

Wildlife Trade Management Plan- Crocodile Farming in the Northern Territory

2021 - 2025

Wildlife Trade Management Plan- Crocodile Farming in the Northern Territory 2021-2025

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This is a Wildlife Trade Management Plan prepared under *the Environment Protection and Biodiversity Conservation Act 1999*.

Plan Approval

Approved Wildlife Trade Management Plan under subsection 303FO of the Environment Protection and Biodiversity Conservation Act 1999 by the Delegate on 3 December 2020

Approval of this program is valid until 31 December 2025.

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1. Introduction

This Wildlife Trade Management Plan (WTMP) covers the management of the crocodile farming industry in the Northern Territory (NT) including the export of legally sourced product under international wildlife trade rules and procedures. There are two endemic species of crocodile in the NT, the Saltwater Crocodile *Crocodylus porosus* and the Freshwater Crocodile *Crocodylus johnstoni*. There is currently no farming of Freshwater Crocodile and they are not covered by this plan, although some related management activities such as monitoring and management of threat to human safety may involve both species. Saltwater Crocodile are recognised as a valuable commercial resource, generating wealth and employment which promotes their conservation. The tourism value of crocodiles both in the wild and in captivity also generates significant economic activity. Economic benefits from crocodile harvest and tourism value flow to landowners and particularly indigenous communities, encouraging the protection and management of wetland habitats.

The Wildlife Trade Management Plan balances sustainability, industry growth and maximizing economic benefits to landowners to promote long-term species conservation including the protection of habitat. It focuses on the maintenance of a sustainable and viable crocodile industry that meets global best practice standards in sustainable wildlife use. This occurs within the framework of the NT's broader crocodile management program, and its objectives of biodiversity conservation, enhanced landholder participation in use programs, management of risk to human safety, and promotion of wildlife-based tourism.

1.1 Purpose, objectives and principles

The purpose of this WTMP is to provide for the sustainable farming of crocodiles in the NT, specifically to fulfil the requirements under Part 13A, Section 303FO of the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) and requirements of relevant international agreements notably the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

This plan has two primary objectives:

- i. To manage the Saltwater Crocodile for the benefit of Territorians; and
- ii. To ensure the long-term conservation of the species and its habitats in the NT.

Implementation of the plan is founded on two principles:

- i. Management and regulatory decisions should be evidence-based, supported by high-quality scientific data and robust monitoring;

- ii. The treatment of Saltwater Crocodile must be humane and in accordance with the requirements of animal welfare legislation and relevant codes of practice.

1.2 Species Background

The Saltwater Crocodile is the largest of the extant crocodylian species, with a wide distribution throughout the Indo-Pacific region (Webb et al. 2010). It is a top-order predator, including of humans, and co-existence with crocodiles present challenges for the NT community. Crocodiles also provide significant economic opportunities, are culturally significant to many Indigenous people in northern Australia, and are an icon for tourism within the Top End of the Territory.

In the Northern Territory, where the greatest proportion of Saltwater Crocodile numbers occur (Fukuda et al. 2007, 2011 & In press), a lucrative and uncontrolled trade in Saltwater Crocodile skins between 1945 and 1971 led to intensive hunting that depleted the wild populations to the point of extinction. Consequently, the species became protected in 1971 in the NT (Webb et al. 1984, Webb & Manolis 1989, Webb et al. 2010).

In the early 1980s, following a series of fatal and non-fatal attacks and an increase in other negative interactions with people, there were calls for an end to the ongoing recovery of the crocodile population and widespread culling was actively promoted. At this time the population had increased from an estimated minimum of 5,000 to around 30,000 (Webb et al. 1984). The recent estimate of population size is of the order of 90,000 - 100,000 individuals, not including hatchlings (Saalfeld et al. 2016).

1.3 Conservation and Management Context

To ensure that the conservation program aimed at rebuilding the wild population back to carrying capacity was maintained, the NT Government implemented an “incentive-driven conservation” strategy. This strategy promoted crocodile conservation by informing the public of the environmental and economic benefits of crocodile conservation. Positive incentives were created through commercial activity (tourism, crocodile farming and ranching) and negative impacts addressed by an active ‘Problem Crocodile’ control program and community education.

Ranching of eggs (the commercial collection of eggs from the wild and raising into hatchlings) is the most sensible strategy for sustainable use of Saltwater Crocodile, as the egg stage is an abundant but naturally vulnerable part of the life cycle (Fukuda et al. In press). This approach resulted in nesting habitat on private lands becoming a commercial asset worth protecting. There is no evidence to date to suggest that the current levels of take are depressing crocodile numbers, nor has the take impeded the ongoing recovery of populations from the era of unregulated harvest prior to 1971 (Clancy and Fukuda 2020).

The NT Government has fostered the crocodile farming industry and in recent years the Territory crocodile industry has significantly invested in farm infrastructure to increase its capacity. The industry has grown in conjunction with the Saltwater Crocodile population, to the point where the NT leads the world in the production of high quality crocodile skins.

The incentive-driven wildlife program has been a major conservation success, with the Saltwater Crocodile no longer a threatened species in the NT. Populations have recovered to levels of near natural carrying capacity in monitored rivers (Fukuda et al. In press). The NT population size is two orders of magnitude greater than the IUCN threshold for the least severe threatened category for non-declining populations (“Vulnerable”; < 1,000 mature individuals). The area of occupancy and extent of occurrence are also very much greater than the relevant threshold for a vulnerable status (2000 Km²/20,000 km²) with no significant projected reductions in these metrics within the term of this plan (Clancy and Fukuda 2020).

2. Legislative Framework

2.1 International

2.1.1 Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)

Australia is a signatory to CITES and both Australian crocodile species are listed in CITES *Appendix II: Species not currently threatened with extinction but may become threatened if trade is not regulated*. With the exception of the Australian, Indonesian, Papua New Guinean and Malaysian populations, *C. porosus* is listed on *Appendix I: Species that are threatened with extinction and are, or may be, affected by trade*. A CITES export permit is required for all commercial exports of Saltwater Crocodiles from Australia and can only be issued if it has been determined that the export will not be detrimental to the survival of the species in the wild and that the specimen was legally obtained. Exported skins must be tagged in accordance with a tagging system that complies with the provisions of CITES Resolution Conference 11.12.

2.1.2 Convention on Wetlands of International Importance (Ramsar Convention)

Australia is a signatory to the Ramsar Convention. There are plans of management for all three of the Ramsar-listed areas of the NT (Stages One and Two of Kakadu National Park and Garig Gunak Barlu National Park) which seek to protect wetlands and their dependent fauna, including Saltwater Crocodile.

2.2 Commonwealth

2.2.1 Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)

The [Environment Protection and Biodiversity Conservation Act](#) regulates import and export of crocodile products. Australia, as a signatory party to CITES, is required to meet specific conditions for the commercial export or import of CITES species under the EPBC Act. For export of CITES Appendix II species, the specimen must be sourced from an appropriate captive breeding or artificial propagation program, an approved wildlife trade operation, or an approved wildlife trade management plan. Commercial export permits for crocodiles are issued under section 303CG of the Act.

The Saltwater Crocodile is also a listed marine species under s248 of the *EPBC Act* and a listed migratory species under s209 of the Act and consequently this species may be considered as a “matter of national environmental significance” under the Act.

This Wildlife Trade Management Plan for the Saltwater Crocodile (*Crocodylus porosus*) in the NT of Australia 2021-2025 complies with the requirements for an approved Commonwealth wildlife trade management plan under Section 303FO of the *EPBC Act*. The EPBC Act requirements are documented in Appendix A.

2.2.2 Aboriginal Land Rights (Northern Territory) Act

The [Aboriginal Land Rights \(Northern Territory\) Act](#) establishes the Land Councils in the NT. One function of the Land Councils is that they confirm that the correct landholders (traditional owners) have given their permission for any commercial wildlife harvest before *TPWC Act* permits can be issued on Aboriginal Land. This Act also provides for Section 19 Land Use Agreements which should be in place for commercial crocodile harvesting from Aboriginal land. These agreements provide the conditions of access to land for the purpose of harvesting and therefore concordance between the terms of the Land Use Agreements and NT permit processes is required.

2.3 Northern Territory

2.3.1 Conservation and Environment

Territory Parks and Wildlife Conservation Act (TPWC Act)

The Saltwater Crocodile is classified as protected wildlife throughout the NT under section 43 of the [TPWC Act](#). The Act prohibits the taking or interfering with, the keeping of, or the import

or export of protected wildlife in the NT without authority. Authority is a permit issued by the Director of the Parks and Wildlife Commission or their delegate under section 56 of the Act.

The taking of protected wildlife by Aboriginal people for traditional purposes, including food, is provided for under Section 122 of the *TPWC Act*. Aboriginal people are not bound by hunting regulations or seasons when taking animals for food or other traditional purposes.

Environment Protection Act

New developments for the farming, processing and display of crocodiles that may have a significant environmental impact may require assessment and environmental approval in accordance with the [Environment Protection Act](#). Development and operation of crocodile farms may require a number of other regulatory approvals, including under the Planning Act, Water Act or Waste Management and Pollution Control Act.

2.3.2 Welfare and Farming

Crocodiles are captured within the meaning of “animal” under current the *Animal Welfare Act 1999*. The objectives of this Act are to ensure that animals are treated humanely, to prevent cruelty to animals and to promote community awareness about the welfare of animals. Persons owning, managing or handling crocodiles have a “duty of care”, and also must not be cruel to them.

Under the new [Animal Protection Act 2018](#), anticipated to replace the current Act in the last quarter of 2020, crocodiles will also be captured under the meaning of “animal.”

Under the NT’s current and updated animal welfare legislation, codes of practice are adopted under supporting regulations. Adopted codes provide a defence to a prosecution for an offence under the Acts, if the defendant establishes that the act or omission constituting the offence, or an element of the offence, was in accordance with an adopted code of practice.

Code of Practice on the Humane Treatment of Wild and Farmed Australian Crocodiles

Animal welfare standards for crocodiles are detailed in the [Code of Practice on the Humane Treatment of Wild and Farmed Australian Crocodiles](#) (2009).

Meat Industries Act

Farmed crocodiles may be slaughtered in abattoirs licensed for the slaughter of crocodiles for human consumption. The [Meat Industries Act 1996](#) provides for the safety and suitability of food for human consumption. The Saltwater Crocodile was declared as a game animal under the *Meat Industries Act* on 10 June 2004 (G24), which enables crocodiles killed in the wild to be

slaughtered. This is strictly monitored by Department of Industry, Tourism and Trade (DITT) and requires approval of the Northern Territory's Chief Inspector (Meat).

Livestock Act

Farmed crocodiles are identified as livestock under the [Livestock Act 2008](#) which provides for disease surveillance, disease control, identification and tracing of animals, and the regulation of movement of animals and animal products for the purpose of disease control.

3. Management Arrangements

The NT crocodile farming industry is based on the harvest of eggs and live animals from the wild to supply crocodile farms and other crocodile processors. The ranching component of the industry is supplemented by captive breeding on some farms, but captive breeding has substantially less input to production than ranching. Wild harvest of eggs is likely to remain the cornerstone of the NT crocodile farming industry into the future, as described in the [Northern Territory Crocodile Farming Industry Strategic Plan 2015-21](#).

To achieve the aims of this wildlife trade management plan, NT Government agencies in conjunction with the crocodile industry and land managers will implement a range of management practices to regulate the harvest, farming and trade of Saltwater Crocodiles in accordance with the *TPWC Act* and the *EPBC Act*.

The actions and performance measures for the life of this Plan are tabulated in section 3.5.

3.1 Commercial harvest from the wild

3.1.1 Harvest Ceiling

Commercial harvest of Saltwater Crocodiles has two components: the egg harvest and the harvest of live animals (hatchling, juvenile and adult animals) from the wild. All harvest components must be sustainable – that is, not threaten the long term conservation of the species or its habitat.

The harvest ceilings for eggs and live animals in previous management programs were based initially on implementation of a conservative harvest, monitoring of the impact of that harvest and subsequent adjustment of the harvest. More recently, a population model underpinned by empirical data has been used to set these ceilings (Fukuda *et al.* In press). The model indicates

that the NT saltwater crocodile population can sustain an annual harvest of up to 120,000 eggs and 1,200 non-hatchling crocodiles.

The total maximum number of *C. porosus* that can be harvested annually within the NT during this Plan is shown in Table 1. The full harvest ceiling may not be allocated in any year where there is insufficient demand from industry.

The live harvest ceiling is set at 1,200 and includes all animals taken for commercial use and for non-commercial reasons (such as problem crocodiles). This ceiling is the same as for the previous plan and is well above the annual reported take from all sources. It represents less than two percent of the estimated NT Saltwater Crocodile population.

The NT Government may seek to maintain the presence of a visible crocodile population and large (generally ≥ 4.5 m), iconic individuals through the prescription of zones where harvesting of live crocodiles is prohibited or restricted, although problem crocodiles can be removed wherever there is a public safety or livestock concern. In general, harvesting of live crocodiles will normally not be permitted:

- 1) in waterways where the watercourse forms the boundary between two or more properties, without the agreement of all property holders.
- 2) in mainstream channel of rivers that are heavily used by the tourism and fishing industry, such as the East Alligator River, the Mary River downstream of the Arnhem Highway, the Adelaide River downstream of the Marrakai Crossing and the Daly River downstream of Ooloo Crossing. Where low level harvest is permitted, it will be tightly regulated to ensure that tourism interests are not damaged.
- 3) from sites where crocodiles are particularly significant to local Indigenous people.

Table 1 Annual harvest ceiling for eggs and live animals from the wild. Numbers are set for the calendar year for live harvest and nesting season for egg harvest. The egg harvest ceiling is based on viable eggs.

	2020/21	2021/22	2022/23	2023/24	2024/25
Viable Eggs	90,000	90,000	90,000	90,000	90,000
	2021	2022	2023	2024	2025
Live Harvest	1,200	1,200	1,200	1,200	1,200

The egg harvest ceiling is set at 90,000 viable eggs for each annual nesting season during the life of this program. Consistent with the previous plan, the egg harvest ceiling in this plan represents less than 50% of the total number of eggs laid each year. As a very low percentage (less than 25%) of eggs would normally survive to later age classes in the wild (Webb & Manolis 1993), the egg harvest mostly represents a displaced mortality rather than additional mortality. In addition there is no evidence that the levels of take over the period of the previous plan were unsustainable, with monitored populations either increasing or stable (Clancy and Fukuda 2020).

3.1.2 Harvest review

Maximum harvest ceilings have been set for the period of this Wildlife Trade Management Plan and can accommodate projected industry growth over the next five years ([Northern Territory Crocodile Farming Industry Strategic Plan 2015-21](#)). Both harvest levels and population trends will be monitored during the life of the management plan. Should monitoring detect catastrophic decline (50% or greater decline in density in a single river system in a single year) or a clear trend of population decline across multiple years, then the need for harvest restrictions will be assessed (see section 3.5). The population trend must be distinguishable from natural fluctuation due to environmental conditions such as rainfall and the seasonal availability and quality of breeding habitat (Fukuda et al. 2007, 2011 & In press). Monitoring to date has not indicated any such decline (Clancy and Fukuda 2020).

3.2 Permits

As a protected species, the take (harvest) of or interference with any Saltwater Crocodile from the wild, the keeping of and/or trading in Saltwater Crocodile, and the import or export of Saltwater Crocodile in the NT require a permit issued under Section 56 of the TPWC Act. Permitting is managed by the Department of Environment, Parks and Water Security (DEPWS) in accordance with the NT Wildlife Management Program for Saltwater Crocodile, which is a statutory plan under s32 of the TPWC Act.

3.2.1 Crocodile farm permits

Crocodile farms require a Permit to Keep Protected Wildlife to authorise the keep and trade of Saltwater Crocodiles and Permit(s) to Import and Export Protected Wildlife to import or export Saltwater Crocodiles from the Northern Territory. A Crocodile Farm Enterprise Permit combines all three permits in a single permit document. The Enterprise permit is valid for a period of 10 years and authorises the permit holder (crocodile farm) to keep, trade, import and export Saltwater Crocodiles subject to terms and conditions of the permit.

Farm records are administered by the Department of Tourism, Sport and Culture (DEPWS). The holder of the Crocodile Farm Enterprise Permit is required to provide an annual permit return to DEPWS detailing stock gains/losses, transfers, sales, mortality, and skin and meat processing figures. This information is used to compare farm holdings with wild harvest permit returns and ensure compliance with wild harvest permits. The annual permit return is also provided to DEPWS.

The Enterprise permit authorises the permit holder to import or export Saltwater Crocodiles without the need to apply for individual permits for each shipment. It is a condition of the Enterprise permit that the permit holder provides prior notice to DEPWS of any shipment. The shipment is then authorised unless the permit holder is advised otherwise by either DEPWS.

Individuals or companies trading products derived from Saltwater Crocodiles taken under this Wildlife Trade Management Plan are required to hold either a Permit to Keep Protected Wildlife or a Crocodile Farm Enterprise Permit. It is a condition of permit that the permit holder maintains detailed records, and to mark certain products with a product label in accordance with the DEPWS product label guidelines. DEPWS issues product labels on a cost recovery basis or producers can print the required information on their own labelling and packaging. The minimum requirement for an approved product label is that the label:

- states that this is a crocodile product produced in accordance with an approved management program;
- shows the permit holder name and permit number of the Enterprise Permit or Permit to Keep that the product was produced under; and
- shows the date that the product label was affixed to the product.

These labels provide the means to identify products as originating from a legitimate source.

3.2.2 Live Harvest

The taking of live crocodiles for commercial purposes or to deal with a problem animal requires a Take Protected Wildlife permit. Permits are issued for up to 5 years. In the case of ongoing problems of stock loss, discussions are held with the landholder regarding alternative mitigation measures. To be issued with a permit the following conditions must be met:

- Relevant landholder approval;
- Demonstrated expertise/experience in handling crocodiles;
- Reason for the take consistent with the Wildlife Management Program (e.g. removal of a problem crocodile).

3.2.3 Egg Collection

Collection of crocodile eggs for commercial purposes requires a Take Protected Wildlife permit. Permit applications must include details on the purpose, method, extent and location of the proposed harvest. All permits for harvesting require the written consent of the landholder. Permits are valid for one to five years, and subject to terms and conditions including identification of who may carry out activities authorised by the permit; how, when and where those activities may be undertaken; the maximum quantity of Protected Wildlife that may be taken; and the requirement to provide returns for activities authorised by the permit. The returns include details on the number of animals (including eggs) taken, skin tag numbers if relevant, the size and sex of each crocodile that was taken, and a GPS location of the harvest site. In the case of egg collections, returns must be lodged by 31st July and the return must provide detail of all eggs collected including the date and GPS location of harvested nests and the number of viable eggs produced. Annual returns must be submitted for a multi-year permit.

3.2.4 Permits to export and import

The overseas export of live crocodiles and commercial shipments of crocodile skins, products or by-products from Australia requires a CITES permit from the Australian CITES Management Authority (through the Australian Government Department of the Agriculture, Water and the Environment (DAWE)). DEPWS provides CITES skin tags on behalf of the Australian Government for commercial shipments of skins from crocodile farms. Other international exports require an export permit from DEPWS prior to a CITES permit being issued on a cost-recovery basis.

Under CITES provisions and *EPBC Act* requirements, up to four crocodile products can leave Australia within a passenger's personal, accompanied luggage without a CITES permit if they are personally owned, non-commercial and legally acquired. Some countries do not recognise this exemption and require CITES permits so enquiries should be made with the importing country prior to travel.

3.3 Compliance and monitoring

The Department of Environment, Parks and Water Security (DEPWS), monitors the compliance of crocodile farms with the Wildlife Management Program, relevant legislation and the Code of Practice by:

- inspecting new permitted crocodile farms at least once during the first year of operation
- inspecting a sample of farms every year with the sample selected by taking into consideration:
 - farms identified as having matters of concern in a previous audit

- farms that have been reported by members of the public or other government departments as being potentially in non-compliance
- open source data, such as newspaper reports or legal cases involving the legal entity
- time since the last audit.
- collecting information on the movement of crocodiles into and out of the state using an import/export report linked to the farm permit.
- investigating alleged breaches of NT legislation in relation to the commercial take, keep and use of crocodiles in the NT.

The holder of a Permit to Keep Protected Wildlife in the Northern Territory (Crocodile Farming) for processing crocodile products must maintain records in an approved form (hard copy or an electronic record system) and submit annual return data in an approved form (i.e. Permit Return as defined in the permit).

Failure to lodge a permit return or insufficient or incorrect information in the permit return may result in the issue of a warning letter, caution notice or infringement notice, and could also result in cancellation of the current permit, refusal to issue any further permits, or prosecution.

Allegations with respect to animal cruelty or a failure to provide a minimum level of care to crocodiles will be investigated by the Animal Welfare Branch of DITT, which has agency responsibility for administering animal welfare legislation.

The movement of crocodiles (including eggs) into and out of the NT will be monitored and any apparent anomalies will be investigated in conjunction with relevant jurisdictions.

The NT Government will implement the following actions to help ensure compliance in respect of egg collection:

- random checks on eggs and farm stock to ensure compliance with permit conditions and reporting;
- field inspection of random crocodile nests in known locations;
- collaboration with other jurisdictions and agencies (Kakadu National Park, Queensland, Western Australia, Australian Governments, tanneries etc.) to help eliminate illegal trade of eggs, animals or products between states; and
- investigation of any reports of potentially illegal incidents and legal action where sufficient evidence is obtained.

The NT Government has the capacity to develop and introduce permit conditions on an as-needs basis. The NT Government may vary or cancel a permit if information becomes available that indicates conservation management measures may be required to protect a *C. porosus* (sub) population.

3.3.1 Shipment Inspections

A DAWE health declaration and validation of CITES export permits by border officials (Australian Border Force) is required for international shipments.

3.3.2 Skins

Each whole skin, whole belly skin, whole horn-back skin or trophy skin entering trade or being exported will be marked with a non-reusable skin tag issued by the Australian CITES Management Authority in compliance with the provisions of CITES Resolution Conf. 11.12. (<http://www.cites.org/eng/res/11/11-12.shtml>). Excised back-straps are packaged into a carton and the skin tag is attached to the carton. The permit issued for back-straps states that the tag is attached to the box and records the total number of back-straps in the carton.

Each farm completes a Specimen Export Record (SER) for each export shipment which states the skin tags have been attached to either whole skins or cartons of back-straps and returns it to the Australian CITES Management Authority. Each skin tag is uniquely numbered and the number serves as an identification number for all subsequent record keeping related to the skin of that particular animal. DEPWS is responsible for issuing skin tags on a cost-recovery basis, and skin tags are issued annually.

3.3.3 Flesh

Flesh will be packed in cartons that are marked to show that the enclosed product is a farmed product. Producers can use pre-labelled cartons which state that the contents are perishable and need to be kept frozen. Alternatively flesh may be sealed in standard cartons using specially marked green tape printed with "contents are perishable and need to be kept frozen". This labelling requirement applies to both domestic and international shipments.

3.3.4 By-products

Product labels are required for parts derived from animals under 2.3 metres in length. This includes whole dead animal, stuffed heads, skulls, whole skins, belly skins, horn-back skins and back-straps. A Permit to Keep is required for parts derived from animals over 2.3 metres in length. Skins which have a CITES skin tag affixed do not require either Permit to Keep or product label. Products to which a product label has been affixed do not require either a Permit to Keep or an import/export permit for movement into/out of the NT as the product label is the authority to keep and import/export.

3.3.5 Manufactured items

Product labels are not required for a range of finished manufactured products, including bags, belts, wallets, back scratchers, hat bands, necklaces, bracelets, key fobs, drink coasters, book covers and trimming. While labels are not required for these items they can be affixed at the

permit holder's discretion. Manufactured items which do not require a product label do not require an import/export permit for movement into/out of the Northern Territory as the Northern Territory Government will exempt these items from the provisions of the *TPWC Act*.

The Crocodile Farm Enterprise Permit has been introduced to streamline the permit process and reduce the regulatory burden associated with multiple or duplicate permit conditions across the different permits. Amendment of the *TPWC Act* to allow for the commercial licencing of crocodile farms will be investigated and, if practicable, implemented during the life of this trade management program.

3.3.6 Animal Welfare

The *Code of Practice on the Humane Treatment of Wild and Farmed Australian Crocodiles* (the Code) recommends a number of methods for capture of wild crocodiles, including traps, snares, hooks, nets, harpooning and shooting. Harvest, capture of problem crocodiles and farming of *C. porosus* must be in accordance with the Code.

The Code is an adopted code of practice under the NT's current *Animal Welfare Regulations 2000*, and will also be adopted under the new *Animal Protection Regulations 2020* once they commence. Compliance with the Code is a condition applied to all permits issued for the take, keeping and movement of saltwater crocodiles. Non-compliance with the Code may result in the issue of a warning letter, caution notice or infringement notice, and could also result in cancellation of the current permit, refusal to issue any further permits, or prosecution under the *TWPC Act*.

A breach of the *Animal Welfare Act* (or the new *Animal Protection Act 2018* once it commences) with respect to animal cruelty or a failure to provide a minimum level of care, may result in the issuing of a direction notice, warning letter, infringement notice or a prosecution.

3.4 Reporting

DEPWS will submit a report to the Australian Government each year that the plan is in operation. The report will be based on the previous calendar year and will be submitted by 30 June in the succeeding year. The report will provide a summary of:

- Progress against performance indicators (see below);
- Harvest statistics including:
 - Number of viable Saltwater Crocodile eggs taken;
 - Number of live Saltwater Crocodiles taken (hatchling, juvenile & adult);
 - Sex ratio and average size of live Saltwater Crocodiles taken (where required); and
 - Number of problem crocodiles taken;

- Number of permits issued for commercial live crocodile harvest and problem crocodile removal;
- Crocodile farm stock holdings;
- Number of Saltwater Crocodile eggs and live animals exported by destination; and
- Industry compliance indicators.

Spotlight survey of selected river systems within the NT provide indices of the density and size structure of crocodile populations and are the standard method of monitoring *C. porosus* in the NT, as detailed in the NT Wildlife Management Program. Information on the crocodile harvest (size and sex of non-hatchling crocodiles, numbers of total, live and viable eggs) is obtained through harvest returns submitted by permit holders. Harvest figures will also be considered in combination with environmental conditions that may impact on population size and structure (drought and habitat changes) when assessing the need for management intervention.

3.5 Management Actions Summary

To implement this Wildlife Trade Management Plan a range of management actions will be undertaken by the NT Government (Table 2). Responsibilities of NT Government Departments and crocodile industry stakeholders are provided in Table 3.

Table 2 Management Actions to be undertaken under the WTMP and their relevant Timeline and Performance indicators.

Management Action	Timeline	Performance Indicator
Ensure the egg harvest ceiling is set in accordance with the Plan.	Annual	Sum of regional and property-based permitted take to be less than ceiling and spatially spread
Investigate and take appropriate action when there is evidence of breaches of the TPWC Act and Code of Practice (see Section 3.3) by permit holder	Ongoing	Appropriate enforcement action is undertaken in all instances

Management Action	Timeline	Performance Indicator
Ensure that the annual commercial harvest of adult Saltwater Crocodiles does not exceed the approved ceiling.	Annual	Take less than or equal to permitted amount and regional population levels maintained (outside designated management areas ¹)
Timely assessment of permit applications and issuing of permits under the <i>TPWC Act</i> .	As required	20 business day turnaround of permit applications
Monitor and audit harvest operations and returns, and investigate and resolve any discrepancies.	Annual for the life of the permit	All discrepancies investigated and resolved
Ensure all permit applications have correct landholder approval.	As required	100% compliance
Conduct random checks on eggs and farm stock numbers.	Annual	Number of checks performed
Ensure compliance with all permit terms and conditions, including lodgement of annual returns, prior notification of import/export shipments, and any other term or condition	On going	Address all permit breaches through warning letters, caution notices, infringement notices, permit cancellation or prosecution
Continue the population survey program as described in Wildlife Management Program.	Annual	Results reported in annual report to Commonwealth (See below)
All permits are consistent with the <i>TPWC Act</i> and Australian Code	As required	100% compliance

¹ Within the Darwin, Katherine and Borroloola Crocodile Management Zones and designated swimming areas in National Parks (e.g. Wangi Falls in Litchfield National Park), all saltwater crocodiles are considered problem animals (Saalfeld et al. 2016) and can be removed

Management Action	Timeline	Performance Indicator
Investigate and take appropriate action on any suspected breaches of the <i>Animal Welfare Act 1999</i> (or the <i>Animal Protection Act 2018</i> once commenced).	As required	All breaches investigated
Submit annual report to the Australian Government and provide a summary on the NT Government website. To include audit against performance measures.	Annual	An annual report for 1 January to 31 December is submitted to the Australian Government by the 30 June the succeeding year

Table 3 Responsibilities of NT Government Department and industry stakeholders in the Saltwater Crocodile Wildlife Trade Management Program.

Department / Stakeholder	Responsibilities
Department Environment, Parks and Water Security (Flora and Fauna Division)	<ul style="list-style-type: none"> • Assess applications and issue permits as appropriate. • Undertake annual population monitoring surveys. • Collate annual report to the Australian Government. • Compare wild egg collection data with farm hatchling data each year. • Review the Management program for the Saltwater Crocodile (<i>Crocodylus porosus</i>) in the Northern Territory of Australia.
Department Environment, Parks and Water Security (Wildlife Operations)/Parks and Wildlife Commission	<ul style="list-style-type: none"> • Remove and dispose of problem crocodiles from agreed intensively managed areas. • Ensure compliance with permit conditions. • Issue CITES skin tags

Department / Stakeholder	Responsibilities
Department of Industry, Tourism and Trade (Primary Industries)	<ul style="list-style-type: none"> • Implement the Biosecurity plan in the event of an emergency crocodile disease outbreak. • Monitor crocodile farm production and provide industry support. • Investigate under animal welfare/protection legislation allegations of animal cruelty or a failure to provide a minimum level of care.
Northern Land Council	<ul style="list-style-type: none"> • Coordinate consultation process with Traditional Owners for land access and benefit sharing for any proposed harvest. • Provide Land Use Agreements for Aboriginal Land prior to any Egg or Live Harvest Permit being issued for commercial use.
Northern Territory crocodile farming industry / NT Crocodile Farmers Association	<ul style="list-style-type: none"> • Comply with all permit conditions. • Submit annual returns to DPIF and DEPWS. • Ensure animal welfare standards are being met in accordance with the Code of Practice and animal welfare/protection legislation. • During an emergency disease outbreak comply with the Biosecurity plan. • Ensure worker safety is not compromised by adhering to appropriate Workplace Health and Safety requirements. • Submit applications for permits to import/export crocodile shipments both domestically and overseas to DEPWS, at least two business days before the date needed. • Ensure that a CITES permit has been issued and that CITES permit numbers are available for overseas shipments of crocodile skins and products.

3.6 Consultation and Review

This Wildlife Trade Plan has been prepared in consultation with key stakeholder groups in the NT including the NT Crocodile Farmers Association. It will be subject to public review prior to its finalisation in accordance with Commonwealth EPBC Act requirements.

The Department of Environment, Parks and Water Security will review the implementation of this Wildlife Trade Plan no later than 12 months prior to the expiry of this plan to assess its success in meeting its goals and objectives.

4 References

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5 Definitions and Acronyms

Aboriginal Land Rights (NT) Act

Aboriginal Land Rights (Northern Territory) Act, Commonwealth legislation.

CITES

Convention on International Trade in Endangered Species of Wild Fauna and Flora.

Crocodile Products and By-products

Includes all parts from a crocodile except for skins as defined below.

Crocodile Skins

Includes raw or tanned belly skins (cut along the back), horn-back (cut along the belly) and whole skins.

DEPWS

Department of Environment, Parks and Water Security, Northern Territory Government.

Designated Management Areas

Management zones and designated swimming areas as described in the NT Management Program for the Saltwater Crocodile (*Crocodylus porosus*).

DoE

Department of the Environment, Australian Government.

DITT

Department of Industry, Tourism and Trade, Northern Territory Government.

Egg Harvest

The physical removal of an egg from its natural location in the wild and transportation to another location.

Eggs

Unless otherwise stipulated includes all eggs regardless of whether fertile or infertile, or with a live or dead embryo.

Eggs - dead

Eggs that are infertile or contain a dead embryo.

Eggs - live

Eggs that contain a live embryo.

Eggs - viable

Eggs that produce a normal hatchling surviving for at least one day outside the egg.

EPBC Act

Environment Protection and Biodiversity Conservation Act 1999, Commonwealth legislation.

Harvest Ceiling

Under this Management Plan, the annual maximum number of individuals that can be harvested in each of the defined life stages.

Live Harvest

The physical removal of a hatchling, juvenile or adult animal from its natural location in the wild and transport to another location, excluding the relocation of an animal from one location in the wild to another location in the wild.

NLC

Northern Land Council.

Wildlife Management Program

The Management Program for the Saltwater Crocodile (*Crocodylus porosus*) in the Northern Territory of Australia, 2016 or its replacement.

Ranching

As used in the context of CITES, the rearing in a controlled environment of animals taken from the wild.

TPWC Act

Territory Parks and Wildlife Conservation Act, Northern Territory legislation.

Appendix A: Requirements of a Wildlife Trade Management Plan

As per Section 303FO of the EPBC Act, the Commonwealth Minister responsible for the Environment may declare a WTMP only if satisfied that:

1. The plan is consistent with the objects of Part 13A of the EPBC Act.
2. There has been an assessment of the environmental impact of the activities covered by the plan, including (but not limited to) an assessment of:
 - a. the status of the species to which the plan relates in the wild
 - b. the extent of the habitat of the species to which the plan relates
 - c. the threats to the species to which the plan relates
 - d. the impacts of the activities covered by the plan on the habitat or relevant ecosystems.
3. The plan includes management controls directed towards ensuring that the impacts of the activities covered by the plan on:
 - a. a taxon to which the plan relates
 - b. any taxa that may be affected by activities covered by the plan
 - c. any relevant ecosystem (for example, impacts on habitat or biodiversity) are ecologically sustainable.
4. The activities covered by the plan will not be detrimental to:
 - a. the survival of a taxon to which the plan relates
 - b. the conservation status of a taxon to which the plan relates
 - c. any relevant ecosystem (for example, detriment to habitat or biodiversity).
5. The plan includes measures to:
 - a. mitigate and/or minimise the environmental impact of the activities covered by the plan
 - b. monitor the environmental impact of the activities covered by the plan
 - c. respond to changes in the environmental impact of the activities covered by the plan.

The objects of Part 13A of the Environment Protection and Biodiversity Conservation Act 1999 are:

- (a) to ensure that Australia complies with its obligations under CITES and the Biodiversity Convention
- (b) to protect wildlife that may be adversely affected by trade
- (c) to promote the conservation of biodiversity in Australia and other countries
- (d) to ensure that any commercial utilisation of Australian native wildlife for the purposes of export is managed in an ecologically sustainable way
- (e) to promote the humane treatment of wildlife
- (f) to ensure ethical conduct during any research associated with the utilisation of wildlife
- (h) to ensure that the precautionary principle is taken into account in making decisions relating to the utilisation of wildlife.