

DISCUSSION DRAFT

Cane Toad Hitchhiker Threat & Rapid Response

Operational Planning

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DISCUSSION DRAFT



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1 BACKGROUND

Cane toads have proven to be effective hitchhikers and have been moved, in vehicles, hundreds of kilometres ahead of the cane toad front. In the Northern Territory (NT) there have been many incursions of this nature and it is important that strategies be developed and implemented to combat this problem in Western Australia (WA).

Lake Evella, Darwin Botanic Gardens and Darwin Airport are just some examples; over 50 cane toads have been removed from Darwin in the 18 months prior to their overland arrival.

The mechanism for this transportation of toads is the inadvertent movement of toads in vehicles, machinery, equipment, freight, camping gear, palettes, pot plants, and caravans. Tourism vehicles and other low to the ground vehicles provide a refuge and toads climb into the undercarriage of these sorts of vehicles in the early mornings. If the vehicle then moves, the cane toads get transported and may hop out of the vehicle the following evening.

2 RISK MANAGEMENT STRATEGY

The strategy aims to manage this risk through a combination of education, early warning systems and a response process to quickly eradicate any toads, before they have an opportunity to colonise a new area. Complementary strategies that will further reduce this risk are a well resourced quarantine check point and trapping regimes in likely camp sites between Katherine and the WA border.

2.1 EDUCATION & AWARENESS

It is important that people moving through the region:

- are aware of the risk;
- are able to identify a cane toad;
- are able to identify the call of a cane toad; and
- know how to respond.

Raising the awareness of the general public is critical. Shire workers and agriculturalists are important audiences too. People involved in jobs that require them to move around at night, e.g. security guards, are a special target for this type of education, as adult toads are only active at night. Everybody needs to be aware of the cane toad call and be able to identify the various stages of the cane toad lifecycle: egg, tadpole, metamorph and adult.

2.2 SENTINEL TRAPS

Traps with black UV lights are particularly effective in attracting toads and will be set up in areas of risk of toad incursion, ahead of the front line, to help identify when toads arrive in an area, as soon as they arrive

The traps will be set in areas near lights or water in:

- caravan parks;
- truck stops;
- transport yards;
- service stations;
- roadside rest bays; and
- other areas where visitors are likely to remain parked overnight or for long periods of time.

Assessment of risk areas will be carried out over the whole the Shire of Wyndham East Kimberley (SWEK), other shires beyond the East Kimberley and within the NT. Other areas that may warrant this type of monitoring are high value assets with low apparent risk, such as the Parry Lagoons system.

2.3 COMMUNICATION PROCESSES

A clear notification and response activation process will be established with processes clearly identified from the 1800 cane toad hot-line and down. Multiple people will be listed at each point in the communication process, creating flexibility and redundancy.

People will be identified at points across the region that can visit the site of a cane toad report and/or positively identify a suspect amphibian. These people will have access to digital cameras so photographs can be emailed to key personnel for formal identification.

A list of names and phone numbers will be created and people on the list contacted and trained in the tasks required. A toad ID Kit will be circulated; including a field chart of commonly mistaken native species, digital camera, zip lock plastic bags, a reference chart for the types of photos needed for identification and the phone numbers to ring.

2.4 RAPID RESPONSE PROCESS

In the event of a confirmed toad incursion: there will be a thorough search of the surrounding area as soon as possible after the report, if during daylight, the search must be conducted again in the evening. An integrated eradication protocol will then be employed that includes all available techniques to provide a high degree of certainty that local eradication is complete.

These techniques include:

- trapping;
- hand collection; and
- · audio recording.

Design elements of the eradication protocol include: duration of the process; number of nights of effort with and without sightings; and a long-term revisit regime. Clear mechanisms will be established to activate and coordinate the response and provide feedback to stakeholders

2.4.1 RESPONSE TRAPS

A supply of 'response traps' will be kept in storage at-the-ready for deployment. In Kununurra, for example, 20 response traps could be housed at the SWEK depot (or similar location). Battery maintenance is an important consideration for these traps.

Access to the storage area and trap transport will be identified in this strategy. Guidelines for proximity of traps to water and other deployment tactics will be identified and communicated to response teams.

2.4.2 OTHER MATERIALS

Powerful spotlights will be necessary for this process and these will be stored in kits along with response traps, around the region. Spotlights such as Light Force Predator or 140 SL's are ideal and several charged batteries will be maintained at all times. Audio recording facilities and toad disposal equipment will also be considered.

2.5 THREAT ABATEMENT

A plan to reduce the numbers of toads in camping areas, where vehicles may have spent the evening prior to entry into WA, will reduce the risk of toad incursion.

Traps placed in such locations will reduce this risk and there are a number of tour operators who have indicated they are keen to assist by picking up toads in these areas during their trips. Indications are that many visitors will be keen to be a part of this process.

There have, previously, been issues with the disposal of collected toads and concerns expressed at the risk of non-toad species being inadvertently collected. This can be addressed by having the collected animals placed into traps rather than euthanised in situ.

3 DEVELOPING AN OPERATIONAL PLAN

A coordinated multi-agency response to the issue will:

- 1) limit the risk before it arises to the east of the Kimberley;
- 2) detect at an early stage any incursions; and
- 3) respond swiftly and thoroughly to eradicate any such incursion.

3.1 EDUCATION

Goals:

- Raise general awareness of cane toads
- · Raise capacity of audience to identify toads
- Raise awareness of the 1800 number
- Raise awareness of risk of hitchhiker toads
- Involve people in the rapid response program

Task	Agency	Role	Resource	Action
		Educatio	n	
General Awareness	?	Develop campaign	?	Facilitate sub- committee
	?	Contribute to campaign	?	Workup drafts
ID Skill	?	Develop materials	?	Facilitate sub- committee
	?	Fund and Book Med	ia ?	Internal approvals Booking process
1800 No.	?	Develop campaign	?	Facilitate sub- committee
	?	Contribute to campaign	?	Workup drafts
Hitchhiker Risk	?	Develop materials	?	Facilitate sub- committee
	?	Commission printing	g ?	Obtain quotes
Involvement	?	Networks	?	Recruitment

3.2 SENTINEL TRAPS

Goals:

- Identify all locations that might require sentinel traps, estimate number required at each site and rank sites in terms of perceived risk.
- Identify the total number and type of traps required, manufacture and ready for deployment. Identify people and agencies capable and willing to take on the deployment, checking and maintenance of these traps.
- Establish a network of sentinel traps throughout the East Kimberley and beyond if necessary.

Task	Agency	Role	Resource	Action	
	Sentinel Traps				
Site ID	?	ID SWEK sites and other areas	?	Inform staff Collate feedback Assess risk Prioritise	
	?	ID CALM sites and other areas	?	Collate sites Assess risk Prioritise	
	?	ID Industry sites	?	Inform membership Collate feedback Assess risk Prioritise	
	?	ID Indigenous sites	?	Inform communities and agencies Collate feedback Assess risk Prioritise	
	?	ID Tourism sites	?	Inform membership Collate feedback Assess risk Prioritise	
Trap Needs	?	Collate needs	?	Establish exact trap needs	
Implement Traps	?	Deployment Checking Maintenance	?	ID appropriate staff Training	

3.3 COMMUNICATION PROCESSES

Goals:

- Develop a clear and effective line of communication from the 1800 number onwards
- Develop contact list for response with multiple contacts for each area and task
- Develop a toad ID Kit
- Identify, train and equip those responsible for initial investigation and toad identification
- Develop an equipment list and suitable storage locations

Task	Agency	Role	Resource	Action	
	Communication				
CALM	?	Host 1800 No.	?	Agree on community collaboration for this function	
	?	Collaborate on and facilitate process	?	Collaborate on communications plan	
	?	Collaborate	?	Collaborate on communications plan	
Contact List	?	Collaborate	?	ID staff for roles	
	?	Facilitate process	?	Facilitate process	
	?	Collaborate	?	ID staff for roles	
Toad ID Kit	?	Develop ID Kit	?	Identify kit needs Develop materials Purchase and put together Distribute	
Storage	?	Store equipment Transport?	?	Identify appropriate storage sites	
Training	?	Train staff	?	Train staff with allocated roles	
	?	Train other contacts	?	Train identified contacts	

3.4 RAPID RESPONSE PROCESS

Goals:

- Develop a Rapid Response model
- Identify methodology for field search, trapping regime, audio monitoring and follow up

Task Matrix (with sample roles and actions)

Task	Agency	Role	Resource	Action
		Rapid Respo	nse	
Develop Model	?	Collaborate on and facilitate process	?	Facilitate process Contribute to process
	?	Collaborate	?	Collaborate
Identify specific tactical	?	Collaborate on and facilitate process	?	Facilitate process Contribute to process
methodologies	?	Collaborate	?	Collaborate

3.4.1 RESPONSE TRAPS

Goals:

- Identify trap needs (including lighting types)
- · Establish design and production
- Develop trap readiness/maintenance regime
- Develop deployment methodology

Task	Agency	Role	Resource	Action	
	Response Traps				
Identify trap needs	?	Collaborate on and facilitate process	?	Facilitate process Contribute to process	
	?	Collaborate	?	Collaborate	
Design and production	?	Design process	?	Adapt collapsible trap from existing trap designs	
	?	Production	?	Coordinate production of new design	
Trap readiness	?	Develop regime	?	Produce maintenance planner	
Deployment	?	Coordinate	?	Coordinate	
methodology	?	Expertise	?	Input expert knowledge	

3.4.2 OTHER MATERIALS

Goals:

- Identify equipment needs (types and numbers)
- Identify suitable storage locations
- Develop equipment readiness regime

Task Matrix (with sample roles and actions)

Task	Agency	Role	Resource	Action
		Other Mate	rials	
Identify equipment needs	?	Collaborate on and facilitate process	?	Facilitate process Contribute to process
	?	Collaborate	?	Collaborate
Identify suitable storage locations	?	Undertake to store equipment	?	Identify internally necessary sites and personnel
Equipment readiness regime	?	Develop regime	?	Produce maintenance planner

3.5 THREAT ABATEMENT

Goals:

- To reduce the numbers of toads in and around popular camping grounds
- Identify camping locations (formal and informal)
- Establish trap numbers and types
- Identify people and agencies capable and willing to deploy, check and maintain traps
- Develop toad disposal procedures

Task	Agency	Role	Resource	Action
		Threat Abate	ment	·
Identify camping locations	?	Collaborate on and facilitate process	?	Facilitate process Contribute to process
	?	Collaborate	?	Collaborate
Establish trap	?	Facilitate	?	Coordinate
numbers and types	?	Investigate	?	Query membership for locations
People and agencies for	?	Develop list	?	Collate nominations
trap servicing	?	Nominate	?	Volunteer staff time
Toad disposal	?	Develop model	?	Facilitate process
procedures	?	ID resources	?	Query membership for resources

This process will also tap into the resources of the tour operators and people involved in the operation of camp grounds as well as visitors who are keen to assist.

Large self contained traps in these areas can be used as holding pens for toads or dedicated collection bins like the FrogWatch Cane Toad Detention Centre (see pic. below) can be installed.



4 KEY ORGANISATIONS AND ROLES

There are number of groups that have both resources as well as cause to respond to this issue, these include: State and Local Government, community groups and private businesses.

4.1 GOVERNMENT AGENCIES

4.1.1 WA DEPT OF AGRICULTURE

The WA Department of Agriculture (including their roles with the WAQIS Checkpoint) have a key part to play and represent both existing expertise and resources as well having operational responsibility for elements of this issue. The Quarantine Checkpoint is an important measure for stopping hitchhiker toads but is far from a compete barrier. The Department of Agriculture has a history of response to pest and disease and have skills and experience.

4.1.2 WA DEPT OF CONSERVATION AND LAND MANAGEMENT

CALM has responsibility as the lead government agency for cane toad control. The majority of their focus is presently directed at on-ground action in the Northern Territory, however response to hitchhiker incursion in WA is an identified threat and action and resources can be expected on this issue.

4.1.3 NT PARKS AND WILDLIFE

The Northern Territory Parks and Wildlife are the land managers for much of the current cane toad front. If direct action on this issue is to be taken on that land then permission from this agency is mandatory. They also have personnel who regularly patrol their lands and might be willing to clear traps as part of the Threat Abatement component.

4.2 LOCAL GOVERNMENT

There are number of Local Government groups that have cause to respond to this issue. In terms of stopping cane toads from entering Western Australia, the Shire of Wyndham East Kimberley represents the frontline of the impending invasion. However, shires further west in the Kimberley are at direct and imminent risk of the hitchhiker incursions.

4.2.1 SHIRE OF WYNDHAM AND EAST KIMBERLEY - SWEK

SWEK has great cause to act on this issue. The skills, resources and networks of the Shire represent one of the key assets in the overall war on cane toads. To date the Shire has shown commitment and leadership on this issue and can be expected to play a pivotal role in dealing with the Hitchhiker toad threat.

4.2.2 TIMBER CREEK COMMUNITY GOVERNMENT COUNCIL

There are ways in which Timber Creek Community Government Council could employ local toad control efforts that would complement strategies to protect the East Kimberley. Cooperation and sharing of skills and resources are key processes in managing this risk.

4.3 COMMUNITY BASED GROUPS

A number of community groups are already aware of, and in some cases active on, toad control. These groups represent both a source of willing volunteer personnel as well as a focus for self organisation and coordination at some levels. There are three obvious such community groups; the Kimberley Toad Busters, the Stop the Toad Foundation and SEEKS, however other groups exist already or may arise in time.

4.3.1 FROGWATCH

The community based environment organisation that started the campaign against cane toads in the NT. Frogwatch has community links across the NT, educational resources and cane toad expertise.

4.3.2 KIMBERLEY TOAD BUSTERS

A very strong volunteer based group with existing contacts and a network across all sectors of the community, including indigenous groups. They have expertise and equipment which may be available at certain times.

4.3.3 SEEKS

Long term environment group based in Kununurra with existing membership networks and expertise.

4.4 INDIGENOUS GROUPS

Some indigenous groups and communities are already active and skilled in toad identification and control. Others are yet to find opportunities to act on this issue. Known groups to be considered would include the:

- Kimberley Land Council
- Northern Land Council
- Waringarri Aboriginal Corporation
- Other resource agencies across the Shire
- Individual communities across the Shire
- Other Indigenous groups such as men's and women's groups, youth groups and sporting and social groups

5 Business

Business and industry represent both elements of risk as well as potential resources and support structures for this strategy. Industry groups have processes in place to inform and organise their constituents.

5.1 KUNUNURRA CHAMBER OF COMMERCE AND INDUSTRY

The peak representative organisation for general commercial sector in the East Kimberley. The KCCI has a track record of civic responsibility and strong links with SWEK. Strong internal networks and proven organisational ability (e.g. Ord Valley Muster) are key features.

5.2 Northern Territory Chamber of Commerce and Industry

Similarly to the KCCI, larger overall scale of membership indicates additional capabilities.

5.3 Tourism

These businesses and industry bodies are likely to have communication systems in place with their member businesses that can be used for educational and operational matters.

5.3.1 KATHERINE REGION TOURIST ASSOCIATION

Contacts and communication channels for businesses such as caravan parks and camping grounds in the NT from Katherine to the WA Border.

5.3.2 KIMBERLEY TOURISM

The Kununurra Visitor Centre, Skal Club and other groups represent a network of companies that are active in the field throughout the region. Collectively, these companies maintain a large fleet of vehicle, aircraft and boats that might be available during seasonal downtime.

5.4 AGRICULTURE AND PASTORAL

Agricultural and pastoral industries represent both resources and risks. Much of the land in the East Kimberley is under the management of agricultural and pastoral enterprises. Irrigation infrastructure is a potential toad incursion refuge and transport of materials onto sites represents a possible vector for toad movement. The agricultural and pastoral industries also bring useful skills and networks.

5.5 MINING

Mining companies are some of the major employers in the region their resources and influence on this issue span from transport related risks through to potential employee volunteer workers.

5.6 TRANSPORT

Businesses and industry bodies are key sources of information. Few other groups ply the roads at night as consistently as transport companies. Truck using road side rest stops overnight represent a potential hitchhiker toad risk and awareness needs to be raised on this.

6 Costs

6.1 ID KITS

Shire offices and some communities and business are likely to already have digital cameras that can be used for this purpose. The other elements of an ID Kit need to be developed and distributed. Estimated cost (excluding digital camera) will be in the order of \$50 per kit.

6.2 LIGHTS

CALM, Toad Busters and STTF will be likely support, but it is also possible they will be out in the field so some designated kits need to be stored with the Shire. Perhaps two spotlights held at both Kununurra and Wyndham Shire depots would suffice. This resource might also be used for other projects such as education nights and toad ID call outs. Cost of spotlights would be approximately \$800 for 4 lights with spare batteries.

6.3 TRAPS

6.3.1 RESPONSE TRAPS

A stockpile of traps need to be available for immediate deployment. A library of 20 traps with lights and power sources would cost approximately \$3000. It is assumed that trailers, or similar, for transporting traps for deployment would be available already and will be identified in the operational plan.

6.4 SENTINEL TRAPS

The total number of traps needed for a comprehensive early warning system will be an outcome of the detailed planning process that will result from this discussion paper. Different types of traps with different light source configurations will be appropriate for different locations. It is however more than likely that <u>no one</u> agency will have the resources to establish or service such a comprehensive network.

6.5 TRAINING

Individuals that are nominated to respond to possible toad sightings will need training in identification and handling of toads as well as taking the necessary digital photos or audio recordings. And those nominated to respond to confirmed toad incursions will need training on trapping, search and hand collection techniques.

7 SCENARIOS

7.1 GENERIC SCENARIO

1000 number bested	Call received
1800 number – hosted	Call received
by WA Dept of	 Assessment
Agriculture	o Possible toad
	o West of toad front
	Action Notific from Consultration contact list.
	o Notify from Coordinator contact list
Local response – first	Location of toad
contactable member on	Notify from Field Staff contact list
list	List of identified staff able to make initial response
	Work down listing for that area until contact made
On ground response -	• Visit site
first contactable	■ View toad
member on list	o Is it a toad?
	o Take photos
	o Capture and secure animal
	Email photo to Coordinator for ID confirmation
	If confirmed transport animal for second confirmation
	 Notify person who reported toad and prepare them for
Letter B. 11 B.	response
Initiate Rapid Response	Establish basic info
-Coordinator	o Location
	o Access
	o Terrain
	o Contact details
	Coordinate Rapid Response crew
	o Work down listing
	 Coordinate traps and equipment
	o What type
	o What storage site
	o Transport methods
	Coordinate Cround accords
	o Ground search
	o Trap placement
	Audio monitoringFollow up searches
	The management of the state of
	o Trap checking o Evaluate Audio
	o Source investigation
	Prepare brief for outbreak review panel
	Coordinate resource recall and reimplementation of
	equipment readiness regime
Outbreak review panel	 Assess outcomes of searches, trapping, audio monitoring
Satisficant review parter	and source identification
	Declare outbreak controlled
	Decide on ongoing site monitoring regime
	Assess investigation of outbreak source and make
	recommendations
	Evaluate Early Warning and Rapid Response outcomes
	and make recommendation for review
Feedback mechanism	Media release
T COMPACK THECHAINSHI	■ Email list
	 Agenda item at KCTWG
	Agenda item at Retive

7.2 REALISTIC SCENARIO

7.2 REALISTIC SCENARIO	
1800 number – hosted by WA Dept of Agriculture	2200 Day 1: Ohrs
 Call received 	
 Assessment 	
Description is similar to toad	
Location is in Wyndham township	10000
• Action	0800 Day 2: 10hrs
Notify Errol from Coordinator contact list	0020 Day 2, 10 Fbra
Local response – Errol	0830 Day 2: 10.5hrs
Notify Field Staff from contact list SWEK Wundham Panger elected.	
SWEK Wyndham Ranger alerted On ground response - SWEK Wyndham Ranger	0900 Day 2: 11hrs
Visit site – animal caught (night before) at drain on edge of town	0900 Day 2. 111118
View toad	0930 Day 2: 11.5hrs
o It appears to be a toad	0730 Day 2. 11.31113
o Take photos	
Secure and transport animal	
Email photo to Errol – it appears to be a toad	
 Transport animal for second confirmation: Definite cane toad 	1100 Day 2: 13 hrs
Notify person who reported toad and prepare them for	1330 Day 2: 15.5hrs
response	1330 Day 2. 13.31113
Initiate Rapid Response – Errol	1500 Day 2: 17hrs
o Establish basic info	1000 Bdy 2. 171113
Location – drain on edge of Wyndham township	
Access – by road	
o Terrain – urban setting	
o Contact details	
Coordinate Rapid Response crew	1600 Day 2: 18hrs
 Contact crew arrange transport and meeting time 	
Coordinate traps and equipment	1600 Day 2: 18hrs
 Request 20 12v traps from Wyndham SWEK trap library 	
 12 Spot lights 	
 4 Audio monitoring devices 	
 Organise transport on SWEK flatbed truck to site 	
 Trap placement 	1700 Day 2:19hrs
 Audio monitoring placement 	1700 Day 2:19hrs
Ground search	1900 Day 2: 21hrs
 Follow up searches – 4 successive nights – no toads 	Day 3 - 5
 Trap checking – 10 successive nights – no toads 	Day 3 - 11
 Evaluate Audio – Each 2 days for 10 nights – no toads 	Day 3 - 11
Source investigation	Day 3
 Interview person who first reported – no clues 	
Site inspection	Day 3
Road	
Drain	
 Opposite tourist information panels 	
 100m from SWEK depot 	
Door knock vicinity – no clues	Day 5
Prepare brief for outbreak review panel	Day 12
Coordinate resource recall and reimplementation of equipment	Day 12
readiness regime	
Equipment maintained and returned to storage	Day 12
Member of public who reported thanked and informed of successful outcome	Day 13
 100m from SWEK depot Door knock vicinity – no clues Prepare brief for outbreak review panel Coordinate resource recall and reimplementation of equipment readiness regime Responding staff thanked Equipment maintained and returned to storage 	Day 12 Day 12

Outbreak review panel Day 13						
 Assess outcomes of searches, trapping, audio monitoring and 						
source identification – no subsequent toads found						
Declare outbreak controlled – media release	Day 14					
Decide on ongoing site monitoring regime	Day13					
 weekly nights visits and one trap left in place 						
 local door knock to raise awareness 						
Assess investigation of outbreak source and make recommendations	Day 13					
 no certain source of toad 						
 SWEK review depot quarantine procedures 						
 shire drains in area checked for toads 						
Evaluate Early Warning and Rapid Response outcomes and make	Day 13					
recommendation for review						
 Response was efficient but easy access and proximity 						
to Wyndham township made response easy						
 Recommendation given that specific scenarios 	Day13					
involving remoteness or poor access be planned for						