Committee Secretary
Senate Standing Committees on Environment and Communications
PO Box 6100
Parliament House
Canberra ACT 2600
Australia

RE: Upcoming Senate Committee Inquiry into 'The effectiveness of threatened species and ecological communities' protection in Australia'

To the Senate Standing Committee on Environment and Communications,

We write to you with deep sincerity and a strong passion for the immeasurable wealth encompassed by the diverse and enigmatic biological resources of our great country.

The impact of European settlement on Australia's biological diversity has been monumental. Over the last 200 years approximately 42 plants and 55 animals are known to have become extinct.[1] There are currently 1302 plants, 391 animals and 58 ecological communities which are threatened with extinction.[2]

The protection of Threatened Species and Ecological Communities (TSECs) within Australia has been a developing function of federal and state law over the last five decades or more, culminating in the legislative protection of TSECs, in some form, over the last 20 years. However:

> In the twenty years since federal [TSEC protection] legislation was enacted just one vertebrate species has increased in number sufficiently to be taken off the threatened species list: the saltwater crocodile.[3]

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[1] Department of Sustainability, Environment, Water, Populations and Communities, EPBC Act List of threatened Fauna http://www.environment.gov.au/cgi-bin/sprat/public/publicthreatenedlist.pl?wanted=fauna; Department of Sustainability, Environment, Water, Populations and Communities, EPBC Act List of threatened Flora http://www.environment.gov.au/cgi-bin/sprat/public/publicthreatenedlist.pl?wanted=flora.

[2] Department of Sustainability, Environment, Water, Populations and Communities, EPBC Act List of threatened Fauna http://www.environment.gov.au/cgi-bin/sprat/public/publicthreatenedlist.pl?wanted=fauna; Department of Sustainability, Environment, Water, Populations and Communities, EPBC Act List of threatened Flora http://www.environment.gov.au/cgi-bin/sprat/public/publicthreatenedlist.pl?wanted=flora; Department of Sustainability, Environment, Water, Populations and Communities, EPBC Act List of threatened ecological communities http://www.environment.gov.au/cgi-bin/sprat/public/publiclookupcommunities.pl.

[3] Flannery, Tim 'Quarterly Essay 48. After the Extinction Crisis: Australia's New Extinction Crisis' (2012) Black Inc Books, pg2.

It must be acknowledged that the current framework for TSEC protection is far from complete to ensure adequate protection of our wealth of natural assets and biological diversity. While it is important that we recognise these shortcomings, it is imperative that we have faith in the current legislative framework and work assiduously to establish appropriate mechanisms which can ensure security to all of Australia's biological diversity and prevent unavoidable extinction and ecosystem degradation.

It is important to acknowledge that there are two distinctive mechanisms to ensuring the survival, and enhancing the persistence, of TSECs: 1) Ensuring protection of TSECs from anthropogenic impacts to species populations and habitats; and 2) The implementation of extrinsic-species-and-habitat-management-techniques to reduce key threats and enhance survival, reproduction or regeneration of the specific TSEC. It is imperative that both of these mechanisms are incorporated into TSEC protection: TSEC protection *must* be considered from a perceptive that protection not only involves the direct protection of TSECs from human interference, but also involves human intervention to assist the TSEC in recovery to avoid extinction.

We thank you for taking the time to consider our submission, and fervently encourage the Federal Government to continue building its legacy of enhancing environmental protection,

Yours sincerely,

Mr Ian Wheatland, Mr Kai May, Dr Katherine Phillips and Mrs Nina Kriegisch.

The structure of this submission aligns with the terms of reference of the inquiry. A brief summary of the content of this submission is included below:

(**Note:** this summary includes only a small fraction of the information and analysis included in this submission)

(A) Management of key threats to listed species and ecological communities

In the majority of cases TSECs reach critically low abundance, distribution or extent due to pressures from key threatening processes. As such, control over anthropogenic activities from an individual to national level is a vitally important factor in the protection of TSECs. Provisions for the protection of TSECs from key threats, especially anthropogenic threats, are accounted for under the EPBC Act. However legislation only combats part of the overarching problem of environmental ambivalence towards land use planning decisions

Initiatives for the mitigation or elimination of existing and established key threats needs to be undertaken strategically for the protection of specific TSECs to be effective.

(B) Development and implementation of recovery plans

The development and implementation of recovery plans currently occurs at a rate which is too slow to provide adequate protection for TSECs. The development of recovery plans is undertaken with inconsistent and unpredictable priority and recovery plans which have been implemented provide no apparent benefit to the TSEC of which the recovery plan is the focus.

(C) Management of critical habitat across all land tenures

Living organisms and ecological communities do not recognise the political boundaries defined by human society.

Many state government protection mechanisms for the protection of TSECs apply only to public land, and do not afford protection to TSECs which occur on private land. As such the EPBC Act is a vitally important legislative mechanism for the protection of TSECs as it provides governance across all land tenures.

(D) Regulatory and funding arrangements at all levels of government

It is important to note that the cotemporary framework for the protection of TSECs by the Federal Government has been extremely difficult to establish due to the reality of constitutional jurisdiction, and has been established by the hard work of consecutive governments over a period of nearly half a century.

Decisions made by current governments must recognise the legacy of previous governments, and ensure that future decisions enhance the role of the Federal Government in relation to TSEC protection, and not allow the role of the

Federal Government to degrade.

Federal Government powers which provide protection to TSECs afford a vital 'second-tier' of legislative protection for TSECs against unpredictable political and social agenda's which can at times destabilise the policy of normally rational State Governments.

As a result of the administrative role of local government a high level of ecological expertise is required at a local government level. According to an integrative commentary of the *Australian State of the Environment Committee* published in 2006 less than one-third of local councils in Australia had comprehensive or good capacity for natural resource management planning.

Limitations in the ecological capacity and expertise of local government prove to be a major inhibition to the management and protection of TSECs in Australia.

(E) Timeliness and risk management within the listings processes

The EPBC Act does not contain provision requiring the minister responsible for the administration of the EPBC Act to undertake comprehensive, iterative assessments of TSECs to ensure eligible species or ecological communities are listed or assigned the appropriate conservation status.

Under the current process for listing new TSECs the Minister for the Environment relies heavily upon nominations by the public for the listing of TSECs. The heavy reliance by the Federal Government on public nomination of species and ecological communities to be listed as TSECs under the EPBC Act demonstrates a lack of dedication and commitment to the protection of TSECs.

In 2007 the Auditor General published a report which highlights that listings of TSECs are not reviewed with sufficient frequency. As such, current TSEC lists under state and federal legislation are unlikely to be accurate.

The timeliness of the listing process for TSECs has been repeatedly criticised for being slow, cumbersome an unpredictable.

As a result of ineffective TSEC list maintenance and review the application of the EPBC Act for TSEC protection becomes disjointed, inconsistent and ambiguous. Such inaccuracy provides uncertainty for all stakeholders in TSEC management.

(F) The historical record of state and territory governments on these matters

It is clear from recent policy choices that the current Victorian Government has little regard for considering the

management and protection of TSECs across a broad range of natural resource management and environment protection decision making.

Additionally since taking office in 2010 the Victorian Government has made redundant 400 full time staff (or 14% of the total permanent full time staff) in the Department of Sustainability and environment. Many of these spending-cut measures have significantly impacted conservation programs for the protection, management or monitoring of TSECs. This significantly reduces the capacity and ability of the Victorian Government to accurately consider decisions in relation to impacts on TSECs or to contribute effectively to the holistic management and protection of TSECs.

(G) Any other related matter.

Economics of TSEC Protection

The further development of implementation mechanisms for the adequate protection of TSECs would provide significant benefits to the Australian economy. Enhancing the protection and management of TSECs creates opportunities for corporations and organisations to invest in the sector providing jobs for ecological and environmental scientists, conservation workers, and managerial and administrative staff. Further investment in conservation activities would also provide much needed support to educational institutions engaged in teaching and research.

Obligations under International Law

Australia as a nation has numerous obligations relating to the management and protection of TSECs under an array of international agreements. It is important that our obligations under these international agreements are carefully considered and our obligations met or exceeded.

Compliance, Enforcement and Auditing

An analysis of the effectiveness of TSEC protection within Australia is incomplete without an analysis of compliance, enforcement and auditing.

It is clear from several investigative reports conducted in recent years that compliance and enforcement is a major stumbling-block for enhancing the protection of TSECs. The history of enforcement of the EPBC Act does not provide assurance for the protection of TSECs and allows those who wish to interfere with TSECs for economic gain the ability to gamble with compliance.

Auditing of projects requiring referral under the EPBC Act does not significantly deter such proponents from diverging from their requirements, as currently only 10% of referrals are currently audited.

(A) MANAGEMENT OF KEY THREATS TO LISTED SPECIES AND ECOLOGICAL COMMUNITIES

In the majority of cases TSECs reach critically low abundance, distribution or extent due to pressures from key threatening processes. Threatening processes can be caused by natural influences (such as natural shifts in ecological or environmental gradients); however it is commonly accepted that the most damaging threatening processes are caused or accelerated by *human induced* land use change (such as removal of native vegetation or habitat for land-use or development), environmental variation (such as: changes to hydrological regimes of waterways by water extraction or storage; the input of chemicals/pollutants/nutrients to the soil water or air) or modification to ecological balance (such as the release of exotic plants or animals into natural ecosystems).

As such, control over anthropogenic activities from an individual to national level is a vitally important factor in the protection of TSECs. Provisions for the protection of TSECs from key threats, especially anthropogenic threats, are accounted for under the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act). However legislation only combats part of the overarching problem of environmental ambivalence towards land use planning decisions, which represents an underlying cultural neglect of environmental processes and biodiversity conservation. This issue needs to be confronted by government and rectified through greater efforts in public education, backed by sound and consistent regulation. Additionally, initiatives for the mitigation or elimination of existing and established key threats needs to be undertaken strategically for the protection of specific TSECs to be effective.

(B) DEVELOPMENT AND IMPLEMENTATION OF RECOVERY PLANS

There are many documented problems with the current procedure for the management of TSECs under the EPBC Act. These problems are accurately documented in a report prepared for the Department of Environment Water Heritage and the Arts in 2010. Some of the more prominent issues outlined in the report are as follows:

> As of June 2010, [only] 508 species have national recovery plans, which accounts for 30.6% of all threatened species in Australia,[4] and [only] 93 species have had reviews of their recovery plans (17.6% of all species with plans).[5]
>
> [T]he recovery plan aspect of the EPBC Act is...biased away from reptiles, invertebrates and flora [and]...higher levels of threat category did not influence whether a species had a recovery plan.[6]

The report also highlights that there is 'no significant difference in the likelihood of recovery between species with recovery plans and species which do not have a plan'[7] which suggests that the recovery plan process does not provide sufficient support or management to the TSEC in order to facilitate its recovery.

It is clear from the conclusions of this report that sufficient funding is not currently available for the implementation of extrinsic-species-and-habitat-management-techniques to reduce key threats and enhance survival, reproduction or regeneration of listed TSEC.

It is advised that the report referenced above be thoroughly considered when conducting the current senate inquiry and lessons be learned from the failures of past TSEC management and recovery.

(C) MANAGEMENT OF CRITICAL HABITAT ACROSS ALL LAND TENURES

Living organisms and ecological communities do not recognise the political boundaries defined by human society.

Many species which have been driven to the brink of extinction occur in habitats which have historically experienced high human land-use.[8] Areas of high human use, particularly by

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[4] Watson, J.E.M., Bottrill, M.C., Walsh, J.C, Joseph, L.N. and Possingham, H.P. 'Evaluating threatened species recovery planning in Australia' (2011) Prepared on behalf of the Department of the Environment, Water, Heritage and the Arts by the Spatial Ecology Laboratory, University of Queensland, Brisbane, p28.

[5] Watson, J.E.M., Bottrill, M.C., Walsh, J.C, Joseph, L.N. and Possingham, H.P. 'Evaluating threatened species recovery planning in Australia' (2011) Prepared on behalf of the Department of the Environment, Water, Heritage and the Arts by the Spatial Ecology Laboratory, University of Queensland, Brisbane, p32.

[6] Watson, J.E.M., Bottrill, M.C., Walsh, J.C, Joseph, L.N. and Possingham, H.P. 'Evaluating threatened species recovery planning in Australia' (2011) Prepared on behalf of the Department of the Environment, Water, Heritage and the Arts by the Spatial Ecology Laboratory, University of Queensland, Brisbane, p18.

[7] Watson, J.E.M., Bottrill, M.C., Walsh, J.C, Joseph, L.N. and Possingham, H.P. 'Evaluating threatened species recovery planning in Australia' (2011) Prepared on behalf of the Department of the Environment, Water, Heritage and the Arts by the Spatial Ecology Laboratory, University of Queensland, Brisbane, p5.

[8] Australian Bureau of Statistics, Threatened Species in Australia http://www.abs.gov.au/ausstats/abs@.nsf/0/525E198EE27F1682CA2569DE00267E45?OpenDocument

agriculture, in Australia are currently majority privately owned. As such many TSECs occur on private land.

Many state government protection mechanisms for the protection of TSECs apply only to public land, and do not afford protection to TSECs which occur on private land. As such the EPBC Act is a vitally important legislative mechanism for the protection of TSECs as it provides governance across all land tenures.

(D) REGULATORY AND FUNDING ARRANGEMENTS AT ALL LEVELS OF GOVERNMENT

(D) 1. Regulation

At present all levels of government within Australia play a vital role in the preservation and protection of TSECs from anthropogenic disturbance and intervention. Each level of government provides a different function and affords an assurance that the protection of TSECs is given due consideration when disturbance to the community, species or species habitat is proposed.

(D) 1.(a) Federal Government

The Australian Constitution defines the limitations of the regulatory jurisdiction of the Federal Government. Unfortunately in 1901, when the Constitution was drafted, environmental and ecological conservation where not considered a matter of importance and relating regulatory jurisdiction was not expressly defined. As such the majority of legislative power over the management of natural resources was inadvertently deferred to the jurisdiction of the state governments.[9]

However, since the 1970s the Whitlam Government and the Hawke Government have established limited federal regulatory jurisdiction over certain aspects of ecological conservation. Such jurisdictional regulatory powers relied on the constitutional role of the Federal Government

[9] Godden, Lee and Jacqueline Peel 'Environmental Law: Scientific, Policy and Regulatory Dimensions' (2009) Oxford University Press, ch4.

in 'external affairs' and have been established as a result of international agreements which Australia is party to.[2] The interaction between the Federal Government, the state governments and Australia's obligations under international agreements culminated in the Intergovernmental Agreement on the Environment (IGAE) between the federal and state governments in 1992.[10]

Following the IGEA the Hawke government successfully implemented the first federal mechanisms for the protection of TSECs with the adoption of the *Threatened Species Act 1992* (Cth).

The role of the Federal Government in environmental regulatory jurisdiction over environmental and ecological affairs was further reformed by the Council of Australian Governments (COAG) resolution on Heads of agreement on Commonwealth and State roles and responsibilities (HoA) for the Environment in 1997, which resulted in defining the limitation of the Federal Government's jurisdiction to 'Matters of National Environmental Significance' (MNES).[11]

The basis for the contemporary jurisdiction of the Federal Government in the protection of TSECs was established as a result of the IGAE and the 1997 HoA under the Howard Government and was enacted in legislation by the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act).

At the time of the 1997 HoA and the introduction of the EPBC Act, which determined the contemporary jurisdiction of the Federal Government over the regulation of TSEC management and protection, many commentators considered the negotiated federal jurisdiction to be unnecessarily narrow.[4]

It is important to note that the cotemporary framework for the protection of TSECs by the Federal Government has been extremely difficult to establish due to the reality of constitutional jurisdiction, and has been established by the hard work of consecutive governments over a period of nearly half a century.

[10] Intergovernmental Agreement on the Environment (1992), http://www.environment.gov.au/about/esd/publications/igae/index.html

[11] Peel, Jacqueline; Godden, Lee "Australia Environmental Management: A 'Dams' Story" (2005) 28(3) University of New South Wales Law Journal 668.

Decisions made by current governments must recognise the legacy of previous governments, and ensure that future decisions enhance the role of the Federal Government in relation to TSEC protection, and not allow the role of the Federal Government to degrade.

Federal Government powers which provide protection to TSECs afford a vital 'second-tier' of legislative protection for TSECs against unpredictable political and social agenda's which can at times destabilise policy decisions of normally rational State Governments.

(D) 1.(b) State Government

State governments have the jurisdictional ability to implementation a high level of protection for TSECs due to the constitutional authority discussed above: State Governments hold the majority of legislative jurisdiction over natural resource management and the management and protection of TSECs within their state borders. However, when considering their overarching jurisdictional capacity: in general state legislative frameworks provide very little direct protection for individual TSECs, and rely heavily on the federal EPBC Act for this function.

The most significant legislative function utilised by state governments for the protection of TSECs on private land is the planning framework. Planning frameworks differ significantly from state-to-state; however most states now implement controls over the disturbance or removal of native vegetation and require basic ecological investigations prior to development or land-use change. These ecological investigations usually require a site assessment to identify ecological values of the site and a desktop assessment to determine the likelihood of occurrence of TSECs. As such, the required level of investigation under the state government planning framework determines if a TSEC is identified prior to land-use change or development. Thus state planning frameworks provide the basis for the identification of TSECs prior to land-use change or development.

(D) 1.(c) Local Government

Local government serve as the first point of contact between landholders, who wish to modify the extent or type of land-use, and the executive government who administer legislation relating to TSECs. Local government serve this purpose as a result of their obligation to the administration of state legislated planning laws.

Local government therefore plays a vital role in the identification of a threatened species, threatened species habitat or threatened ecological community on land which is proposed for land-use change. Without the identification of a TSEC which occurs on land proposed for land-use change, higher levels of government are unlikely to become aware of the presence of the TSEC and the state and federal legal processes for the protection of the TSEC are unlikely to be enacted.

As a result of the administrative role of local government a high level of ecological expertise is required at a local government level. However, according to an integrative commentary of the *Australian State of the Environment Committee* published in 2006 less than one-third of local councils in Australia had comprehensive or good capacity for natural resource management planning.[12]

Limitations in the ecological capacity and expertise of local government prove to be a major inhibition to the protection of TSECs in Australia.

(D) 2. Expenditure

While it is not the intention of our submission to break down and analyse the channels of funding provided for TSEC protection, it is abundantly clear from other avenues of investigation in this submission that financial expenditure at all levels of government has to-date been insufficient to prevent the further decline of threatened species populations or the extent or quality of threatened ecological communities.

Significant increases in expenditure at all levels of government are required to prevent further species extinctions from occurring.

[12] Dr Su Wild River 'The role of local government in environmental and heritage management' *(2006) The Australian National University, prepared for the 2006 Australian State of the Environment Committee*, Figure 10.

(E) TIMELINESS AND RISK MANAGEMENT WITHIN THE LISTINGS PROCESSES

(E) 1. The Administration of the TSEC Listing Process

The EPBC Act provides protection to TSECs as they are considered Matters of National Environmental Significance (MNES). However, TSECs are only provided protected if they are listed as rare or threatened under the EPBC Act. Despite this, the EPBC Act does not contain provision requiring the minister responsible for the administration of the EPBC Act to undertake comprehensive, iterative assessments of TSECs to ensure eligible species or ecological communities are listed or assigned the appropriate conservation status.

(E) 1.(a) The Listing of New TSECs

Under the current process for listing new TSECs the Minister for the Environment relies heavily upon nominations by the public for the listing of TSECs: the eligibility of the nominated TSEC for listing is then considered by the Scientific Committee following a period within which it invites public comment.[13] While the Scientific Committee is able to make internal nominations, the EPBC Act specifies that nominations to be considered are 'mostly items that have been nominated [by the public]'[14].

(E) 1.(b) Review of Listed TSECs

It is important that TSEC lists are maintained and reviewed regularly by a process which incorporates accurate and sufficient monitoring of the TSEC and key threats to the TSEC, so as to ensure that lists are performing the function for which they were created.

In 2007 the Auditor General published a report which highlights that listings of TSECs are not reviewed with sufficient frequency.[15] As such, current TSEC lists under state and federal legislation are unlikely to be accurate.

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[13] Environment Protection and Biodiversity Conservation Act 1999 (Cth) Subdivision AA.
[14] Environment Protection and Biodiversity Conservation Act 1999 (Cth) s194(A)(c).
[15] The Auditor General 'The Conservation and Protection of National Threatened Species and Ecological Communities' (2007) Australian National Audit Office, Audit report No.31 2006/7, ch2.

(E) 1.(c) Timelines for Listing New TSECs

The timeliness of the listing process for TSECs has been repeatedly criticised for being slow, cumbersome an unpredictable. Since 2000 the EPBC list has seen a 22.7% increase of listed species, hardly a record rate considering the large number of species thought to be threatened in Australia.

Fortunately current amendments to the EBPC Act outlined in the Government's response to the EPBC review of 2010, attempt to streamline the listing process of TSECs and importantly allow provision for the emergency listing of species.

The EPBC review also highlights the inefficiencies of the listing process and largely attributed its slow process to duplication of TSEC lists across states, territories, and levels of government and the inability of these entities to develop clear lines of communication on this matter.

Understandably the development of a clear and effective listing process takes time to get right. Changes outlined in the Department of Sustainability, Environment, Water, Populations and Communities response to the EPBC Act review will consolidate state and territory TSEC lists, under the Species Information Partnerships (SIP) project, enabling the fast tracking of critically threatened species onto the list to improve the systems function. It is important that the SIP project be continued into the future with regular iterative amendments to TSEC lists at all governmental levels. However, in order for the SIP project to contribute accurate and up to date listings procedures and programs relating to the monitoring of TSECs must be significantly improved.

(E) 2. The Result of Inaccurate TSEC Lists

Lack of up to date information regarding threatened species and communities instils uncertainty for all stakeholders in TSEC management.

For those involved in the conservation of the species or community lack of ecological information makes the allocation of available funding and the prioritisation of management directives difficult.

For those who wish to develop land which provides refuge for TSECs, inaccuracy of TSEC lists provides uncertainty as to the potential for the proposed development.

(E) 3. Conclusion

The heavy reliance by the Federal Government on public nomination of species and ecological communities to be listed as TSECs under the EPBC Act demonstrates a lack of dedication and commitment to the protection of TSECs.

As a result of ineffective TSEC list maintenance and review the application of the EPBC Act for TSEC protection becomes disjointed, inconsistent and ambiguous. Such inaccuracy provides uncertainty for all stakeholders in TSEC management.

(F) THE HISTORICAL RECORD OF STATE AND TERRITORY GOVERNMENTS ON THESE MATTERS

We write this submission as long-term residents of Victoria and are only in a position to provide an accurate analysis of the historical record of the Victorian Government on these matters.

Historically the Victorian Government has not shown a strong commitment to the protection of TSECs. While several legislative mechanisms provide indirect benefits to the survival and persistence of TSECs,[16] no comprehensive legislative mechanisms exist for the explicit and comprehensive protection of TSECs.

The Flora and Fauna Guarantee Act 1998 (Vic) (FFG Act) was established to 'promote the conservation of Victoria's native flora and fauna'[17]. While the FFG Act has established a framework for the listing of TSECs at a state level, and a framework for the implementation of conservation actions (in the form of Action Statements), the FFG Act only allows for the protection of TSECs under the issuing of an Interim Conservation Order by the Minister.[18] In general the FFG Act, when considering its current regulations and powers, does not provide

[16] Such as the Victorian planning framework; The Wildlife Act 1975 (Vic); Environment Protection Act 1970 (Vic); Environment Effects Act 1978 (Vic); Crown Land (Reserves) Act 1978 (Vic); among others.
[17] Flora and Fauna Guarantee Act 1988 (Vic), s1.
[18] Flora and Fauna Guarantee Act 1988 (Vic), Part 5, Division 1.

sufficient protection to TSECs. The successes and failures of the FFG Act in achieving its objectives can be considered by reference to a report prepared by the Victorian Auditor General in 2009.[19]

Since the election of the Baillieu Government in Victoria in 2010, the Victorian Government has implemented several policies which have significantly compromised the management and protection of TSECs as follows:

- Actively sought the reintroduction of cattle grazing in sensitive alpine ecosystems compromising the persistence of several TSECs listed under the EPBC Act;[20]
- Significantly increasing the amount of fuel reduction burning undertaken on public land within Victoria without undertaking research, and a lack of site specific impact assessment, in relation to the impact of fuel reduction burning on TSECs;
- The reintroduction of logging into Bamah National Park compromising the protection and persistence of several TSECs;
- The allocation of several areas of the Toolangi State Forest for timber harvesting despite the potential presence of TSECs;
- Amendment of the Victorian Code of Practice for Timber Production to allow the Secretary to the Department of Sustainability and Environment to allow the harvesting of timber within areas potentially inhabited by a TSEC against the guidance of the TSECs Action Statement;
- By the introduction of the *Forest Amendment Act 2012* (Vic) removing the requirement for obtaining a permit of firewood collection on public land and increasing the area of land available for legal firewood collection despite a lack of scientific research available, and a total lack of site specific impact assessment, in relation to the impact of firewood collection on TSECs;[21]
- Allowing a 12 week duck hunting season despite the lack of research available in relation to the impact of duck hunting on threatened waterbird species.

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[19] Victorian Auditor General 'Administration of the Flora and Fauan Guarantee Act 1988' (2009) Victorian Auditor General's Office.
[20] Urlus, J., G. Carr, A. McMahon, S. Mathews, J. McMahon and D. Quin 'Review of the Experimental Design of the Alpine Cattle Grazing Project' (2011) Ecology Australia; Wahren, C., W. Papst and R. Williams 'Long-Term Vegetation Change in Relation to Cattle Grazing in Sub-Alpine Grassland and Heathland on the Bogong High-Plains: an Analysis of Vegetation Records From 1945 to 1994' (1994) 42(6) *Australian Journal of Botany* 607-39.
[21] *Forests Amendment Act 2012* (Vic); Victorian National Parks Association 'Firewood for the Future' http://vnpa.org.au/page/nature-conservation/biodiversity/firewood-for-the-future

It is clear from these policy choices that the current Victorian Government has little regard for considering the management and protection of TSECs across a broad range of natural resource management and environment protection decision making.

Additionally since taking office in 2010 the Victorian Government has made redundant 400 full time staff (or 14% of the total permanent full time staff) in the Department of Sustainability and environment (DSE).[22] Many of these spending-cut measures within the DSE have significantly impacted conservation programs for the protection, management or monitoring of TSECs. This significantly reduces the capacity and ability of the Victorian Government to accurately consider decisions in relation to impacts to TSECS or to contribute effectively to the holistic management and protection of TSECs.

(G) ANY OTHER RELATED MATTER

(G) 1. Economics of TSEC Protection

(G) 1.(a) Economic Value of TSEC Protection

The economic value of species and ecological communities is largely unquantifiable. However, the potential economic benefits can be investigated and predicted.

Individual species can contribute significantly economically due to their contribution to food resources, medicinal applications or genetic properties.

Ecological communities currently contribute extensively to all economic function through the providing of environmental services and the stabilisation of environmental parameters allowing for optimal conditions for human land-use. The economic value of these environmental services will increase exponentially into the future as human activities causes continued environmental degradation.

[22] Australian Broadcasting Commission, DSE Still Considering Job Cuts Impact, http://www.abc.net.au/news/2012-06-27/dse-still-considering-job-cuts-impact/4095020

Both individual species and ecological communities contribute greatly to the sustainability of Australia's tourism industry. Without our vast array of natural resources and biological diversity our tourism industry would not retain the great economic power it has historically held.

In the current climate of global economic downturn, it is important that short-term economic benefit does not compromise the long term economic and intrinsic value that Australia's biological diversity encompasses.

(G) 1.(b) Economic Stimulus from TSEC Conservation

The further development of implementation mechanisms for the adequate protection of TSECs would provide significant benefits to the Australian economy. Enhancing the protection and management of TSECs creates opportunities for corporations and organisations to invest in the sector providing jobs for ecological and environmental scientists, conservation workers, and managerial and administrative staff. Further investment in conservation activities would also provide much needed support to educational institutions engaged in teaching and research.

There are many examples of significant economic stimulus as a result of enhancing regulatory implementation, some include: the emergence of the occupational health and safety industry as a result of enhancing safety procedures for workers; and the contaminated lands and environmental sustainability industries as a result of addressing public health concerns in relation to environmental degradation.

(G) 2. Obligations under International Law

Australia as a nation has numerous obligations relating to the management and protection of TSECs under an array of international agreements. It is important that our obligations under the following international agreements are carefully considered, and our obligations exceeded: the Convention on Biological Diversity, the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), the Convention on Wetlands of International Importance Especially in Waterfowl Habitat (the RAMSAR Convention), the International Convention for the Prevention of Pollution From Ships (MARPOL), the International Convention for the Regulation of Whaling, the Stockholm Convention on Persistent Organic

Pollutants, the United Nations Convention on the Law of the Sea (UNCLOS), the United Nations Framework Convention on Climate Change (UNFCCC), among others.

(G) 3. Compliance, Enforcement and Auditing

An analysis of the effectiveness of TSEC protection within Australia is incomplete without an analysis of compliance, enforcement and auditing.

It is clear from several investigative reports conducted in recent years that compliance and enforcement is a major stumbling-block for enhancing the protection of TSECs.[23] The EPBC Act has a range of functions which provides a strong, broad and stable capacity for the protection of TSECs from human influence. However, the history of enforcement of the EPBC Act does not provide assurance for the protection of TSECs and allows those who wish to interfere with TSECs for economic gain the ability to gamble with compliance.

Auditing of projects requiring referral under the EPBC Act does not significantly deter such proponents from diverging from their requirements, as currently only 10% of referrals are currently audited.

It is advised that issues of compliance, enforcement and auditing are thoroughly investigated as a component of the current senate review, and adequate recommendations directed towards the enhancement of compliance, enforcement and auditing under the current framework.

[23] Lipman, Zada 'An Evaluation of Compliance and Enforcement Mechanisms in the Environment Protection and Biodiversity Conservation Act 1999 (Cth) and their Application by the Commonwealth' (2010) 27 Environment and Planning Law Journal 98-112; Hawke, Allan 'The Australian Environment Act – Report of the Independent Review of the Environment Protection and Biodiversity Conservation Act 1999' (2009) Australian Government Department of Environment, Water, Heritage and the Arts.

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