

	<p>Research Office IACUC</p>	<p>Animal Facility Emergency Operations Plan (EOP)</p>	<p>IACUC Approved: March 2023</p>
--	----------------------------------	--	---------------------------------------

**Appendix G: Animal Facility EOP  
For LARC (Rev. 2/2023)  
Laboratory Animal Resources Vivarium (LARC)  
Linus Pauling Vivarium (LPSC)  
Agricultural Life Sciences Vivarium (ALS-LARC)  
Research Animal Isolation Unit (RAIL)**

COLLEGE:	
DEPARTMENT:	RESEARCH OFFICE – Centers and Institutes
CENTRAL ANIMAL UNIT:	LARC
ANIMAL FACILITY:	LARC, LPSC, ALS, RAIL

**1. Purpose**

This Emergency Operation Plan establishes procedures and responsibilities for how the LARC, LPSC, ALS, and RAIL units will interact within the LARC emergency operations structure.

**2. Scope**

Applies to all LARC personnel or personnel working under the direction of the Attending Veterinarian that are within the Oregon State University Emergency Operations Plan

**3. Overview**

The LARC, LPSC, ALS, and RAIL units are part of the LARC emergency preparedness effort. Due to the remoteness, size, complexity, or presence of animals in the LARC, LPSC, ALS, and RAIL units daily operations, the LARC plan allows the LARC, LPSC, ALS, and RAIL units to establish an internal Emergency Operation Plan to assist with communication and command and control.

**4. Planning Assumptions**

- LARC, LPSC, ALS, and RAIL units may have an incident that is localized to their operation and not to the College
- Unless specifically covered in this school/department/work unit EOP, the LARC EOP is the source document for emergency preparedness
- ***In addition to the Attending Veterinarian’s role as LARC Director, the AV is responsible for the veterinary care of all animals in OSU’s Animal Program. Expectations for animal facilities outside of LARC management are listed below.***
  - PI managed animal facilities and dedicated aquatic and agriculture facilities not managed by LARC will maintain an independent Animal Emergency Plan using the template provided by the IACUC or their own emergency plan with comparable information. **See Attachment 10.**

- o *Contact the AV* or designee to assist with coordinating a response to facility issues, procurement of back-power, evacuation, or animal illness or injury.
- o In the event of an emergency, facility personnel should be designated to attend to daily animal husbandry as deemed safe. If the facility is unsafe or a facility staff member is unavailable to attend to daily husbandry the AV should be contacted to make alternate arrangements. If the AV cannot be reached, refer to the line of succession described in 7a below.
- o Distant sites will establish local veterinarian contacts and utilize them first in emergencies, with a follow-on call to the OSU Attending Veterinarian or designee.

Distant sites outside the Corvallis area include:

- o Hatfield Marine Science Center (HMSC) - Newport
- o Oregon Hatchery Research Center (OHRC) - Alsea
- o Eastern Oregon Agricultural Research Center (EOARC) - Burns
- o Eastern Oregon Agricultural Research Center (EOARC) - Union

## 5. Concept of Operations

An incident occurs that is within the capability or responsibility of the LARC, LPSC, ALS, and RAIL units. Through this plan, the LARC, LPSC, ALS, and RAIL units have identified a command and control structure to plan for and respond to localized incidents. This plan is coordinated with the LARC Emergency Operation Plan.

The LARC Emergency Operations Plan provides guidance, direction, and emergency management programmatic elements that this local EOP is designed to augment.

As an incident occurs, individuals will respond to preserve their life safety and notify the Attending Veterinarian, or designee. Once activated the Attending Veterinarian, or designee will initiate the Response Team to coordinate LARC, LPSC, ALS, and RAIL unit actions. Priorities for personnel and animal response will be established and response activities commence as appropriate.

Priorities during an emergency are:

- Personnel safety
- Animal safety
  - o Animals shelter in place - AND/OR -
  - o Animal evacuation and relocation
- Animal recapture
- Animal euthanasia (as authorized by the OSU Attending Veterinarian)
- Facility protection

## 6. Organization and Assignment of Responsibilities

The following structure and key personnel are responsible for the planning, preparedness, and implementation of emergency management activities for the LARC, LPSC, ALS, and RAIL units.

### Oversight

The Attending Veterinarian is responsible for the safety and protection of life, securing critical infrastructure, and timely resumption of teaching, research, and business activities. Three (3) teams with designated responsibilities will carry out these activities.

#### (1) Preparedness Team

- The Attending Veterinarian is responsible for making sure that plans, safety equipment, and infrastructure to deal with an emergency are in place.
- The Attending Veterinarian, or designee, will convene meetings/seminars and prepare summary materials to increase staff awareness of the content of this plan.

#### (2) Response Team

This team coordinates the emergency response for the LARC, LPSC, ALS, and RAIL units. The Response Team is comprised of the following members:

- Attending Veterinarian
  - Organize the LARC, LPSC, ALS, and RAIL units response command and control structure.
  - Communicates with LARC Operation Center
  - Communicates with the OSU Dept. of Public Safety (541-737-3010)
  - Communicates with members of the Response Team.
  - Communicates with Research Office College Operation Center
  - Initiates communication to inform LARC, LPSC, ALS, and RAIL units personnel of a closure or incident response
  - Ensures all essential staff are on-site
  - Will direct evacuation (via fire alarm pull station) if necessary
- LARC, LPSC, ALS, and RAIL units Technician supervisor
  - Contacts Attending Veterinarian (or designee)
  - Contacts Principal Investigator of affected animals
  - Initiates communication to inform LARC, LPSC, ALS, and RAIL units of a closure or incident response
  - Oversees animal care needs as identified
  - Will direct evacuation if necessary
- Animal Husbandry Staff
  - Respond to animal care needs as identified
- LARC, LPSC, ALS, and RAIL units Executive Support Specialist
  - Notifies affected instructors, graduate and undergraduate students, intern programs and visiting colleges/universities of the current situation

- o Contacts building owners/representatives to respond to buildings
  - For concerns related to buildings (HVAC malfunction, leaks, etc.) contact Facilities Services
- OSU Attending Veterinarian or designee
  - o Provides remote advice as needed
- OSU Attending Veterinarian or On-Call local Veterinarian (for distant units as described in section 4)
  - o Develop a network of veterinarian contacts if additional assistance is needed
  - o Authorized to determine what additional assistance is needed

### **(3) Recovery Team**

The purpose of this group is to restore teaching, research and business functions in a timely manner. The Recovery Team is comprised of:

- Attending Veterinarian
- LARC, LPSC, ALS, and RAIL units Executive Support Specialist
- LARC, LPSC, ALS, and RAIL units Technician Supervisor

## **7. Direction and Control**

### **a. Decision-making and Notification priority**

When an incident occurs, each individual is responsible for the immediate life-safety response of themselves and personnel under their care. This could include such actions as calling 9-1-1, evacuating personnel and animals from the immediate area, activating the fire alarm, and (depending upon the level of training) providing first aid or extinguishing fires.

The Attending Veterinarian, or designee, is responsible for approving resources or communicating assistance requests to the appropriate OSU Administration official or the College EOC (if activated).

When an incident occurs, contact the Attending Veterinarian. If that person cannot be reached, the following line of succession is to be contacted (see Attachment 1 for names and phone numbers):

- 1) IACUC Administrator
- 2) Alternate Attending Veterinarian
- 3) LARC Veterinarian

**b. Call Lists**

LARC, LPSC, ALS, and RAIL units has/have developed call lists to assist with response.

Attempt to contact the first person and if no response, continue down the list until a response is obtained:

- 1) OSU Attending Veterinarian
- 2) LARC Executive Support Specialist or Front Office
- 3) Technician Supervisor

- Veterinarians

- 1) OSU Attending Veterinarian
- 2) Alternate Attending Veterinarian
- 3) The OSU Veterinary Teaching Hospital

**c. Control**

The Attending Veterinarian, or designee, is responsible for the coordination of response resources to the incident. This Command Center location is the hub of information during an emergency incident.

The LARC, LPSC, ALS, and RAIL units will organize and coordinate the incident response from the following Command Center locations (in order of preference):

- 1) LARC Building Conference room
- 2) RAIL if the main campus is inaccessible

**8. Communications**

Several avenues exist for communication to LARC, LPSC, ALS, and RAIL unit staff, faculty, students, and volunteers. Depending upon the extent/level of the situation, multiple communication paths may be used to ensure personnel are kept informed:

*(delete those that don't apply to your unit)*

<b>Method</b>	<b>Avail w/ power</b>	<b>Avail w/o power</b>
• Telephone	<b>X</b>	<b>X</b>
• Cell phone	<b>X</b>	<b>X</b>
• E-mail	<b>X</b>	<b>X (via mobile phone)</b>
• OSUAlert – if a university-wide incident	<b>X</b>	<b>X (via mobile phone)</b>
• Local Bulletin Board		<b>X</b>

As a minimum, the information will be reviewed by the OSU Attending Veterinarian prior to release for mass distribution.

Computer access is limited to the office and laboratory areas; therefore, cell phones and radios are the primary modes of communication between personnel.

Contact lists are reviewed twice a year (or after the arrival of new personnel) and posted at all available phones and procedures locations.

## **9. Plan Maintenance**

The plan will be updated as necessary, based upon periodic reviews, improvement items identified from drills or actual incident responses, and changes to the threat environment.

Questions about this plan should be directed to the Attending Veterinarian.

## **10. Plan Training and Testing**

### **A. Training**

- New employees receive an orientation to this disaster plan and their response duties
- Annually, all employees receive a review of the plan and their roles during emergencies
- Employees receive periodic training of unit specific animal handling and response procedures

### **B. Drills/Exercises**

- Fan-Out Calling/Call Tree notifications are conducted periodically to test the accuracy of phone numbers and communications
- Mock emergency drills should be conducted periodically to test all components of the emergency response plan
- After the drill or incident response, discussions regarding strengths and weaknesses of the plan and response are held and procedures updated, if necessary

**Attachment 1  
Emergency Contacts**

(Personal Information: Do not release or re-distribute, unless approved by the Attending Veterinarian)

Benton County Sheriff	Emergency	9-1-1	
	Non-Emergency	541-766-6858	
Benton Public Health Dept.	Non-Emergency	541-766-6835	
Corvallis Police	Non-Emergency	541-766-6924	
Corvallis Fire Department	Non-Emergency	541-766-6961	

OSU Dept. Public Safety (DPS)	Emergency	541-737-7000	
	Non-Emergency Dispatch	541-737-3010	
OSU Environmental, Health, and Occupational Safety (EH&S)	DPS Dispatch	541-737-3010	
OSU Attending Veterinarian	Dr. Jennifer Sargent	541-737-6213	541-602-1283
	Dr. Tim Miller Morgan <i>(Alternate, Aquatics)</i>	541-867-0265	
	Rural Veterinary Practice <i>(Alternate, Large animal)</i>	541-737-2858	
OSU IACUC Administrator	Rob Gaebel	541-737-8556	

LARC Command Center	Front office: 541-737-2263	Breakroom: 541-737-5638	
RAIL Contacts	Break room	541-737-5312	
LPSC Contacts	Breakroom	541-737-7292	
Facilities Services	Business hours	541-737-2969	
	Emergency/After hours	541-737-3010	OSU DPS

Local veterinarian (for distant facilities)			
Hatfield Marine Science Center	Dr. Tim Miller-Morgan	541-867-0265	
EOARC- Burns	Dr. Masie Custis; Harney County Veterinary Clinic	541-573-6450	
EOARC- Union	Dr. Terry McCoy Animal Health Center	541-963-6621	

**(Personal Information: Do not release or re-distribute, unless approved by the Attending Veterinarian)**

**Attachment 2**  
**Emergency Response Supplies - Personnel**

This *suggested* supply list is for the emergency response team’s needs. These items should be kept accessible in areas that emergency responders may be working within. Supply distribution will be coordinated by the Command Center.

Water	<ul style="list-style-type: none"> <li>● <i>Drinking water-1 gallon per day/per person, keep 3 days supply on hand. Replace on a quarterly basis.</i></li> </ul>
Food	<ul style="list-style-type: none"> <li>● <i>Non-Perishable Food -in an airtight, pest-proof container. Replace on an annual basis or per expiration date</i></li> </ul>
Electrical	<ul style="list-style-type: none"> <li>● <i>Extra batteries for devices</i></li> <li>● <i>Fans</i></li> <li>● <i>Space heaters</i></li> <li>● <i>Extension Cords/ Plug adaptors</i></li> </ul>
Transportation	<ul style="list-style-type: none"> <li>● <i>LARC truck</i></li> <li>● <i>Personal vehicles</i></li> </ul>
Equipment	<ul style="list-style-type: none"> <li>● <i>Portable, bi-directional, radio transceivers (walkie-talkies)</i></li> <li>● <i>Flashlight/ Lanterns and extra batteries- keep extra flashlights in CC to send out with personnel</i></li> <li>● <i>Transistor Radio (with batteries)</i></li> <li>● <i>Rope</i></li> <li>● <i>Tools needed to shut down equipment, gas tanks, etc</i></li> <li>● <i>Utility knife</i></li> <li>● <i>First Aid Kit - Identify any special needs per the Attending Veterinarian</i></li> <li>● <i>Blankets</i></li> <li>● <i>Light sticks</i></li> <li>● <i>Heavy-duty work gloves</i></li> <li>● <i>Copies of emergency plan</i></li> <li>● <i>Zip ties</i></li> </ul>



**Attachment 3**  
**Emergency Response Supplies - Animals**

Water	Rodents: HydroPac water pouches. At least 2 week supply maintained at all times. Gel packs are also kept in the vivaria and can be used for nutritional/hydration support if necessary. RAIL: Large troughs typically hold 1 weeks' worth of water
Food	<ul style="list-style-type: none"> <li>• Maintain 2 weeks supply in storage</li> </ul>
Electrical	<ul style="list-style-type: none"> <li>• LARC, LPSC, ALS, and RAIL have backup generators</li> </ul>
Transportation	<ul style="list-style-type: none"> <li>• LARC van (everything except livestock)</li> <li>• VTH horse trailer for camelids</li> </ul>
Equipment (enclosures)	<ul style="list-style-type: none"> <li>• Cages for rodents</li> <li>• Crates for larger animals</li> </ul>
Equipment (handling)	<ul style="list-style-type: none"> <li>• Leads and halters for camelids</li> </ul>
Fuel	<ul style="list-style-type: none"> <li>• Tested and refueled by Facilities Services monthly</li> </ul>

## Attachment 4 Evacuation

1. Follow general personnel evacuation preparedness, mitigation, response, and recovery as listed in the LARC EOP – Appendix G
2. Evacuation procedures unique to LARC, LPSC, ALS, and RAIL units animal areas are:
  - A. Personnel - evacuate to Command Center or alternate located at LARC or RAIL if access to the main campus is limited
  - B. Animals - Once personnel is accounted for and the situation assessed, the LARC, LPSC, ALS, and RAIL units will work with the Attending Veterinarian or designee (in remote locations, this could be a local veterinarian) to determine what emergency response is needed for the animals.

LARC- small rodent housing facility

LPSC- rodent housing facility

ALS- rodent and aquatics housing facility

RAIL- Pasture and large animal housing

LARC, LPSC, ALS, and RAIL units planning for animal evacuation include:

### 1) Evacuation Site Selection

**Note: due to the risks associated with large scale animal movement for the animals' well-being and the ongoing research, sheltering in place is strongly preferred whenever it is a safe and feasible option.**

#### a) Identification of evacuation sites. Pre-identified sites are:

- Animals may be moved from one LARC managed housing area to another (example, from ALS to LPSC) in an emergency.
- If no LARC managed area is suitable for animal housing, other approved animal housing locations may be considered depending on which buildings are impacted by the emergency.
- If we require off-campus housing of research animals, small animals may be transferred to nearby institutions with existinf relationships such as OHSU campuses to provide assistance with emergency housing of research animals

### 2) Public Health Concerns

- a) *Consider the exposure of zoonotic diseases when identifying sites and transport routes.*

- b) *Other hazards*
- 3) Animal Well-being
  - a) Transit
    - *Will the animals be put in greater jeopardy while in transit?*
  - b) Temperature
    - *Can the micro- environment be controlled to keep the animal comfortable?*
  - c) Health Status
    - *Will the evacuation affect the health status of the animal so that the animal is compromised, rendering them unsuitable for the intended research?*
  - d) Food and water

## Attachment 5 Shelter in Place

1. Follow general sheltering preparedness, mitigation, response, and recovery as listed in the LARC EOP – Appendix G
2. Sheltering procedures unique to LARC, LPSC, ALS, and RAIL units are:
  - A. Personnel - shelter in the following buildings (listed in priority of preference):
    - LARC, RAIL
    - If unable to reach a building, shelter in a closed vehicle and communicate your status to the Command Center.
  - B. Animals - Once personnel is accounted for and the situation assessed, the LARC, LPSC, ALS, and RAIL units will work with the Attending Veterinarian or designee (in remote locations, this could be a local veterinarian) to determine what emergency response is needed for the animals.
    - 1) Shelter Site Selection
      - *Identification of shelter sites: Animal housing areas of LARC, LPSC, ALS, and RAIL*
    - 2) Public Health Concerns
      - *Consider the exposure of zoonotic diseases when identifying sites and transport routes.*
      - *Other hazards*
    - 3) Animal Well-being
      - a) Temperature
        - *Can the micro- environment be controlled to keep the animal comfortable?*
      - b) Health Status
        - *Will the health status of the animal be compromised rendering them unsuitable for the intended research?*
      - c) Food and water

**Attachment 6**  
**Euthanasia Program**

If animals cannot be protected or removed from dangerous conditions then they must be euthanized. Whenever possible, consult the AV to confirm that options for protecting or relocating animals have been exhausted prior to euthanasia. Units should maintain species-appropriate means required for euthanasia on site and accessible should emergency euthanasia be required.

LARC managed facilities:

Rodents and poultry- inhalant overdose with carbon dioxide or isoflurane

Aquatics- Buffered MS-222 overdose or, for zebrafish, rapid chilling

Other animal species- Injectable pentobarbital euthanasia solution is available at LARC and is considered appropriate for a wide range of species

## **Attachment 7 Temperature Extremes**

1. Personnel - Follow general evacuation preparedness, mitigation, response, and recovery as listed in the LARC EOP – Appendix G
  
2. Animals – For indoor housed animals temperature extremes are generally associated with utility or HVAC failure. For more information see Attachment 9. For outdoor animals, contact the OSU Attending Veterinarian if temperatures for un-acclimated animals are below 45°F or above 85°F.

**Attachment 8**  
**Animal Escapes**

1. Appropriate steps will be highly dependent on the location, species, and number of animals involved. Contact the OSU Attending Veterinarian or, if the escaped animal(s) are in immediate danger or pose a threat to public safety call the Department of Public Safety. If the DPS is contacted the dispatcher will send a follow on call to the AV to provide assistance.

## **Attachment 9 Utility and HVAC Failure**

1. Contact Facility Services to service dysfunctional equipment. If the HVAC or utility, failure may create extreme temperatures, inadequate ventilation or aeration, or other harmful conditions to animals contact the OSU Attending Veterinarian.

For rodent facilities with individually ventilated caging, a power failure can result in insufficient ventilation if the airflow is disrupted for >8 hours. If this occurs cages need to be partially removed from their slot by about 2 inches to allow air to circulate.

### **Too Hot**

If the outdoor temperature is above 80°F, the air supply to the animal housing room can be shut down.

Animal room doors may be propped open to increase cool air circulation.

Portable air conditioning units should be set up in the hallways and fans utilized to move cooler air into the rooms.

### **Too Cold**

Use portable heaters to increase room temperatures. Beware that the use of too many heaters may overload the circuit.

If extreme temperatures cannot be managed with the animals in place, animals may be evacuated to an alternate facility in consultation with the Attending Veterinarian.