

Large Animal Technical Rescue

Safety and Success Through Prevention, Preparedness, and Partnerships

**Instructors: Justin and Tori McLeod - 4Hooves Large Animal Services, LLC
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Animal emergencies are known for becoming human emergencies, especially if emergency responders or veterinary professionals are unable to respond or unable to affect a rescue due to lack of proper equipment or training. Once an emotional owner, “Good Samaritan”, or “social media responder” with little to no training attempt a rescue, they often unintentionally become a victim requiring assistance from emergency services and further compromising the animal even further by delaying its rescue. Either way, the animal will need to be rescued... the question that remains is “Are you or the agency, organization, business, or department prepared to handle the rescue operation safely, efficiently, and successfully?” This course will provide an educational and interactive approach to basic on-hand and specialized equipment, simple to complex techniques, and safety considerations to prepare the individual rescuer for the unexpected, therefore increasing the chances of a successful outcome and decreasing the risk of iatrogenic injury or death of the animal victim, rescuers, or bystanders.

Topics will include but not limited to: Animal Behavior, Safety Considerations, Handling and Restraint, Containment, Entrapments, Motor Vehicle Accidents and Overturned Trailers, Barn and Wildfires, Unstable Ground (mud, trench, ice, etc.) Incidents, Water Rescues, Natural Disaster Preparation and Response, Hazardous Materials Decontamination, etc. Course content will consist of audiovisual lectures, demonstrations, and hands-on practical exercises. Currently, this is not a recognized certification course per NFPA or AVMA standards, however portions of this course coincide with aspects of the NFPA standards 1670, 150, 1006, 1952, and 1983. *NFPA 1670 (Animal Technical Rescue for Awareness, Operations, and Technician Levels) - NFPA 150 (Fire and Life Safety in Animal Housing Facilities) - NFPA 1006 (Technical Rescue Personnel Professional Qualifications) – NFPA 1952 (Surface Water Operations and Protective Clothing and Equipment) – NFPA 1983 (Life Safety Rope and Equipment for Emergency Services)* and FEMA Resource Typing for Animal Rescue Technicians and Teams.

Instructor and Company Bio

North Carolina Specialized Mobile Animal Rescue Team (NC SMART) is primarily the large animal technical emergency rescue response and training component of 4Hooves Large Animal Services, LLC, a company founded, owned and operated by Justin and Tori McLeod of Spring Lake, North Carolina. NC SMART is a large animal technical rescue response team consisting of highly trained and experienced responders that are able to respond to emergency incidents in North Carolina and surrounding states with a cache of specialized equipment to assist with the rescue or recovery of large animals (specifically equines and livestock). We are capable of providing assistance and advice on a case by case basis over the phone if we are unable to respond to your request for service. In addition, 4Hooves Large Animal Services, LLC provides customized Large Animal Technical Emergency Rescue training courses to emergency responders, veterinary professionals, equine and livestock owners and facility operators, animal control agencies, transporters, animal rescue organizations, and other interested individuals upon request and scheduling. This specialized training is becoming highly recognized and mandated within the emergency services field.

Justin and Tori McLeod have received extensive training, certification, and accreditation through Technical Large Animal Emergency Rescue, Inc. (TLAER, Inc.), as well as Animal Search and Rescue (ASAR) Training, Code 3 Associates, University of Florida Large Animal Technical Rescue program, and the American Society for the Prevention of Cruelty to Animals Field Investigation Response online training programs. Currently, they are both Assistant Instructors under TLAER, Inc. for training courses throughout the United States and Canada. With over 15 years of large animal rescue training and rescue operation experience, NC SMART takes pride in being one of the most highly skilled and educated large animal technical rescue resources on the east coast.

NC SMART started offering an introductory course in 2010 through a local community college system for fire and rescue departments and through third party private contract for other business entities. Over the years we have developed several training programs that can be customized to the needs of the target audience. Topics covered in the training programs include, but not limited to, Incident Management, Resource Allocation, Large Animal Behavior and Handling, Safety Considerations, Basic Webbing Manipulations, Simple Vertical Lift Techniques, Mud/Water/Trench/Ice Rescue Considerations, Barn / Wild Fire Incidents, Transport (Trailer) Accidents, Natural Disaster Preparation and Response, Specialty and Multiple Use Equipment, Preparedness and Prevention Fundamentals, and Basic First Aid.

TORI McLEOD - Owner / Operator

Tori has owned and managed horses and some livestock for over 35 years. She is currently employed as a Captain and Training Specialist in a multi-agency 911 Emergency Communications Center. In addition to her career, she is a co-owner / operator of 4Hooves Large Animal Services, LLC (Divisions of the company are 4Hooves Equine Services, North Carolina Specialized Mobile Animal Rescue Team, and North Carolina Equine Assistance and Specialized Transport), Executive Director of Sandhills Horse Rescue (a non-profit equine rescue organization), a certified Criminal Justice General Instructor with the North Carolina Sheriffs Training and Standards Division, a fire services educator, an Assistant Instructor for Technical Large Animal Emergency Rescue, Inc. (www.tlaer.org), a response partner with the ASPCA's National Field Investigations Response Team, a NC REINS (North Carolina Regional Equine Information Network System) educator, Equine Cruelty Investigations course instructor, and a Natural Horsemanship enthusiast. Tori has been obtaining continuing education in and instructing Large Animal Technical Rescue since 2001. She previously spent several years as a small and large animal veterinary technician, equine facility manager, and Emergency Medical Technician - Paramedic and volunteer with a local fire / rescue department. Tori has since continued her continuing education in fire and rescue related topics and strives to improve the large animal rescue protocols and techniques based on updated education and training within the parameters of the guidelines established. She is also heavily involved in designing, revising, and updating large animal rescue specialized equipment through research and development sessions with a few reputable large animal rescue equipment companies.

JUSTIN McLEOD - Owner / Operator

Justin met Tori in 2006. Having spent most of his life involved in the fire / rescue and emergency medical services, he was also interested in livestock management, particularly with horses and cattle, so when they met they not only formed a relationship but started a partnership focusing on Large Animal Rescue Training courses and equine related services. Justin is currently a career Lieutenant, Rescue Technician, and Emergency Medical Technician with a large county fire / rescue department and volunteers with other local fire / rescue departments. Justin holds the same positions and titles as Tori within the TLAER, Inc. and ASPCA organizations and is the current Board of Directors President for Sandhills Horse Rescue. He has been training and instructing within the specialty of Large Animal Technical Rescue since 2006 and has numerous certifications in all aspects of the Fire / Rescue Service, to include being a fire services educator. Justin is actively involved in the advancement of Large Animal Rescue techniques, methodologies, and equipment through research and development as well as forming professional relationships with other large animal rescue teams and industry professionals.

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4HOOVES LARGE ANIMAL SERVICES, LLC

Pre-Course Educational Training (Optional)

The following educational courses are not required but are **highly recommended** and maybe provide a better understanding of some of the terminology, concepts, equipment, techniques, and response structure that are covered during this Large Animal Rescue training course. The training and resources are free, and the website links have been provided.

- Introduction to Incident Command System (ICS 100) <https://training.fema.gov/is/courseoverview.aspx?code=IS-100.b>
- Incident Command System for Single Resources and Initial Action Incidents (ICS 200) <https://training.fema.gov/is/courseoverview.aspx?code=IS-200.b>
- NIMS 700 – An Introduction to the National Incident Management System <https://training.fema.gov/is/courseoverview.aspx?code=IS-700.b>
- NIMS 800 – An Introduction to the National Response Framework <https://training.fema.gov/is/courseoverview.aspx?code=IS-800.c>
- Livestock in Disasters <https://training.fema.gov/is/courseoverview.aspx?code=IS-111.a>
- Animals in Disasters: Awareness and Preparedness <https://training.fema.gov/is/courseoverview.aspx?code=IS-10.a>
- Animals in Disasters: Community Planning <https://training.fema.gov/is/courseoverview.aspx?code=IS-11.a>
- Animated Knots: <http://www.animatedknots.com>
 - Slip Knot, Sheet Bend, Half Hitch, Figure 8 Knot <http://www.animatedknots.com/indexbasics.php>

- Alpine Butterfly, Bowline, Figure 8 Directional, Double Fishermans, Figure 8 Bend, Fig 8 Follow Through, Figure 8 Double Loop, Girth Hitch, Prusik Knot, Handcuff Knot, Water Knot
<http://www.animatedknots.com/indexrescue.php>
- Rope Rescue Training – Knots
<http://roperescuetraining.com/en/knots.asp>
- Rope Rescue Training – Mechanical Advantage
http://roperescuetraining.com/en/physics_mechanical_advantage.asp
<http://roperescuetraining.com/en/raising.asp>
- Rope Rescue Training – Calculating Mechanical Advantage by Counting the Ropes
http://roperescuetraining.com/en/physics_calcma_counting.asp
- Rope Rescue Training – 1:1 / 2:1 / 3:1 / 4:1 Rope Mechanical Advantage Systems
http://roperescuetraining.com/en/raising_1-to-1.asp
http://roperescuetraining.com/en/raising_2-to-1.asp
http://roperescuetraining.com/en/raising_3-to-1.asp
http://roperescuetraining.com/en/raising_4-to-1.asp
- Rope Rescue Training – Safety Factors
http://roperescuetraining.com/en/physics_safety_factors.asp
- Procedures for Humane Euthanasia
<http://www.neacha.org/resources/Humane.livestock.Euthanasia.pdf>

Student Attire, Equipment and Necessities

Auditors

- Pen / Paper (Laptop / Tablet – Source of electricity is not guaranteed)
- No Open Toe Shoes (Boots or shoes similar in structure preferred)
- Weather Appropriate Clothing (class will not be cancelled or postponed for rain)
- Water/Drinks and Snacks (some may be provided by Course Coordinator)
- Flashlight (optional)
- Sunscreen / Insect Repellant

Hands-On Participants

- Pen / Paper (Laptop / Tablet – Source of electricity is not guaranteed)
- Sunscreen / Insect Repellant
- Boots or shoes similar in safety and structure
- Weather Appropriate Clothing (class will not be cancelled or postponed for rain)
- Helmet (Fire / Rescue, Sports, Construction, Riding, etc.)
- Gloves
- Safety Glasses / Eye Protection
- Heavy Duty, Well-made Belt
- Water/Drinks and Snacks (some may be provided by Course Coordinator)
- Pocket Knife (optional)
- Flashlight (optional)
- Protective Vest / Chest Protector (Optional - bullet-proof duty, eventing/riding, sports, etc.)
- Fire / Rescue personnel can bring turnout gear and SCBA for realistic participation in the Barn Fire and appropriate PPE / gear for trailer extrication and other technical rescue scenarios (optional)

Course Schedule

Times are approximate and may not end exactly on the hour. Class will start promptly at times advised by the Course Coordinator. There is a lot of information to cover in a limited amount of time, so timeliness is essential. If an emergency

arises and a student needs to leave at prior to the scheduled end of class time for the day, the student may be excused at that time, if necessary, but may not get credit for course attendance at the discretion of the instructors and Course Coordinator.

Daily Course Times: 8:00AM – 5:00/6:00PM

Optional Night Exercise: Saturday Night 6:00/7:00PM – Until 8:00/9:00PM

Morning: Classroom Lecture / PowerPoint Afternoon: Hands-On Practical Training

Large Animal Technical Rescue – Course Syllabus

A. Introduction

B. Disclosure

C. LAR Basics

1. NFPA Definitions
2. Scope of LAR Responder
3. NFPA 1670
4. High Risk, Low Frequency
5. 911 Call Process
6. Incident Command System
 - Incident Commander
 - Operations
 - Safety Officer
7. Identification
8. Responder Roles
 - Emergency Responders
 - Veterinarians
 - Animal Owners
9. LAR Go-Bag
10. Human to Animal Bond
11. Social, Political, and Public Safety Issues
12. Personal Protective Equipment
13. Rescue vs Recovery
14. Post-Rescue Medical Care and Animal Welfare
15. Resource List
16. Incident Action Plan
17. Self-Rescue Options
18. Animal Anatomy and Behavior
19. Emergency Preparedness Training
 - Considerations for Animals
20. Safety and Risk Assessment
21. Loose Animal Considerations
22. Approach and Capture / Contain
23. Animal Handling
24. Emergency Rope Halter
25. Physical Restraint Methods

26. Chemical Restraint Options
27. Herding Considerations
28. Emergency Containment Options
29. Chemical Immobilization
30. Danger Zones
31. Recovery Positions
32. Eye Protection
33. Positioning of Personnel
34. LAR Equipment
35. Ropes and Rigging – NFPA 1983
36. Winches vs. Mechanical Advantage
37. Glide / Large Animal Skids
38. Webbing Applications
 - Landmarks
 - Manipulation Considerations
 - Flossing
 - Forward Assist
 - Forward Drag
 - Backwards Assist
 - Backwards Drag
 - Sideways Assist
 - Sideways Drag
 - Rolling (Cast Animal)
 - Winches vs. Mechanical Advantage
 - Slings
 - Vertical Drags and Vertical Lifts
 - Vertical Drag/Lift Considerations
39. Equine Ambulances

D. Common Incidents and Entrapments

1. Entrapment Considerations
2. Remote Location Incidents
3. Public Events / Competitions

E. Hazardous Materials Incidents and Decontamination

1. Zones
2. Process

3. Decontamination Guideline (SOG)
4. Decontamination Line
5. Types of LAR HazMat Incidents

F. Trailer Safety and Transportation Incidents

1. Configurations
2. Types of Trailers
3. Animals Hauled
4. Towing Vehicle Considerations
5. Trailer Information Sticker
6. Hitches and Couplers
7. Safety Chains / Pins
8. Emergency Brake System
9. Weight Distribution
10. Trailer Construction Considerations
 - Frame
 - Roof
 - Flooring
 - Doors
 - Chest and Butt Bars/Straps
 - Windows and Vents
 - Partitions and Dividers
 - Electrical Wiring / Lights
 - Visibility
 - Wheel Assemblies and Axels
 - Tires
 - Hazards and Obstacles
 - Trailer Camera Systems
 - Trailer Towing Considerations
 - Insulated vs Uninsulated
11. Animal Transportation Considerations
 - Loading and Unloading
 - Protective Gear
 - Restraint Considerations
 - Training Considerations
 - Safety Considerations
 - Roadside Emergencies
 - Emergency Travel Guideline
12. Commercial Transport Considerations
13. In Case of Emergency (I-C-E) Document
14. Trailer Related Incidents
 - Response Considerations
 - Scene Assessment / Size-Up
 - Extrication Considerations
 - Access Considerations
 - Confined Space Considerations
 - Secure in Place vs Relocate
 - Unloading / Loading Animals

- Restraint and Containment
- Medical Management
- Secondary Considerations

G. Fire Prevention and Incident Response

1. NFPA 150 Definitions
2. NFPA 150 Facility Categories
3. Fire Components
4. Common Causes
5. Structure Types and Considerations
6. Building Construction Considerations
 - NFPA 150 – Building Construction
 - NFPA 150 – Egress Considerations
 - NFPA 150 - Hazard Classifications
 - Human Occupancy Area
7. Combustible Storage
8. Spontaneous Combustion
9. Electrical System Considerations
 - Electrical Outlets
 - Code Compliance
 - NFPA 150 – Extension Cords
 - Electrical Amperage Considerations
 - Power Source Shut-Off
 - Light and Outlet Covers
10. Wildlife Issues
11. Heating and Cooling Considerations
12. Alarms and Notification Systems
 - NFPA 150 – Smoke Alarms
 - NFPA 150 – Notification Systems
 - NFPA 150 – Disaster / Emergency Management Program
13. Sprinkler Systems
 - NFPA 150 – Sprinkler Systems
 - Sprinklers vs No-Sprinklers
14. Identification and Visibility Considerations
15. Vehicle Staging
16. Policies and Signage
17. Fire Extinguishers
 - NFPA 150 – Fire Extinguishers
 - ABC Extinguishers vs Water Extinguisher
 - PASS – Extinguisher Operation
18. NFPA 150 – Emergency Information
19. Fire Department Pre-Plan
20. Accessibility Considerations
21. Water Availability Issues
22. Water Supply Considerations
23. 911 Call and Individual Response

- 24. Safety and Risk Assessment
- 25. Evacuation Considerations
- 26. Emergency Containment Options
- 27. Structure Fire Considerations
 - Common Causes
 - Response Timeline
 - Life Hazard (Human)
- 28. Trailer Fire Considerations
 - Common Causes
 - Response Considerations
- 29. Wildfire Considerations
 - Defensible Space
 - Evacuation Considerations
 - Sheltering Considerations
 - Accountability Considerations
 - Recovery and Disposal
- 30. Medical Management

H. Unstable Ground / Water / Ice Incidents

- 1. Mud Rescue
 - Weight Distribution
 - Equipment Options
 - Suction Considerations
 - Mud Related Incidents
- 2. Water Rescue
 - Sedation Considerations
 - Animal Handling in Water
 - Equipment Options
 - Water Related Incidents
- 3. Trench Rescue
 - Definition
 - Zones
 - Scene Control / Management
 - Trench Collapse Considerations
 - Shoring and Stabilization
 - Trench Related Incidents
- 4. Ice / Snow Rescue
 - Surface Ice / Snow
 - Ice Water
- 5. Prevention and Mitigation

I. Natural Disaster Emergency Preparedness and Response

- 1. Livestock Management Plan
- 2. Protective Gear
- 3. Evacuation Considerations
- 4. Hurricane Incidents
- 5. Flooding Incidents
- 6. Tornado Incidents
- 7. Blizzard Incidents

- 8. Identification Considerations
- 9. Proof of Ownership Options
- 10. Life Sustaining Provisions
- 11. Medical Provisions
- 12. Euthanasia / Natural Cause Death
 - Owner Identification and Notification
 - Disposal

J. Medical Management and Euthanasia

- 1. 3T – Triage, Treatment, and Transport
- 2. Medical Concerns During Rescue
- 3. Fluid Therapy
- 4. Hemorrhage
- 5. Injuries / Wounds
- 6. Edema (Swelling)
- 7. Deformity of Extremities (Fractures)
- 8. “Down” Animal
- 9. Vital Signs
- 10. Examination (Initial Assessment)
 - Respiratory (Airway / Breathing)
 - Circulation (Heart Rate)
 - Mucous Membranes
 - Capillary Refill
 - Temperature
 - Gastrointestinal
 - Skin Tent (Hydration)
- 11. Basic First Aid
 - Bandaging
 - Hemorrhage Control
 - Wound Irrigation
 - Splinting
- 12. Medical Concerns After Rescue
- 13. Euthanasia
 - Medical Assessment Considerations
 - Chemical Euthanasia
 - Field Euthanasia
 - Confirmation of Death
 - Relocation and Disposal

Hands-On Practical Evolutions (16-hours and 24-hours training course layouts only)

All outdoor training evolutions will be conducted weather permitting, rain or shine, and will only be rescheduled or cancelled due to lightning or life-threatening weather conditions.

- I. Equipment Overview
- II. Observation of Behavior
 - Low Stress
 - High Stress
- III. Catching, Containment, and Herding
 - Human Fence
 - Emergency Portable Fence
- IV. Emergency Rope Halter
- V. Handling and Restraint
 - Low Stress
 - High Stress
- VI. Ambulatory Assists (Webbing Manipulations)
- VII. Recumbent Drags (Webbing Manipulations)
- VIII. Sling Lifts (if equipment is available)
- IX. Rescue Glide (Recumbent Relocation)
- X. Training Scenario Options
 - 1. Confined Space Entrapment
 - 2. Trailer Incident Extrication (if trailer and equipment are available)
 - 3. Mud / Unstable Ground Rescue (if ideal location set-up and equipment are available)
 - 4. Trench / Ravine Rescue (if ideal location set-up and equipment are available)
 - 5. Remote Location Incident (if ideal location set-up and equipment are available)
 - 6. Barn Fire Evacuation (if ideal barn set-up is available)
 - 7. Fire Extinguisher Training (upon request only prior to course date – if ideal location set-up and hay bales are available)