

Theme 1 – Objects and principles for biodiversity conservation

Australian biodiversity is not only a matter of national significance; it also places us on an internationally revered platform. The unique natural lands that we live upon are a paragon of beauty, with irreplaceable wildlife, much of which captures a global imagining of what Australia is. This is our precious system of biodiversity; our rich ecosystems, our endemic species of mammals, and our unique marsupials, recognised by the way they carry their young in a pouch. Of the 13.6 million species of plants, animals and micro-organisms across the world, Australia is home to more than 7% of the global population, which is more than twice the number of species in Europe and North America combined (<http://australianmuseum.net.au/What-is-biodiversity/>). We are enriched by our natural landscapes as a nation, and we benefit from this immensely. However, with this extraordinary biodiversity, we also carry a substantial responsibility to protect it. Shamefully, Australia has not valued its unique habitats, taking the title for the highest extinction rate of any nation (<http://www.australiangeographic.com.au/topics/wildlife/2012/10/australias-most-endangered-species/>). With growing human populations and money-fuelled corporations, our biodiversity is increasingly under threat, and we must act now. This is achievable, with good policy and scientific-based research to guide it. Our legislation must be the backbone of our sustainability principles. We must stop the destruction to our biodiversity and the precious species and plants, and we must begin to appreciate the richness of our lands, before it is too late. (Below is a picture of the orange-bellied parrot, one of Australia's many endangered animals, from the National Geographic <http://www.australiangeographic.com.au/topics/wildlife/2012/10/australias-most-endangered-species/>)



There must be a clear aspirational goal to not only maintain, but strengthen the existing laws of our vulnerable biodiversity. Through unrelenting threats within NSW alone (a recent example seen in wombats being trapped underground through improper forestry tactics <http://www.independentaustralia.net/environment/environment-display/baird-government-sacrifices-wombats-in-quest-for-woodchips,6772>), legislation must be more vigilant in its goal to protect our environment. The overriding goal should be to enhance biodiversity conservation laws, focusing on the protection of native vegetation, threatened species and wildlife environment, whilst directly targeting its threats: Land clearing, forestry, mining, and other destructive practices. Education should also play a key role in the realising of this goal, using extensive resources to promote the value of biodiversity in the public consciousness. This holds particular relevance in areas of vast development, where monopolising development proposals may trump conservation principles. Our goal must be for the protection and conservation of biodiversity as the primary concern, taking precedent over opposing interests.

The *Native Vegetation Act 2003* and *Threatened Species Conservation Act 1995* have provided essential legislation to protect our biodiversity in recent years. The beneficial effects of these Acts must not be reversed through weakening legislation to enable land clearing and consequently, the loss of precious habitats. *The Native Vegetation Act 2003* has had a significant impact since its inception; as a result of reduced land clearing across NSW, hundreds of thousands of native mammals have been saved, as well as their natural habitat

(<http://www.echo.net.au/2014/06/clearing-laws-vegetation-clearing/>). Government must work to strengthen this model which has had some success, for an improved response to biodiversity conservation. Whilst these are noteworthy achievements, objects within legislation must remain strong and not pander to external interests, which will enable an increase in destructive practices such as land clearing to take place again. We must uphold a strengthened model of the Native Vegetation Act, and ensure that cogent penalties apply to those in violation of it. This is of utmost importance to prevent 'slipping' of enforcement for breaches that cost our environment on a large scale (<http://www.echo.net.au/2014/07/land-clearing-controls-slipping/>).

We are currently still governed by damaging practices, as observable through the adverse impacts to koala habitats. According to the Australian Koala Foundation, a loss of habitat due to land clearing leads to the death of around 4000 koalas each year. Further, across Australia, 80% of their habitat has already been removed. At the present rate of land clearing, their future within their natural habitat is under serious threat (<https://www.savethekoala.com/about-koalas/interesting-facts>). We must address this through legislation that establishes its priorities with our threatened and vulnerable biodiversity. We can only achieve this through enforced legislation which demonstrates its commitment to principles of biodiversity, rather than protecting the interests of those who will gain from environmental degradation.

We must keep in mind the United Nations Development Programme (UNDP) international framework, the Millennium Goals. Number seven, which states to "Ensure environmental sustainability", ensures our responsibility to properly manage our biodiversity. Recent examples of reforestation in northeast Burundi, which has been co-financed by the Government of Burundi, gives a relevant example of the types projects that need to be designed and supported by NSW government

(<http://www.undp.org/content/undp/en/home/ourwork/environmentandenergy/successstories/sauevegarder-et-protoger-la-diversite-de-la-flore-et-de-la-faune/>). The effects of deforestation are assessed with UNDP on a global scale, with global greenhouse gas emissions increasing. NSW must do its part to adhere to this international framework, and place NSW biodiversity as a leading global model of sustainable practice.

There are significant issues involved with the ideas of streamlining that government must be aware of. Whilst this attempts to simplify some convoluted processes, government must ensure proper procedures are conducted. While streamlining into the 'one-stop-shop' approach may quicken bureaucratic processes, it also leaves good policy vulnerable to corrupt shortcuts which will ultimately undermine biodiversity protection policies, weakening or potentially removing essential protective measures (<http://www.abc.net.au/environment/articles/2014/08/26/4073959.htm>). The objects and laws between the *Threatened Species Conservation Act 1995*, the *Native Vegetation Act 2003*, the *Nature Conservation Trust Act 2001* and the *National Parks and Wildlife Act 1974* have instrumental objects that cannot be diluted or integrated. They stand as individually relevant Acts

that are necessary to combat the growing threats to biodiversity. They must be strengthened and enforced with more vigilance, not weakened and integrated. The only streamlining that should take place should take effect for all development parties (extractive industry, forestry, urban development and agriculture), who must prioritise “improving or maintaining” environmental incomes. This should be an umbrella policy that guides all developments, with legal policies to ensure it is adopted.

Theme 2 Conservation Action:

Conservation must be of primary importance to all parties, and it is State Government’s role to facilitate this for all landowners. Proper education of biodiversity conservation should be widely available, with resources provided to landowners to ensure proper care is taken, at minimal cost to them. Further, they must understand the role they play in conservation, and take responsibility for proper care of lands. Private ecosystems are part of the NSW biodiversity system, and therefore hold significant value. Government must ensure that reward systems are in place for landowners to adhere to proper conservation principles, and do so through educational resources. As stated in the City of Sydney Urban Ecology Strategic Action Plan, proper education and training for all workers who come into contact with biodiversity is essential. This can include establishing educational programs in schools and universities, to emphasise the importance of biodiversity through public consciousness across the board.

As stated on the Australian Museum website, conserving fauna on private property is a current issue, as these are lands that are cleared for pulpwoods and sawlogs. I endorse the Australian Museum Journals’ recommendations, that:

(a) communication be encouraged between private land-holders and the various individuals, groups and institutions interested in wildlife conservation; (b) private landholders be encouraged to conserve wildlife values; (c) with the agreement of land-holders, wildlife surveys of private forest be carried out, and (d) private forest of high conservation value be protected from unnatural disturbance.

[\(http://australianmuseum.net.au/journal/Pyke-and-OConnor-1991-Tech-Rep-Aust-Mus-5-137/\)](http://australianmuseum.net.au/journal/Pyke-and-OConnor-1991-Tech-Rep-Aust-Mus-5-137/)

Laws that are weakened to enable private landowners to destroy vegetation must be reinstated, as in the case involving Pittwater Council where the peninsula has been inflicted with an excessive vegetation clearing code (<http://www.dailytelegraph.com.au/newslocal/northern-beaches/pittwater-council-vows-to-fight-against-new-radical-treeclearing-bushfireprevention-code/story-fngr8hax-1227014264237>). Whilst under the semblance of preventing bushfires, this weakened environmental code gives property owners unreasonable power and motivation to destroy inconvenient bushland, enabling the removal of trees surrounding their property. Laws must be reinstated to ensure the protection of such valuable bushlands.

The Federal Government is hiding behind its “green army” programme; a façade of government’s environmental concerns, serving to distract the public from the environmental atrocities that it has committed. Far from ‘greening’ the country, the federal government has created significant

biodiversity upheaval in the short time that they have been in power. As reported online (<http://reneweconomy.com.au/2014/abbotts-environment-agenda-is-even-harsher-than-he-promised-52736>), Tony Abbott's government has removed many of Australia's safeguarding policies for environmental sustainability. This government has acted within the realm of economic benefits, rather than environmental consciousness through a series of damaging acts. These have included: removing the carbon tax, appointing backbenchers who do not believe in the science of climate change, attempting to rescind the Tasmanian Forests Agreements, expanding the Abbott Point coal port within our invaluable Great Barrier Reef and abolishing management plans within marine protected areas (<http://reneweconomy.com.au/2014/abbotts-environment-agenda-is-even-harsher-than-he-promised-52736>). The state government must combat these outrageous actions with strong and scientifically guided policies, and ensure that disciplinary action is taken for those who act against it.

Funding in biodiversity must be improved across all areas, including community groups, to ensure that conservation is addressed through various means. Through the many facets that biodiversity encompasses, substantial funding is necessary to address the targeted issues that community groups and not-for-profit organisations are in a position to tackle. For example, groups such as Friends of the Earth – Sydney, Planet Ark, Save the Koalas Foundation, and the Jane Goodall Institute Australia all deal with niche areas within the biodiversity web that need to be addressed. Government should outlay funding to ensure that such groups are properly resourced to achieve their goals, and address biodiversity concerns at large. The Independent Scientific Committee is an integral agency from where to source professional advice for matters regarding coal seam gas and large coal mine developments (<http://iesc.environment.gov.au/pubs/committee-factsheet.pdf>). This can assist in the proper direction of needed funding according to scientific methodology.

I stress that current practice must be guided by proper policy which aims to protect and enhance biodiversity. Currently, there is an unacceptable rate of environmental damage and threats throughout NSW. The Natural Resources Commission (NRC), which released a report recommending commercial logging in the Brigalow and Nandewar state conservation areas, cannot be entrusted to uphold biodiversity values (<http://www.nature.org.au/get-involved/take-action/no-logging-in-our-parks/>). The *National Parks and Wildlife Act 1974* must be enforced, which seeks to protect such habitats. The NRC has distinguished itself as environmentally irresponsible through this measure, and the law must be enacted to determine the outcomes, to protect vulnerable ecosystems which are under significant threat. Conservationists must be given a voice and biodiversity must be protected by law from logging interests, which do not support the principles of sustainable biodiversity. Legislation must be enforced to ensure that current practice is aligned with conservation.

Theme 3 - Conservation in land planning

Current arrangements at ensuring biodiversity values through strategic planning are in serious lack. Our unique biodiversity and flora and fauna across Australia and NSW is irreplaceable, and the loss of habitat is globally recognised as the prime destroyer of biodiversity, according to the Millennium Goals. Destroyed habitats are affecting our wildlife, which cannot deal with the massive rates of planning and development that occur. Urban flying fox colonies are a prime example of this

detrimental development effect that does not properly take wildlife into account (<http://www.abc.net.au/local/stories/2014/09/02/4079179.htm?site=southqld>). Flying foxes are essential to our ecosystem, and destroying their habitat is causing the loss of other beneficial and necessary environmental effects. As stated by Australian Wildlife (http://www.australianwildlife.net.au/pdf/wildlife/Flying_Fox_Article_June2010.pdf), flying foxes are “our most effective seed dispersers and pollinators”.

Current arrangements for ensuring proper biodiversity, such as caring for this essential wildlife, are inadequate and alarming. This can be further exemplified not only through the Brigalow and Nandewar state conservation area threats, also, through the Ashton coal mine expansion. This is despite the risk to such factors as land damage, water, and air quality (<http://www.miningaustralia.com.au/news/ashton-coal-mine-to-extend-for-seven-years-dairies>). Planning laws must be strengthened to forbid the erosion of our national parks, wildlife areas, marine parks, and cumulative impact on the environment must be independently assessed, not left in the hands of developers. It is essential that the government not only enforces biodiversity protection laws, but also increases the penalties for breaching them.

I would like also, to emphasise the critical importance of wildlife corridors as a necessary protective measure to combat growing roads and developments. Wildlife corridors offer a safe haven from heavy and fast moving traffic, which is known to cause the death of a lot of crossing wildlife, including kangaroos, koalas, possums, echidnas and bandicoots (<http://www.abc.net.au/news/2013-07-30/drivers-asked-to-look-out-for-native-animals-on-the-road/4854076>). With the disruption to their natural habitats caused by roads, we have an obligation to create links between habitats that various animals and plant seeds occupy. As stated by Greenway.org:

Wildlife corridors play a crucial role in maintaining connections between animal and plant populations that would otherwise be isolated and at greater risk of local extinction (<http://www.greenway.org.au/biodiversity/g-wildlife-corridor>).

Further benefits outlined also include lower incidences of diseases and the maintenance of species diversity, with lower likelihood of inbreeding. Our planning must therefore be sympathetic to rich and extensive wildlife corridors that will serve as a needed implementation of biodiversity protection. (Below is a picture of a high design wildlife corridor, greatly needed across Australia <http://www.reclink.us/profiles/blogs/4990329:BlogPost:47964>).



Theme 4 – Conservation in development approval processes

Where developments are approved, there must be careful consideration of the 'like for like' offsetting principle. In practice, offsetting has been a departure from proper conservation practices, and enables harmful environmental procedures to take place. The ABC article states (<http://www.abc.net.au/radionational/programs/backgroundbriefing/2014-03-16/5312944>): “an increasing number of scientists, ecologists and conservationists say there are many loopholes and the policy is being manipulated by governments who won't say no to developers”. This is the idea of replacing the irreplaceable, and the effects have had disastrous consequences for wildlife (see photo below)



This photo demonstrates the failures of offsetting, leaving koalas highly vulnerable and robbed of their known environment. Wildlife corridors, as mentioned in Theme 3, will assist in this displacement of koalas and many other species.

The 'like for like' principle, therefore, must be strengthened to be understood for its true impact. That is; it must ensure that biodiversity is truly no worse off, and that the animals within the targeted ecosystem are not left vulnerable and abandoned due to deforestation and developments.

The *Draft NSW Biodiversity Offsets Policy for Major Projects* must capture a more accurate picture of the damages often involved in offsetting. As such, an increase to the ratio of beneficial environment effects against the damage caused by developing over natural landscapes must be strengthened. No area should be altered or developed over without ensuring that the developer will provide an improved environmental system, in practice (<http://theconversation.com/can-we-offset-biodiversity-losses-13805>). This must take into account the potential for displaced wildlife and the full scope of biodiversity loss, with measurable effects. An improved 'like for like' system should therefore be at the forefront of offsetting principles.

Theme 5 – wildlife management

Arresting the ongoing decline in habitat loss is critical if many of our native animals are to survive the forthcoming challenges posed by climate change. As a Councillor at the City of Sydney, we are faced with the challenge of managing our very limited habitat space. Despite this, rare fauna still exists in our local government area (LGA). Studies have shown that 87 indigenous fauna species still exist in the LGA. Eight of these have been identified as threatened species. City staff work within the City's environmental policies to manage and restore identified fauna sites.

Despite the good work of City staff to manage habitat areas, Council has limited powers to refuse developments that threaten these habitats. Even in cases where an Environmental Impact Statement identifies clear damage to species numbers and endangered habitat loss, Council is unable to refuse a development application without avoiding a lengthy court battle. For other Councils in NSW that rely on a smaller revenue base to fund legal challenges it can be impractical to protect endangered habitat from development due to the legal costs they may face enforcing this position.

As discussed in theme 4, it is critical that ecological offsets operate on a 'like for like' basis. However, the practice of offsetting habitat loss through this mechanism still leads to a net loss of flora and fauna. On the whole, offsets are a flawed mechanism for environmental protection. The cumulative impact of the losses from addressing environmental protection on a case by case basis where developments are proposed is significant. Genuine species and habitat protection must happen on a pro-active basis if we are to arrest the ongoing decline of habitat and species loss.

The State needs to play a stronger role in a proactive process where key sites are identified as not suitable for development. In the era of climate change, it is important that habitat conservation is not limited to National Parks. Although National Parks play a vital role in addressing species loss and preserving ecological communities they will not, alone, be able to enable safe wildlife migration that will occur with the changing climate patterns.

Marine mammals are particularly vulnerable to toxic disposed wastes from large companies and developers. As the federal government assesses Australia's prestigious marine network of national reserves, we are in danger of diluted policies taking effect, which will give power to financial-based assessments above biodiversity concern. The federal government has suspended marine parks, which have already undergone 10 years of scientific research, have overwhelming community support, and further, 221 leading scientists have announced their support for these sanctuaries (<http://www.saveourmarinelife.org.au/about/the-problem/>). Whilst the federal government is fast convincing Australia of its horrendous complacency towards our marine life, state government must ensure its support to proper legislation that follows scientific advice aimed at marine protection. The oil spills that take place in Australia from ship grounding and pipeline accidents must be addressed and measurements must be put in place to ensure these are eradicated. As the National Geographic outlines, Australian rigs have caused a significant amount of damage to marine life (<http://www.australiangeographic.com.au/blogs/ag-blog/2010/06/oil-spills/>). In 2009 for example, the West Atlas semi-submersible rig created one of the worst oil-platforms spills that Australia has experienced, leaking 400 barrels of oil a day over ten weeks. New legislation must be proclaimed to combat marine threats, and to support sanctuaries that in turn, safeguard our incredibly rich and diverse marine life. (Below is a picture of the damage that oil spills cause to marine animals)



Further to marine life protection, it is also important that native vegetation and habitat that sits on our urban fringes remains as an inter-urban link for wildlife, enabling animals to migrate between habitat areas. In the race to build more housing in metropolitan areas the State Government must ensure that wildlife corridors are not extinguished. As outlined in the Urban Sanctuary Report, (Total Environment Centre) state government must make viable long-term plans and supply adequate resources for parks and bushlands to coexist amongst urban dwelling areas. As the report suggests, enriched biodiversity, particularly within urban growing populations is known to have many health benefits for residents and urban dwellers.

Where new transport infrastructure is built to support the expanding suburbs of our cities and towns, there needs to be wildlife crossings and pathways built into design that will allow for the safe migration of a variety of wildlife. The value of this has been discussed in Theme 3, and again, I urge the government to adopt this measure.

Ultimately, what this means for biodiversity legislation is that it needs to put in place processes that enable the Department of Environment to conduct more proactive evaluations of habitat sites. This needs to be established prior to these sites becoming the subject of a rezoning or development application. Identifying habitat earlier will enable these sites to be better managed and will reduce inefficiencies in the planning system by having clearer land use policies in place.

Theme 6: Information Provisions

It is critical that all policies and programs relating to biodiversity and the environment are science-based. For policies to be successful, it is important to for the NSW Department of Environment to build and strengthen the data that is collected about biodiversity, threatened species and ecological communities. Not only will strong data assist in the development of policy and management plans, it will also assist in the measurement of adverse environmental effects such as development and climate change related effects.

Further funding must therefore be supplied to relevant bodies, which are able to provide the necessary and current data and statistics. Further, any newly adopted measures taken following policy changes must be regularly assessed to ensure that they are both successful and efficient in the goals of biodiversity.

Education is of prime importance, and this begins with supplying schools and learning institutions with the correct and current data and statistics. Communities must be kept informed on the impacts

of environmental degradation, and be given proper resources to enact the principles of sustainability. For example, proper trash disposal in various areas of Sydney alone is an issue, and state government must ensure that local Councils are properly resourced to address this (<http://northsydneytimes.com.au/possibility-public-trash-recycling-bins-north-sydney/>). Residents must also be reminded of the impacts of recycling. Proper campaigns could be organised and advertising by state government to supply citizens with the knowledge of the impact of improper waste disposal. The 2002 'Don't be a tosser' campaign was one such example of the NSW government's efforts on educating the public on the effects of littering (http://www.efsllearninghub.net.au/resources/warr/2005034_ed_dontbeatosser_cs.pdf). We must put in place more educational campaigns of this nature, with the provision of proper, to ensure the public are conscious of their environmental impact at large. As stated in the UNEP Convention on Biological Diversity (2009), we must ensure "capacity development for education, public awareness and communication in biological diversity at the national and regional levels" (p. 83).

Further, Australia's Biodiversity Conservation Strategy (2010-2020) consultation draft outlines the need to engage with people, through both educational institutions as well as wide-spread campaigns. Ensuring that people understand the importance of biodiversity conservation will enable people to make better informed environmental decisions, and this can only be implemented through the proper provision of both knowledge and resources. Governments must also consider the vast amount of conflicting opinions expressed on social media, and ensure it is able to provide accurate, trustworthy and independent information through the seas of false information that the online world can host. Whilst social media has the power to bring the message across to an unprecedented amount of people, state government must give a platform to move beyond it. The public must be reminded of their need to act beyond the virtual realm to cause genuine change within conservation (<http://www.upworthy.com/social-media-shines-a-bright-light-on-how-to-save-wild-animals-but-its-also-got-a-dark-side?c=ufb1>).

I support the retention of the NSW Threatened Species List and would hope that there can be further collaboration between the NSW and Australian register. It is important that this process of adding species to the register also remain independent from the Minister.

Legislation must also limit exemption clauses to ensure that loopholes are kept to a minimum, and more easily maintained in the interests of biodiversity (<http://www.wilderness.org.au/proposed-legislation-not-acceptable-say-environment-groups>).