the idea that it would reduce the population of feral animals and protect native environments. However this assumption proved false, and evidence

revealed that hunting did not decrease the feral populations^{viii}. In addition, in 2013 illegal hunting was uncovered in NSW national parks^{ix}. Although this is outlawed by the Act, stronger enforcement is necessary.

The NPW Act requires licenses to keep native animals as pets, act as a fauna dealer, and move fauna across borders. It outlaws the buying and selling of fauna without licenses. In addition it states “a person shall not harm fauna for the purpose of sale.” It is impossible to determine how appropriate these regulations are without data about the rates of use and trade of wildlife. While this information is not monitored, the sustainability of the regulations cannot be measured.

The data that is available suggests there is a large and growing industry in illegal native wildlife tradex. This is encouraged by the failure of the legal system to hand down appropriate sentences. Although the act allows for severe penalties, more than other countries such as the UK and US, these are very rarely given^{xi}. For example, possessing a threatened species carries a fine of \$220,000 in the act, and a jail term of up to two years, but the average fine given is \$5,000^{xii}. In their 2008 study, Alacs and Georges state “custodial sentences are not commonly given and fines are usually considerably less than the value the faunal or floral species would have made on the black market”^{xiii}. The black market in native animals poses a significant risk to Australia’s biodiversity, but is currently inadequately monitored. Illegal or unsustainable trading in our wildlife should be disincentivised.

Recommendations:

- Increase funding for the NPWS to address weed and invasive species control. Research and ongoing monitoring will be required to ensure that the methods for addressing threats to biodiversity are both effective and humane.
- Develop an integrated approach to weed control based on prevention.
- Investigate how current monitoring of native animal welfare is funded, assessed and reviewed and if streamlining policy would remove these provisions.
- Maintain or increase the protections for native animals outlined in the NPW Act.
- Put in place stronger habitat protection, to protect native flora and fauna from the changes that will occur due to climate change.
- Conservation must be made a priority of the wildlife licensing system, and the first step towards this should be revealing what sectors and for what purposes licenses are provided.
- Wildlife licenses should be based on the best interest of wildlife in national parks, which should further be reflected in the distribution, enforcement and transparency of licenses.

Theme 6: Information provision

Availability of long-term and scientifically credible monitoring data using appropriate indicators is essential for accurate reporting on the environment and also for devising policy and plans that respond to the changes detected.

However, the 2012 Australian State of the Environment Report notes that, “Australia’s capacity to report against biodiversity state and trends was assessed by the recent Assessment of Australia’s terrestrial biodiversity (DEWHA, 2009). As pointed out in successive SoE reports at both state and territory levels and nationally for over a decade, information on individual species, groups of species and habitat quality remains very poor in general, although information on the extent of broad vegetation types is good in many respects and improving.”

Inaccurate and incomplete data will not provide a comprehensive picture of the trends in the health of our biodiversity and will lead to inappropriate responses to address problems (Harding et al, 2009). Data collection, aggregation and reporting processes must be improved and well-resourced for NSW to be able to make effective decisions for the conservation of biodiversity.

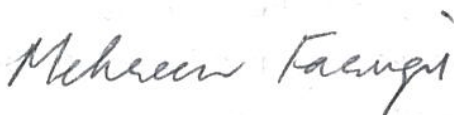
With regards to the listing of threatened species, it is crucial that the decisions be based on the rigorous and independent advice of the Scientific Committee.

Recommendations:

- Increase funding and resources for the collection of accurate, reliable, and consistent data
- Local, state and national data should be complementary to enable provision of a comprehensive picture at all geographical levels and jurisdictions
- Data should be easily available and incorporated when making any planning decisions
- The role of the Independent Scientific Committee under the TSC Act should be retained and must continue to be based on the professional advice of the Committee

Please do not hesitate to contact me or my office for further information.

Kind Regards



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iii <http://www.environment.nsw.gov.au/resources/threatenedspecies/SavingOurSpecies/130376sosbro.pdf>

iv <http://www.environment.nsw.gov.au/animals/>

v <http://www.environment.nsw.gov.au/threatenedspeciesapp/profile.aspx?id=10486>

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ix <http://www.smh.com.au/nsw/shooters-were-caught-drunk-and-on-drugs-20130305-2fj3t.html>

x <http://www.abc.net.au/news/2014-05-20/australia-black-market-endangered-wildlife-thriving-online/5465968>

xi http://iae.canberra.edu.au/reprints/2008_Alacs_Aust_J_Forensic_Sci.pdf

xii <http://www.aic.gov.au/publications/current%20series/rpp/100-120/rpp109/07.html>

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