PURPOSE

This Standard Operating Procedure (SOP) describes the crisis preparedness procedures established in accordance with CCAC's policy statement on: terms of reference for animal care committees. This guide will serve as a quick reference to the steps needed for an effective crisis response to a variety of situations that may occur in Western's animal holding and procedure areas and field locations.

- The term 'crisis' is defined as any unplanned event that triggers a real, perceived, or possible threat to the life, health, or safety of animals and/or personnel, or to the institution's reputation.
- This SOP has been developed in conjunction with Western's Master Emergency Response Plan and is consistent with all other institutional policies related to Western's Occupational Health & Safety and Emergency Response.

SCOPE

This SOP is limited to animal holding and procedure areas associated with animal-based science activities on Western's Campus including:

- Laboratory Animal Facilities
- Extra-Vivarial Spaces
- Field locations associated with Western researchers.

This SOP includes the following topics:

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DEFINITIONS

- AA – CRT – Animal Area Crisis Response Team includes personnel directly involved in the planning for and in leadership response to crises that may arise within their area(s) of responsibility.
- AECP – CRT – Animal Ethics and Care Program Crisis Response Team includes institutional leaders responsible for ensuring alignment of Western's and Lawson's Animal Ethics and Care Program with institutional and external requirements.
- AR – CMT – Animal Research Crisis Management Team includes senior Western leaders who oversee the crisis response program as outlined within this SOP.
- Designated Animal - All animals other than those identified as Directed Animals whose initial diagnosis and treatment have been designated to a SAR Designate, as per POL-009.
- Directed Animal – Species include pigs, sheep, dogs, cats, non-human primates, and rabbits; any sick animal with critical (serious to severe) health concerns, or associated with experimental groups

experiencing increased morbidity, or conditions/groups/animal(s) as determined by the Animal Care Committee or Institutional Veterinarian on a case-by-case basis, as per POL-009.

- EOCG – Western's Emergency Operations Control Group
- ERT – Western's Emergency Response Team
- CCAC – Canadian Council on Animal Care
- CSES – Western's Campus Safety and Emergency Services
- SDS – Safety Data Sheets, as per WHMIS requirements

I. Crisis Response for Animal Holding/Procedure Areas – Mitigation & Preparedness

1. Prior to a crisis:

1.1. Identify potential risks – situations that may be considered likely – to pose threats to human or animal life, property, and the environment,

1.2. Develop and test plans with institutional subject matter experts to eliminate or reduce long-term risks. Use the Crisis Response Scenario Record (Appendix 5) to develop, centrally store, and make readily available to the applicable AA-CRT and AECP-CRT area-level crisis response plans with reference to Crisis Response Mock Scenarios (see FRM-021),

1.3. Review at minimum annually FRM-020 to ensure contact information remains current. Update door signage throughout the area and provide written AA – CRT contact information to CSES (Campus Safety and Emergency Services),

1.4. Maintain up-to-date area-specific space maps, contact lists (staff and researchers and their staff), emergency supplies lists, and related procedures.

1.5. On an ongoing basis, ensure that CSES has records of specific procedure rooms where staff may be permitted to remain with the animals during an emergency fire alarm (shelter in place), as per this SOP, and

1.6. At a frequency proportional to the complexity of the area and minimum annually, undertake mock crisis scenarios per the area-specific Crisis Response Scenario Records developed (see FRM-022), and

1.7. Minimum annually provide training to AA-CRT members and applicable staff and/or area users on emergency procedures as outlined within this SOP and associated documents, e.g., Crisis Response Scenario Records (See FRM-022).

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2. Response – During a crisis:

2.2. Provide front-line immediate response during and directly after a crisis associated with your area to:

- Priority 1 - Save human lives,
- Priority 2 - Minimize harm to animals,
- Priority 3 - Safeguard research, critical records, valuable and irreplaceable materials, and
- Priority 4 - Secure critical infrastructure, facilities and protect the environment.

2.3. Ensure timely communication with applicable institutional emergency response teams per directives in this SOP and in alignment with Western's and the AECP Crisis Response Team (AECP-CRT).

3. Recovery & Analysis – Following a crisis:

3.1. Use the Crisis Response Scenario Record (Appendix 5) to document the crisis, and send to the AECP-CRT via aecp@uwo.ca within four weeks of occurrence.

3.2. Should the crisis have identified serious immediate and/or long-term risk to personnel and/or property and/or the environment, immediately notify institutional emergency response teams, as outlined within Western's Master Emergency Response Plan

3.3. Review and update related Crisis Response Scenario Records, as needed, and make readily available to the AECP-CRT (aecp@uwo.ca) and area-specific AA-CRT.

*See FRM-020 for emergency response group membership

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II. Emergency/Crisis Response Procedures

1. Sick or Injured Animals

1.1. Follow the Sick Animal Response (SAR) Policy (POL-009) and Procedures (PROC-009), retrievable from the Animal Care Committee's OWL site – Policy & Procedure tab, and Western Research's Animal Ethics – Animal Ethics and Care Program Policies and Procedures site.

1.1.1. Ensure all areas contain readily accessible physical copies of applicable SAR flow charts per SAR procedures that include emergency contact information of veterinarians and SAR technicians.

1.1.2. For Directed Animals, immediately contact the Institutional Veterinarian on call (519-661-2195).

1.1.3. For Designated Animals, contact the SAR Designate assigned by the Institutional Veterinarian for your animals/area, by directing the concern through the applicable institutional SAR email (See FRM-020).

1.2. For concerns relating to animal health and welfare that are not readily resolved, follow the Concerns Policy (POL-004) and Procedures (PROC-004), retrievable from the Animal Care Committee's OWL Policy & Procedure tab.

2. Animal Transport Emergencies

1.3. When Western personnel are transporting animals and the transport is interrupted by a crisis, such as vehicle breakdown, collision, airline strike, natural disaster, storm, etc. decisions will be made in consultation with an Institutional Veterinarian and the ACVS Executive Director. Options include:

- Continue care of animals if safe for animals and Western personnel and then resume transport,
- Move to alternate location / return to source, or
- Euthanize and seek proper disposal.

1.4. For emergencies involving the transport of Risk Group 2 species, the Institutional Biosafety Officer must be notified of an incident.

Return to TOC

3. Fire-Related Events – Smoke, Fire or Explosion

3.1. Follow Western's campus-wide detailed Fire Safety Plan approved by the City of London, Fire Prevention Division, for your building (retrievable from Western's Fire Safety Website).

3.2. Priority must be given to the evacuation of humans; therefore, animals must be secured and sheltered in place.

3.3. Fire Alarm - General

3.3.1. Gather your coat, keys, purse/wallet, cell phone, etc. and close your door.

3.3.2. Evacuate the building using the closest emergency exit. DO NOT USE ELEVATORS.

3.3.3. Proceed to your pre-determined meeting place and advise your supervisor, Building Emergency Team, or Emergency Personnel of any pertinent information (i.e., people inside, location of fire, etc.)

3.3.4. DO NOT re-enter the building until you are given permission to do so by the Building Emergency Team or designate.

Return to TOC

3.4. Fire Alarm During a Procedure Involving Live Animals

3.4.1. Due to the nature of operating suites and imaging rooms, it may not be practical or safe for staff to evacuate the building upon activation of a fire alarm.

- Per Ontario Fire Code 2.8, Western Fire Safety must be notified of any rooms on campus that are regularly used for these purposes so that the necessary pre-planning process can be carried out as well as noted in the building Fire Safety Plans.

3.4.2. The following measures must be followed when the alarm sounds while staff are performing surgery, or are involved in an animal procedure and are unable to safely evacuate the building:

- During Fire Alarm -
  - Immediately phone 911 from a University telephone residing in the SAME suite where the surgery or procedure is taking place; report your location and the reason for not evacuating the building to CSES.
  - Staff unable to evacuate must also provide a phone number or extension where they can be reached to enable CSES dispatch to contact them.
  - In the event of an actual fire, CSES will notify AA-CRT for the area, via group text message, and emergency personnel of the location of the surgery suite/other procedure locations and advise the occupants should they need to evacuate due to imminent danger.
  - Occupants may also call CSES Communications Center for updates throughout the fire alarm (see FRM-020).
  - During fire evacuation exercises (i.e., fire drills), the person(s) remaining in the surgery/imaging area must carry out the actions they would normally carry out in an emergency (i.e., contact SES, etc.)
  - Ensure that fire drill signage and any area-specific SOPs (Standard Operating Procedures) associated with areas where shelter in play may occur clearly specify the potential for shelter in place.
  - Ensure personnel training in areas where shelter may occur includes call-out when the fire alarm is triggered.

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4. Uncontrolled Release, Spill, or Biological Exposure

4.1. Perform all work conducted within Western animal facilities and procedure areas using potentially hazardous biological agents in accordance with the requirements of *BIOSAFETY GUIDELINES AND PROCEDURES MANUAL For Containment Level 1 & 2 Laboratories*. This manual describes the requirements and procedures established by the University for work involving potentially hazardous biological agents. In addition, researchers using biological agents in rodents must follow the institutional SOP(s) pertaining to Level 2 Biohazard Containment.

4.2. Any uncontrolled release of biologically hazardous materials is considered a spill; when a spill occurs, these procedures must be followed.

4.2.1. Shut down equipment. Evacuate immediate area.

4.2.2. Isolate area and prevent re-entry.

4.2.3. Call CSES, Ext. 83300 or 911, from a University phone to activate the ERT and/or HAZMAT Team.

4.2.4. Provide the following information about the spilled material to the operator.

4.2.5. Provide Safety Data Sheet (SDS) to CSES and HAZMAT Team upon arrival.

4.3. In case of exposure, follow instructions on the Biological Agents Permit Application (BAPA), including the SDS located in the designated space for the area, and immediately seek medical assistance as follows:

- **During work hours**: Immediately go to Western's Workplace Health, Support Services Building Room 4159 (519-661-2047), and bring the SDS copy; inform your Supervisor. The Supervisor must complete and submit an *Accident/Incident Reporting and Investigation Report* (AIIR).

- **After-Hours:** Go to University Hospital Emergency Department and bring the SDS copy; inform your supervisor; the Supervisor must complete and submit an AIIR.

Return to TOC

5. Chemical Spill

5.1. Western's *Laboratory Health and Safety Manual for General Laboratory Practices* provides general guidelines, procedures, and requirements for the prevention of accidents and exposure to chemicals.

5.2. The hazardous material user is responsible for cleaning up a spill. This duty MUST NOT be delegated to other staff such as caretakers.

5.3. If the spill is beyond the resources or abilities of the user to cleanup, contact CSES at Ext. 83300 or 911 from a University phone to activate Western's HAZMAT team.

5.4. In cleaning up a spill, the following guide should be followed:

5.4.1. Determine what was spilled and if the area is safe. If there is any doubt about the safety of an area or the nature of the spilled material evacuate the area using the fire alarm pull station.

- If the pull station is used, meet emergency personnel who will assemble at the main entrance to the building.

5.4.2. Refer to the SDS for the chemical. Administer first aid, where needed, as directed on the relevant SDS.

5.4.3. Skin exposure - Wash all exposed areas for 15 to 20 minutes with running water. Do not use soap or detergent unless stated on the SDS.

- Obtain further medical treatment at a hospital if irritation persists, damage is apparent or if the SDS states that further treatment is required. Take a current copy of the SDS along with you. Attach SDS to persons clothing if an ambulance is required.

5.4.4. Large Splashes - Require the use of a safety shower. Wash all exposed areas for 15 to 20 minutes.

- Safety showers are most effective when all clothing is removed.

5.4.5. Eye Exposure – Flush the eyes for 15 to 20 minutes with running water. Hold the eye open while flushing.

- Always seek further medical attention at a hospital in the case of eye exposure to hazardous materials. Take a current copy of the SDS along with you.

5.4.6. Secure the area to prevent others from entering.

5.4.7. Contact the AA – CRT for the area (see FRM-020).

5.4.8. Gather required information, such as SDSs (see FRM-020). Consult the AA – CRT and/or OHS. Carefully evaluate the situation and form an action plan.

5.4.9. Put on all required personal protective equipment.

5.4.10. Using appropriate cleanup agents to clean up the spill.

5.4.11. Dispose of residue according to *Western's Hazardous Materials Management Handbook*, or contact OHS at Ext. 81181 for advice.

5.4.12. Complete and submit an Accident/Incident Investigation Report (AIIR) and provide a copy to our direct supervisor.

Return to TOC

6. Power Failure

6.1. In a university-wide power failure, emergency back-up generators will be engaged, temporarily provide minimal lighting, and maintain life/safety systems.

6.2. Contact the supervisor, or designate, of your AA – CRT (see FRM-020)

6.3. The AA – CRT assesses the scope of the situation, determines the needs and associated risks, and develops initial recommendations regarding priorities, then,

6.3.1. Provide immediate response, as per an area-specific SOP, e.g., provision of flashlights.

- In the event of a prolonged power failure, contact the CSES Ext. 83300 or 911 on a University phone.

6.4. CSES will contact the AR – CMT, AA – CRT, and ERT via group text message with information and support, as appropriate to the situation.

6.4.1. In the event of a prolonged power failure, information will be conveyed to the ERT and Incident Command on the status of the situation and on additional resources that have been deployed.

6.5. The ERT will provide the AA – CRT with directions to convey to individuals within the animal area.

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7. Natural Disasters

7.1. Due to our geographic location in the Great Lakes region, the natural threats that could generate a major emergency are winter blizzards, ice storms, severe summer storms (lightning, high winds, hail, and tornadoes) and flooding from the Thames River due to heavy rains or spring run-off.

7.2. In the event of a Natural Disaster,

7.2.1. Take shelter, as applicable to the situation. Human safety overrides animal safety.

7.2.2. Contact your area-specific AA – CRT supervisor or designate.

7.2.3. The AA-CRT will:

- Notify CSES at Ext. 83300 or 911 on a University phone.
- Provide immediate response to the situation, as per the area-specific SOP.

7.2.4. CSES will:

- As applicable to the situation, contact the AA – CRT and/or AECP-CRT an/or AR – CMT via group text message with appropriate direction.
- Notify the ERT and Incident Command on the situation's status and on additional resources deployed.

7.2.5. As applicable to the situation, the ERT will provide the AA – CRT and/or AECP-CRT and/or AR – CMT direction to convey to individuals within the animal area.

Return to TOC

8. Security

8.1. Access Management

For the purpose of removing members who are no longer employed or authorized to use an animal holding or use area, area supervisors will ensure that access to areas under their authority is limited to currently authorized personnel by reviewing card access and/or key inventory and/or manual keypad pass codes annually, or when there is a staff changeover, and as applicable.

8.1.1. When staff leave the lab, PIs are encouraged to notify facility staff.

Return to TOC

8.2. Area/Room Level Security Lock Failure

In instances where security systems fail or malfunction associated with controlling access to areas where live animals are held, e.g., mag locks, Chubb system, contact the area AA –CRT supervisor, or designate and CSES should have the override key for some of these areas. (See FRM-020).

8.2.1. The area supervisor will:

- Ensure the doorway is overseen until the security system has ben re-engaged, as appropriate.
- Contact the vendor, facilities management, or CSES immediately upon discovery to request support, as appropriate (see FRM-020).

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8.3. Suspicious or Threatening Individuals

For any concerns about individuals exhibiting suspicious behaviour around animal facility entryways and related areas through which animals may be transported (loading docks, hallways, elevators, external doors), or other situations where an individual receives any threat their person or property (if bomb threat, follow Section 10.7 Bomb Threat), cars with unknown drivers parked around animal care facilities, loitering around stairs adjacent to facility entrances.

8.3.1. If you believe the individual may attempt to follow you into the restricted area, **do not enter this area**.

8.3.2. If possible, remove yourself and your animals form the situation to a safer location.

8.3.3. Call CSES, Ext. 83300 or 911, from a University phone, and follow their direction.

8.3.4. Contact the AA – CRT supervisor, or designate, to update the team and to receive any other direction, as appropriate.

8.3.5. The AA – CRT will:

- Activate area-specific procedures as outlined within the area-specific SOP, and
- Notify the AECP-CRT and/or AR – CMT / CSES, as appropriate for the situation.

Return to TOC

8.4. Break-in, Vandalism, or Unauthorized Removal of Animals

If you witness a break-in, vandalism, or the unauthorized removal of animals:

8.4.1. Do NOT confront the individual(s) – attempt to remove yourself from harm's way.

8.4.2. Immediately call Western Special Constable Service via 911 from a University phone.

8.4.3. Check to see if anyone was injured and seek medical care, if needed.

8.4.4. CSES will:

- Contact the AA – CRT supervisor, or designate, for your area, and
- Notify the AR – CMT via group text message.

Return to TOC

8.5. Animal Rights Activism-Related Events

The most effective defense against animal rights activists is to practice exemplary animal care. For their safety and the integrity of the research, animal holding and procedure areas should not be open to unauthorized persons.

8.5.1. Be aware of your surroundings, especially when entering and exiting animal holding areas and when transporting animals to and from the holding area.

8.5.2. Do not use your access card to permit either known or unknown individuals into an animal holding or procedure areas.

8.5.3. Everyone entering an animal holding area must use their own access card every time they enter and exit the facility.

8.5.4. When transporting animals, please ensure that cages are completely covered from view.

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8.6. Animal Rights Demonstration, Sit-in, or Barricade

Peaceful demonstrations should be tolerated unless they disrupt facility operations. If an activist event is underway at an animal holding area, take the following actions:

8.6.1. Be courteous and avoid confrontation. DO NOT force your way through the barricade. Leave the immediate area.

8.6.2. Immediately call CSES, Ext. 83300 or 911, from a University phone and provide details on the problem. Indicate if the demonstration is peaceful or aggressive.

- CSES will notify the AECP – CRT, AR – CMT and the AA – CRT specific to the area via group text message (see FRM-020).

8.6.3. As directed by the AR – CMT or AECP - CRT, the AA – CRT and CSES will activate procedures to restrict access to animal holding areas, as outlined within area-specific procedures, e.g., Restrictions during Times of Animal Rights Activism within ACVS-Managed Facilities.

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8.7. Bomb Threat

Bomb threat can be received by telephone, note, letter or email. Most bomb threats are made by people who want to create an atmosphere of general anxiety and panic. All such threats must be taken seriously and handled as though an explosive is in the building.

8.7.1. Assume that the threat is real. Remain calm and take the caller seriously. Keeping the person talking helps identify the caller. Tracing is not always possible.

8.7.2. Immediately call Western Special Constable Service via 911 from a University phone.
- If possible, get a co-worker to call Western Special Constable Service while you continue talking to the caller.

8.7.3. Do not hang up. Keep the caller on the line. Do not upset the caller. Indicate your willingness to cooperate.

8.7.4. Permit the caller to say as much as possible without interruption.
- Take notes on everything said and on your observations about background noise, voice characteristics, language, etc.

8.7.5. Ask a lot of questions, as follows:
- Where is the bomb?
- When is it going to go off?
- What kind is it?
- What does it look like?

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8.8. Suspicious Package

8.8.1. Be alert for any suspicious packages, envelopes, or foreign objects. DO NOT touch them. Look for the following:
- Place of origin – note the postmark.
- Handwriting – unusual or inconsistent addressing
- Weight – excessively heavy for its size
- Protruding wires
- Holes in the envelope or wrapping.
- Grease marks
- Smell – suggestive of almonds or marzipan, or any other strange small
- Unexpected delivery
- Unusual packaging

8.8.2. Isolate the item and evacuate everyone in the vicinity to a safe distance.

8.8.3. Call CSES, Ext. 83300 or 911, from a University phone.

8.8.4. CSES will communicate with Emergency Response Teams, as required, including the HAZMAT Team.

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9. Core Equipment Failure – Animal Holding Areas Only

9.1. In the event of core equipment failure with potential to significantly impact the provision of animal care, each AA – CRT will follow the context-specific plan as outlined within their *Crisis Response Scenario Records* (See FRM-022).

9.2. The facility Supervisor will promptly notify the ACVS Executive Director, ACC Executive (acc@uwo.ca), and Institutional Veterinarians.

9.3. The ACVS Executive Director, in conjunction with an Institutional Veterinarian, will liaise directly with citywide institutional senior administrators and area supervisors to identify both resource requirements and availability.

9.4. Veterinarians will assess potential impacts of equipment failure on animal health and welfare and guide Facility Supervisors and the ACVS Executive Director.

9.5. The ACVS Executive Director will update the ACC Executive and AECP Team with a frequency proportional to the risk to animal health and welfare and equipment failure duration.

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10. Communications

10.1. Questions directed at you

If anyone asks you questions about your role, the animal holding or procedure area and/or anything associated with animal-based science activities within Western's Research Community, state that you cannot be of assistance and direct them to contact the Issues Management Team at Western Communications (issues@groups.uwo.ca) and Associate Director, Stakeholder Relations, Ext. 89334.

10.2. Request for information pertaining to animal care and use

10.2.1. From Media

- Indicate that you are not the right person to provide this information but that you will forward the request to the appropriate person.
- Note name, phone number, and deadline for getting the information.
- Forward the request to Western Communications' Associate Director, Stakeholder Relations, Ext. 89334.

10.2.2. From Individuals or Groups

- Indicate that you are not the right person to provide this information, but that you will forward the request to the appropriate person.
- Note name and phone number.
- Forward the request to Western Communications' Associate Director, Stakeholder Relations, Ext. 89334.

10.3. Communications – Procedure to respond to actual or potential civil disturbance.

- CSES will inform Western Communications' Associate Director, Stakeholder Relations, Ext. 89334, of the actual or potential event.

10.4. Communications – Procedure for a communication response to an animal facility incident

- Provide Western Communications' Associate Director, Stakeholder Relations, Ext. 89334, with all the information pertaining to an incident that can have media repercussions.
- The social media unit will obtain information from the Media Relations team. Those two units will assess a response and monitor approach from the incident in question.

10.5. Communications – Coordinating a response with other constituents of the Lawson/Western network.

- Western Communications Chief Communications Officer or Director will inform their colleagues of any incident or request that could affect other Lawson/Western network institutions.

10.6. Communications – General statement on the care and use of animals in research

- Western Communications' Associate Director, Stakeholder Relations, Ext. 89334, with support from Research Western's Associate Director, Research, Promotion & Profile will maintain a general statementa that is readily available to be released by the Western Communications Office.

10.7. Communications – Specific Statements

- Western Communications' Associate Director, Stakeholder Relations, with support from Research Western's Associate Director, Research, Promotion & Profile will support the AR – CMT in developing and maintaining species-specific statements that can be used by Western Communications, as required.
- Specific statements will include:
  - An explanation of the need for that species

- Examples of achievement benefiting society or animals
- General information on animal use statistics

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11. Severe Animal Health and/or Husbandry Staffing Shortage – Animal Holding Areas Only

11.1. In the event of any sever staffing shortage – expected or unexpected - involving core animal health and/or husbandry support roles with potential to significantly impact the provision of animal care, each AA – CRT will follow the context-specific plan as outlined within their Crisis Response Scenario Records (See FRM-022).

11.2. The Facility Supervisor will promptly notify the ACVS Executive Director, ACC Executive (acc@uwo.ca), and the Institutional Veterinarians.

11.3. The ACVS Executive Director will liaise directly with the citywide institutional senior administrators, Institutional Veterinarians, and area supervisors to identify both resource requirements and availability.

11.4. Western's Human Resources Department will provide support to ensure animal health and husbandry professional availability through liaising with applicable collective groups.

11.5. Short-term staffing reallocations will be undertaken in alignment with associated collective agreements.

11.6. When personnel may be required to provide support for core animal husbandry activities and whose institutional roles do not primarily involve the provision of animal care, animal husbandry tasks will be assigned to each according to their level of competence with consultation from an Institutional Veterinarian.

11.7. Veterinarians will assess potential impacts on animal health and welfare and guide Facility Supervisors and the ACVS Executive Director.

11.8. The ACVS Executive Director will update the ACC Executive and AECP Team with a frequency proportional to the risk to animal health and welfare and crisis duration.

11.9. Should the staffing shortage be significant and longer term in nature, Crisis Response Levels (Appendix 1) will be followed.

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12. Crisis Response for Field Studies

12.1. Mitigation & Preparedness

12.1.1. Each academic unit will develop a field safety plan for use by field researchers to proactively identify risks to personnel involved in field-related animal activities.

12.1.2. Field researchers will complete the unit-specific field safety plan and submit it to the unit leader(s) as specified by each academic unit.

12.1.3. Academic unit leaders will review, revise, and approve individualized safety plans in accordance with institutional and external regulations.

12.2. Response

During a crisis, follow priorities as outlined in AA – CRTs (Crisis Response Team). Potential scenarios include:

12.2.1. Catch and Release Studies, e.g., tagging

If a disaster occurs that prevents safe conduct of the research, then activities will cease until conditions allow. Human safety will take precedence.

12.2.2. Captivity of Wild Animals at an Off-Campus Field Site

If a natural disaster occurs or power outage, then the researchers will consult with an Institutional Veterinarian as to the proper course of action. The response depends on the type and expected duration of the crisis. Options include:

- Continue with care of animals if it is safe for the people and animals (e.g., birds in an outdoor aviary that require modest daily care or cleaning),
- Release animals and discontinue study, or
- Euthanize animals if they cannot be released for some reason.

12.2.3. Animals in Transit to Western from a Field Site

This could occur when a researcher is transporting animals and is interrupted by a crisis, such as vehicle breakdown, collision, airline strike, natural disaster, storm, etc. Decisions will be made in consultation with an Institutional Veterinarian and the ACVS Executive Director. Options include:

- Continue care of animals if safe for animals and researchers and then resume transport,
- Return to field site and release, or
- Euthanize and seek proper disposal.

12.2.4. Zoonotic Disease Detected in Wild Animals Held Captive at Field Site-

For example, HPAI or other infectious disease. Contact an Institutional Veterinarian (acvsvet@uwo.ca), the ACC (acc@uwo.ca), and regional/national animal health authority (CFIA) for guidance and action plans.

12.3. Recovery & Analysis

Following a crisis, follow priorities as outlined in AA – CRTs.

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III. Post-Emergency Evaluation & Follow-Up

1. Response to Significant Crises

1.1. Following an emergency that identifies substantial real or probable safety impacts or risks to personnel, animals, core infrastructure, research, or the environment, the AR – CMT and AECP - CRT will promptly meet to:

- Review the causes and details of the incident(s) that took place and the way the response was organized. This exercise is intended to acknowledge the positive aspects of the response and to improve or correct the process and the protocols where required.
- Associated *Crisis Response Scenario Records* (FRM-022) will be referenced to assess the crisis response.
- Develop and distribute to Western's ERT the minutes containing actions arising from the meeting.
- Notify internal/external regulators, as appropriate for the situation.

2. Reporting, Risk Identification & Mitigation

2.1. Following or in advance of a crisis, the Animal Area Crisis Response Team (AA-CRT) will perform an analysis of the actual/mock crisis by:

- Assembling a team of 2-6 key stakeholders who were directly involved in crisis response for the area.
    - Participants may include ACC, Veterinary Services/Sick Animal Response team, AECP Compliance team, researchers, administrators, other impacted institutional responders, students, imaging facility managers, etc.
- Discussing the crisis scenario with reference to Sect. I of the FRM-022 *Crisis Response Scenarios Record*,

    - Mock scenarios may be referenced using FRM-021 *Crisis Response Mock Scenarios*.
  - Completing and submitting to the AECP-CRT (via aecp@uwo.ca) Sect. I of the FRM-022 *Crisis Response Scenarios Record (CRSR)*.

2.2. AECP-CRT members will perform an initial review of the submitted *Crisis Response Scenarios Record* (Sect. I) and will involve applicable institutional stakeholders.
  - Resultant recommendations will be added to Section II of the CRSR form and returned to the submitter/applicable institutional stakeholders for follow-up.
  - AECP-CRT recommendations for additional resources or procedures necessary to address these outcomes will be further communicated based on AECP Team recommendations.

2.3. Form recipients will review initial recommendations (Sect. II) and use Sect. III to record actions arising in response to the recommendations.
  - Form recipients will return the form to the AECP-CRT.

2.4. AECP team members will perform a second review of submitted *Crisis Response Scenarios Records.*
  - Follow up actions and/or recommendations will be recorded in Sect. IV of the CRSR form & forwarded to applicable institutional stakeholders.

2.5. The AECP Team administrative staff will store CRSR forms in central repository in Teams and will log each CRSR using the Crisis Response Record.
  - Institutional senior administration, the AECP Team and Animal Facility Supervisors will be granted access to the Teams site.

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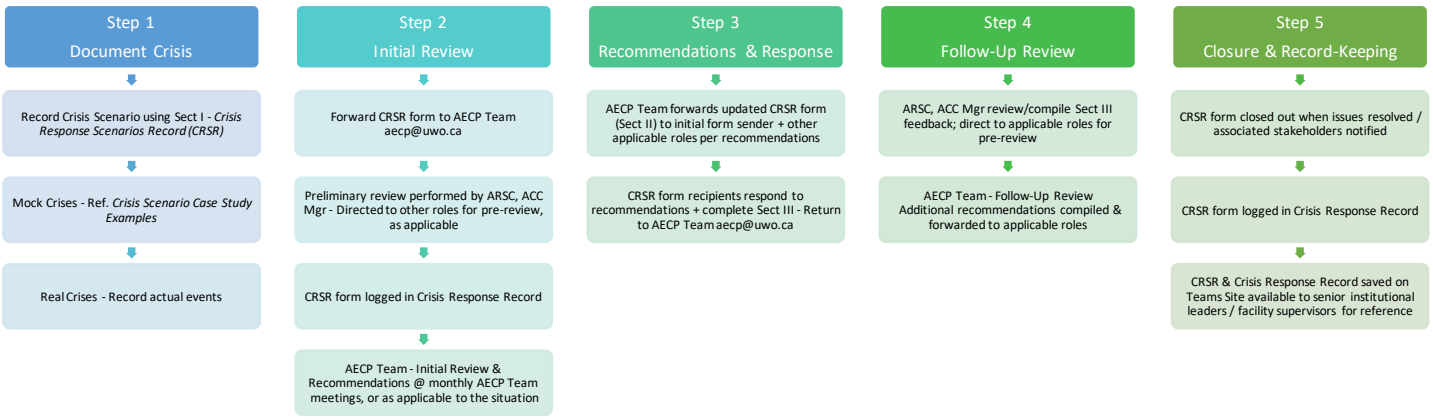
Figure 1: Crisis Scenario Process



ASSOCIATED DOCUMENTS

1. University Policies
   - MAPP 1.4 Policy on Emergency Response & Preparedness – Western University References
   - Master Emergency Response Plan
   - Biosafety Guidelines and Procedures Manual for Containment Level 1 & 2 Laboratories

2. Animal Care Committee Policies and Procedures
   - Emergency Contacts Information – See FRM-020
   - SOP SAF-002 - Rodent: Biohazard Containment Level 2 Information for Animal Care &Veterinary Services (ACVS) Directly Managed Facilities
   - Facility-specific SOPs
   - Hazard-specific SOPs (SAF-)
   - Transport SOPs (CW-)
   - Species-specific husbandry SOPs (CW-FAC-)
   - FRM-020 – Quick Guide - Emergency Procedures in Animal Area(s)
   - FRM-021 – Crisis Response Mock Scenarios
   - FRM-022 – Crisis Response Scenario Record

3. Area-Specific Policies / SOPs

   - ACVS Animal Care Facilities
     - ACS-FAC-706–Animal Care Continuation of Operations-Environmental Monitoring
     - ACS-FAC-707–Animal Care Continuation of Operations-Sanitation
     - ACS-FAC-708–Animal Care Continuation of Operations-Daily Monitoring
     - ACS-FAC-704–Animal Care Continuation of Operations-Security
     - ACS-FAC-705–Animal Care Continuation of Operations-Feed and Bedding Storage and Procurement
     - ACVS – Restrictions during Times of Animal Rights Activism within ACVS-Managed Facilities
     - ACVS Contingency Plan for University Closures

   - Advanced Facility for Avian Research
     - Advanced Facility for Avian Research Crisis Management Procedures

   - Biology
     - Department of Biology Field Safety Plan & Itinerary
     - Collip Animal Care Facility Crisis Management

4. Other Area-Specific Documents
   - Diagrams, maps, e.g., Evacuation Routes, Animal Holding and Procedure Areas schematics
   - List of Emergency Supplies, e.g., transport caging, drugs, feed, water

REVISION HISTORY

Version	Date	Description of changes	Author
00	19-MAR-2020		NG / DK / KM / LT / JCA / KB
01	JUL2022	Personnel & organizational names updated; ACC-CRT renamed AECP-CRT; significant updates; add section for field studies; creation of FRMs and evaluation processes; remove responsibilities and authorities to policy document	L. Turner K. Kasper

Appendix 1: Crisis Management Levels

The following colour-coded sections outline responses to various levels of crisis associated with animal holding and procedure areas within Western's Research Community:

Crisis Management Level I – STANDARD OPERATIONS

Level I – An unplanned routine emergency that requires attention from beyond the facility and may adversely impact or threaten animal and human life, health, property, or environment.

Examples: HVAC (Heating, Ventilation, and Air Conditioning) failure, fire/security alarm requiring fire response, isolated hazardous materials spill, loss of heat/power, water main or pipe break.

- May only require internal Animal Area Crisis Response Team(s) (AA-CRT) and Institutional response personnel and resources with limited impact on research operations (< 1 week).
    - *Crisis Management Policy* (POL-022) and institutional crisis response SOPs – Western's *Crisis Management Program for Animal Holding / Procedure Areas & Field Locations* (ADM-SAF-501) – will be followed.
- Following immediate response / outreach to institutional response personnel, AA-CRTs will notify the Animal Ethics and Care Program Crisis Response Team (AECP-CRT), as follows:
    - Readily resolvable scenarios within the scope of the AA-CRT – Notify via aecpteam@groups.uwo.ca
    - Urgent and/or not readily resolvable scenarios having potential serious impact – Notify AECP-CRT leaders (see *Emergency Contact Information Sheet-AECP-CRT / ERT*).
- Following immediate crisis mitigation, the AA-CRT will perform a crisis response review using Sect. I of the *Crisis Response Scenario Record;* submit it to aecp@uwo.ca
- The AECP-CRT will notify the Animal Research Crisis Management Team (AR-CMT) and/or other institutional stakeholders of the Crisis Management Level (CML-I) and operational impacts/response, as applicable to the situation.
- Facility staff to continue to provide animal care and oversight together with Research and Veterinary Service teams' engagement.
- AUP (Animal Use Protocols) full, Annual Renewal and AUP Modification forms submission and review is ongoing, as per the *Animal Use Protocols Policy* (POL-002).

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Crisis Management Level II – SPECIAL OPERATIONS

Level II – An unplanned emergency occurring at single or multiple locations with high likelihood to adversely impact animal and human life, health, property, or the environment.

Examples: Infectious disease outbreak (as declared by government health authorities) or multiple serious injuries, major weather event, bomb/violence threat, animal rights activism demonstration, hazardous spill impacting large area, large fire, utility disruption impacting multiple facilities

- This level requires a non-routine response with immediate notification and engagement from multiple personnel and resources and may involve outside agency assistance.
    - The emergency may create a prolonged and/or extended impact on the research community (< 1 month).
- The Animal Research Crisis Management Team (AR-CMT) and the Animal Ethics and Care Program Crisis Response Team (AECP-CRT) will be activated, per the *Crisis Management Policy* (POL-022) and Western's *Crisis Management Program for Animal Holding / Procedure Areas & Field Locations* SOP (ADM-SAF-501).
    - In conjunction with appropriate stakeholders, these groups will develop and oversee related crisis response plans to ensure alignment with external regulatory requirements.
- The AECP-CRT Chair, Western's Associate Vice President (Research), will directly engage Western's Emergency Response Team (ERT).
    - The AECP-CRT Chair will act as the primary liaison between institutional emergency response teams.
- The AECP-CRT Chair will communicate with the Office of the Vice President (Research) (VPR) the Crisis Management Level (CML-II), operational plans and contingencies.
- All external enquiries, e.g., media outlets, will be directed to Western's and affiliates' central communications resources or local leaders, as appropriate.

The following will be implemented from activation of CML II:

- Essential duties will be identified to ensure operational continuity and research support, including essential activities performed by research teams to maintain ongoing use of animals, e.g., required maintenance of surgical implants.
- Laboratory Animal Facility staff, Veterinary Services staff and Research teams deemed 'essential' according to crisis management plan will be trained on essential duties and assigned responsibilities commensurate with their skills and experience.
- Institutional Veterinarians and Veterinarian Services staff will be directly engaged in assessing animal impacts and responding in alignment with their responsibility, as delegated by the Animal Care Committee in Section 1.5 of its Terms of Reference.
- Western's Research teams performing animal husbandry activities in satellite facilities and extra-vivarial sites will be asked to obtain census information and prepare to transport animals to optimally located facilities.
- Facility Supervisors at affiliated hospitals and satellite facilities will be asked to identify research activities that require animal transport and holding outside of Western-managed facilities, or outside of facilities at affiliated hospitals and will identify those activities that are deemed 'non-essential' in consultation with research teams.
- Facility Supervisors, in conjunction with users, at all sites will be asked to provide scheduled procedures, such as recovery surgery or other interventions that may involve increased resources for clinical support or oversight and will identify those deemed 'non-essential' in consultation with research teams.

- The ACVS Executive Director will activate review of procurement requirements in preparation for potential interruption of supply chains and will initiate procurement of additional consumables deemed essential to the maintenance of operations in keeping with communications from Emergency Operations Continuity Group or affiliates' equivalent groups.
- Research teams will be directed to:
    - review and significantly limit their AUPs (Animal Use Protocols) to essential experimental requirements, including breeding programs, and animal procurement.
    - suspend all survival surgeries with post-operative survival greater than 24 hours.
    - prepare back-up plans in response to potential staff member absences and ensure research team members delegated to study tasks are appropriately trained and equipped for those tasks.
    - comply with other directives that may limit their program due to potentially reduced resources.
- All supervisors of staff directly involved in animal research must ensure adequate health measures are in place, per public health and/or institutional OHS (Occupational Health & Safety) directives, e.g., protocols for use of shared space, PPE (Personal Protective Equipment).
    - If PPE is unavailable or help is needed in developing other controls, supervisors will outreach to institutional OHS to request support.
- AUP Full form, Annual Renewal and AUP Modification forms submission and review will continue.
- All hands-on training requests will be postponed. Online training will continue.

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Crisis Management Level III – REQUIRED SERVICES

Level III – A large disaster that results in significant consequences for some of the research community.

Examples: University and or affiliate partial shutdown, infectious disease outbreak (as declared by government health authorities), significant threat of violence towards animal-based research / animal support staff.

- This level requires numerous resources – both internal and external – and university/hospital/LHRI senior leadership.
    - Long-term implications and disruption are expected (~1-6 months).
- The Animal Ethics and Care Program Crisis Response Team (AECP-CRT) will continue to provide direct leadership support, per the *Crisis Management Policy* (POL-022) and Western's *Crisis Management Program for Animal Holding / Procedure Areas & Field Locations* SOP (ADM-SAF-501).
    - In conjunction with appropriate stakeholders, these groups will continue to oversee related crisis response plans to ensure alignment with external regulatory requirements.
    - The AR-CMT will be engaged in the situation, as applicable to the situation.
- The AECP-CRT Chair, Western's Associate Vice President (Research), will engage Western's Emergency Response Team (ERT).
    - The AECP-CRT Chair will act as the primary liaison between institutional emergency response teams and AECP staff.
- AECP-CRT leadership will communicate with the Office of the VPR the Crisis Management Level (CML-III) operational plans and contingencies.
- All external enquiries, e.g., Media outlets, will be directed to Western's and affiliates' central communications resources or local leaders, as appropriate.

The following will be implemented from activation of CML III:

- Research activities will be limited to those deemed 'essential' as identified by research teams and in collaboration with the AECP - CRT, e.g., vaccine production specific to the crisis at hand.
- Procedures involving animals currently being held (e.g., maintenance of surgical implants) will be maintained to the degree to which support staff is available and deemed appropriate by the AECP-CRT, (e.g., based on availability of research, animal facility and veterinary services staff).
- Unless previously approved by the AECP – CRT, researchers will:
    - Halt or review all breeding programs,
    - Halt all survival surgeries with post-operative survival greater than 24 hours,
    - Halt all animal procurement,
        - PI requests for exemption from one or more of the above will be triaged via the *'Crisis Management Level III-PI Request*' web form.
    - Train support staff on back-up plans in response to potential staff member absences.
- In collaboration with PIs (Principal Investigator), their research teams and Animal Care staff, the AECP-CRT will inventory currently held animals and assign priority levels to them, as follows:

1. Directed species such as NHPs (Non-Human Primate), dogs, pigs, cats.

2. Irreplaceable specially bred, humanized or genetically distinct animal lines.
3. Investigators working on grants with guidelines for preserving equipment and data.
4. Founder breeding pairs for other animal lines
5. Cohorts or colonies that are maintained in ongoing research and wildlife programs with considerable investment in time (e.g., aging colonies, diet experiments, generational studies) or expertise.
6. All other animals used in research, wildlife research or teaching.

- All supervisors of staff directly involved in animal work must ensure adequate control measures are in place, per public health and/or institutional OHS directives, e.g., protocols for use of shared space, PPE.
    - If PPE is unavailable, or help is needed in developing other controls, outreach to institutional OHS requesting support.
- The transport of animals from satellite facilities and extra-vivarial sites into centrally managed facilities will be initiated.
- As needed, and conditional upon their ability to maintain clinical care, Veterinary Services team members will assist with Animal Care husbandry tasks.
- With guidance from Institutional Veterinarians, the ACVS Executive Director will direct any changes to the Sick Animal Response and Animal User Training programs, as applicable to the situation.
    - Online training activities will be suspended.
- Any deviations from local area standard operating procedures (such as cage changing frequency) will be evaluated by Institutional Veterinarians and the ACVS Executive Director in consultation with Facility Supervisors.
- AUP full form, Annual Renewal and AUP Modification forms submission and review will continue as review resources allow.
    - Activation of new AUPs (Animal Use Protocols) and AUP Modifications will be halted until CMLII is restored.
- The Director, Research Ethics and Compliance, in consultation with the Compliance Veterinarian, will reduce Post Approval Monitoring oversight activities as appropriate:
    - ACC Site Visits, per the Policy
    - Visits by Animal Health Professionals, per the Policy
        - E.g., ACC directed observations and evaluations - including pilot studies.

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Crisis Management Level IV – CLOSURE

Level IV: A large and complex disaster that results in catastrophic consequences for the research community.

Examples: University and or affiliate shut down, infectious disease outbreak (as declared by government health authorities), mass casualty event, tornado, act of terrorism, building collapse, severe flood

- This level requires numerous resources – both internal and external – and university/hospital/LHRI senior leadership.
    - Short and long-term implications and disruption are expected (>6 months)
- The Animal Ethics and Care Program Crisis Response Team (AECP-CRT) will continue to provide direct leadership support, per the *Crisis Management Policy* (POL-022) and Western's *Crisis Management Program for Animal Holding / Procedure Areas & Field Locations* SOP (ADM-SAF-501).
    - In conjunction with appropriate stakeholders, these groups will continue to oversee related crisis response plans to ensure alignment with external regulatory requirements.
    - The AR-CMT will be engaged in the situation, as applicable to the situation.
- The AECP-CRT Chair, Western's Associate Vice President (Research), will engage Western's Emergency Response Team (ERT).
    - The AECP-CRT Chair will act as the primary liaison between institutional emergency response teams.
- AECP Team leadership will communicate with the Office of the VPR the Crisis Management Level (CML-IV), operational plans and contingencies.
- All external enquiries, e.g., Media outlets, will be directed to Western's and affiliates' central communications resources or local leaders, as appropriate.

The following will be implemented initially for up to one month from activation of CML IV:

- Implementation of these changes and their continuation will be reviewed daily by the AECP-CRT and communicated to the AR-CMT, AA-CRTs and institutional emergency response personnel, as applicable to the situation.
- Essential staff will be required to:
    - Maintain procedures for animals currently being held, e.g., maintenance of surgical implants, to the degree to which support staff is available and as deemed appropriate by the AECP-CRT, e.g., availability of research, animal facility and veterinary services staff.
    - Move all ongoing experimental work to completion, followed by an 'on hold' status.
    - No new surgeries or procedures will be undertaken.
- Animals within damaged or high-risk sites will be transported to alternative facilities.
- All animal procurement will be halted except for mission-critical science and at the discretion of the AECP-CRT with guidance from academic unit leaders.
- PI requests for research activity continuance will be triaged via the *'Crisis Management Level IV-PI Request'* web form.
- All supervisors of staff directly involved in animal work will ensure adequate health and safety measures are in place, per public health and/or institutional OHS directives, e.g., protocols for use of shared space, PPE.

  - If PPE is unavailable, or help is needed in developing other controls, supervisors will outreach to institutional OHS to request support.

- Veterinary Services team will assist with animal care activities and tend to clinical cases as they arise.
- With guidance from Institutional Veterinarians, the ACVS Executive Director will direct any changes to the Sick Animal Response and Animal User Training programs, as applicable to the situation.
  - Online training activities will be suspended.
- Any deviations from local area standard operating procedures (such as cage changing frequency) will be evaluated by Institutional Veterinarians and the ACVS Executive Director in consultation with Facility Supervisors.
- AUP Full, Annual Renewal, and AUP Modification forms reviews will be suspended.
- Where the AR-CMT and/or AECP-CRT deem that available resources (physical, consumables and staff) levels are inadequate to maintain animal welfare, they will implement humane euthanasia according to AVMA Guidelines for Depopulation of Animals (2019) based on concept of preservation of as many animals as possible for as long as possible with priority as indicated below (to be confirmed by VPR/ACVS Executive Director/ACC Chair):

  1. Directed species such as NHPs (Non-Human Primate), dogs, pigs, cats.
  2. Irreplaceable specially bred, humanized or genetically distinct animal lines.
  3. Investigators working on grants with guidelines for preserving equipment and data.
  4. Founder breeding pairs for other animal lines
  5. Cohorts or colonies that are maintained in ongoing research and wildlife programs with considerable investment in time (e.g., aging colonies, diet experiments, generational studies) or expertise.
  6. All other animals used in research, wildlife research or teaching.
- Where specific regulatory directives exist, stakeholders involved in euthanasia will track the numbers of animals euthanized or otherwise removed from research or teaching projects as a direct consequence of the crisis using logs provided by area Facility Supervisors.

Based on https://travel.gc.ca/travelling/health-safety/travel-health-notices#risklevels

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