Hon Andrew Powell MP
Minister for Environment and Heritage Protection

QUEENSLAND GOVERNMENT

Ref CTS 18245/12

12 DEC 2012

17 DEC 2012
Senate Standing C'tee on Environment & Communications

Level 13
400 George Street Brisbane 4000
GPO Box 2454 Brisbane
Queensland 4001 Australia
Telephone +61 7 3239 0844
Facsimile +61 7 3224 2496
Email environment@ministerial.qld.gov.au

Ms Sophie Dunstone
Committee Secretary
The Senate Standing Committee on
Environment and Communications
Parliament House
PO Box 6100
CANBERRA ACT 2600

Dear Ms Dunstone

Thank you for your letter of 8 November 2012 to the Premier of Queensland inviting a submission to the Environment and Communications References Committee's inquiry into the effectiveness of threatened species and ecological communities' protection in Australia. The Premier has referred your letter to me and requested I respond on his behalf.

Thank you for the opportunity to contribute to the inquiry. I have enclosed a submission for the Committee's consideration that provides information on Queensland's threatened species to inform the Committee's deliberations.

Yours sincerely

ANDREW POWELL MP
Minister for Environment and Heritage Protection

Enc

QUEENSLAND SUBMISSION TO THE

'Inquiry into the effectiveness of threatened species and ecological communities' protection in Australia'

BY THE SENATE STANDING COMMITTEE ON ENVIRONMENT AND COMMUNICATIONS

Executive summary

Over 1400 taxa listed as threatened or near threatened under state or federal legislation occur in Queensland, as well as 14 nationally threatened ecological communities, and 623 regional ecosystems listed as endangered or of concern[1].

Many different initiatives contribute to the protection of threatened species and ecological communities in Queensland. These include the declaration and management of protected areas, the creation and application of legislation, policies and guidelines; the work of individuals and community groups; the provision of funding grants; the mapping of vegetation, wetlands and areas of ecological significance; the assessment of bioregional biodiversity values; the collection and maintenance of species data; the preparation and implementation of recovery plans; the prioritisation of species and recovery actions; targeted research and monitoring; and the development of web-based information tools. Much progress has been made in understanding threatened species and ecological communities, and also in the development of legislation and policy and the delivery of information and tools to the general public.

The overarching pressures on threatened species are increasing human population; competing demands for the use of land, water and marine areas; pollution of land, air and water; and climate variability. These pressures manifest themselves in a large array of key threats to habitat, such as the clearing of vegetation, inappropriate grazing regimes, inappropriate fire regimes, weeds, changed flow regimes and reduced water quality. Existing regulations and initiatives are helping to moderate the impacts of many key threats.

Queensland has been innovative in its approach to threatened species conservation by prioritising resources and recovery actions, and is strategic in its efforts to recover species, however recovery efforts are limited by knowledge gaps, in understanding of the current abundance, condition, distribution and trend of most threatened species and ecological communities, and of the relative impact and mitigation of the threats that impact upon them. Limited data on the current status of species and communities and their threats makes it difficult to assess the success of threat abatement, and to use adaptive management for their recovery.

[1] Under the *Vegetation Management Act 1999*

Terms of Reference

The terms of reference for the inquiry are:

The effectiveness of threatened species and ecological communities' protection in Australia, including:

a) management of key threats to listed species and ecological communities;
b) development and implementation of recovery plans;
c) management of critical habitat across all land tenures;
d) regulatory and funding arrangements at all levels of government;
e) timeliness and risk management within the listings processes;
f) the historical record of state and territory governments on these matters; and
g) any other related matter.

Responses are provided for each of the terms of reference below.

a) Management of key threats to listed species and ecological communities

The key threats that affect the largest number of listed species and ecological communities in Queensland are;

- clearing of vegetation,
- inappropriate fire regimes,
- inappropriate grazing regimes
- pests and weeds. Key threats to aquatic species include
- changes in flow regime (including the draining of wetlands and floodplains)
- water quality
- climate

Clearing of vegetation

In addition to the protection provided by the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), vegetation clearing in Queensland is generally regulated by the *Vegetation Management Act 1999* (VMA) and the *Sustainable Planning Act 2009* (SPA). However, some activities, such as mining and petroleum and gas extraction are not regulated through the VMA, but through the *Environmental Protection Act 1994* or the *State Development and Public Works Organisation Act 1971*. The *Fisheries Act 1994*, the *Marine Parks Act 2004*, and *Nature Conservation Act 1992* (NCA) can also provide protection from clearing.

Inappropriate fire regimes

The fire regimes that threaten most listed species and communities in Queensland are those that are too frequent, too intense, and generally occur late in the dry season.

Fire management plans are prepared for many protected areas, and planned burn guidelines have also been prepared for Queensland bioregions (e.g. (Department of National Parks, Recreation, Sport and Racing 2012)). Fire guidelines for regional ecosystems are also included in the Regional Ecosystem Description Database (REDD) (Queensland Herbarium 2011), and fire management actions for wildlife conservation are included in a series of management guidelines for Broad Vegetation Groups (e.g. (Peeters and Butler 2012)).

Inappropriate grazing regimes
The grazing regimes that threaten most listed species and communities in Queensland are high levels of grazing and trampling that can be caused by domestic, native and feral herbivores. Grazing regimes are mostly self-regulated by land managers, although for leaseholders, renewal and extension of leases is linked to land condition by the State Rural Leasehold Land Strategy (Delbessie Agreement). The Agreement identifies appropriate management of biodiversity values. Guidelines for assessing land condition have been developed, which include the assessment of surrogate biodiversity attributes. Grazing management actions for wildlife conservation are also included in a series of management guidelines for Broad Vegetation Groups (e.g. Peeters and Butler 2012).

Pests and Weeds
A wide range of weeds threaten listed species and communities in Queensland, and control of these is generally undertaken by land managers and volunteers. Landholders are required to control some weeds, based on status as declared pest plants under the *Land Protection (Pest and Stock Route Management) Act 2002*. Weeds of National Significance (WONS) are also priorities for control, and strategic areas for the eradication and containment for some species have been defined.

Feral animals (including wild dogs, cats, and pigs) are a key threat to many threatened species and ecological communities. Control of these requires coordination, and is generally undertaken by land managers (including pastoralists, protected area staff, indigenous rangers and local government officers) and volunteers. Most of these feral animals are Class 2 declared animals under the *Land Protection (Pest and Stock Route Management) Act 2002*. Landowners must take reasonable steps to keep land free of Class 2 pests, and it is an offence to introduce, keep or supply a Class 2 pest without a permit issued by Biosecurity Queensland.

Water Flow Regimes and Water Quality
Many listed aquatic species and ecosystems are threatened by clearing of vegetation, inappropriate grazing regimes and weeds. Additional key threats that impact aquatic species are changes in flow regime and water quality. A range of legislative instruments guide the management of aquatic ecosystems in Queensland these include the *Water Act 2000* (Water Act), *Environmental Protection Act 1994*, Environmental Protection (Water) Policy *2009* and *Sustainable Planning Act 2009*.

Water quality
One of the most significant pressures on inland waters (both surface and groundwater) is pollution from agriculture, mining, industry and human settlements. The pressure arises from chemical (such as fertilisers, pesticides, various wastes, sewage and stormwater), physical (such as sediments), and biological (such as vegetation from invasive water weeds and organic debris) pollutants. Artificial changes to natural temperature variations can lead to thermal pollution and may also affect the behaviour of other contaminants.

The Reef Water Quality Protection Plan 2009 (Reef Plan) was created to improve the quality of the water entering the Great Barrier Reef through improved land management in reef catchments.

Climate
Another key threat to a large number of threatened species and communities in Queensland are the impacts of unfavourable climate projections (e.g. (Low 2011)(Williams *et al.* 2012)). Measures to facilitate the adaptation of threatened species and communities to these impacts are currently underway. In many cases, they involve the appropriate management of other key threats (e.g. fire, weeds), the impact of which are likely to be exacerbated under future climate projections. More strategic acquisition and management of likely climate refugia in the landscape is also likely to provide enhanced protection of threatened species and communities into the future.

b) Development and implementation of recovery plans

National recovery plans are intended to provide the foundation for efforts to recover species or ecological communities listed under the EPBC Act. The Queensland government drafts national recovery plans under the EPBC Act in cooperation with the Australian Government and other states / territories, and prepares and implements recovery plans endorsed by the State but not adopted under the EPBC Act.

There are 71 national recovery plans under the EPBC Act that are relevant to a Queensland threatened species, and a small number of recovery plans endorsed at State level only. There are 39 national recovery plans currently proposed for drafting that include threatened species which occur in Queensland. Recovery plans can be single species (51 or 71% of all Qld relevant plans), multi-species (18 or 23% of all Qld relevant plans), ecological community and regional recovery plans (4 or 3% of all Qld relevant plans).

The formation of a Recovery Team provides the opportunity for key interest groups to coordinate species recovery and Queensland currently has a number of active recovery teams which are overseeing the drafting of new recovery plans as well as the implementation of recovery actions for existing plans.

c) Management of critical habitat across all land tenures

Nature Conservation Act 1992
In addition to the protection provided by the EPBC Act, there is also capacity for the *Nature Conservation Act 1992* to protect the critical habitat for species and communities. The Act provides for the identification and protection of critical habitats and prescribes that a register of critical habitats be established and maintained. Special protection can apply to these areas through the development of conservation plans.

Conservation plans which can, among other things, describe the appropriate use or development of areas of critical habitat prevail over planning schemes, and require decisions of local governments to be consistent with them. The most complex example of a conservation plan that is associated with improving protection for a species, is the Nature Conservation (Koala) Conservation Plan 2006 which established areas of critical habitat and created linkages into planning and development frameworks.

Protected areas created under the NCA play an important role in the protection and management of critical habitat and other types of threatened species habitat. In Queensland protected areas these currently represent 5.01% of the land mass and include national parks, conservation parks, resources reserves, Nature Refuges, coordinated conservation areas, wilderness areas, World Heritage management areas and international agreement areas.

Eighty-six per cent of the vertebrate taxa and at least 71 percent of the vascular plant taxa listed as threatened or near threatened under NCA have been recorded in protected areas However, the presence of a taxon in a protected area gives no indication of its population size, or whether its population is stable, increasing or declining. Although some taxa have viable populations that are doing well in protected areas, populations of many threatened species and communities exist partly or largely outside these reserves.
Eighty percent of the 1386 regional ecosystems currently recognised in Queensland are represented in the protected area estate to some extent

Vegetation Management Act 1999
The VMA can be used to define and protect essential habitat for species, however, clearing of the essential habitat of threatened wildlife may be allowed to go ahead if a suitable offset is provided elsewhere. Where a development will impact on mapped essential habitat for protected wildlife, the applicant may also demonstrate that the essential habitat factors for that species do not exist, or that the species does not utilise the area at any stage of its lifecycle.

Essential habitat is similar to critical habitat, but is generally limited to areas of terrestrial vegetation unless other essential habitat factors are also defined for a species (e.g. a landform or soil type). Essential habitat is mapped using a range of habitat models derived from sightings and detailed ecological information.

Sustainable Planning Act 2009
As discussed above, many state biodiversity interests are mapped, and these maps can be used to prepare both state and local planning instruments under the SPA, and assist with the assessment of development applications. Mapped terrestrial areas include records, and essential habitat of threatened species, records of Back on Track priority species threatened by development, ecological communities listed as threatened under the EPBC Act, and threatened regional ecosystems and remnant vegetation. Mapped marine areas include some State and Commonwealth Marine Parks zones, dugong protection zones and fish habitat areas. However, the mapping does not include all biodiversity State interests under SPA, such as those which cannot be mapped (including highly mobile species, and species with few or no records).

Environmental Offsets

A framework for environmental offsets is provided by the Queensland Government Environmental Offsets Policy (QGEOP) and four specific-issue offsets policies that pertain to Biodiversity, Koala habitat, Vegetation Management and marine fish habitat. At the time of writing, these policies are under review. Environmental offset requirements apply where it has been determined that an environmental impact of a development cannot be avoided or substantially reduced. The Queensland Government offset policies are called up by the:

- *Environmental Protection Act 1994*
- *Sustainable Planning Act 2009* (including for decisions in relation to the *Vegetation Management Act 1999* and *Fisheries Act 1994*)
- *State Development and Public Works Organisation Act 1971*
- *Coastal Protection and Management Act 1995*
- *Nature Conservation Act 1992*

Fisheries Act 1994

The *Fisheries Act 1994* provides for the sustainable management of fisheries resources and fish habitats (amongst other things) in freshwater, estuarine and marine waters. The Act provides for the declaration of fish habitat areas, the regulation of recreational and commercial fisheries and the protection of all marine plants. Through these provisions, the Act can provide protection of threatened species habitat, protects species that have been identified under the EPBC Act as threatened but not listed under the NCA as threatened (e.g. certain fish and sharks), and protects marine plants (that are either threatened themselves or providing habitat for threatened animals).

Marine Parks Act 2004

Queensland has three state marine parks protected under the *Marine Parks Act 2004*: the Great Barrier Reef Coast (GBR Coast); Great Sandy (GSMP); and Moreton Bay (MBMP) marine parks which together cover 70% of the Queensland coastline. The Marine Parks (Declaration) Regulation 2006 sets out the boundaries of the existing marine parks in Queensland and the related zoning plan states the objectives for each zone and lists the activities that are allowed as of right, authorised with a permit and prohibited in these zones (Department of Environment and Heritage Protection 2012). The GBR Coast marine park runs the full length of the Great Barrier Reef Marine Park (GBRMP) and extends seaward from the high-water mark.

Coastal Protection and Management Act 1995 / Sustainable Planning Act 2009

The Coastal Protection and Management Act 1995 (Coastal Act) provides a framework for the coordinated management of the diverse costal resources and values in Queensland's coastal zone. The Queensland Coastal Plan was made under the Coastal Act and the *Sustainable Planning Act 2009* (SPA). It was the key statutory instrument under the Coastal Act.

The specific policy outcomes of the management policy that could provide protection of threatened species and their habitat include:

a. protect, conserve and enhance coastal resources, including the protection of dunes and maintenance and enhancement of dune vegetation, and protection of areas of high ecological significance
b. maintain natural physical coastal processes through appropriate design of works and structures or by setting them back from vulnerable areas
c. ensure infrastructure and services facilitate managed public use of the coast without having significant adverse impacts on ecological values or physical coastal processes.

The *Water Act 2000* regulates the extraction of water from wetlands within a water resource plan area. The *Environmental Protection (Water) Policy 1997* (under the *Environmental Protection Act 1994*) establishes environmental values for water, including wetlands. Many NRM bodies have established water quality improvement plans that set out management actions to protect the water quality environmental values that are scheduled in the Water EPP. The *Great Barrier Reef Protection Amendment Act 2009* is also an amendment of the *Environmental Protection Act 1994.*

World Heritage Areas

Numerous threatened species and some threatened ecological communities are found within the five World Heritage Areas of Queensland (Wet Tropics, Great Barrier Reef, the Riversleigh section of the Australian Fossil Mammal Sites, Fraser Island, and Gondwana Rainforests of Australia). The management of World Heritage areas in Australia is undertaken cooperatively by state and federal governments in accordance with the Australian World Heritage Intergovernmental Agreement (IGA).

The EPBC Act provides an overarching mechanism for protecting these World Heritage values from inappropriate development, including actions taken inside or outside which could impact on its heritage values. However, state legislation also plays a role (see next section for an example).

Wet Tropics World Heritage Protection and Management Act 1993

The *Wet Tropics World Heritage Protection and Management Act 1993* sets out the role of the Wet Tropics Management Authority (WTMA), which includes the development of policies and procedures that govern activities and land use within the Wet Tropics of Queensland World Heritage Area. The Act also provides the legal basis for the *Wet Tropics Management Plan 1998*. The Plan regulates land use activities in the World Heritage Area through a zoning and permit system.

d) Regulatory and funding arrangements at all levels of government

Species protection - regulations
Regulations relevant to the protection of threatened species' habitat, and the clearing or removal of threatened plants are discussed above.
Regulations which contribute to the protection of threatened species (individuals and populations) are discussed below.

Nature Conservation Act 1992
Under the NCA, wildlife is to be managed according to the management principles and intent defined for each class of wildlife. The taking, keep or use of endangered, vulnerable and near threatened wildlife is generally not permitted unless it is:
a) for an approved captive breeding program;
b) authorised under a conservation plan for the wildlife;
c) consistent with the management principles for the wildlife; and
d) will not reduce the ability of the wildlife's population to expand (endangered or vulnerable taxa), or
e) will not affect the survival of populations of the wildlife in the wild (near threatened taxa).

Marine Parks Act 2004
Marine parks provide protection to animals in addition to that provided by the NCA through the need for permits to take protected species and the permitting or prohibiting of activities that can impact on threatened species

Fisheries Act 1994
The Fisheries Act 1999 (Fisheries Act) provides for varying levels of protection of certain fish (including some sharks) which may not be afforded to them under the NCA due to not being listed as protected species. If fish are listed under the NCA, they become wildlife and are therefore exempt from the Fisheries Act. For this reason, fish that can be best protected by controls on commercial or recreational fishing are deliberately not listed under the NCA.

Funding arrangements
Funding sources for threatened species and ecosystem management include Queensland and Australian governments base and grant programs, private sector sponsorship, community and conservation groups and private interests.

The budget for the protected area estate in Queensland is the most significant financial contribution to threatened species protection and management in the State.

e) Timeliness and risk management within the listings processes

Under the NCA, wildlife may be classified as 'extinct in the wild', 'endangered', 'vulnerable', 'near threatened' or 'least concern' based on population size and risk of extinction.

Queensland has listed about 20 600 species of plants and animals under the NCA. This includes all species of plants, birds, mammals, amphibians and reptiles. At present very limited protection is given under the NC Act to other classes such as algae, fungi, mosses, insects, bony fish, cartilaginous fish (sawfish, sharks and rays), coral, shellfish and crustaceans. Of the species listed under the NCA, 4076 (approximately 20%) occur only in Queensland.

The process for listing a species is largely governed by non-statutory guidelines. Species are assessed by the Species Technical Committee in EHP, in accordance with guidelines aligned to the International Union for the Conservation of Nature (IUCN) and must meet criteria outlined under the NCA, and then be listed by regulation. It generally takes 12 months to reclassify a species (from the receipt of the nomination form to the making of a regulation by the Governor in Council).

A regulatory impact assessment must be undertaken before a regulation can be made, and where a proposed reclassification is likely to have a significant impact, public consultation and Cabinet approval may be required. A recommendation of the STC to reclassify a species does not alter protection given to it under Queensland legislation until a regulation is made.

Similarly, a reclassification of a species under the Commonwealth Environment Protection and Biodiversity Conservation Act does not automatically align the status of the species under the NCA and vice versa.

In 2010, the Commonwealth and Queensland governments signed a Memorandum of Understanding (MOU) to address the misalignment of threatened species lists. The MoU provides for more effective communication, a coordination of listings assessments and facilitates discussion on a single listing process.

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

Vegetation management

The introduction of legislation to end broadscale clearing in Queensland was a major step forward for the protection of threatened species and communities. This has been supported by a comprehensive system of baseline vegetation mapping, Statewide Landcover and Tree Study (SLATS) reports, and 2-yearly monitoring of the conservation status and extent of regional ecosystems.

The definition and mapping of regional ecosystems in Queensland is also more comprehensive, and higher resolution than the nomination and listing of ecological communities under the EPBC Act. Regional ecosystem mapping has been completed for more than 90% of Queensland for both pre-clearing and remnant vegetation distributions at a scale of 1:100,000.

Protected areas
The protection of threatened species and communities has been enhanced by the continued expansion of the Queensland national park estate. Between 2004 and 2011 the area of the protected estate in Queensland increased from 7,141,933 ha to 8,662,744 ha (Department of Environment and Heritage Protection 2012).

Great Barrier Reef
The Great Barrier Reef Water Quality Protection Plan has contributed to the protection of threatened species and communities associated with the Great Barrier Reef World Heritage Area. This has included the introduction of the Reef Protection Package of regulation, extension and research to reduce the amount of pesticides, fertiliser and sediment entering the reef lagoon.

Koala protection
The Koala Response Strategy has increased greenspace areas and provided urgent protection of the declining koala population in South East Queensland.

Nature Refuges
As at December 2012, there were 440 nature refuges protecting more than 3.35 million hectares of high conservation value land across Queensland.
A number of nature refuges were established specifically for the protection and management of one or more threatened plants and animals (e.g. bridled nailtail wallaby, northern hairy-nosed wombat).

Species prioritisation
In 2005, Queensland commenced implementation of 'Back on Track' (BOT), which was the first species prioritisation framework to be implemented in Australia. Back on Track was developed to enable the strategic allocation of conservation resources to recover the greatest number of threatened species

Reducing bycatch
Funding has been provided to the commercial fishing industry since 2008 to reduce the impact of bycatch on marine biodiversity, including threatened species such as turtles. This has given trawl operators access to bycatch reduction technologies that comply with international standards and world's best practice.

g) Any other related matter

What can be done
Queensland has already moved to prioritise threatened species on the basis of status (probability of extinction), consequence of extinction (value) and the potential for successful recovery. This framework is in place, and is now due for review.

Queensland is also looking to encourage communities, landholders, NGO's, NRM bodies and corporate entities to play a much greater role in threatened species protection and recovery. In most cases, it is not government that is making the day to day decisions resulting in threats to a species and it is therefore relevant for government to partner with those decision makers to develop an appropriate mix of policy, regulation and practice to achieve a sustainable outcome.