

Consultation report on crocodile management arrangements in North Queensland

October 2016

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Executive summary

The Queensland Government has an election commitment to review crocodile management arrangements in North Queensland. As part of this review, a new crocodile population survey program has been established to ensure that decision-making on how to balance human safety and crocodile protection can be based on sound knowledge of crocodile populations and movements.

This program, which is being led by the Department of Environment and Heritage Protection (EHP), will involve several years of data collection to allow for a clear picture about crocodile populations. In the short-term the Government has committed to consult with the community on crocodile management to examine the effectiveness of existing programs and to determine how they can be improved.

Consultation was conducted during 2016 and focused on:

- the public safety risks associated with estuarine crocodiles when using waterways
- conservation of the Queensland estuarine crocodile population
- the effectiveness of past and current estuarine crocodile management arrangements, particularly in relation to crocodile removal regimes and increased safety for residents and tourists
- individual estuarine crocodile welfare,
- the effectiveness of public awareness and the use of 'Crocodilewise' safety behaviour.

This report describes the consultation process used, the results of the consultation activities and outlines the next steps in the review process.

The results of direct consultation with key stakeholders indicated:

- a strong overall level of support for the existing Crocodile Management Plans already in place
- some specific requests for expansion of crocodile removal zones in the Cairns and Port Douglas area
- concerns that crocodile removal creates an unrealistic expectation of safety in some parts of the community
- requests for more comprehensive information to be supplied to councils and Surf Life Saving Queensland groups about the presence of crocodiles and how they are being managed, and
- that crocodiles are highly valued as an attraction for tourists, but that tourists are also at significant risk.

The results of the survey of the general community indicated:

- Half of respondents support the notion that crocodile management must be a balance of conservation and public safety.
- Support amongst residents in northern Queensland for removal of aggressive and dangerous crocodiles around urban areas was 76% and support for removal of larger crocodiles around urban areas was 47%.
- Across Queensland, 28% of respondents did not support the removal of aggressive crocodiles around urban areas, and 32% believed that crocodile management should be based heavily on conservation, indicating a preference for removal of fewer crocodiles.
- Approximately 15% of respondents support the widespread removal of crocodiles around urban areas.
- Respondents living near crocodiles had a relatively good knowledge of how to keep themselves safe from crocodiles.

Consultation process

The consultation process for the crocodile management program involved two elements: discussions with key stakeholders and an online survey of the general community.

Key stakeholder consultation

Individuals and organisations (government and non-government) representing stakeholders directly involved in, or affected by, estuarine crocodiles and their management were consulted during June and July 2016 as shown in Table 1.

Table 1: Stakeholders involved in targeted engagement process

Government	Non-government
<ul style="list-style-type: none"> • Department of National Parks, Sport and Racing • Cairns Regional Council • Cassowary Coast Regional Council • Douglas Shire Council • Hinchinbrook Shire Council • Townsville City Council. 	<ul style="list-style-type: none"> • Australia Zoo • Queensland Crocodile Conservation and Protection Society • Hartley’s Crocodile Adventures • Tourism Tropical North Queensland • Cairns and Far North Environment Centre • Cape Tribulation Beach House Resort • Daintree Coast Community Council • Surf Life Saving Queensland • Wildlife Preservation Society Queensland.

Face-to-face meetings or teleconferences with the EHP officers were arranged or, where this was not possible, stakeholders provided written submissions.

Stakeholder consultation specifically targeted views on the effectiveness of the current Crocodile Management Plan approach and the previous program using Crocodile Urban Management Areas. Discussions were unstructured allowing stakeholders to raise their own issues, but also guided by a set of prompting questions relating to the following themes:

- crocodile management approaches
- crocodile safety messaging and education
- crocodile conservation and welfare,
- expectations of public safety in and around waterways.

Online survey

Community views on crocodiles and their management were obtained through an online questionnaire, which was available on the Queensland Government ‘Have your say’ consultation page on the ‘Get involved’ website from 30 May 2016 to 30 June 2016. The survey was available to anyone from Queensland including those living in areas without crocodiles. A list of the survey questions is provided in Attachment 1.

The survey covered the following topics:

- demographics and location of respondents
- general knowledge of crocodiles
- experiences with crocodiles
- awareness of safety behaviours and safety education programs, and
- respondents’ views on:
 - crocodile management (removal policy and zoning systems)
 - removal to crocodile farms and zoos
 - crocodile welfare
 - research needs.

The information gained from this survey was used to identify where greater community engagement is needed to enhance general awareness of crocodiles, improve public safety and gauge community support for various management and zoning approaches.

It should be noted that the consultation period for the public survey began the day after a fatal crocodile attack at Thornton Beach. There was no indication that the responses were influenced by this event, however, it may have contributed to the large number of responses (1,961).

Results from face-to-face consultation

Management programs

Support for removal

- All Local Government Authorities (LGAs) were generally supportive of the current management program/approach (i.e. the use of zones and removal option).
- Local Government Authorities and Surf Life Saving Queensland (SLSQ) are concerned with public safety in waterways (particularly traditionally popular swimming spots and boat ramps). They want management to focus on immediate crocodile removals from these sites with an agreed response time as part of a service charter.
- Some LGAs and SLSQ expected that removal strategies will render an area “crocodile-free” and offer an effective approach to ensuring public safety.
- A number of LGAs would like to see the expansion of removal zones and even exclusion zones into specific sites where there are significant numbers of people (residents and visitors). See section below for the specific areas requested by stakeholders.
- There is also support from some stakeholders for a greater use of hazing¹ as a method of scaring crocodiles away from popular areas like beaches and boat ramps. Douglas Shire Council want their officers trained and authorised to carry out hazing.
- Currently SLSQ carry out some mild hazing. They would like to stop using the technique and want it removed from their operations. They claimed that crocodiles learn to avoid hazing by submerging to the bottom.

Concerns about removal

- A number of stakeholders identified that the removal of crocodiles from a waterway does not render the location safe as other crocodiles can still be present or move into the site at any time.
- Therefore, there is concern that:
 - removal zones are not effective, and can create a false sense of security that may lead people to take risks in areas that can still have crocodiles present
 - removal zones create an unrealistic expectation that certain areas would be rendered safe (“crocodile-free”), causing frustration among LGAs when crocodiles continue to be sighted, or when crocodiles take time to be caught.
- There was a consistent message from more pro-crocodile stakeholders that while removal of crocodiles may provide some benefits, ultimately human safety from crocodiles must be based on sound education

¹ Hazing is a technique to disturb crocodiles so that they move away from an area, and are less likely to return to the same site. It is sometimes used when a crocodile is regularly spending time in close to humans at a particular site (e.g. a beach or boat ramp). Hazing can occur using intrusive techniques like rubber bullets, or can be done using more subtle techniques, such as disturbing the crocodile with a vessel. Most hazing can only be carried out by conservation officers appointed under the *Nature Conservation Act 1992*.

Crocodile conservation and welfare

- There were no concerns raised by stakeholders (including conservation groups and crocodile experts) that the current level of crocodile removal poses a threat to the conservation of crocodiles, either as a species, or regionally.
- Some groups did raise concerns about how crocodiles are caught, including how long they remain in traps, the use of harpoons and their general treatment during relocation. Many of these concerns relate to previous practices and issues which have since been changed and improved.

Improving community awareness of crocodiles and safety

- There was strong support for the existing “Crocodilewise” program to be rejuvenated and expanded through:
 - more effective use of social and traditional media to target key audiences
 - more informative and visually engaging signage on where crocodiles are located, how dangerous they are, and how to minimise risks
 - re-engagement with school education programs
 - greater promotion of how to report sightings (boat ramps, swimming areas)
 - greater involvement of councils in the education process
 - greater use of technology, e.g. QR codes on signs to link to multi-lingual content or to link to more up-to-date information on the EHP website.
- There was a view expressed, including by some councils, that communication and education needs to address a highly polarised set of views in the local community (‘love them or hate them’ dichotomy) and help develop a more balanced awareness of the both the safety and conservation issues around crocodiles across the community.
- Several groups believed that EHP needs to enhance its profile and role as an educator and expert and authority on crocodile management and safety and improve its media response when crocodile incidents arise.
- There was support for providing the community with more complete and easily accessible information on sightings of crocodiles in their area to assist the community to understand the risks associated with crocodiles.

Research/monitoring

- There was a strong view that management of crocodiles needs to be based on science.
- There was support for the Government’s decision to establish a comprehensive survey of crocodile populations, as well as endorsement from relevant experts of the design and approach.

Cooperation and reporting

- Several councils indicated a need to have more formal and timely processes for EHP to report on crocodile sightings, whether they have been confirmed and what actions/decisions have been taken by EHP.
- Cairns Regional Council has suggested a Far North Queensland (FNQ) Crocodile Management Committee is established with representatives from each council, SLSQ, local EHP staff and selected experts in crocodile ecology. The committee would meet regularly to review:
 - the effectiveness of crocodile removals
 - the effectiveness of crocodile education programs
 - information sharing between different organisations.

Tourism

- There was a comment from the tourism sector that messages to tourists shouldn't detract from 'tourism opportunities' – i.e. to allow visitors to experience crocodiles rather than being scared away by them.
- Several stakeholders, including local councils, expressed the popularity of seeing wild crocodiles for tourists. They saw this as a major attraction for the area.
- Surf Life Saving Queensland would like to ensure that messages to tourists do not cause unnecessary alarm when crocodiles are sighted near beaches.
- Several groups raised the suggestion that crocodile safety education for tourists and locals needs to be differentiated and targeted, with specific messaging for each audience using different communication tools/methods.

Proposed additional removal zones

Cairns Regional Council proposed:

- That EHP conduct investigations to construct barriers and make Lake Placid and "the Freshwater" Zone 1 (these areas are currently Zone 2).
- The two reaches of the Mulgrave River near Gordonvale be upgraded from Zone 3 to Zone 2. The proposed sites are "Ross and Locke" and "The Green Patch".
- The upgrade of all areas around boat ramps to Zone 2. Currently some are Zone 2, and the remainder are Zone 3.

Surf Life Saving Queensland proposed:

- Designating Four Mile Beach at Port Douglas as a Zone 2 beach (this area is currently Zone 3).
- Adjusting the criteria used for Zone 2 beaches across the Crocodile Management Plans so that all crocodiles will be removed if they come within 150m of a zoned beach. Currently only crocodiles that are above 2m in size, and crocodiles displaying dangerous or aggressive behaviour are targeted for removal.

Results from public survey data

Summary of results

The online survey results presented a number of interesting results across several topics. In summary, the results indicate that:

- The community has a very wide range of views on crocodile management; this is consistent with the results from face-to-face consultation.
- A large proportion of those surveyed recognised that crocodile management must be a balance between conservation and public safety.
- Many respondents supported an approach that mostly left crocodiles untouched, with some targeted removal of crocodiles displaying aggressive behaviour towards humans.
- There was also some support for removing large crocodiles around urban areas, and slightly less support for removing all crocodiles from around urban areas.
- The department's crocodile education programs have been effective at reaching a large number of people in areas where crocodiles live, however, there is significant room for improvement in how well key message are conveyed. This is consistent with the results of face-to-face consultation.

Survey respondents

- There were 1,961 survey responses submitted for the online survey (Table 2).
- Respondents were asked to identify their place of residence, gender and age bracket so that it could be determined if these demographic factors influenced opinions, behaviours and knowledge of respondents.
- As would be expected due to the content of the survey a higher proportion of respondents reside within crocodile country².
- The gender and age profile of the survey sample was consistent with Australian Bureau of Statistics (ABS) data for the broader Queensland population.

Table 2: Total number and percentage (%) of respondents, presented by location

Region		Total Respondents	Percentage of Total
Crocodile Country	Far North Queensland (FNQ)	866	44.16%
	North Queensland (NQ)	259	13.21%
	Mackay, Isaac and the Whitsundays (M,I,W)	127	6.48%
	Central Queensland (CQ)	142	7.24%
Crocodile Country Total		1,394	71%
Rest of Queensland (QLD)	Wide Bay–Burnett (WBB)	66	3.37%
	Southern Queensland (SQ)	457	23.30%
Rest of QLD total		523	26.7%
Region not specified		44	2.24%
QLD Total		1,961	100%

²For management purposes Crocodile country is defined as Far North Queensland, North Queensland, Mackay, Isaac and the Whitsundays and Central Queensland. The locations within the survey that are outside of this definition of crocodile country include Wide Bay–Burnett, and South East Queensland.

Responses about management approach

As demonstrated in Table 3, half of the respondents (50.2%) preferred the management approach that is a balance between crocodile conservation and human safety. The less preferred approaches focused on conservation and protection of crocodiles (32.31%) and on managing crocodiles as dangerous animals (10.53%). The remaining responses were part of an 'other' category where respondents could write their own comments (6.95%).

Table 3: Percentage (%) of respondents who selected specific management options, presented by respondent location

- Balance– a balance between crocodile conservation and human safety.
- Conservation– conservation and protection of crocodiles.
- Danger– treating crocodiles as a dangerous animal.

Region		Balanced	Conserve	Danger	Other
Crocodile country	FNQ	52.37%	26.24%	13.87%	7.51%
	NQ	50.19%	26.25%	15.44%	8.11%
	MIW	59.84%	16.54%	18.11%	5.51%
	CQ	53.52%	31.69%	7.75%	7.04%
Crocodile Country Total		52.70%	25.95%	13.95%	7.40%
Rest of QLD	WBB	43.94%	40.91%	6.06%	9.09%
	SQ	44.64%	50.33%	3.50%	1.53%
Rest of QLD total		44.55%	49.14%	2.10%	4.21%
Region not specified		39.02%	34.15%	2.44%	24.39%
QLD total		50.20%	32.31%	10.53%	6.95%

In the area for other comments a small proportion of respondents (approximately 3%) nominated culling, hunting and/or harvesting approach be taken, with the majority of these responses coming from areas within crocodile country. Another group further encouraged the balance approach suggestion that education of humans and human behaviour around crocodiles (1.5%) should be implemented as a management tool.

The survey asked respondents about when crocodiles should be removed around urban areas, based on behaviour, size and location. Table 4 provides a summary of the results. There was strong support for crocodiles to be left alone in urban areas. However, where crocodiles were aggressive, the respondents' support turned to wanting these animal to be removed. There was also support for the removal of large crocodiles (over 2m) in urban areas although respondents indicated they were more tolerant of large crocodiles than aggressive ones.

This suggests that many respondents believe crocodiles should largely be left alone, with some exceptions for aggressive and large crocodiles. This approach is generally consistent with the current arrangements in place across Queensland – i.e. crocodiles are not removed unless they are aggressive, or in some specific areas where larger crocodiles occur close to human populations.

There was some support for removing all crocodiles in urban areas. The results indicate that much of this support is for removing all crocodiles from defined zones around urban creeks, boat ramps, and popular beaches and swimming areas. However, the responses to this question, in addition to survey responses in the 'other' category indicated a small level of support for significant crocodile removals that would be more consistent with a culling or hunting approach.

Table 4: Percentage (%) of respondents who chose specific options for removal in urban areas, presented by respondent location

Region		Left alone		Aggressive		Large (over 2m)		All	
		Yes	No	Yes	No	Yes	No	Yes	No
Crocodile Country	FNQ	70.01%	29.99%	76.55%	23.45%	45.69%	54.31%	24.85%	75.15%
	NQ	61.45%	38.55%	76.42%	23.58%	51.41%	48.59%	27.31%	72.69%
	M, I, W	65.35%	34.65%	86.40%	13.60%	56.45%	43.55%	26.45%	73.55%
	CQ	71.01%	28.99%	71.74%	28.26%	42.65%	57.35%	22.30%	77.70%
Crocodile country total		68.11%	31.89%	76.95%	23.05%	47.43%	52.57%	25.19%	74.81%
Rest of Qld	WBB	89.39%	10.61%	74.24%	25.76%	18.75%	81.25%	9.52%	90.48%
	SQ	88.85%	10.15%	55.63%	44.37%	20.54%	79.46%	7.47%	92.53%
Rest of Qld total		89.79%	10.21%	58.05%	41.95%	20.32%	79.68%	7.72%	92.28%
Region not specified		92.31%	7.69%	60.00%	40.00%	16.00%	84.00%	8.33%	91.67%
QLD total		74.34%	25.66%	71.60%	28.40%	39.69%	60.31%	20.27%	79.73%

Of those respondents who preferred the removal of all crocodiles, irrespective of size or behaviour, a majority selected for crocodiles to be removed from all locations. The respondents who only wish to see crocodiles removed if they are either acting aggressively or are of a large size show preference for removal from all locations, and second to this, popular swimming areas (Table 5).

Table 5: Preference for removal in areas relating to size or behaviour of crocodile, shown as a total number and percentage

Area description	Aggressive (n=845)		Large (>2m) (n=1386)		All (n=364)	
	Count	Percentage	Count	Percentage	Count	Percentage
All areas	291	34.44%	308	22.22%	274	75.27%
Boat ramps	62	7.34%	146	10.53%	3	0.82%
Popular fishing spots	7	0.83%	128	9.24%	4	1.10%
Popular swimming areas	258	30.53%	282	20.35%	42	11.54%
Recreational boating areas	7	0.83%	147	10.61%	6	1.65%
Water near business areas	6	0.71%	127	9.16%	2	0.55%
Water near residential areas	103	12.19%	231	16.67%	14	3.85%
Other (no response)	111	13.14%	17	1.23%	19	5.22%

The results in Table 4 show that 20% of respondents agreed that all crocodiles in urban areas should be removed. As shown in Table 5, when asked exactly where the crocodiles should be removed from, 274 respondents supported the widespread removal of all crocodiles around urban areas. This equates to approximately 15% of all survey respondents. The remainder of those in favour of all crocodiles being removed only support removal from specific areas such as boat ramps and popular swimming areas.

Attitudes towards management outside crocodile country

On a number of items, the responses from respondents outside of crocodile country displayed greater preference towards a primarily conservation and protection based approach as shown in Tables 3 and 4. Three per cent of respondents from Southern Queensland believed that management approaches should be focused on human safety, compared with more than 10% in areas around Far North Queensland, North Queensland and Mackay/Isaac/Whitsundays. Similarly, responses supporting the removal of crocodiles over 2m was very different between regions with crocodiles (around 50%) and regions without crocodiles (around 20%).

Crocodile welfare

Respondents were asked about their views on three common techniques to remove crocodiles. These techniques include harpooning, trapping and shooting.

Amongst crocodile experts, trapping is considered to be the most humane and practical method, as animals are not directly injured or handled as part of the being trapped and relocated. However, trapping can be resource-intensive and time consuming.

Harpooning is used to catch some crocodiles, especially in environments where trapping is not effective, or where crocodiles are already in a confined area (e.g. in a small man-made lake, or drainage channel).

Shooting typically involves use of a firearm from a boat or the shore to instantaneously kill a crocodile in the wild.

Survey results indicated that the majority of the public believes harpooning is a cruel activity, while trapping seems to be viewed as much more humane. Responses were roughly evenly split on whether shooting was cruel or not. These results were relatively consistent across the state as demonstrated in Table 6.

Table 6: Percentage (%) of respondents who do or do not believe certain removal techniques are cruel, presented by respondent location

Region		Harpooning		Trapping		Shooting	
		Yes	No	Yes	No	Yes	No
Crocodile Country	FNQ	70.55%	29.45%	13.67%	86.33%	44.29%	55.71%
	NQ	59.92%	40.08%	17.44%	82.56%	49.77%	50.23%
	M, I, W	63.49%	36.51%	8.73%	91.27%	31.75%	68.25%
	CQ	72.34%	27.66%	17.44%	82.56%	45.14%	54.86%
Crocodile Country Total		67.63%	32.37%	16.27%	83.73%	46.70%	53.30%
Rest of QLD	WBB	69.70%	30.30%	22.73%	77.27%	60.61%	39.39%
	SQ	84.15%	17.63%	19.28%	82.51%	67.57%	32.43%
Rest of QLD total		81.03%	18.97%	19.42%	80.58%	66.60%	33.40%
Region not specified		74.19%	25.81%	9.68%	90.32%	46.67%	53.33%
QLD Total		71.72%	25.28%	17.26%	82.74%	52.31%	47.69%

The survey also asked respondents about whether they believed that crocodiles feel pain. Seventy-five per cent of respondents agreed that crocodiles feel pain in a way that is similar to other animals. This result was relatively consistent across the state, see Table 7.

Further analysis of the survey results indicated that those people who believed crocodiles feel pain had low support of harpooning and stronger support of trapping as a removal method. Again, shooting did not display significant results.

In this context, the support for trapping suggests the community has a preference for animal welfare and an understanding of a crocodile's ability to feel pain. Furthermore, it may indicate that not all respondents want the animal to be killed during removal but perhaps relocated to other facilities. The members of the public that support shooting may rather be seeking a rapid, efficient and lethal style of management.

Table 7: Percentage (%) of respondents who believe crocodiles do or do not feel pain the same way we (humans) do, per location

Region		Feel pain	
		Yes	No
Crocodile Country	FNQ	80.58%	19.42%
	NQ	75.70%	24.30%
	M,I,W	72.00%	28.00%
	CQ	75.78%	24.22%
Crocodile Country Total		72.27%	27.73%
Rest of Qld	WBB	75.77%	24.23%
	SQ	73.85%	26.15%
Rest of Qld total		84.01%	15.99%
Region not specified		66.67%	33.33%
QLD Total		75.65%	25.35%

Public knowledge

As would be expected, a higher proportion of respondents who had previously heard of the term 'Crocwise' were located within areas where crocodiles live, with a slight decline in the southern parts of the state, as illustrated in Table 8.

The survey asked people to name one or more important Crocwise behaviour. Seventy-five per cent of respondents had heard of Crocwise, but only 75% of those people (58% of total respondents) were able to accurately describe a Crocwise behaviour. Some said they could name a behaviour, but did not list one, while others listed incorrect behaviours.

Overall this indicates that EHP's Crocwise program has been partially successful but could be improved. This is consistent with views expressed from stakeholders in face-to-face consultation.

Table 8: Percentage (%) of respondents who had or had not heard of the term 'Crocodile' before, presented by respondent location

Region		Heard of 'Crocodile'	
		Yes	No
Crocodile Country	FNQ	84.62%	15.38%
	NQ	62.20%	37.80%
	M,I,W	74.81%	25.19%
	CQ	71.13%	28.87%
Crocodile Country Total		77.87%	22.13%
Rest of Qld	WBB	68.18%	31.82%
	SQ	64.84%	35.16%
Rest of Qld Total		66.80%	33.20%
Region Not Specified		64.29%	35.71%
QLD Total		75.29%	24.71%

Respondents were asked to identify which authority they would report a sighting of a crocodile to, as shown in Table 9. Only about 20% of respondents selected State Government as the body they would contact to report a sighting. These results indicate further public education activity is required in order to communicate which authority is the most appropriate to report a sighting. This understanding of public knowledge should be taken into consideration when adapting future education initiatives.

Table 9: Total number and corresponding percentage (%) of which authority respondents would contact to report a crocodile sighting

Authority	Total number	Percentage %
Council	538	27.46
Crocodile remover	99	5.05
News media	20	1.02
Other	548	27.97
Police	265	13.53
RSPCA	47	2.40
State Government	387	19.75
No answer	55	2.81

Conclusions

Face-to-face consultation and the online survey described above were both conducted to help inform the process of developing new crocodile management arrangements in Queensland.

The results of both processes indicated a number of key issues:

- A wide diversity of views on crocodile management was evident across both the online survey, and face-to-face consultation. In many cases, views on crocodiles generally, and crocodile removal were dichotomous.
- Many parts of the community in North Queensland see a role for crocodile removal as part of ensuring public safety.
- Many in the community would prefer to see all, or most crocodiles left alone, with public safety being achieved through community education to support safe behaviours.
- Some parts of the community would be supportive of a stronger crocodile removal program, particularly in and around urban areas.
- There is strong support for the current zoning arrangements and management approaches in place under the existing Crocodile Management Plans.
- Many in the community are not fully aware of the work that EHP does in managing problem crocodiles and that some key stakeholders would like to be better informed.

Next steps

The results of this consultation process will assist to inform the Queensland Government's review of the existing Crocodile Management Plans and broader crocodile management arrangements currently in place in Queensland.

Attachment 1: Questions used in online survey regarding Crocodile Management

General knowledge:

How would you describe your current level of knowledge about crocodiles?

- Poor
- Average
- Good

Which of the following statements about crocodiles do you consider to be true?

- crocodiles only live in salt water
- crocodiles are only active at night
- crocodiles only feed in the water
- crocodiles have very strong muscles for closing their jaws but only weak muscles for opening their jaws
- crocodiles are common in northern Queensland

How far south are you likely to see a crocodile in the wild?

- Daintree
- Cairns
- Townsville
- Whitsundays
- Rockhampton
- Gladstone
- Maryborough
- Brisbane

Have you ever seen a crocodile?

- (If yes) Was it in a zoo or the wild?
- (If no) Would you want to see a crocodile if you were travelling to north Queensland?

Do you currently live north of Gladstone?

- Yes/No

Safety

Please indicate your agreement with the following statement: When I am on or near any body of water in northern Queensland, I am especially careful and alert because there could be wild crocodiles living there.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

Have you ever heard of 'croc wise'?

- If yes: Can you name a 'croc wise behaviour'?
- No

Who would you report a sighting of a crocodile to?

- Police
- Council
- State government
- Crocodile remover
- RSPCA
- News media
- other

Management approaches (questions will still relate to safety but specifically address management approaches that achieve safety outcomes)

- Do you think that crocodile management should be focussed on:
- Conservation and protection
- Treating crocodiles as dangerous animals
- A balance between crocodile conservation and human safety
- Other, please specify (open ended)

Removal

When a crocodile is sighted, should it be managed by:

-Removing a crocodile only when it becomes aggressive?

- Yes/No

-Removing a crocodile when it is over 2 metres in length?

- Yes/No

-Removing all crocodiles?

- Yes/No

-Leaving the crocodile alone and ensuring people know the crocodiles are there and what they can do to stay safe?

- Yes/No

Zoning

Should a system of crocodile management zones be set up in populated areas where:

-Crocodiles are left alone (and people are educated about crocodiles and their access/activity is controlled)

- Yes/No

-Aggressive crocodiles removed

- Yes/No

-Large crocodiles (over 2 metres in length) are removed

- Yes/No

-All crocodiles removed

- Yes/No

Commercial use of crocodiles

Should crocodiles removed from the wild be given to zoos and crocodile farms?

- Yes/No

Should trophy hunting be used to remove dangerous crocodiles?

- Yes/No

Should iconic 'tourism crocodiles' be given exemptions from removal (unless they become aggressive)

- Yes/No

Welfare

Do you think crocodiles feel pain [the same way we do]?

- Yes/No

Do you think the following capture techniques are cruel?

-Harpooning

- Yes/No

-Trapping

- Yes/No

-Shooting

- Yes/No

Research

Do we know enough about crocodiles to manage them and conserve them?

- Yes
- No – what do we need to know more about?

Is the size of the population changing?

Is crocodile behaviour changing? (e.g. behaviour conditioned by people leaving fish scraps in the water around boat ramps)

Is crocodile distribution changing?

How can we stop attacks?

Demographics

Please answer the following questions so that we can understand a little more about you.

What gender do you identify as?

- Male
- Female
- Other

What is your age?

- 18-29 years old
- 30-49 years old
- 50-64 years old
- 65 years and over

What region do you live in?

- Far North Queensland
- North Queensland
- Mackay, Isaac and Whitsunday
- Central Queensland
- Wide Bay Burnett
- South East Queensland
- Darling Downs South West.