

**This Annex Suggests General Considerations and Best Practices for Responding to Animal Escapes and Unplanned Animal Encounters**

**ARE YOU READY?**

- ***Which animals might pose a danger if they escape their habitat?***
- ***How will visitors, personnel and the public be kept safe?***
- ***Who is trained to capture or immobilize an animal of concern?***
- ***Does the facility have a weapons team, and work with local jurisdiction(s)?***
- ***Who will be in contact with the media following an animal incident?***

**Basic Steps for Writing and Implementing an Animal Incident Plan**

- 1. Conduct Preparation and Development**
- 2. Draft the Animal Incident Section of the Contingency Plan**
- 3. Train Personnel for Responses to Animal Incidents**
- 4. Schedule Trainings and Subsequent Evaluations**
- 5. Create *Safety Briefing Sheets* on the Different Dangerous Species appropriate for First Responders, Management and Animal Care Personnel**

An animal incident—the escape of an animal from its habitat or an unplanned dangerous animal encounter—can range from a minor nuisance such as a miniature goat escaping from the petting zoo to a potentially life-threatening event such as a visitor entering a wild cat habitat. Pre-planning a response will minimize possible danger(s) to personnel, guests and the animals.

Potentially dangerous animals can cause serious injury or death. What defines a dangerous animal varies. Consider these distinctive characteristics while evaluating potential concerns:

- ***Weight and size*** i.e. hoofstock, megavertebrates and large marine mammals.
- ***Speed and agility*** include primates, and big cats.
- ***Behaviorally aggressive*** includes carnivores (cats, bears, large reptiles), apes and some other primates.
- ***Natural weapons*** include teeth, beaks, horns, claws, hoofs and strength.
- ***Zoonotic disease or venomous*** include reptiles, amphibians, fishes, arachnids and macaques.

### 1. Conduct Preparation and Development

Before drafting a contingency plan, the Facility Contingency Planners (FCPs) and /or stakeholders need to identify the facility's current plans for responding to an unplanned animal encounter, and mitigation measures. Checklists on the following pages offer a variety of options to consider while evaluating and developing the plan.

- Assemble the planning team and collaborators. See page 3.
- Identify the potential animal incident risks. See *Risk Assessment Annex*.
- Identify and evaluate current plan(s), practices and protocols relating to animal escapes, and key actions and responses to unplanned animal encounters.

### 2. Draft the Animal Incident Section of Contingency Plan

After evaluating any existing plans, (1) draft or edit the current plan to include the necessary elements and safety measures, (2) monitor the progress in writing and (3) develop a system to put the plan in place that is scalable should multiple animals/species escape. Best practice instances of the following five topics are provided beginning page 3.

- Structural Characteristics of Animal Habitats and Equipment Needs*
- Local Jurisdiction(s) and Animal Incidents*
- Standard Operating Procedures for Animal Incidents*
- Responses to an Animal Incident*
- Monitor the Drafting and Implementation of the Plan*

### 3. Train Personnel for Responses to Animal Incidents

- Train personnel on procedures and their specific roles to minimize animal escapes or unplanned encounters. See page 8.
- Train personnel on their roles in emergency procedures, location(s) of equipment and potentially dangerous animal behaviors.

### 4. Schedule Training and Subsequent Evaluations

- Conduct regular animal escape and animal encounter drills.
- Conduct drills with local Emergency Responders for escapes or animal encounters
- How did the plan work? Conduct post-event evaluations, and modify the plan as needed.
- Revisit the plan as different species are added or structural modifications are made.

### 5. Create *Safety Briefing Sheets* on the Different Dangerous Species for Personnel and Public Emergency Responders

- Draft one-page informational sheets relating general characteristics about the species that can assist first responders when faced with an animal encounter or escape.

**The following considerations are good business practices that may be helpful while developing the plan.**

**Contingency plans will vary depending on the type(s) of animals managed, the facility infrastructure, and on the size of the facility. Not every consideration is appropriate for every managed wildlife facility.**

### ***Stakeholders and Experts to Consult on Animal Incident Matters***

**Stakeholders can assist in drafting a robust Animal Incident plan. Meet with experts to discuss the best practices for animal recovery safety and protocols in the event of an emergency.**

- Management and owners
- Animal care experts
- Veterinarians
- Local jurisdiction(s)
- Weapons team
- Potential first responders
- Information Officer or communications contact person
- Critical disaster response partners for animal issues (e.g. state veterinarians)
- Wildlife professionals with capture resources in disasters (e.g. state and county biologists, USDA Wildlife services, US Fish and Wildlife)

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### ***Structural Characteristics of Animal Habitats and Equipment Needs***

- Are the habitats constructed with materials to withstand the animal's strength and size and with sufficiently safe distance between dangerous animals and visitors?
- Are habitats constructed to withstand disaster risks based on the Risk Assessment and locale (e.g., use of fire retardants, wind force and flying object integrity, snow load ratings)? See *Facility Operations Annex*.
- Are all habitats that house dangerous animals furnished with locks and/or an alarm system(s) appropriate to the species?
- If a habitat is damaged, does the facility have readily-available materials to repair the damaged enclosure(s)? Are experts available to make the repairs? See *Facility Operations Annex*.
- Does the facility have readily-available species-specific equipment to temporarily contain or stop the animal(s) such as boards, boxes, fencing and ropes?
- Are animal enclosures resistant to flood damage (e.g., sump pumps in basements; generators/life support equipment above basement level)?
- Are regular inspections of the habitats conducted to ensure the animal is contained?

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### ***Local Jurisdiction(s) and Animal Incidents***

Each jurisdiction may have regulations and guidelines unique to the area. It is essential to meet and jointly develop policies and procedures. By discussing and determining answers to the following issues, a working relationship can be built with local jurisdictions. A good relationship will lessen confusion should an incident occur, and increase chances for a safe recovery.

- Is the facility served by more than one jurisdiction or located near jurisdictional boundaries (i.e., a sanctuary may be located within a town, which is part of a county emergency management system or can animals cross county lines should they escape)?
- Does local jurisdiction know the facility's chain-of-command and point person?
- Does the local jurisdiction(s) regularly tour the facility?
- Are updated facility operations maps and/or visitors' maps available to local jurisdiction(s)? For more information about maps see *Facility Operations Annex*.
  - Do the maps indicate the location of dangerous animal habitats?
  - Is animal enclosure information for responders accessible?
- Does the local jurisdiction(s) know the location of all gates, exits and entrances?
- Have the facility and local jurisdictions determined who takes the lead role if there is an incident: the facility or local jurisdiction?
  - Is there consensus on a single contingency plan such as safe capture of the animal(s)?
    - For on-grounds escapes?
    - For off-grounds escapes such as those affecting private property or the municipality?<sup>1</sup>
    - Visitor entering a habitat or containment?
- Does local jurisdiction observe or participate in table-top drills, exercises, and/or full-scale exercises with facility personnel? See *Training Annex*.
- Is there interagency radio communication between the jurisdictions, if applicable? (Do not assume they use the same frequencies.) See *Communications Annex*.
- What is the protocol for keeping visitors and personnel a safe distance from an escaped animal and moving the public to a safe location?
- Do jurisdictional responders have a basic understanding of dangerous animal behavior?
  - Safety Briefing Sheets* can be an excellent tool for disseminating this information in a short time (see page 10 for more information on *Safety Briefing Sheets*).
- Do local jurisdiction(s) know the weaponry and ammunition necessary to bring down the different types of dangerous managed wildlife? See sample *Safety Briefing Sheet* (page 11).
- Do local jurisdiction(s) maintain the appropriate weapon types to stop a large, dangerous animal?
- Is there agreement/understanding on use of K-9 units and/or mounted police at the facility?

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<sup>1</sup> If an escape is caused by a natural disaster such as earthquake, it is probable that outside help will be unavailable for several days. Consider the potential risks and necessary responses.

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### ***Standard Operating Procedures for Animal Incidents***

- Do all personnel know their role for responding to an animal escape or incident?
- Are key personnel, or positions, designated that will be called to actively participate in the recapture of a dangerous animal escape or an animal incident? Do these personnel hold credentials to cross potential roadblocks/police lines, if key personnel are away from the facility and need to return? See *Administration Annex*.
- Is adequate capture equipment located on the premises, and do key personnel have immediate access? See *Emergency Animal Care* and *Animal Transportation/Evacuation Annexes*.
- Is a staff person assigned to contact a facility or organization that has agreed to assist with animal re-capture, if applicable? See *MOU/MAA Annex*.
- How will information be provided to the following groups regarding a dangerous animal escape or other animal incident? See *Communications Annex*.
  - Local jurisdiction
  - Personnel
  - Visitors
  - Nearby businesses
  - Nearby residences
  - Media
- Do neighboring businesses or residences have instant contact information for the facility to report seeing an escaped animal when the facility is open? When the facility is closed? See *Administration Annex*.
- Does the facility have a point person,<sup>2</sup> or Information Officer, to work with local jurisdictional responders and the media, if necessary? See *Administration* and *Business Recovery and Reimbursement Annexes*.
- Are personnel (including non-animal staff, frequent vendors and contractors) regularly trained on their role(s) in the event of an animal escape or incident? See *Training Annex*.
- Is assistance offered through mutual aid to other facilities or organizations to assist them in a response to an animal incident? Has the cost of such aid been discussed? See *Administration* and *MOU/MAA Annexes*.
- Have potential liability issues, such as injury or property damage due to an animal incident, been discussed with the insurance company or legal counsel? See *Administration Annex*.
- Is contact information readily available for agencies and jurisdictions that should be notified if any species of animal vanishes into the surrounding community?<sup>3</sup> See *Administration Annex*.

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<sup>2</sup> This person should be an excellent communicator who will act as the sole liaison with local jurisdiction(s) while also communicating information to first responders during an emergency. The point person should be easily identifiable by everyone.

<sup>3</sup> Federal, state, and local agencies (U.S. Fish & Wildlife, Environmental Protection Agency, etc.) should be notified depending on regulations, the animals' status as an invasive species and potential dangers.

### ***Responses to an Animal Incident***

**After local jurisdiction(s) and the facility have jointly agreed on proper procedures, the Animal Incident portion of the Contingency Plan can be written to describe the roles and responsibilities of the facility. Additionally, consider the design and organization of the plan so that it will reflect the facility and species. For example, will it be best to approach the plan by species, by habitat or by incident type (e.g., Large Carnivore Escape Plan or a Tiger Escape/Encounter Plan)?**

- When is an animal considered to be out of control? This will depend on many variables such as species, facility and individual situation. Discuss this in the planning process.
- Is there a policy on **non-lethal forms of deterrents?**
  - Rubber slugs/bean-bags propelled by shotgun or similar launcher
  - Pepper spray
  - Tools such as CO<sub>2</sub> fire extinguishers
  - Special items to attract or distract an animal such as colors, smells or lighting
  - Where are deterrents kept and who has access?
- Is there a trained **chemical immobilization team?**
  - Who maintains the drug inventory and records their use?
  - Are there adequate pharmaceuticals in case of multiple animal escapes? If a facility uses contracted veterinary services, what is their usual inventory?
  - Are the drugs and darts stored securely, and who has access?
  - Who prescribes the dosage recommendation? See *Emergency Animal Care Annex* and sample *Safety Briefing Sheet* (page 11).
  - Are the facility and key personnel prepared to handle accidental human exposure to immobilizing drugs?
  - Is someone assigned to always stay with controlled drugs during its usage?
- Is there a **trained weapons or firearms team?**
  - Is there a written weapons policy, or does the facility rely on contracted firearms operators or jurisdictional responders such as local police?
  - Is there a weapons team leader?
  - Is a member of the weapons team always present, or available, on grounds, including during holidays, and vacations, if dangerous animals are present?
  - What is the frequency of team table-top drills for each type of potential incident?
  - Is there regular contact between the team and local jurisdiction to develop and build confidence, maintain a good relationship and conduct table-top exercises or field drills?
  - Who determines the appropriate caliber of firepower to put down the dangerous species?
  - Does the team have the appropriate firepower (heavy rifle, shotgun) necessary to put down the dangerous animals?
  - Is each team member licensed, trained and knowledgeable on the firearms, or other weapons, they are expected to use?
  - Does the team train at practice ranges? How often do they practice each year?
  - Who is responsible for ensuring that licensing is current to participate on the team?
  - How are firearms maintained and stored?

- Does the team maintain additional capture equipment (e.g., ropes, shields, nets, tranquilizer guns/darts)? Where is it kept?
- Is the weapons team trained on such things as building entry, securing a location and communication procedures?
- Does the current policy define the different circumstances for a safe capture by physical restraint or chemicals versus a kill situation? Who makes the determination? Do the protocols address the following?
  - On grounds
  - Off grounds
  - Contained off grounds
  - Facility is closed
  - Animal/human interactions
  - Animal/animal interaction
  - Nighttime event with visitors
- When carrying a firearm, is a colored vest worn to cue the police, personnel, and other team members that a firearm is present?
- Is the weapons team trained in less lethal tactics such as rubber slugs/bean-bag propelled by shotgun or similar launcher or scare products that make loud noises to distract an animal?
- If there are multiple animals that escape of varying species, is there institutional agreement on which animals should be captured first?
  - In most situations, it is intuitive to attempt re-capture of any dangerous species. What if multiple species escape that are not dangerous? Is there a specific conservation value to one species over the other?
- Other Considerations and potential risks**
  - Does the facility keep 'program' animals?<sup>4</sup> Are animal incident and escape policies comprehensive to include these animals as well?
  - What special considerations and training need to be addressed if these program animals are taken off grounds?
  - Does the facility allow non-facility dangerous animals on grounds for activities such as movie shoots?
  - Are there additional species requirements to exhibit program animals in certain venues?<sup>5</sup>

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### ***Monitoring the Drafting and Implementation of the Plan***

**FCPs should monitor the progress of: (1) writing the Animal Incident Plan; (2) drafting *Safety Briefing Sheets* and (3) developing a system for application of the plan.**

- What is the timeframe for developing and writing the contingency plan?
- Is new equipment needed to follow the plan?
- Who will monitor the training of personnel?
- Where will the Animal Incident Plan be located?

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<sup>4</sup> Program animals are exhibited or handled by trainers or other personnel for the purpose of educating the public in classrooms or other sites. These animals may be exhibited outside of permanent cages, enclosures or habitats.

<sup>5</sup> See U.S. Department of Agriculture Exhibitor requirements as dictated by the species (e.g., big cat requirements).

### Training Considerations for Animal Incidents

Training and full-scale practice drills will increase the likelihood of a successful and safe outcome for the animals and their caretakers, and will reduce potential risks. The following considerations relate specifically to animal incidents. When developing training materials, scenarios and drills, consider also that an animal incident may not be isolated. In the event of a habitat breach, multiple animals may be escaping at once. Develop training materials to address both isolated and large-scale events. See the [Training Annex](#) for general training guidance.

Best practice animal incident training considerations **for all personnel** may include:

- Identifying when an animal may be dangerous or recognizing a dangerous situation.
  - Escaped animals may not display normal behavior, and be unpredictable.
- Clearly understand the code system for types of incidents, if applicable. See [Communications Annex](#) for additional information on code systems. Practice clear, calm communication.
- Who to call if an out-of-control animal is identified.
- How to safely maintain visual contact with the animal's location.
- How to respond to animal incident emergencies. Each person's role may be different.
- Knowing location(s) of emergency equipment, if applicable to your role in response.
- Where to take shelter or evacuate, if instructed.
- Who to contact if non-collection dangerous animals are identified within the facility.
- All contact with the public and media following an animal incident should be conducted by the Information Officer only. See [Communications Annex](#).
- Personal social networking tools should not be used to relay any information or post pictures about an animal incident without approval.
- Knowing where to find *Safety Briefing Sheets*.
- Be prepared that immobilization after darting may not take effect immediately.
- Be prepared that it may be necessary to put down an animal depending on the situation.

Best practice animal incident training considerations for **animal-keeper personnel** may additionally include:

- Proper locking of habitats and containments.
- Properly herding and crate training an animal without endangering either the animal or personnel.
- Proper use of non-lethal deterrents
- Proper first aid procedures for personnel exposed to poisonous or venomous species, if applicable.
- Regularly review the *Safety Briefing Sheets* and update as needed.
- Participate in regularly scheduled animal-encounter drills.

Best practice animal incident training considerations for the **chemical restraint team** may include:



- Meeting regularly with local jurisdictions.
- Practice darting and understand reaction times to the sedation.
- Knowledge of policies for other types of deterrents.
- Reviewing *Safety Briefing Sheets* regularly.
- Practice and drill for multiple simultaneous escapes, either multiple animals from the same containment or multiple species.

Best practice animal incident training considerations for the **weapons team** may include:

- Meeting regularly with local jurisdictions.
- Target practice on a range.
- Proper care of firearms and rescue equipment.
- Knowledge of policies for other types of deterrents.
- Reviewing *Safety Briefing Sheets* regularly.
- Practice and drill for multiple simultaneous escapes, either multiple animals from the same containment or multiple species.

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### ***Sample Table-top Drills***

**Responses to emergency scenarios during a table-top exercise may vary depending upon the location of the incident, time of day or night and the animals that might be involved. Develop and personalize multiple scenarios for discussions that reflect the facility and its environment, based on the Facility Risk Assessment. These could then be modified for drills and exercises. The following are Animal Incident scenarios.**

- ❖ **Multiple animals escape via major enclosure compromise** e.g., large tree into primate exhibit, African plains exhibit fence, tiger or crocodile group with moat flooding.
  - What are the priorities and responsibilities of: management, security detail, weapons team, information officer, animal care personnel and any other personnel not directly involved?
- ❖ **Multiple species in several locations escape** due to widespread flooding or fencing damage.
  - What are the priorities and responsibilities of: management, security detail, weapons team, information officer, animal care personnel and any other personnel not directly involved?
- ❖ **Activists breaching the fencing at two different habitats:** How will the facility handle this emergency?
  - What are the priorities and responsibilities of: management, security detail, weapons team, information officer, animal care personnel and any other personnel not directly involved?

### **Schedule Training and Subsequent Evaluations of the Plan**

- After the Animal Incident Plan is written, develop training materials for all personnel.

- Schedule regular training exercises and drills.
- After training exercises, or an actual incident, meet with personnel and local jurisdiction(s) to evaluate the plan's effectiveness; modify the Animal Incident Plan, and training, as necessary.
- Revisit the plan as different species are acquired and/or structural modifications are made to the facility. Additional planning for escapes may be required.

### ***Safety Briefing Sheet***

**Create a *Safety Briefing Sheet* for each dangerous species to provide quick and specific information for personnel and first responders.**

Because a first responder may not have animal behavior knowledge or familiarity with the specific species, *Safety Briefing Sheets* will be an invaluable safety tool for animal professionals and responders. These sheets should be drafted to inform about potential dangers by highlighting essential information about the species. See page 11 for sample.

- Draft one-page *Safety Briefings* for the different species that may pose a safety concern to visitors, personnel or first responders in the event of escape or habitat encounter.
- Place these single-page information sheets in multiple locations on-grounds, and make them easily accessible for any first responders.
  - Consider including the following key information about the animal(s) Bold heading to indicate type of potential danger such as venomous, sharp teeth, extremely fast, carnivorous, and aggressive.
  - Animal species, number of species in the habitat, and a photograph.
  - Where located on grounds (such as cage or habitat location).
  - Animal Key physical features:
    - Size
    - Top speed
    - Herbivore, carnivore, or omnivore
    - Other important features
    - Key behavioral features
    - Darting information
    - Emergency euthanasia information
    - Zoonotic disease warning
    - Location of first aid kit and anti-venom serum, as appropriate

**Sample Safety Briefing Sheet**

**Reason for Danger:**  
**UNPREDICTABLE - MAY**  
**ATTACK AND BITE**



<i>Species (i.e. Chimpanzees)</i>	<i># of individuals</i>	<i>Location On Grounds</i>
List species type		

**Dangerous concerns:** Should be considered dangerous and unpredictable. Provide specific information about the animals.

**Size:** \_\_\_\_\_ **Speed:** \_\_\_\_\_

**Animal Behavior: For example:** Will attack if no escape route is available. Will try to escape or hide in tree-tops or roof-tops and regroup post emergency, using vocal cues. Mostly social and live in groups.

**Appropriate Human Behavior:** Describe how a first responder should approach – or not approach – the animal and what types of behavior to expect from the animal(s).

**Zoonotic Disease Warnings:**  
 Describe the types of zoonotic diseases and PPE that should be used.

**Darting:** Sedative drug dosage information can be found: \_\_\_\_\_ (location) \_\_\_\_\_.  
 Contact: \_\_\_\_\_ (veterinarian) \_\_\_\_\_ at \_\_\_\_\_ (phone number) \_\_\_\_\_ if this information cannot be found or if assistance is needed.  
 Sedation drugs for darting can be found : \_\_\_\_\_ ( location) \_\_\_\_\_.  
 Provide any special information.

**Euthanasia:** Be very specific  
**Rifle (type):** \_\_\_\_\_  
**Shotgun (type):** \_\_\_\_\_  
 Euthanasia equipment can be found: \_\_\_\_\_ (location) \_\_\_\_\_.  
**Only trained professionals should attempt this form of euthanasia.**

*\*This information is directed to first responders and not intended to provide conclusive information. This document is just an example, and it should be edited to fit the needs of each institution and collection.*

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