

## Crocodile management

### What does the NT Government do to keep the public safe?

The Northern Territory (NT) Government has dedicated and active crocodile management programs for public water bodies and Parks and Reserves in many locations across the Top End. This management aims to reduce the likelihood of a fatal crocodile attack. The NT Government uses a risk-based strategic management approach to determine the level of management activity suitable for an area. These management programs vary in intensity depending on a number of factors, including:

- management techniques appropriate to the location
- public use of the area
- criteria to allow opening of water-based activities, criteria for closing water-based activities and closure practices.

The NT Government also assists other landowners and managers to manage crocodiles on their lands

Management practices alone can't eliminate the risk of crocodile attack and public education is critical to reduce the risk of crocodile attack for Territorians and tourists. Across the Top End many people live or recreate in or near areas where saltwater crocodiles live. Saltwater crocodiles are large, top order predators and therefore there is always the risk of crocodile attack in areas where they may come into contact with people. That risk is increasing due to changes in both the numbers and locations of crocodile and human populations.

### Effective crocodile risk management

The NT Government uses a risk-based strategic management approach to determine the level of management activity suitable for any given area. This approach is based on an assessment of:

- FREQUENCY:** How often crocodiles are found in the area.
- PROXIMITY:** How close an area is to known crocodile breeding areas.
- POPULATION:** The number and frequency of people living or recreating in an area.
- PROBABILITY:** The likelihood or chance of a human-crocodile interaction occurring.
- PRACTICALITY:** The accessibility of an area, the risk to staff and the likelihood of a human entering the area.

Areas are managed for either:

- **Exclusion** - the objective is to try to prevent crocodiles from entering an area so that the level of risk is low enough to recommend swimming eg. Wangi Falls in Litchfield National Park
- **No tolerance** - the objective is to significantly reduce the risk of attack by removing any crocodiles that enter the area eg. Darwin Harbour and outer Darwin residential areas, or
- **Problem crocodiles removed** - the objective is to only remove problem crocodiles eg. Fogg Dam Conservation Area.

Management Aim	Exclusion	No tolerance	Problem crocodiles removed
<b>Crocodile presence</b>	Extremely unlikely when open for swimming	Low but possible	Varied but assume high
<b>Managed to minimise entry</b>			
<b>Any crocodiles removed</b>			
<b>Problem crocodiles removed</b>			
<b>Open – closed capacity</b>			
<b>Signs</b>		Some	Some
<b>Public informed when crocodiles are seen</b>			Problem crocodiles only
<b>Awareness campaign</b>			

Different levels of management allow different recommendations to be made about the risk of water-based activities. Swimming is only recommended in exclusion areas that are sign-posted safe for swimming. If a waterway is not designated safe for swimming then it may be inhabited by crocodiles.

Management Aim	Exclusion	No tolerance	Problem crocodiles removed
<b>Crocodile presence</b>	Extremely unlikely when open for swimming	Low but possible	Varied but assume high
<b>Crocodile awareness behaviour required</b>	Very low level		
<b>Swimming</b>		Patrolled areas only	
<b>Entering the water</b>		With care	With extreme caution
<b>Other water-based activities</b>		With care	With extreme caution
<b>Water edge activities</b>		With care	With extreme caution

## Exclusion areas

These are swimming areas on NT Government parks and reserves that are managed by Parks and Wildlife Service to minimise the likelihood of saltwater crocodiles entering the area. These areas may be closed for swimming seasonally or temporarily if the risk of crocodiles entering the area is considered too high. Exclusion areas include Berry Springs Nature Park, Wangi Falls in Litchfield National Park and Leilyn (Edith Falls) in Nitmiluk National Park.

It is still possible that crocodiles could still enter water bodies in this area. Before such areas are opened for swimming they must firstly be surveyed and found to be free of saltwater crocodiles.

Although the risk of saltwater crocodiles entering these areas when they are open for swimming is extremely low, it is still possible and warnings are provided for visitors to be alert and to enter the water at their own risk. Ongoing monitoring and trapping can further reduce the likelihood that a saltwater crocodile could enter these areas unobserved.



If a saltwater crocodile enters an exclusion area, the area is closed for swimming, warning signs are installed and the public is notified. All saltwater crocodiles found within an exclusion area are removed by trapping, harpooning or, in rare instances, shooting.

## No tolerance areas

Darwin Harbour, parts of the Katherine River, some areas around Nhulunbuy and a 13 kilometre stretch of the McArthur River at Borroloola are managed as "no tolerance areas". CROCWISE extends the no tolerance areas to include much of the outer Darwin residential area.

Management in these areas aims to reduce the risk of attack by saltwater crocodiles by removing any crocodiles that are found in these areas. However, it is not possible to stop crocodiles from entering these areas and they frequently do. There is always a risk of crocodiles being present in these areas although management practices keep the population densities of crocodiles low. The public needs to BE CROCWISE in these areas and swimming is not recommended except in designated or patrolled areas where active observation reduces the risks. Other water-based and water-edge activities can be undertaken with care.

These areas are actively managed by Parks and Wildlife Service. Management practices include the placement of permanent and temporary traps and surveys. The public are informed when crocodiles are known to be in these areas. The public are also encouraged to report sightings of crocodiles in these no tolerance areas. Crocodiles are removed from the area by trapping, harpooning or in rare instances by shooting.

## **Problem crocodiles removed areas**

Outside of the exclusion and no tolerance management areas, the Parks and Wildlife Service only conduct very low intensity crocodile management within the known range of the saltwater crocodile. Across this entire area, saltwater crocodiles may inhabit any water body and the risk of attack is always potentially high. In these areas, swimming is not recommended and people should be alert for crocodiles and should exercise extreme caution when on or near water.

The NT Government's management of crocodiles in this area is restricted to the removal of 'problem' saltwater crocodiles only. A problem saltwater crocodile is defined as an animal that:

- Has attacked or is about to attack a person or persons
- Is behaving aggressively towards a person or persons
- Has moved into a location that makes it a threat or potential threat to human safety, or
- Is affecting productivity, industry or commercial enterprises.

Problem crocodiles may be removed by trapping, harpooning or shooting. Permits may be granted to other land managers in this area to remove problem crocodiles. On average, 185 problem crocodiles are removed from Darwin Harbour each year. Smaller numbers of problem crocodiles are also removed from Katherine River (an average of ten per year) and other locations in the Top End each year. It is illegal to shoot or to interfere with a crocodile under the *Territory Parks and Wildlife Conservation Act*.

## **Why not relocate problem crocodiles?**

Saltwater crocodiles caught by trapping or harpooning by the Parks and Wildlife Service are transferred to crocodile farms or destroyed. Satellite tracking has shown that saltwater crocodiles can move hundreds of kilometres to return to locations from which they were removed. Therefore relocating crocodiles is not seen as an effective way of managing problem crocodiles, and as such saltwater crocodiles are not translocated and released in the wild.

**For further information visit [www.nt.gov.au/becrocwise](http://www.nt.gov.au/becrocwise)**