

# **Sheltering and Animal Care in Disasters**

Animal Issues in Disaster: Unit 4

# Objective

To provide a basic level of knowledge, skills, and abilities to allow the participant to work effectively as a team member in an emergency animal sheltering operation.



# Why do we rescue?

- Public safety
- Public health
- Human-animal bond
- Property preservation



# Why do we shelter?

- Protect people
  - Facilitate evacuation
- Protect animals
- Protect mental health
  - Co-locate people and animals
- Protect public and animal health



# Unit Objectives:

1. Understand the need for sheltering and services for animals in disasters
2. Identify elements of establishing a shelter
3. Describe processes necessary to operate a shelter
4. Understand biosecurity and safety practices
5. Understand how and when to conclude sheltering activities (demobilization)

# Many Disaster Situations...

- **Natural**
  - Floods, tornadoes, snow/ice, wildfires
- **Man-made**
  - Highway accidents, train derailments, terrorism
- **Radiological**
- **Large Scale Power Outages**



# Levels of Impact

- **Small-scale/Household**
  - Inaccessible homes: fire, condemnation, gas leak
  - Personal medical emergencies
  - Domestic violence
  - Auto accidents
- **Community-wide: City, County, State**
  - Tornadoes
  - Floods
- **Multi-state/Federal**
  - Radiological
  - Terrorism



# Pre-planning

- Identify your local resources
  - Partner agencies
  - Local organizations
  - Animal related businesses
- Determine shelter options
- Sources of supplies





# Responsibilities: Local

## Locally responsible parties

- Emergency management agencies
  - Animal control agencies
  - Animal shelters
  - Law enforcement

## Support

- Veterinary professionals
- Public health agencies
- Purdue Extension
- Animal welfare groups
- Livestock associations



*All emergencies are local events!*

# Mission-Essential Tasks:

## Animal and Animal Ag Response

1. Rapid needs assessment
2. Animal control and stray management
3. Animal evacuation
4. Animal transportation
5. Animal search and rescue
6. Animal sheltering
7. Pet-owner reunion
8. Animal feeding/water
9. Agricultural infrastructure support
10. Veterinary care
11. Wildlife management
12. Animal decontamination
13. Mortality management



# Populations in Need

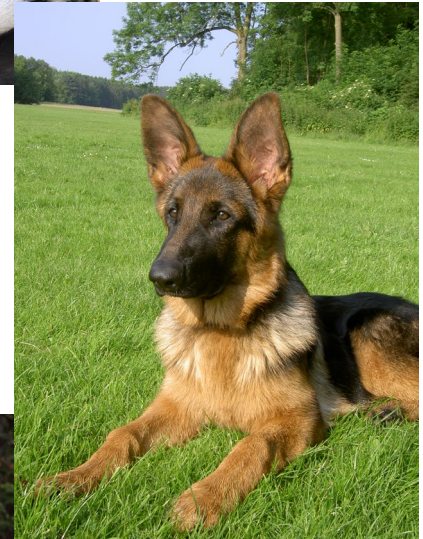
Companion Animals

Service Animals

Livestock

Biomedical and Exotic Animals

Wildlife



# Companion Animals

## **PETS Act definition:**

- Dog, cat, bird, rabbit, rodent, or turtle
- May be owned or unowned

## **Does not include:**

- Reptiles
- Livestock
- Horses



# Service Animals

## Americans with Disabilities Act

- Provide aid for the disabled
- Service animals are NOT pets
  - Treated as an extension of the person
  - ***Must be sheltered with their owner***
- Does not include mental health animals



# Service Animal Considerations

Be prepared to provide these items to the American Red Cross or other sheltering agencies on short notice.

- Food, water, bowls, bedding
- Kennel
- Sanitation supplies



# Commercial vs Backyard Livestock

## Commercial

- Agricultural enterprise
- Regulated by state
- Product regulation
- Disease control measures
- Self contained

## Backyard/Hobby

- Raised for show or personal use
- May have local oversight
- Product for own use
- May not do disease control
- Travels to show, shares with others



# Native vs Captive Wildlife

## Native Wildlife

- Owned by state
- Species is native to state
- Regulation to trap or catch
- DNR regulates activity
- Do not require rescue in disaster
- Possible disease source

## Captive Wildlife

- Privately owned
- May have state or USDA permit
- Responsibility of owner or organization
- Larger facilities should have plans
- May have useful equipment, personnel for use by locals





# Biomedical and Exotic Animals

## Biomedical

- Regulated by USDA
- Must have emergency plan as part of regulation
- Often involved in disease research
- Can be proprietary

## Exotic

- Privately owned
- May or may not be regulated
- Local authorities may be unaware of presence
- May be a challenge to emergency planning



# PLANNING AND LOGISTICS IN YOUR RESPONSE



Indiana State Board of Animal Health

# Response Priorities

## 1. Protect people (Life Safety)

- Physical safety, zoonotic disease risks
- Owners, general public, staff, volunteers

## 2. Protect animals

- Physical safety, security, diseases

## 3. Protect other property and the environment

- Shelter site, owner equipment, waterways, etc.



# Risk Assessment

What scenarios are most common in your area?

- Tornados, floods, severe weather

What other hazards does your county have?

- Transportation, chemical plants, other industry

What kinds of animal populations are present?

- Urban: primarily pet population, some exotics
- Rural: livestock issues
- Unusual populations: zoo, sanctuary



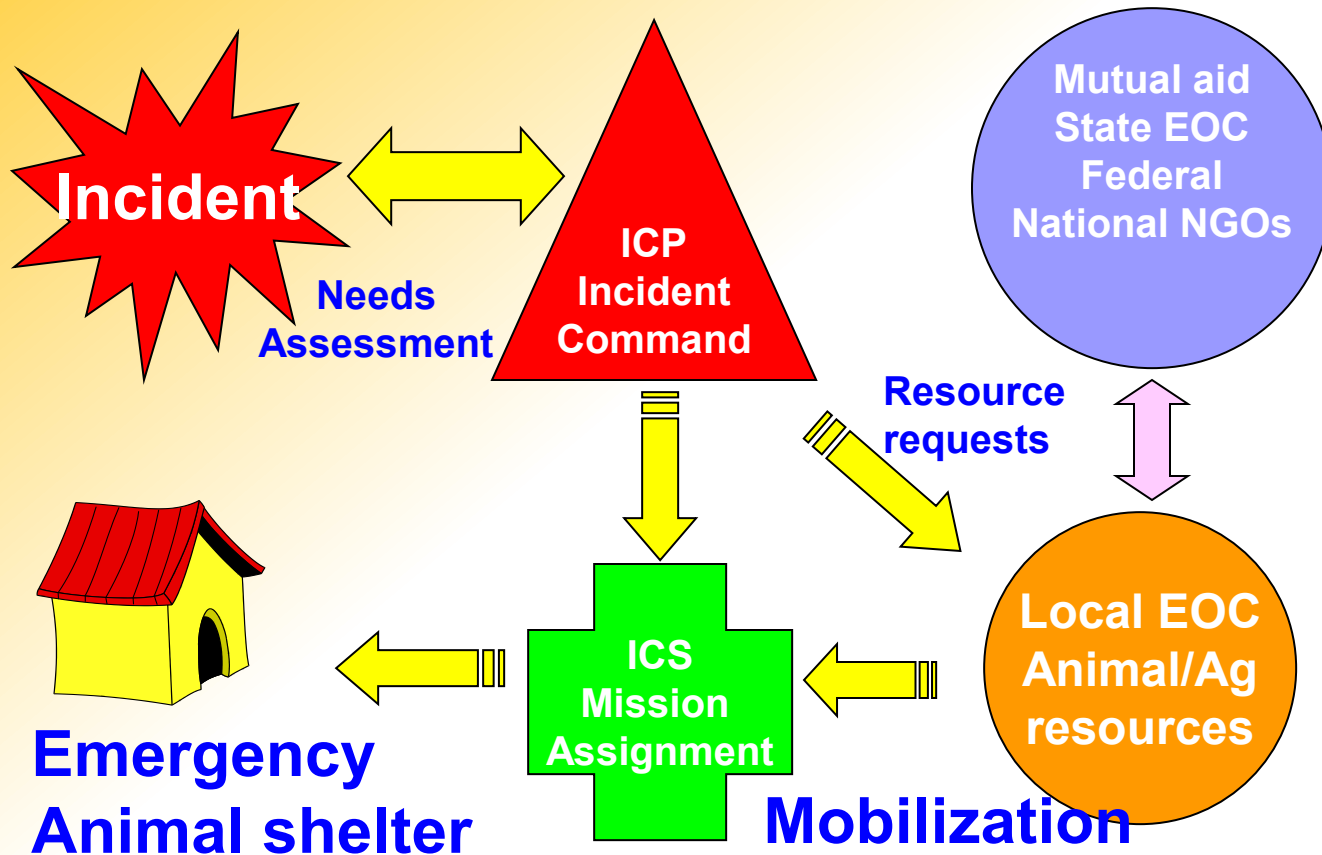
# Facility Selection

- Predetermined
  - Permission and MOUs in place
- Avoid known risks
  - Flood plains, railroads, etc.
- Suitable for local animal populations
- Access to utilities
  - Water, electricity, restrooms, heat, a/c
  - Able to support volunteer needs
- Proximity to human shelters



# Who decides when and where?

For emergency animal sheltering



# Animal Shelter Options

- Existing shelter
  - Depends on available space
- Rented or donated facility
  - Warehouse, empty storefront
- Community facility
  - School (people), gym
- Fairgrounds
  - Space suitable for companion animals



# PETS Trailer

- Accommodates up to 72 companion animals
- Equipment included:
  - Crates/enclosures
  - Collars, leashes
  - Basic medical supplies
  - ID/microchip readers





# Logistics

## Acquiring equipment and supplies

- Cages/kennels
- Food/water
- Sanitation, litter
- Animal handling gear
- Record keeping
- Bowls, blankets, leashes



# Cages/Kennels

## Airline kennels

- Match to animal size
- Not comfortable, clean often

## Wire cages

- Better ventilation, less durability
- Easier to clean pans
- Wire very difficult to clean and disinfect

## Kennels/kennel panels

## Cats: Better in enclosed room

- Need room for litter pan



# Livestock Holding Facilities

- Stalls
- Temporary panels
- Corrals/paddocks
- DO NOT mix horses that are not already “buddies”
- Isolate sick animals
- Separate intact male animals into secure pens



# Additional Logistics

## Communication

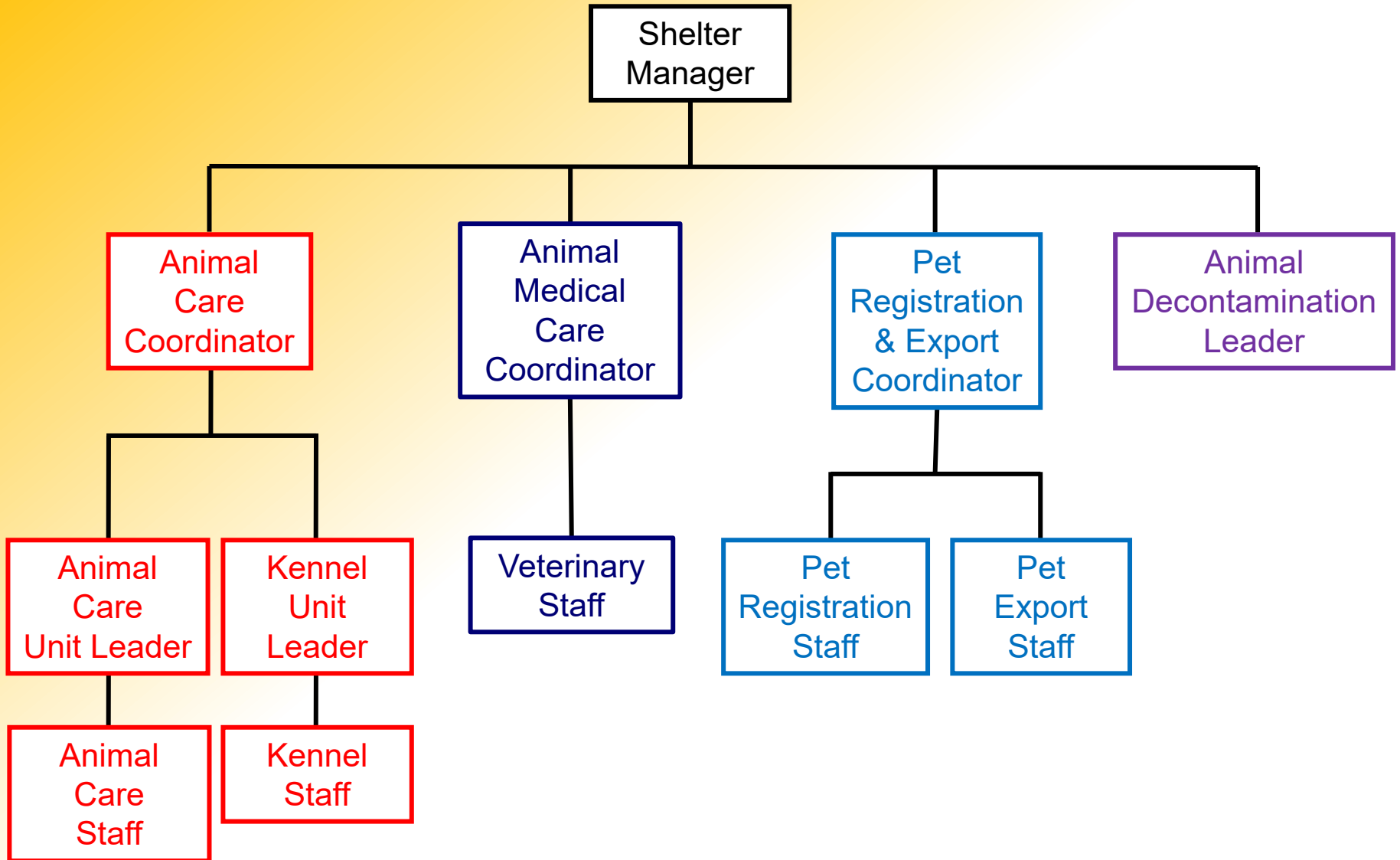
- External
  - Phone, fax, Internet, radio, satellite phone
- Internal
  - Walkie-talkies, bulletin board
  - Meetings, shift change
- Media monitoring

## Site Access/Traffic Control

- People, supplies
- Animals (entry/exit)



# Emergency Animal Shelter



# Shelter Manager

- Not Incident Commander
- Responsible for entire shelter
- *DELEGATOR*
- Reports to (example):
  - Sheltering group leader (if multiple shelters) or
  - Animal branch leader (part of Operations)



# Staffing Responsibilities:

- Identify manager, team leaders
- Rostering/credentialing
- Set standards for shelter staff
- Require training/orientation or onboarding
- Volunteer management (with EOC)
- Shifts and schedules



# Volunteer Management

## Ideal Volunteer

- Established relationship with organization
- Trained
- Screened, as needed
- Pre-credentialed





# Spontaneous Untrained Volunteer Management

## If needed

- Supervise with TRAINED volunteer/staff
- “Just In Time” training
- “Safe” jobs

## If not needed

- Refer to volunteer center
- Take contact info
- Provide info on organization and opportunities for future training
- THANK THEM
- **But don't be afraid to say NO**



# Just-in-Time Training

ROSTER all volunteers

Condensed version of training  
(before)

- *Animal Issues in Disaster* (1 day)
- *Introduction to Emergency Animal Sheltering*

On-the-job training

- Cleaning and disinfection basics
- Walking dogs
- Phone bank messaging
- Others



# Sources for Ideal Volunteers

Shelter and rescue volunteer

Veterinary and clinic volunteer

Animal control personnel

Veterinarians/veterinary nurses

- VMRC (Veterinary Medical Reserve Corps)
- Local Veterinary clinics
- Must have personal disaster plan for family/animals





# TYPES OF ANIMAL SHELTERS

# Not a glamorous job!

## Sheltering is...

- Hard work
- Long hours



# Types of Emergency Animal Shelters

1. Stand-alone animal shelters
2. Collocated shelters
3. Cohabited shelters
4. Livestock emergency shelters
5. Expanded use of existing animal facilities
6. Foster homes
7. Animal facility populations
8. Shelter in place



# Stand-Alone Animal Sheltering

- Animals housed in facility separate from humans
- Is TEMPORARY
- Operate under shelter management
- Includes owned and unowned animals
- Local authorities determine length of time it will exist
- Needs the MOST staffing (3X)



# Collocated Animal Shelters

## People:

- Red Cross or another agency

## Animals:

- Sheltered in proximity to people

People assist in care of their animals

Requires collaborative planning-less  
staffing

*Security is critical*





# Cohabited Shelters

- People and animals shelter together
- Owners are completely responsible for animals
- Rules and shelter limits well defined
- Animals must be able to co exist with people/animals
- TEMPORARY
- Needs fewest workers



# Livestock emergency shelters

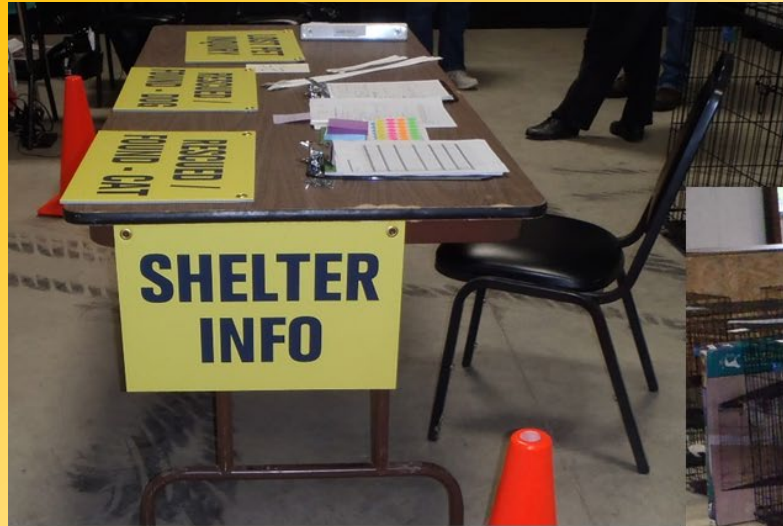
- County fairgrounds
  - Access and permission
- Empty barn or pasture
  - With owner permission
- Sale barn or exhibition facility
  - Biosecurity restrictions
- Other creative solutions
  - Consider security and staffing needs



# Other Sheltering...

- Expanded use of existing animal facilities
  - Relocate current animals
- Foster homes
  - Used once temporary shelters have been closed
- Animal facility populations
  - Zoos, sanctuaries, biomedical facilities should have their own plans
- Shelter in place
- Mixed efforts
  - combination of several models





# ESTABLISHING THE SHELTER

# Essential Tasks

Establishing a shelter:

1. Setup
2. Intake
3. Security
4. Sanitation
5. Exit Strategy



# Task 1: Setup

1. Transport materials, personnel to site
2. Identify personnel assignments
3. Plan operational flow
4. Post signage
5. Liaison with human shelter (as needed)

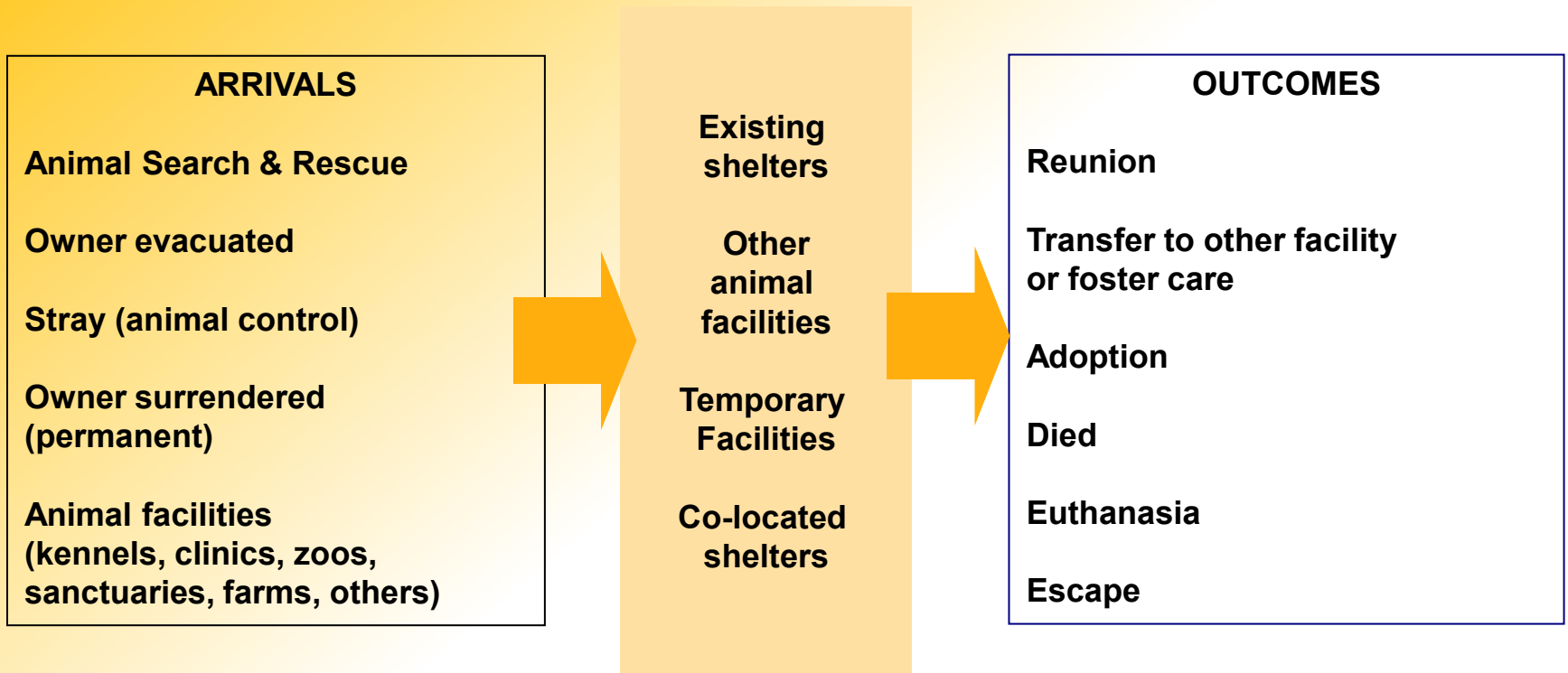


# Setup Tools

- Inventory checklists
  - Equipment
  - Supplies
- Computers/Laptops
- Signage
- Barriers/barrier tape
- ID badges
- SOPs/guidelines/forms



# Emergency Sheltering Flow

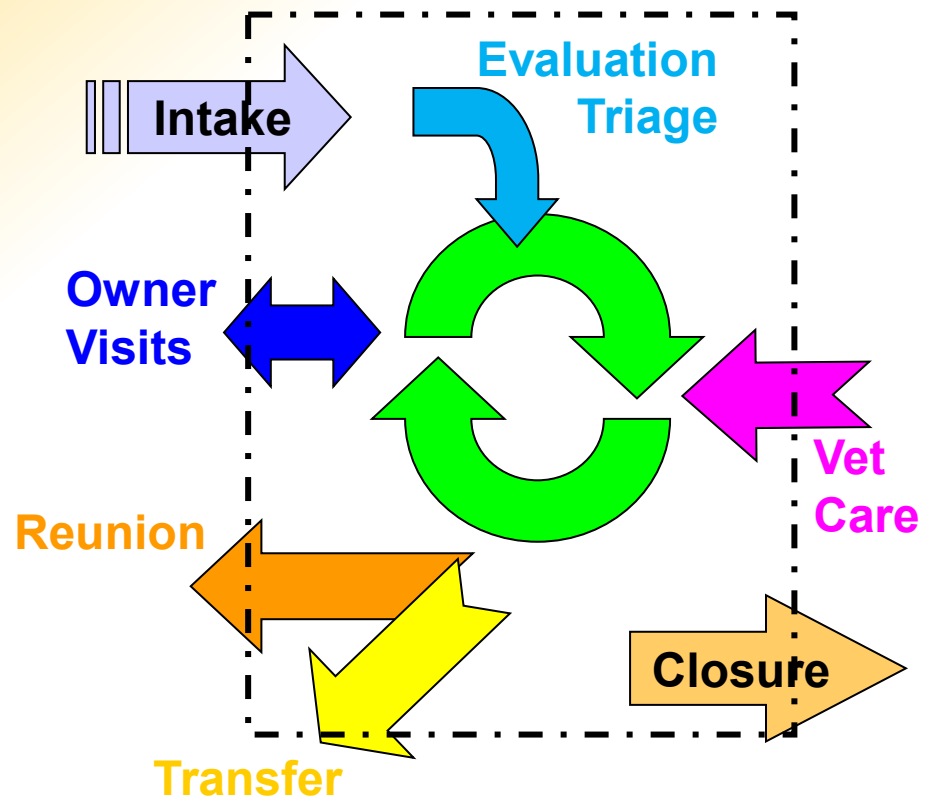




# Flow of Emergency Animal Sheltering

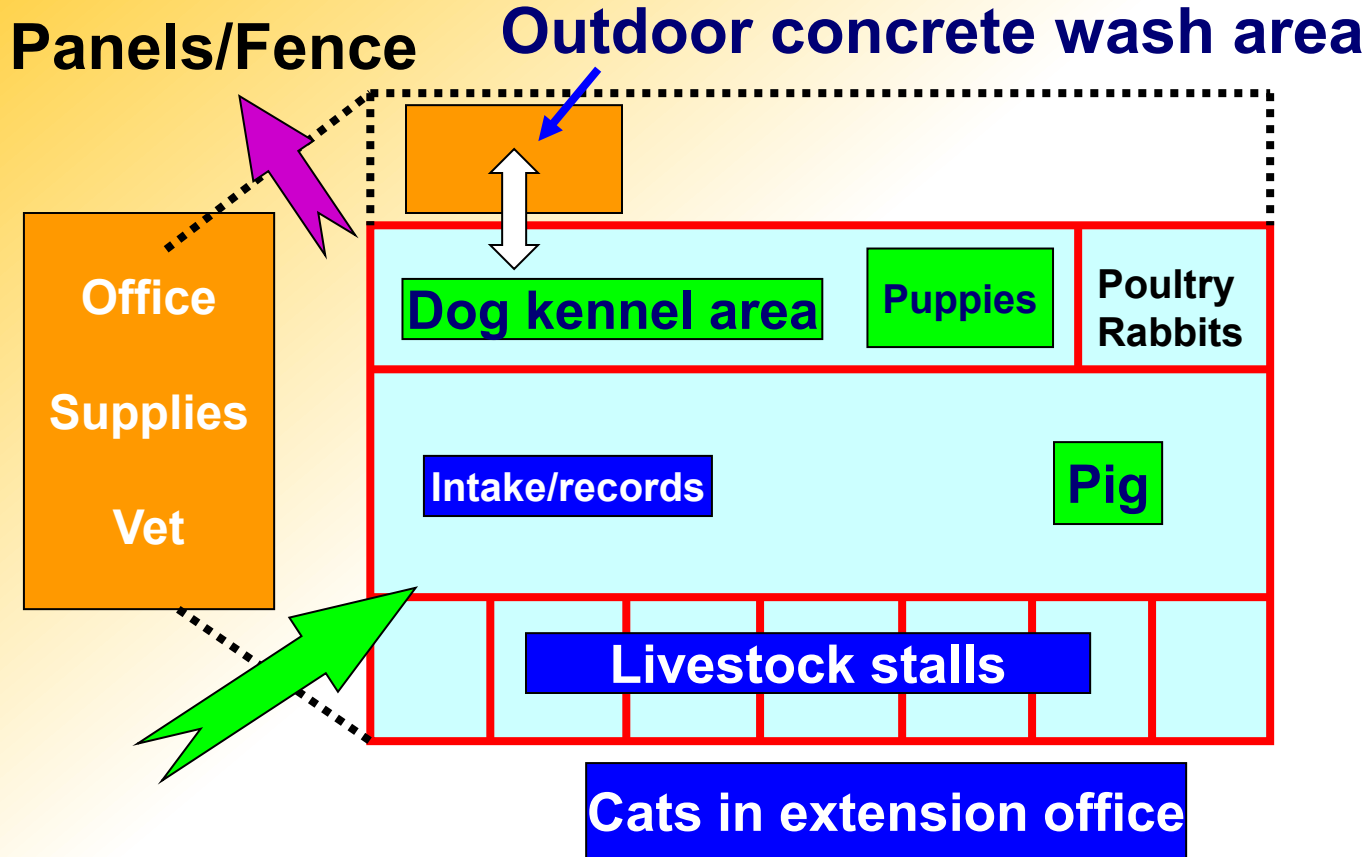
1. Setup  
(Plans/Ops/Logistics)
2. Intake
  - Evaluation/triage
3. Site safety and security
  - Physical and biological
4. Ongoing animal care
5. Owner visitation
6. Veterinary medical care
7. Animal discharge
  - Reunion or transfer
8. Closure

Planning → Setup



# Establish Flow

Hoosier County Fairgrounds, IN





# Task 2: Intake

- Origin
  - Address vs proximity
  - GPS data
- Description
  - Written description
  - Digital photo
  - Microchip scan
- Identification
  - Tyvek collars, microchips, brands, tattoos, or eartags
- Signed release/transfer, if owned



# Intake

## Health Examination

- Veterinarian or technician
- Triage (rapid evaluation)
  - Stable: Green
  - Deferred care: Yellow
  - Needs immediate care: Red
  - Dead or certain to die: Black
- Determine vaccination status if possible



# Isolation/Separation

## Diseased or ill

- Distance and biosecurity are key
  - Handle last or have dedicated personnel
- Monitor exposed animals for illness
  - BIOSECURITY: wear PPE

## Special needs

- Pregnant animals
- Mothers with young
- Puppies and kittens
- Injured animals
- Bite quarantines



# Behavior Issues

## House in separate area from other animals

- Aggressive: use only trained personnel
- Fearful: worker familiar with behavior
- Excitable/excessive barking
  - Need towels over cage?

## Behavior evaluator

- Need to gauge adoptability of dog
- Obtain from large shelters or national groups



# Task 3: Security

## Goals

### 1. Protect animals:

- Escape
- Injury
- Theft

### 2. Protect people:

- Injury

### 3. Control disease spread

- People
- Animals

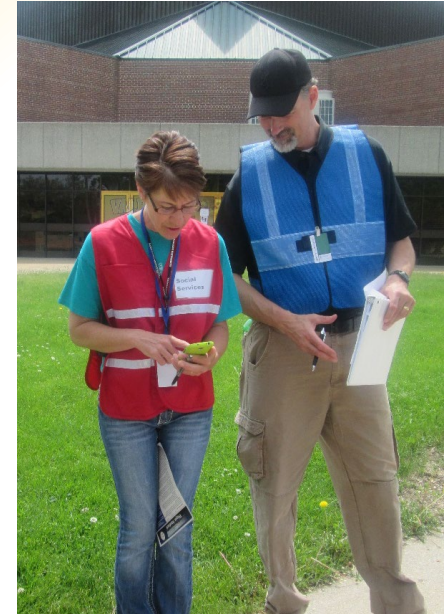




# Security Practices

## Limit access

- Limit access to authorized personnel
- Identify authorized personnel
- Escorts for visitors
- Limit entry and exit points



# Owner Visitation

## Owner ID

- Wrist band, lanyard, other?
- Code of conduct
- Posted rules

## Collocated shelters

- Help care for pets
- Establish schedule for cleaning/exercise
- *Don't allow handling of other animals*
- *Use caution if family includes children*



# Task 4: Sanitation, Cleaning, and Disinfection



# 10 Essential Steps in Cleaning and Disinfection

1. Assess areas to be cleaned
2. Remove all visible debris
3. Clean with water and detergent/soap
4. Thoroughly rinse the cleaned area
5. Allow area to dry completely
6. Select and apply disinfectant
7. Allow proper contact time
8. Rinse
9. Leave area empty for sufficient time
10. Evaluate/monitor



# Disinfectant Considerations

## Label information

- Statements of efficacy
  - Medical environment claims
  - Broad spectrum/general purpose
- Dilution and use instructions
- Storage and stability
- Safety information
- Environmental considerations



# Disinfection Challenges

- **Wire cages/crates**
  - Use brush with soap/water, then rinse, spray with disinfectant
- **Gravel or dirt surfaces**
  - Cannot disinfect organic surfaces
  - Periodically move portable kennels
  - Plastic tarps for base

***You cannot disinfect dirt, debris, wood, feces!***



# Sample Cleaning & Disinfection Protocol

Airline kennels, cat cages, litter pans

1. Disassemble
2. Remove all visible debris
3. Clean with soap and water
4. Rinse
5. Apply 1:30 diluted bleach
6. Wait 10 minutes
7. Rinse and allow to dry
8. Reassemble



# PPE for Disinfection

- **Gloves**
  - EXAM (not Latex)
  - Dishwashing-type
- **Eye protection (goggles)**
- **Apron, smock or coveralls**





# Debris Removal

- Have protocol for accumulated waste
- Potential source of contamination
  - Ideal place for insects and disease
- Arrange for proper disposal
- Clean up facility
  - Leave in better shape



# Task 5: Exit Strategy

## Questions to ask yourself:

- How long should the local jurisdiction provide sheltering after the disaster?
- How many animals is enough to continue to operate?
- When does the owner become financially responsible for the boarding costs?
- What will constitute a legal release?
- Where will remaining animals go and how will they be tracked?



# Facility Closure

Closure strategy - determine an end date

- Transfer: known owner
  - Boarding kennels
  - Pet-friendly hotel or temporary housing w/owner
  - Owner agent (foster)
- Transfer: unknown owner
  - Permanent shelters
  - Boarding facilities



# Animal Discharge

- Return to owner/agent
- Transfer
  - Shelter
  - Other temporary
  - Foster care
  - Veterinary care
- Escape
- Adoption
- Mortality
  - Euthanasia
  - Disease/injury

# Holding Periods

Local policies prevail; no state law

Normal stray holding: 1-10 days

Disaster animals:

- Ambiguous status
- Never tested in IN
- Coordinate with local jurisdiction and BOAH to establish policy for each disaster
- Publicize official closing date



# Discharge Considerations

## Documentation

- Owners must show ID
  - Document owner ID
  - Designate alternate person
- Proof of ownership:
  - Receipt from intake
  - Microchip #/record
  - ID with address matching intake form

*For questions: Involve animal control/shelter personnel*



# Shelter Records

- Maintain records for each animal:
  - Intake info
  - Veterinary care provided
  - Release info
- Paper or electronic



# Reunion

1. Goal: reunion with the owner or transfer to an authorized facility

2. Reunion depends on:

- Accurate records
- Security
- Communication





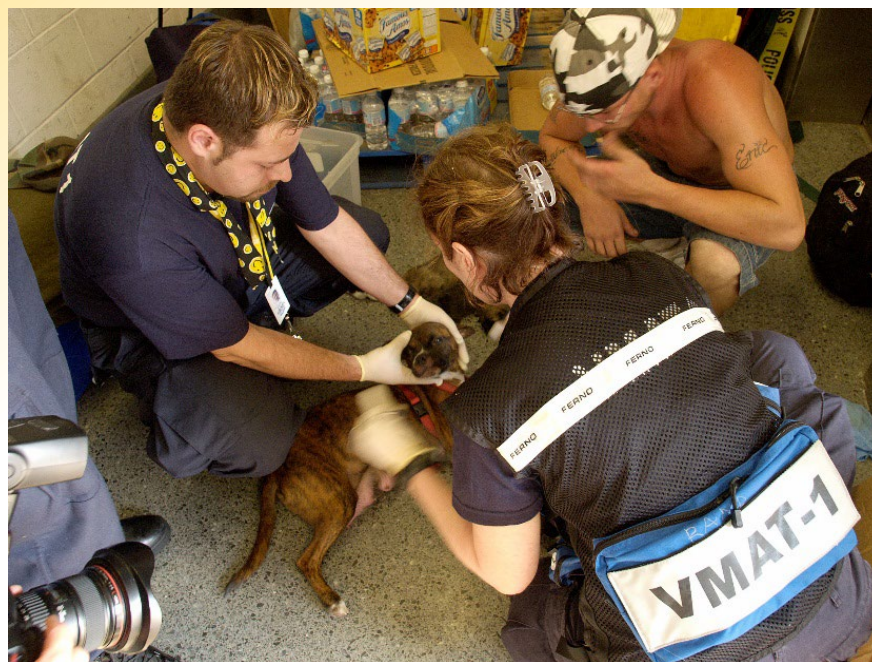
# ANIMAL CARE AND HANDLING



Indiana State Board of Animal Health

# Animal Care

- Daily evaluation
  - Eating, drinking?
  - Vomiting/diarrhea?
  - Coughing/sneezing?
  - Other health issues
- Feed and water
- Sanitation
- Exercise
- Rest periods
- Daily census



# Feed and Water

## Dishes

- Wash daily if possible
- Wash/disinfect between animals
- Paper (disposable)

## Water

- Potable only

## Companion animal feed

- Appropriate for species
- High quality
- Prefer *new bags*



# Bedding

- Towels, blankets
  - Warmer, more comfortable
- Newspaper, disposable pads preferred
- Disadvantage
  - Need laundered between animals
  - May be shredded by animals



# Cat Litter/Litter Boxes

- Change litter daily
  - Decrease sporulation of parasites
- Always clean and disinfect boxes between cats
- Don't use “scoopable” litter for little kittens
- Limit multiple kittens/cats per cage
  - 2 adults maximum/litter box

# Exercise, Visitation, Rest

- Periodic exercise
  - Dogs; probably not cats
  - Horses
  - Halter-broken livestock
- Owner or authorized staff only
  - Supervised
  - Designated area
- Animals need quiet time/rest period



# Veterinary Medical Care

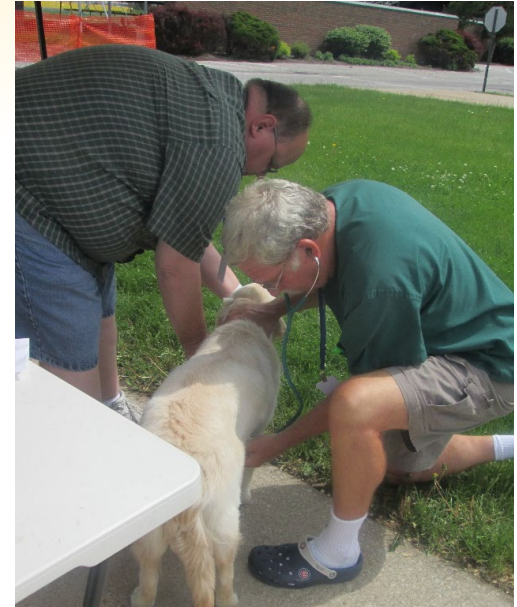
## Onsite care

- First aid/minor care
- Preventive care

## Substantial care

- Mobile clinic
- Transfer to stationary clinic
- Euthanasia

## Daily screening check



# Livestock Feeding

- Grass hay strongly preferable
- Alfalfa hay
  - Increased incidence of colic, bloat, enterotoxemia
- Special diets
  - Pellets for older horses
- Concentrates/Grain
  - Species specific



# Biosecurity and biosafety



# Disease Transmission Routes in a Shelter

1. Oral (including foodborne)
2. Aerosol
3. Fomites
4. Direct



*Some diseases may use multiple routes of transmission*

# Biosecurity in sheltering

Protect health by preventing spread or introduction of infectious agent

***Examples:***

Washing your hands

Shower-in/shower-out

Boot covers/scrubbing boots when coming and going



# Infection Control

- Isolate high-risk animals
  - Showing signs of illness
  - Relocate to veterinary facility if possible
- Cleaning & Disinfection
  - Use written protocols
- Limit access
  - Not a petting zoo
  - Wash hands between contacts

# Personal Biosafety Practices

- Wash hands frequently and thoroughly
  - Between animal contacts
  - Before eating or drinking
  - Use disinfectant hand gels if hands are not grossly soiled
- Do not eat or drink in animal areas
  - Have a separate break area
- Use appropriate PPE
  - Change clothes after working in shelter
- Disclose animal contacts to physician if you become ill



# Safety



# Animal Handling Skill Sets

- Dogs and cats
- Horses, mules, donkeys
- Other livestock
  - Cattle, sheep, swine, llamas
- Alternative livestock
  - Elk, deer, bison
- Poultry, ratites
- Small pets
  - Birds, reptiles, rodents, rabbits, ferrets, others



# Animal Handling and Restraint: Pets

- Loop leashes only for dogs
  - No leashes clipped to collars
- Minimum 2 people in dog areas
- *Dangerous dogs (separate)*
  - Handled by shelter professionals, veterinary professionals and ACOs only
  - Identify with clear signage

***If possible, have perimeter fencing***





# Common Reasons for Injury

## Major causes of animal-handling accidents:

- Fearful, agitated animals
- Male dominance aggression
- Maternal aggression
- Inexperienced handlers
- Faulty equipment

Reducing fear improves both animal welfare and safety

*List adapted from Temple Grandin, Colorado State University*



# Bites & Scratches

## Written guidelines/policies

- Prevention/safety training
- Post-bite protocols
  - medical treatment
- Quarantine protocols
  - 10 days: dogs, cats, ferrets
- Risk recognition
- Cat scratches
  - Cat-scratch fever

## ***REPORT ALL BITES***

All animal bites to people must be reported to the local health department



# Rabies Prophylaxis

## Vaccination

- High-risk personnel should receive pre-exposure prophylaxis
- Antibody titer monitoring once vaccinated

## Post-exposure prophylaxis

- Coordinate with public health
- Needed in:
  - Known positive cases
  - Exposure by animals unavailable for testing (wildlife)

Indiana rabies exposure information: [www.in.gov/rabies](http://www.in.gov/rabies)



# Animal Handling: Livestock

*ONLY EXPERIENCED PERSONNEL SHOULD HANDLE  
LIVESTOCK!*

- Use halters and lead ropes for all horses
- Use appropriate herding techniques for livestock that are not halter-broken
- Use care with females with babies and intact males



# Animal Handling: Exotic Pets

(Birds, Reptiles, Rabbits)

## Special concerns

- Often temperature sensitive
- Better if owner brings cage from home
- May need high humidity for some reptiles and most amphibians
- Caution for escape, injury

*Restrict handling to experienced personnel!*



# General Safety Considerations

If asked to do something that:

- You don't think you should...
- You are not qualified for...
- You think is dangerous...**DON'T**

Instead:

1. Find appropriate personnel/equipment
2. Seek appropriate supervision
3. Report to Safety Officer if unresolved



# Summary

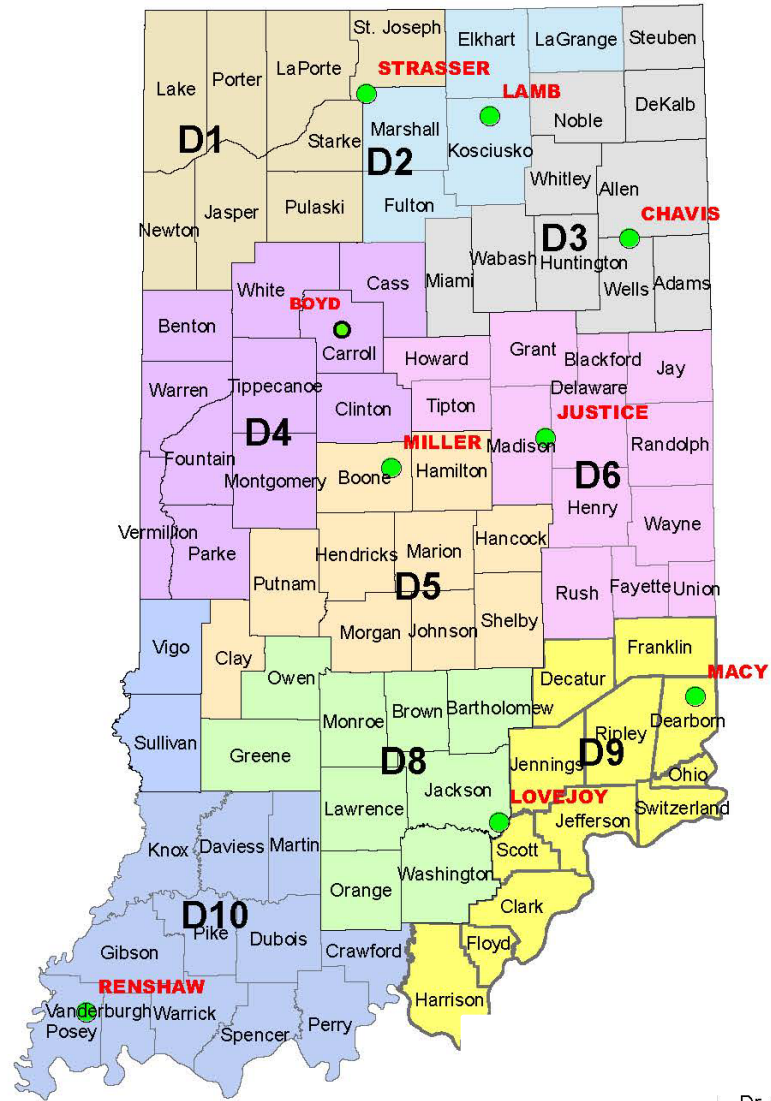
1. Understand the need for sheltering and services for animals in disasters
2. Identify elements of establishing a shelter
3. Describe processes necessary to operate a shelter
4. Understand biosecurity and safety practices
5. Understand how and when to conclude sheltering activities (demobilization)



# Questions? Call your District Vet!

## Legend

- AH District 1 - Dr. Strasser 574-274-3244
- AH District 2 - Dr. Lamb 574-529-0910
- AH District 3 - Dr. Chavis 260-450-2139
- AH District 4 - Dr. Boyd 317-460-9062
- AH District 5 - Dr. Miller 317-402-1527
- AH District 6 - Dr. Justice 317-439-4888
- AH District 8 - Dr. Lovejoy 812-528-2706
- AH District 9 - Dr. Macy 317-460-6893
- AH District 10 - Dr. Renshaw 812-270-0756



- Dr. ☺





# Contact Information

---

[www.boah.in.gov](http://www.boah.in.gov)

317/544-2414

[animalhealth@boah.in.gov](mailto:animalhealth@boah.in.gov)

[www.facebook.com/INBOAH](https://www.facebook.com/INBOAH)

@INBOAH



# End of Unit 4

