

UC Davis Disaster Risk Assessment Survey

January, 2026

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Perceived Vulnerability Scoring

Rank threats to the zoo in the following order (Low-1-2-3-4-5-High):

Hazards	Animal Impact	Human Impact	Property Impact	Operational Impact	Total Impact	Perceived Likelihood
Wildfire						
Facility fire						
Earthquake						
Flood						
Extreme heat						
Extreme cold						
Chemical exposure						
Hazardous material incident						
Road closure						
Electrical outage						
Animal disease outbreak						
External animal disease outbreak						
Animal medical emergency						
Animal escape						
Water supply disruption						
Feed supply disruption						
Human disease outbreak						
External human disease outbreak						
Human medical emergency						
Snowfall						
Treefall						
Free roaming wildlife interaction						

Geographic Risks

Geographic Risk	Risk Assessment	Answer
Fire	Recent wildfires date and proximity	
	Fuels on site (specify: gasoline, diesel, vegetation boundaries)	
Tectonics/Tsunami	Proximity to known fault lines (miles)	
	Recent Quakes date and Richter Rating	
Coastal Proximity	Distance to Coast (miles)	
	Height above sea level (feet)	
Flood	Flood Zone (specify: coastal, river, below damn, levee, etc)	
	Height above/below water table (inland)	
	Erosion risk (soil type and terrain)	
Weather	Winter storm risk Low-1-2-3-4-5-High	
	Record minimum temp and winter temp range	
	Summer heat/drought risk Low-1-2-3-4-5-High	
	Record high temp and summer temp range	
Chemical exposure	Chemical manufacturing and/or storage proximity	
	Chemical types (chlorine, nitrogen, fertilizer, fuels, etc)	
Petroleum specific risks	Closest petroleum facility (specify: pipeline, refinery, well, storage, port, etc)	

On-site chemical haz-mats	Fuels, fertilizers, pesticides, herbicides	
	Manure disposal	
Interstate	Distance to interstate	
	Known chemical transport	
Airport (regional and international)	Distance to airport(s)	
	Known chemical transport	
Road access	Risks for road closures	
	Road conditions	
	Alternate routes available	

Animal Health Risks

Infectious animal health risks

[illegible]

*Other includes reptiles, amphibians, small mammals

Non-infectious animal health risks

Health risk	Species or individual affected
Temperature sensitive species or individual	
Respiratory sensitive species or individual	
Species or individual difficult to move/transport	
Easily stressed species or individual	
Special needs individual	
Other (specify)	

Water supply

Water storage type	Water source	Location	Storage capacity	Method of removal	Uses	Contamination risks

Water requirements

Species	Drinking water volume required per day (gal/day) IN SUMMER	Drinking water volume required per day (gal/day) IN WINTER	Cleaning & environmental water volume required per day (gal/day)	Total water volume required per day (gal/day)
Avian				
Hoofstock				
Carnivore				
Primates				
Reptile/amphibian				
Other species				
Total				

Animal Nutrition Risks

Food storage

Food type	Location	Storage capacity	Storage requirements (dry, refrigeration, frozen)	Volume required per day	Contamination risks
Milled feed					
Forage					
Carnivore diet					
Fresh					
Specialized (prey items, milk replacer)					

Food supply chain

Food type	Current transportation (direct/wholesale, commercial, refrigerator truck)	Alternate transportation available	Special transport equip required (refrigerate, wet silage)
Milled feed			
Forage			
Carnivore diet			
Fresh			
Specialized (prey items, milk replacer)			

Facility Structural Risks

Life support systems

Life support system	Type/description	Fuel required	Removal/disposal
HVAC			
Sewage			
Waste (manure, etc)			

Animal enclosures

Enclosure or number	Dimensions	Material (fencing, flooring, enrichment)	Species/individual housed	Risks of integrity	Quarantine & biosecurity potential

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Staff & storage structures

Structure name or number	Material (walls, flooring)	Items stored	Risks of integrity	Comments (eg. evacuation)

Communications

Communication/broadcast	Present	Comments
Hard lines (phone, cable)		
Satellite phone		
Cellular phone		
Radio (AM/FM)		
HAM radio		
Internal communication/staff radios		
Alarm systems		
Wifi		
Other (specify)		

Animal records

Animal records	Present	Comments
Hard copies in waterproof/fireproof container		
Digital backups offsite		

Animal Management Equipment

Fuel inventory

Type of fuel	Location	Amount (gal)
Gasoline		
Propane		
Diesel		
Other (specify)		

Generator inventory

Type of generator*	Wattage	Location	Fuel type	Volume of fuel per tank	Time per tank of fuel

**NEVER run generators indoors due to the risk of carbon monoxide poisoning*

Vehicle inventory

Vehicle and information	Owner/Driver	Fuel type, Fuel capacity	MPG (or miles per charge)	Towing capacity	Crate capacity

Trailer inventory

Trailer	Truck associated	Species transported	Crate capacity	Supplies capacity

Transportation crate inventory

Crate	Location	Material	Dimensions	Weight	Species housed

Transportation crate inventory

Crate	Location	Material	Dimensions	Weight	Species housed

Capture equipment inventory

Capture equipment item	Location	Material	Dimensions	Weight	Species used for

Capture equipment inventory

Capture equipment item	Location	Material	Dimensions	Weight	Species used for

Recommended animal capture equipment table

Captive animals	Minimal requirement	Highly recommended but not required
Large carnivore	Nets, pole syringes, snare, Projectile guns and darts, blow dart equipment, crates, squeeze cages etc	
Small carnivore	Nets, gloves, pole syringes, snare, crates, blow dart equipment, crates, squeeze cage ect	
Primates	Nets, gloves, pole syringes, snare, crates, blow dart equipment, crates, squeeze cage ect	
Hoofstock	Projectile guns and darts, blow dart equipment, crates etc	Custom designed squeeze cages
Small mammals	Nets, gloves, pole syringe, snares, plastic tubes, blow dart equipment, crates, squeeze cage	
Birds	Nets, gloves, towels, pole syringe	
Reptiles	Nets, gloves, snares, plastic shield, bags, plastic tubs, snake tong, snake hook etc	Squeeze cages

Other equipment/supplies inventory

Equipment item	Location	Material	Dimensions	Weight	Species used for

Medical supply inventory

Item	Location	Uses	Individual or species prescribed for
Human first aid kit			
AED			

Human Health: Staff and Public Safety

Infectious human health risks

Disease	Species transmission (zoonotic vs human-human)	Prevention

Non-infectious human health risks

Risk	Description
Environmental risk	
Thermal risk	
Trauma risk	
Animal species risk	
Other (specify)	

Staff evacuation

- On-site sheltering location:
- Evaluation route:
- Second evacuation route:
- Third evacuation route:
- Off-site meeting location:
- Closest hospital:
- Closest EMS:

Shelter in Place

Staffing requirements

	Description
Number of staff required for sheltering	
Water needs for staff (5 gal/person/day)	
Water sterilization methods (iodine, chlorine, filtration, etc)	
Food needs for staff	
Housing needs for staff	
Transportation needs for staff	

Facility requirements

	Description
Electricity needs for facility	
Most critical electric systems (well pump, heat, cool)	
Total facility electric use/day (Kw/month on bill divided by 30 days)	
Fuel needs for facility	
Fuel amount needed (gal/day)	
Water needs for facility	

Animal requirements

Animal	Food type	Food amount required/day	Feeding frequency	Drinking water required/day	Cleaning/environmental water required/day