WHEN FIRE STRIKES HOME

Tending to the needs of pets affected by residential fires

By Susan C. Kahler

Dogs and cats injured in fires being transported by ambulance. Hyperbaric oxygen chambers used to treat pets with smoke inhalation. Firefighters running a 24/7 emergency response service for pets. These are a few of the advances helping pets caught in residential fires.

About 40,000 pets die in residential fires each year, most from smoke inhalation, and 500,000 pets are affected overall.

Philadelphia firefighter Jen Leary said, "You see enough people who have just lost everything having to make horrible decisions about what they're going"
The Red Paw Emergency Relief Team responds to emergency alerts for fires, explosions, gas leaks, water main breaks, and, as here, building collapses. Red Paw found this dog and a cat in the debris. Three days later, the family’s pet Chihuahua crawled out from under the rubble.

Courtesy of Red Paw Emergency Relief Team
"WE GET TOLD QUITE OFTEN THAT EITHER AN ANIMAL COULDN'T HAVE SURVIVED OR THE ANIMAL RAN OUT, BUT 99 PERCENT OF THE TIME, ANIMALS NEVER RUN OUT OF THE FIRE BUILDING. THEY ALWAYS GO HIDE SOMEPLACE THEY FEEL SAFE."

Jen Leary, Philadelphia firefighter and founder of the Red Paw Emergency Relief Team

Jen Leary with a dog found under debris after a house fire.

to do with their pets." The Salvation Army is on the scene giving out blankets, the Red Cross providing emergency shelter, and medics attending to human injuries. "But there are no resources for the other members of the family—the pets," she said.

The Red Cross can arrange temporary housing for displaced residents but not for pets. "Most of the time, people left them in their burned-out dwelling, or gave them to some neighbor or stranger on the street they didn't know, or had to surrender them to animal control," Leary said.

"It dawned on me one day, someone should do something, and that someone was me," she said.

In 2011, Leary created the nonprofit Red Paw Emergency Relief Team to provide search and rescue, shelter, and emergency veterinary care for animals injured in fires and other disasters.

Philadelphia’s fire communications center sends an alert to a Red Paw dispatcher anytime at least two engines and two ladder trucks are called into service for a fire, explosion, building collapse, water main break, or gas leak.

A Red Paw response vehicle is sent out by the on-duty dispatcher, either the one based at Leary's home in south Philadelphia or the one at Engine 22 in northeast Philadelphia. There are two full-time responders, four per diem responders, and three volunteer responders. Each is a firefighter or military veteran.

At the scene, Red Paw checks in with incident command and canvasses the residents, asking whether they have pets. Red Paw responders get the OK from incident command to enter the building and do a thorough sweep, even if they’re told by first responders no pets are there or a family isn't home.

"We get told quite often that either an animal couldn’t have survived or the animal ran out, but 99 percent of the time, animals never run out of the fire building. They always go hide someplace they feel safe," Leary said.

A few months ago, Red Paw responded to an apartment building fire in Delaware County, Pennsylvania. Firefighters had told members of one family that their cat was dead and members of the other family that their cat ran away. Leary said, "We sent our guys in to search each apartment. They found the one cat was not dead and needed oxygen and to go to the hospital, and they found the other cat hiding behind the refrigerator. Had we not been there and not checked the apartments thoroughly, they both would have been left a long time, if not forever."

Pet oxygen masks are put on animals with traumatic injuries and pressure applied to any cuts before the animals are taken to a veterinary emergency hospital, often to spend a night or two receiving oxygen in cages sealed with plastic wrap.
Good Samaritan laws protect responders

At least three states have enacted laws protecting first responders who provide emergency veterinary services to pets but are not veterinarians, according to the AVMA Division of State Advocacy.

These laws are in Colorado, Ohio, and Maryland. In addition, New York and Wisconsin have legislation pending.

Colorado law authorizes “preveterinary emergency care” by emergency service providers to stabilize a dog or cat in an emergency to which the provider is responding, through means of oxygen, fluids, medications, or bandaging, to enable treatment by a veterinarian. Emergency service providers must have had commensurate training and be authorized by their employer to provide the care.

In Ohio, first responders may provide specified emergency medical services to a dog or cat in the course of a medical, fire, or law enforcement response prior to the animal being transferred to a veterinarian. The responders as well as any veterinarian who consults with them during the emergency have immunity from civil liability, criminal prosecution, or professional disciplinary action.

Maryland law confers immunity from civil liability on individuals assisting an animal when the owner or custodian is not available to grant permission. This applies to veterinarians; veterinary students; veterinary technicians; medical care providers; animal control officers; and members of fire departments, ambulance and rescue squads, and law enforcement agencies.

The state of New York is considering legislation to authorize emergency medical care personnel to provide certain emergency care to dogs and cats.

Likewise, Wisconsin has proposed legislation related to the rendering of first aid to animals by emergency medical technicians or first responders.

Red Paw’s partner facilities and certain veterinary emergency hospitals provide up to 72 hours of emergency shelter for displaced animals. Some boarding facilities will donate up to two weeks of shelter.

If an animal is seriously injured and its family can’t take it back within two weeks, Red Paw enlists one of its special foster volunteers, often a veterinarian or veterinary technician, to provide healing care until the family is in a position to take the animal back. The organization consults with Red Paw board member Dr. Lisa Germanis, who is also medical director of the Pennsylvania Society for the Prevention of Cruelty to Animals.

AT PENN VET

The University of Pennsylvania’s Ryan Veterinary Hospital in Philadelphia and the Center for Animal Referral and Emergency Services in Langhorne are two places where Red Paw transports pets that need oxygen therapy or that have sustained burns or other trauma.

Dr. Kenneth Drobatz is chief of the Section of Critical Care and director of emergency services at Ryan Hospital, which is designated one of the nation’s top veterinary trauma centers by the American College of Veterinary Emergency and Critical Care.

“Here at Penn, we tend to see more (pets injured in fires), especially in winter with indoor heaters. Because of our relationship with Red Paw, we see a fair number of post-fire patients that need some care. We see both dogs and cats,” he said.

He considers Red Paw a fantastic grassroots organization that has saved a lot of animals. “Any pets that are injured—or the owners are injured—
At Wheat Ridge Animal Hospital in Colorado, the eyes of a puppy are stained to detect any corneal damage after the puppy was stolen from the Colorado Humane Society, wrapped in duct tape, and set on fire.

they take them in. If they’re stable, they keep them. If they’re having problems, they bring them to us,” he said.

Massive paw burns from walking on embers are common. Dr. Drobatz said major skin injury is rare because an animal that has gotten that close to fire also would have decreased oxygen capacity and probably carbon monoxide poisoning. Those with skin injuries land in the intensive care unit because of major fluid and protein loss. The Penn Vet team does basic emergency bloodwork, especially for hydration status.

Penn Vet also tests for blood lactate concentration. Lactate builds up when cells don’t get enough oxygen, usually the result of carbon monoxide preventing the oxygen from getting to the tissues, unless it’s from the animal being in cardiac shock, Dr. Drobatz said. “Some plastics have cyanide, so they can get cyanide toxicity, but more likely we see carbon monoxide toxicity. We usually don’t routinely measure that in veterinary medicine; we make presumptions they already have it.”

Corneal burns and ulcers are commonly caused by irritants in the smoke and probably the heat as well. Dr. Drobatz said some animals need antibiotics and pain medication, but most of the time, these injuries are fairly uncomplicated to treat.

HYPERBARIC OXYGEN CHAMBERS

Dr. Jon Geller of Fort Collins Veterinary Emergency and Rehabilitation Hospital in Fort Collins, Colorado, said that for smoke inhalation, hyperbaric oxygen therapy is the primary treatment.

One treatment of 1 1/2 hours at 2.5 ATA barometric pressure is generally what it takes to displace the carbon monoxide from the hemoglobin in the red blood cells so oxygen can go to the tissues, Dr. Geller said. Also, oxygen at high pressure is dissolved in the plasma, so hemoglobin is not required to transport oxygen to the tissues.

At an average $180 for treatment, depending on the region, it’s cost-effective compared with over a thousand dollars for two to three days of 100 percent oxygen in the hospital, he said.

Dr. Geller is among a handful of veterinary hyperbaric technologists certified by the National Board of Diving and Hyperbaric Medical Technology, along with hyperbaric technologists and registered nurses, plus diver medics. They all must pass the main examination and be recertified every two years. The board offers the examination in conjunction with meetings of the Undersea and Hyperbaric Medical Society.

**Pet oxygen masks**

The following nonprofits are among the organizations that provide pet oxygen masks.

The Project Breathe Program provides oxygen mask kits to fire departments and rescue units. Invisible Fence sponsors the program and donates the masks, which the company estimates have saved 10,000 pets. A kit can be requested for a fire station at [www.invisiblefence.com/why-invisible-fence/project-breathe](http://www.invisiblefence.com/why-invisible-fence/project-breathe)

Project Paws Alive has a mission of providing first responder agencies with pet oxygen recovery mask kits. It relies on donations to provide the kits. [http://projectpawsalive.org/pet-oxygen-recovery-mask-kits](http://projectpawsalive.org/pet-oxygen-recovery-mask-kits)

The Association of Professional Animal Waste Specialists accepts donations to purchase pet rescue or recovery masks as well as requests from firefighters and EMTs to receive a kit. [http://apaws.org/about/support/donate](http://apaws.org/about/support/donate)
Hyperbaric oxygen therapy is the primary treatment for smoke inhalation in animals.

Veterinarians and veterinary technicians who pass the main examination, complete an NBDHMT-approved training course, and meet the requirements of a defined preceptorship become eligible for the veterinary-specific examination offered through the UHMS and the Veterinary Hyperbaric Medicine Society.

Many general practitioners may not know where the nearest veterinary hyperbaric chamber is. The VHMS maps all the known chambers in the U.S., whether or not VMHS approved. The map, at www.vhbot.org/usa-locations, currently lists 35 veterinary chambers in 18 states.

Even if the closest chamber is a distance, an animal benefits from treatment if started within 12 hours of smoke inhalation, Dr. Geller said. His hospital has one of two chambers in Colorado. "We've had cases referred from Denver and the Canadian border," he said. Sedation isn't typical, but trazodone is given if needed. With the white noise, many patients fall asleep.

Colorado is one of the first states to allow emergency medical technicians to provide emergency veterinary care and transport pets to a veterinary hospital if the EMTs have completed a training program and call in to a veterinary hospital during the emergency (see sidebar, page 379). Dr. Geller's hospital has an agreement with a human hospital a half-mile away that when the EMTs respond to a vehicular accident or fire that involves pet injuries, the EMTs will transport the pets to Dr. Geller's hospital after taking injured people to the human hospital.

"Pets riding in an ambulance is a pretty new concept, and it's a ground-breaking change that EMTs (can give emergency care to pets)," Dr. Geller said, and owner permission isn't needed for the veterinary hospital to treat the victims.

Hyperbaric oxygen therapy is in its infancy, and other clinical uses have yet to be scientifically proved by quality research, the NBDHNT acknowledges. Dr. Geller is exploring the possibility of HBOT eventually becoming a veterinary specialty, as in human medicine, but the practitioners are few, and, he said, "We are lagging as a potential specialty group because we don't have a central database of cases yet." However, case studies are being collected by the two main manufacturers of veterinary hyperbaric chambers, Hyperbaric Veterinary Medicine in Boca Raton, Florida, and Sechrist Industries Inc. in Anaheim, California.

A RANGE OF VETERINARY EXPERTISE

Smoke inhalation and burn injuries are a core aspect of training for emer-
gency and critical care residents, but how much knowledge do veterinary students and general practitioners have?

Dr. Drobatz at Penn Vet said, "Because of the number of cases we see here, a lot of our students do get exposed during clinical rotations to animals that have been exposed to fire." General practitioners probably don't treat many fire victims, however, and may not have had specific education in this area, he said. He has presented continuing education on smoke inhalation, usually in respiratory or environmental toxicology sessions.

Treatment of smoke inhalation and burn injuries is a small portion of the veterinary curriculum, taught as part of methods of oxygen therapy in respiratory physiology courses, according to Dr. Elisa Mazzaferro, immediate past president of the American College of Veterinary Emergency and Critical Care. "I have lectured all over the world on this topic, teaching general practitioners how to be prepared and what to do in the event that an animal presents after being in a fire," she said in an email interview.

"I think that the general practitioner knows that these patients need supplemental oxygen. However, some of the more serious cases who have lost consciousness, have extensive skin burns, or develop neurologic sequelae after a fire and smoke inhalation are better to be monitored 24 hours a day at a specialty referral hospital or a 24-hour emergency facility," she said.

Dr. Mazzaferro will never forget New Year's Day 2007. She was awakened with the news that 24 dogs had been in a kennel fire and were being transported to Wheat Ridge Animal Hospital, the Colorado referral practice where she directed emergency services.

"Our surgeon was taking thoracic radiographs. Interns were monitoring vitals and helping place catheters," she said. "Nurses were staining eyes to look for corneal burns. Technician assistants were wrapping cage doors in our ICU with saran wrap, making cages into which oxygen lines could be placed to increase oxygen in smoke inhalation patients. Dr. Brendan McKiernan, a world-renowned respiratory specialist, was putting blood samples on ice for evaluation of carbon monoxide levels at a local hospital."

Three dogs had been unresponsive at the fire scene. One had been revived by CPR but, despite 24-hour care, eventually succumbed to the effects of smoke inhalation, her trachea so severely damaged the inner lining sloughed.

In 2012, Dr. Mazzaferro moved back to her home state of Connecticut, where she practices at Cornell University Veterinary Specialists in Stamford.

THE IMPORTANT FIRST CONTACT

Dr. Drobatz said, "I think it is important for the first responders who get there to tell us what they found—if the animal was unconscious or had altered mentation—to give us an idea what happened. Some may have had too much carbon monoxide or are hypoxic from not getting enough oxygen during the fire and could be passed out, and this might have significant consequences down the road for neurologic changes and things like that. It also gives us a sense of the severity of their exposure to the fire and how close they were."

Many veterinarians in emergency medicine hold classes at a local fire department, police facility, or their own hospitals to train EMTs, firefighters, and police officers to care for canine officers as well as animal casualties at the scene of a fire. Some also offer classes for pet owners. The Veterinary Emergency and Critical
Care Foundation trains first responders in conjunction with the annual meeting of the International Veterinary Emergency & Critical Care Society. Last fall in Nashville, Tennessee, over 60 police officers took part in the VECCF training session.

Do oxygen masks make a difference? Dr. Drobatz said, "Absolutely. One of the first things you do especially with an animal that's comatose or unconscious is give them oxygen immediately because of the decreased oxygen content in the area where the fire was burning and the carbon monoxide. Oxygen supplementation will decrease the amount of carbon monoxide. If in doubt, we always give them oxygen."

Three nonprofits that provide pet oxygen masks are Project Breathe from the Invisible Fence Co., Project Paws Alive, and the Association of Professional Animal Waste Specialists (see sidebar, page 380).

Dr. Mazzaferrro said, "I have had animals transported to me by fire truck and ambulance after being maliciously burned as well as having been in a house fire and have signs of smoke inhalation. If a fire truck does not have oxygen masks specially made for animals, pediatric face masks work well to deliver oxygen to cats, and face masks or nasal prongs made for humans can be used for dogs.

"Severe smoke inhalation can definitely lead to chronic problems including increased susceptibility to respiratory infection and pneumonia, pulmonary fibrosis/scarring, and as long-term sequelae bronchiectasis, weakness, and dilation of the airways."

One of the dogs maliciously burned had been set on fire after being stolen from a humane society and wrapped in duct tape. Another dog died after her owner went off her schizophrenia medication and set him on fire. Dr. Mazzaferrro has had to deal with severe skin burns as well as the systemic effects of burns and inflammation.

"We use a combination of wet-to-dry bandages and vacuum-assisted wound care along with a variety of antimicrobial ointments such as silver sulfadiazine for deep skin burns," she said, adding that skin grafts are not common.

Like Dr. Drobatz, she has seen corneal burns as the most common injury sustained by animals in residential fires, along with injury to the inner lining of the respiratory system from inhalation of superheated particles in the air.

THE RED PAW MODEL

Red Paw is the only such organization Leary knows of. The nonprofit's funding has been a challenge, with 93 percent coming from donations and 7 percent from grants and foundation money.

Ideally, she would like to expand Red Paw's response area even go national, but at the very least, getting counterparts up and running in other cities would help the cause.

"It keeps me up at night thinking of all the fires in other parts of the country," she said. "It's not the job of firefighters to look for and care for pets on the scene. They have a lot of other stuff going on. Our job is specifically to do that." ♦

Resources

A map of veterinary hyperbaric chambers in the United States is available at [www.vhbot.org/usa-locations](http://www.vhbot.org/usa-locations).
The National Board of Diving and Hyperbaric Medical Technology at [http://www.nbdhmt.org/chtv.asp](http://www.nbdhmt.org/chtv.asp) offers certified training courses in hyperbaric technology and an examination to become a certified hyperbaric technologist-ventilator assistant.
The American Veterinary Medical Foundation's emergency planning guide "Saving the Whole Family" is downloadable for free at [www.avma.org/products](http://www.avma.org/products) under "Disaster Preparedness." ♦
Swift Southern California wildfires prove deadly
At least 75 horses die as flames overtake barns near Los Angeles, San Diego

By Malinda Larkin

Dr. Virginia Frauenthal was excited to move into her first house Dec. 1, 2017. She had been medical director at VCA Care Specialty and Emergency Animal Hospital in Santa Barbara, California, for two years. But the excitement turned to panic as the Thomas Fire burned closer and closer. On Dec. 10, the evacuation warning came for her home. Then, on Dec. 16, she not only received mandatory evacuation orders for her home but also an evacuation warning for the hospital. Staff decided to evacuate the hospital as the fire approached dangerously close. They scrambled, with veterinary technicians, doctors, and administrators showing up to take animals to another VCA clinic after calling each client. “You could see flames and smoke coming down the hill. The fire was a real threat and danger,” Dr. Frauenthal said. “It was a weird experience to turn off the oxygen tanks and close the doors, since we’re a 24-hour facility. Evacuating was a very stressful experience.”

In 2017, California saw its worst fire season ever as multiple large wildfires burned uncontrollably across the state for days.

In October, seven wildfires swept across Northern California, killing at least 44 people and destroying nearly 9,000 homes and other buildings. The fires weren’t fully contained until the end of October (see JAVMA, Nov. 15, 2017, page 1106).

That was followed by multiple wildfires that erupted in early December in Southern California. Santa Ana winds moved the fires so quickly and so unpredictably that those fleeing had only minutes to leave. In some cases, horse owners said they had to choose between saving themselves and their animals. The fires endured, creating the longest period of red-flag warnings ever recorded in California. In fact, a federal state of emergency was declared Dec. 8.

**Thomas Fire**

The Thomas Fire started when a brush fire exploded Dec. 4 into a fierce wildfire burning over 440 square miles, from Santa Paula to the hills above Santa Barbara and eastward into the Los Padres National Forest.

Dr. David M. Ramey worked at Pierce College, one of the main evacuation centers in the Woodland Hills neighborhood of Los Angeles, which has a large equestrian facility that the Los Angeles Department of Animal Care and Control opens in times of disaster. He estimates 120 horses came. One of the worst fire victims he saw was Reuben, a horse exposed to extreme heat who had to be euthanized a few weeks later because of extensive internal injuries and his inability to walk anymore. The Los Angeles County Animal Care Foundation paid for Reuben’s medical treatment.

“It looked like an apocalypse,” Dr. Frauenthal said. The sky, at one point, was black-grey, and the sun shining through it was in a “weird orange” color. The air quality continued to worsen, forcing residents to don air masks.
Dr. Frauenthal said some staff evacuated around when the fire started, and more left Dec. 12 after the hospital gave all employees who felt threatened the option to evacuate and still be compensated for their efforts. On one day during the crisis, the hospital had taken in 15 cats and five dogs. However, by the time the hospital closed Dec. 16, most owners had picked up their pets. In all, the Santa Barbara hospital evacuated four patients—two in stable condition and discharged that day to their owners. Another owner opted to hospitalize a pet at another facility, and a dog with a neurologic condition was taken by staff to the other VCA hospital.

When the hospital reopened Dec. 19, things didn’t get any easier. Dr. Frauenthal worked 14-hour shifts for seven days straight to cover for about half the staffing capacity, including on Christmas Eve and Christmas Day. She saw several animals with respiratory disease that required oxygen because of the poor air quality. Her home remained intact, and she returned to it 11 days later.

The fire was mostly contained by the end of December and was not expected to grow. In all, the fire burned through more than 1,060 homes and other structures, and thousands of people were evacuated. The Thomas Fire has since been declared the single largest wildfire in California history, spanning more than 281,000 acres, according to the California Department of Forestry and Fire Protection.

Creek and Rye fires

The Los Angeles Department of Animal Care and Control, the primary emergency responder for animals in the area, housed 201 animals during area fires in December, mainly horses but also llamas and donkeys as well as dogs and cats. Many of these animals were housed at the department’s emergency sheltering location at Pierce College.

The Creek and Rye fires proved to be among the most frightening and saddening fires DACC staff has seen, according to an agency press release. It said many horses lost their lives because of the fast-moving fires, owner failure to evacuate in time, and inability to reach the horses in time.

In one incident Dec. 4 in the Creek Fire, 29 horses died at Rancho Padilla in Sylmar, a neighborhood in the San Fernando Valley region of Los Angeles.

DACC officers arrived that morning to find the barn burning, with some areas of the roof collapsing, and to hear horses in distress. They quickly retrieved two horses and a puppy, then returned to the burning barn and rescued an additional four horses before the flames blocked their entry, according to an agency press release.

Subsequent DACC officer teams broke the padlocks of 10 stalls to rescue the horses, but the barn became inaccessible from the fire and the collapsing roof. The officers transported the horses they were able to get to incident command and returned some of the horses to their concerned owners. The remaining horses were transported to Pierce College.

Dr. David W. Ramey, one of the private practice veterinarians the DACC relied on to provide veterinary care to injured horses, was based at Pierce College. He treated three horses from the Rancho Padilla fire, two of which were exposed to extreme heat. The third was discharged within days.

One of those horses, Chaparra, suffered the most severe burn injuries. She lost most of her hair, including her eyelashes, and had severe corneal ulceration. Dr. Ramey said she was sloughing large amounts of skin from the right side of her body and wasn’t eating or defecating. While the external injuries were obvious, the internal
Fallout from fall fires in California continues

For nearly a month this past fall, California wildfires ravaged much of the Napa Valley area. The Tubbs Fire, which ignited last October in Sonoma County, killed 22 people and torched 5,643 structures, making it the most destructive wildfire on record in California. The University of California-Davis School of Veterinary Medicine helped rescue and save animals injured or displaced by the fires. Whether it was performing search-and-rescue missions in the fire zones, aiding at evacuation centers, or caring for hospitalized animals, the veterinary school played a major role in helping the animals of Northern California. More information is available at http://javma.ucdavisfireresponse.

Dr. Georgeanne Croskey, Mendocino County supervisor and veterinarian at Mendocino County Equine and Livestock, said the biggest problem was there was no time for most people to prepare. “They barely got out themselves, and if they did, being able to load horses or sheep or goats was a luxury,” she said.

She told JAVMA News in early January that there are still many displaced animals, especially cats. Large animals have nowhere to return, whether that is because the owner’s property is being restored, or the owners aren’t allowed back yet, or the fencing burned down and hasn’t been rebuilt. As a result, friends and others are housing displaced animals in a patchwork of private properties. Dr. Croskey added that another concern is that many hayfields and barns burned, and cattle lost their winter pastures. “I don’t know how that will affect us long term, but there was a large loss of hay feed,” she said.

The American Veterinary Medical Foundation provides two grant programs to help veterinarians and the animals they care for during times of disaster. Up to $5,000 may be issued per grantee for out-of-pocket expenses incurred by veterinarians providing emergency veterinary medical care to animal victims of disasters. Plus, up to $2,000 may be issued per grantee for out-of-pocket expenses incurred following the disaster. For more information, visit www.avmf.org/programs/disaster-relief.

Three major fires impacted the Los Angeles and San Diego regions: the Thomas, Creek, and Lilac fires. Air quality was a big issue in some affected areas. Dr. Frauenthal said it rained ash for more than a week, causing everyone to wear masks when outside. In fact, N95 respirator masks sold out.

Injuries were not. “Red blood cells popped like balloons, and the urine was black from the pigment. A few days after that, skin started to peel,” Dr. Ramey said. Chaparra was euthanized within a few days. Another horse, Reuben, who also was exposed to extreme heat, seemed to recover at first. He was eating and willing to move around, Dr. Ramey said, but 10 days after exposure to the extreme heat, things started to go south. Reuben was laminitic and his hoof walls began to separate from underlying structures, causing extreme pain; the horse couldn’t walk anymore. Reuben was euthanized at the end of December.

“With burned horses, you don’t know the extent of the damage. You treat them and think maybe things are going well, but the next day, you find out another problem crops up. You devote time, effort, and energy—because you don’t always get the opportunity to save a life—for a while, feeling like you’re going to really make a difference, and it’s very empowering. But when it finally becomes apparent that the damage is too bad, it is very deflating,” Dr. Ramey said. “The insidious nature of this is you don’t immediately know the extent of the damage. You can’t necessarily make an accurate assessment on Day One. Thermal damage to
the skin may not show up until a week or two later, as a chunk of skin and muscle coming off the side of his face, for example. And there was no way to know how much damage was done to the horse’s feet, or if the subsequent laminitis was due to burns or complications from all of the trauma.”

**Lilac Fire**

Another tragic equine incident happened Dec. 7 in northern San Diego County at the San Luis Rey Downs training center. The 500-stall facility for Thoroughbred racehorses had been evacuating, but as the Lilac Fire raced closer, filling the paddocks with smoke and setting palm trees ablaze, the horses began to panic, according to a Dec. 9 Los Angeles Times story.

Some horses refused to leave their burning stables. Some got out only to run back in. Some made it to safety on the track, only to collapse and die. The California Horse Racing Board confirmed that 46 horses died when the fire destroyed nearly half the barns at the center.

Mike Marten, a spokesman for the California Horse Racing Board, was quoted Dec. 8 as saying that the death toll at San Luis Rey Downs could rise. He said the Thoroughbred facility, located in Bonsall, accommodates 495 horses and that at least 450 were there when the fire struck. He added that a small number of horses escaped to the wilderness through a fence that was knocked down, and they hadn’t yet been located.

In all, officials said about 360 surviving horses from San Luis Rey Downs were moved to the Del Mar Fairgrounds, and some 850 horses evacuated during the fires were being stabled there.

**Lessons learned**

The DACC said in a Dec. 7 press release about the Rancho Padilla fire, “This event serves as a tragic reminder for those who keep horses to develop actionable evacuation plans to reduce loss and injury. Horse stalls should never be padlocked or otherwise made inaccessible. Early evacuations are key to ensuring these tragedies do not occur. The Department also encourages horse owners to microchip their horses for identification during emergencies, and to have alternative housing sites established in advance in case of evacuations.”

Despite the many casualties, Dr. Ramey said that overall, most horses in the area were evacuated to safe places ahead of time. Other than the three horses from the Rancho Padilla fire, the ones she saw at Pierce College had a case of colic or minor scrapes at most. None of the horses she saw had apparent respiratory distress, nasal discharge, or respiratory congestion from smoke inhalation.

Overall, the response effort “worked out relatively well, given multiple jurisdictions and a lack of reliable sources of information—not to say it couldn’t be improved on,” Dr. Ramey said. “If you have a big, hot, fast-moving fire, they’re unpredictable. They kill people and animals.”

He said the LA County Department of Animal Care and Control had scheduled a meeting for the end of January to recap the disaster response efforts. Truthfully, he said, the fire was unlike any he or others in the area had ever seen. For example, the Ronald Reagan Freeway had always been considered a good barrier to fire spread, but even that didn’t hold.

“Who anticipates 80-mile-per-hour winds?” Dr. Ramey said. “Areas where there hadn’t been fires before had decades of brush lying there.”