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# Climate Change-Related Emergencies and AWA Regulated Facilities

Last Modified:

Weather-related and environmental threats that regulated facilities have always faced are becoming more frequent and extreme because of climate change. AWA-regulated facilities can plan for climate-related emergencies to safeguard the welfare of animals in their care and the resilience of their business.

### **Know Your Risks**

### Drought

Climate change impacts rainfall, causing droughts to be more frequent, severe, and prolonged. Droughts may result in shortages in the water and food supply, can lead to concurrent natural hazards such as wildfires, and can impact a region for years.

- Dependency on only one type of food source such as drought-vulnerable grasses or crops can put the health and welfare of your animals at risk.
- Parched landscapes can bring increased risk of fire.
- Water may not be readily available to fight fires.
- Lack of fire breaks around animal housing structures leave them in harm's way.
- Failure to have safe evacuation routes and sites could mean catastrophic loss in a fire event.

### Temperature Extremes

Extreme heat and cold may affect the health and well-being of both animals and humans. In combination with other hazards, such as drought or wildfires, extreme heat can be devastating to a community.

- Winter storms may interrupt power or water for days or weeks.
- Heat stress (hyperthermia) and cold stress (hypothermia) can strike your animals, visitors and staff.
- High temperatures, especially if there is no shade, shelter, and fresh water, can
  especially stress young and senior animals, and those with special health
  needs.
- Animals housed outdoors during winter storms and extreme cold can lose body heat if they don't have draft-free shelters large enough to allow normal postural movements.
- Drinking water can freeze in winter.

### Fire, Storms, and Floods

Wind and storms are not just a coastal danger during hurricanes. High winds, heavy rain, flooding, and tornados can happen far inland. There is usually advanced warning which can allow for time to prepare for evacuation. In contrast, urban and wildland fires can happen anywhere at any time, with very little warning, and move very quickly, despite plans such as prioritizing which animals will be evacuated ahead of time.

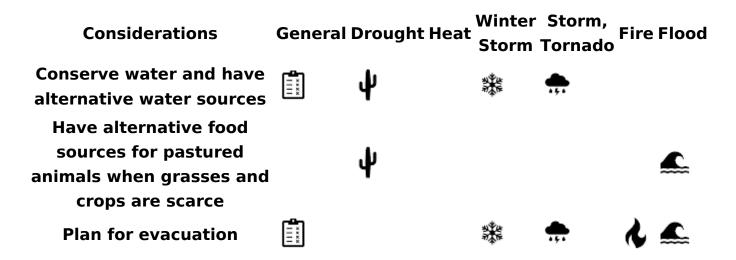
- Lack of transport and pre-arranging a safe destination can leave your animals without an escape plan.
- Leaving small animals such as dogs, cats, goats, and small exotics indoors for protection may not be as helpful as you expect without access to plenty of food and water if you can not return.
- Lack of a practiced evacuation plan can leave your animals without water, feed, hay and veterinary supplies
- Restraining large animals when left behind does not allow them to seek large pastures on high ground that are free of debris, large objects and power lines.
- Depending on the types of animals you leave behind and their needs, you may need to plan for a human "ride-out" team and how they will safely shelter in place as the storm blows through.

# General Recommendations for Regulated Facilities

Licensees and registrants should educate themselves on how climate change may impact their facilities and communities. Numerous resources detailing the effects of climate change can be found below. Reviewing these resources can help you identify critical issues that could impact your facility. We recommend that you consider these issues when reviewing and making updates to your facility's contingency plan. By planning for these potential extremes, you can help to mitigate the impact of a natural disaster on animals, staff, and property.

USDA highly encourages you to build relationships with local, state, and federal emergency management partners to stay informed of potential hazards and be able to share resources when disasters occur. Most disasters don't happen in a vacuum. Emergency response is a highly choreographed activity and understanding how your facility folds into it can help your business survive an emergency event. Remember that partnering now can mean getting help later when your facility really needs it. For example, offering up some of your parking lot space for a staging or storage area during a local response could mean your local law enforcement knows exactly where your facility is when you need to evacuate your animals.

Below is a list of considerations for some common climate-related disasters.



### **Considerations**

# **General Drought Heat**

Fire Flood **Storm Tornado** 

Recognize the signs of heat illness in animals and humans, especially for young and older animals, and those with special health conditions





Provide animals adequate shade and shelter





**Provide sources of fresh** water for animals, staff, and visitors









Have a cooling plan for individuals with heat illness (include a cool location, medical treatment, possible transport)



Have a current written contingency plan that everyone knows and has practiced











Provide a copy of your contingency plan and animal inventory to local **Emergency Management** 













Know evacuation zones, routes, and methods









Have an evacuation site for animals with agreements in place (discuss biosecurity issues in advance)











**Keep trailers and vehicles** in good working condition













# **Fire Flood Considerations General Drought Heat** Storm Tornado **Ensure fencing and** buildings are built strong and are in good repair to prevent flying debris Fill large vessels such as troughs or bins with water to keep them from blowing away Store liquid fuel and other = \* chemicals in secure **locations** Protect feed and hav = × supplies from wind, rain, standing water **Prepare for power** outages; have an alternate power source (i.e, generator) available if your animals need power to survive Stores of items such as fence repair supplies, chain saws and fuel are also helpful as these items 🗐 may also be difficult to acquire if supply channels are disrupted Pay attention to

Pay attention to emergency information and alerts. If you live in a mandatory evacuation zone and are told to evacuate, do so immediately.







Considerations	General	Drought	Heat		Storm, Tornado	Fire	Flood
Wait until conditions are safe to check on your animals.				**	<b>.</b>	r	<u>•</u>
Do not return evacuated animals until conditions are safe.				**	<del>**</del>		<u> </u>
Assess your animals and building structures after the storm.				**	<del>•••</del>	d	<u> </u>
Contact your veterinarian if any animals are injured.	= *	ψ	A	*	<del>**</del>	L	<u>•</u>
Look for damage, stability issues, loose debris and safety issues at your facility. Make emergency repairs to keep your	111111111111111111111111111111111111111					ı	<b>£</b>
animals safe and contained. Stay away from downed powerlines.							
Provide animals with clean water and uncontaminated food.	— x x	ψ	Δ			L	<u>C</u>
Check in with local and state authorities if any of your animals have escaped or if deaths result in animal carcass disposal needs.		ψ	A			r	<u>•</u>
Maintain a current written animal inventory for your facility and identify animals (microchip, ear tag, tattoo, collars, photos)		ψ	Δ			r	

Fire Flood

Have equipment available and in good condition to recapture escaped animals (halters, leads, trailers etc.)

Bring animals into a barn or shelter well in advance of a storm if possible, and provide plenty of food and water. Build strong shelters that can withstand high wind and heavy rain.

Never leave animals tied up outside in any manner such that they cannot escape danger.

Keep a 3 to 5 day supply of food and potable water on hand for all animals along with any necessary medications.

Keep extra crates on hand use to temporarily house or move smaller sized animals.

Sign up for your community's warning system or have a NOAA Weather Radio on hand if you live in an area with a greater risk of tornados.











Focus on keeping yourself, your family and your employees safe. Injured people have limited ability to protect animals in their care.





See More See Less

### **More Information**

The following websites may help prepare your facility for climate-change challenges.

- Extreme Heat | Ready.gov
- Extreme Heat | Natural Disasters and Severe Weather | CDC
- Climate Change and Extreme Heat: What You Can Do to Prepare
- Zoo and Aquarium All Hazards Partnership (zahp.org)
- Drought Preparedness | Water Conservation | Red Cross
- <u>Drought | Ready.gov</u>
- <u>Drought Makes its Home on the Range Climate Change: Vital Signs of the Planet</u>
- Hazard Planning & Preparedness | Drought.gov
- Ready.gov
- Natural Disaster: Animal Preparation and Response
- Prepare Livestock and Animals Ahead of Severe Weather | USDA
- Tornadoes and Your Livestock
- Tornadoes and Your Pets

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