

Contingency Plan for Heat/Cold Weather Events

Revision History

Origin/Revision #	Date	Action	Pages Involved
Original	July 2009	Approved by EPC	
Revision # 1	November 11, 2010	Deleted and/or issuance of heat warning	7, 8, 9, 15, 16, 24, and 25
Revision # 2	2012	Submitted to EPC for approval as part of ERP	
Revision # 3	Nov 2014	Integration of Heat Cold information	
Revision # 4	Jan 2015	Plans Review Committee	
Revision # 5	June 2020	Plan reviewed and updated	

Executive Summary

This is a contingency plan supporting the County of Ventura during adverse heat/cold events. The plan designates Ventura County Public Health (VCPH) as the lead coordinating agency during a heat/cold weather emergency.

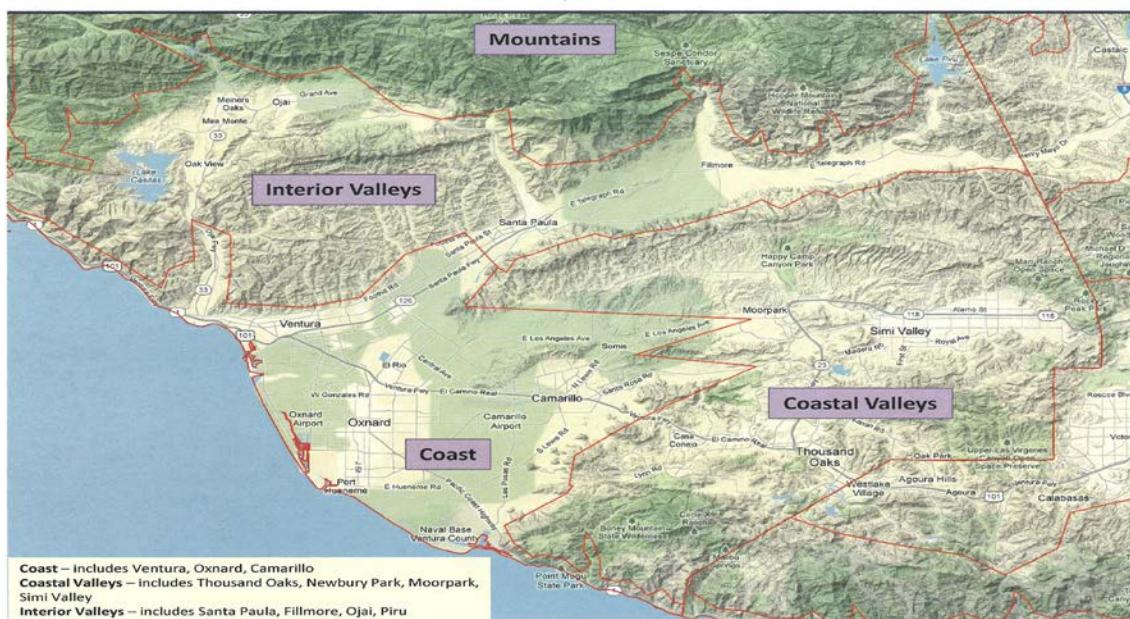
The plan recognizes the need for VCPH to communicate with the National Weather Service (NWS), Ventura County Sheriff's Office of Emergency Services (OES), Ventura County Human Services Agency (HSA), the Area Agency on Aging (AAA), cities, the American Red Cross (ARC) and other community stakeholders. This coordination and collaboration will lead to more efficient coordination and utilization of resources, provide public communication and alerts, and assure the well-being of the county's population - especially its most vulnerable residents.

The plan recognizes three (3) phases of activation, corresponding to the State's plan:

1. Seasonal Readiness, 2. Weather Alert, and 3. Weather Emergency.

Included in the plan are the purpose, goal, scope and background for the development of the plan, descriptions of the conditions triggering each phase of the plan, actions that the responsible agencies and organizations will take at the time of an event and an appendix with the specific hot and cold weather considerations to be considered in the decision to act, reference material from the NOAA, definitions, city jurisdiction plans as available, public information messages and website links for additional information.

Ventura County has a particular topography where weather events that do not meet specific thresholds are considered dynamically, based on population resilience and preparedness related to the specific event. The weather/forecasts are issued in our operational areas designated by NWS as shown in figure #1 (meteorological zones of Ventura County).



Purpose

This plan describes the roles, responsibilities of County agencies and disaster-related organizations and potential issues associated with an extended weather emergency. The impact of extended heat/ cold weather places the public, especially Ventura County's vulnerable population, at risk for adverse health effects related to a period of excessive and extended temperatures, and associated electrical outages. The document outlines activities that State, County, Cities and volunteer organizations may assume to ensure:

- Disaster/emergency management operations and support are coordinated with local jurisdictions as needed to assist them with establishing and maintaining heating/cooling centers, stations, or voluntary relief centers to provide relief from the weather; and
- Clients and stakeholders receive necessary support, including opening appropriate facilities as cooling centers or stations as described above.

Additionally, this plan was developed to ensure effective support and interagency coordination in accordance with the following laws and guidelines:

- Emergency Services Act (ESA);
- Standardized Emergency Management System (SEMS) and the National Incident Management System (NIMS)

Existing state plans and information are available on the California Office of Emergency Services (OES) website.

Scope

This document addresses operational area response to an extended heat wave and prolonged cold temperatures that endangers the lives of the citizens of the County, especially the fragile vulnerable population. Included in the vulnerable population under consideration are seniors, those who are medically fragile, those living alone, disabled individuals. Considerations for pets and livestock are also discussed in this plan. This document briefly addresses the type of support that can be made available from local government, including:

- Opening local buildings and public facilities, such as community centers to provide refuge from the weather;
- Logistical support as needed to make Centers, Stations, or Voluntary Relief Centers available and fully functional for temporary use as refuge;
- Transporting the vulnerable population to and from the Cooling Centers or Stations; and
- Establishing Cooling Centers/Stations for pets as necessary.

Background on heat

In 2006, California experienced a heat wave exceeding the previous record of nine continuous days with temperatures 100 degrees or greater. More than one hundred deaths were recorded statewide. Excessive temperatures greatly impact the elderly, the sick, and the very young due to heat-related complications. Due to the increased demand on the electrical grid, energy conservation has and will continue to be requested as a mechanism to forestall rolling

blackouts. Cooling Centers and Cooling Stations (See Appendix I) have been identified as a means to provide residents a source of relief from the heat.

"Any individual, regardless of age, sex or health status can develop heat stress if engaged in intense physical activity and/or exposed to environmental heat (and humidity). Physiologic mechanisms maintain the core body temperature (i.e., the operating temperature of vital organs in the head or trunk) in a narrow optimum range around 37° C (98.6°). When core body temperature rises, the physiologic response is to sweat and circulate blood closer to the skin's surface to increase cooling. Over a period of one-to-two weeks, exposure to conditions that elevate body temperature – physical activity and/or environmental heat results in a process of physiological adaptation – "acclimatization". When acclimatized, the body produces more dilute sweat, and heart rate and body temperature increase less than when not acclimatized.

If heat exposure exceeds the physiologic capacity to cool, and core body temperature rises, then a range of heat-related symptoms and conditions can develop – from relatively minor treatable heat cramps to severe life threatening heat stroke, which is always an extreme medical emergency. Even when acclimatized, adequate hydration is critical to avoid the development of heat-related illness." (California Office of Emergency Services, State of California Contingency Plan for Excessive Heat Emergencies, April 2008).

Background on cold

In December, 1990, there was a record-setting low temperature in California for an extended period of time. The temperature did not go above 25 degrees which is considered freezing. The 1990 freeze destroyed much of the agriculture industry and resulted in significant financial damage. In December of 1998 an arctic air-mass moved across central California. This arctic air-mass led to the freezing of crops for 7 days, and periods of freezing weather throughout May. Between those dates, the severity of the freezing temperature resulted in significant financial affects to agriculture, businesses, individuals, and public assistance agencies. Disaster assistance was provided to individuals and families in need. In December, 2006, a severe wind storm and freezing temperatures to the Pacific Northwest left eight dead and up to 1 million without power according to the Seattle Times. As a result of desperation, people were forced to use barbeques inside their home for heat which resulted in death due to carbon monoxide poisoning. Because life and safety are the first priority for the California emergency management community, the State Contingency Plan for Extreme Cold/Freeze Emergencies was developed.

Concept of Operations

There appears to be a significant increase in the risk to vulnerable populations when temperatures “spike” or “decline” for two or more consecutive days. Therefore the definition of excessive heat/cold events within the County will consider both daytime and night time minimum and maximum temperatures.

Thresholds

The Ventura County weather planning consideration will be activated upon receipt of heat/cold specific weather information. This information will be sourced from the local office of the National Weather Service. The planning efforts delineated in the following phases will commence and serve as a guide in the decision making process. This type of response is predicated when Ventura County experiences a weather event with temperatures exceeding 100 degrees projected to last more than a few days as well as temperatures 30 degrees or lower.

In accordance with the State’s plan for weather emergencies, Ventura County will follow a three-phase response.

Phase I: Ventura County will initiate a public awareness campaign in the beginning of each summer (May-August) and winter (November-February), utilizing public service announcements and including information derived from special weather statements, in May-August and November-February, to prepare for and maintain a state of increased readiness.

Phase II: This phase is predicated on the receipt of a significant special weather statement about excessive weather or power outages during warmer/colder than normal weather conditions.

Actions include: periodic or daily calls as needed among the key stakeholders with weather and power updates, stand-by or activation of centers, facilities or voluntary relief centers, and public announcements of location of cooling centers or stations.

Phase III: Weather emergency triggered by two or more consecutive days of high to very high heat risk and issuance of excessive heat warning or 32 degrees or less and issuance of a freeze warning by the National Weather Service. At times of peak demand, utility companies’ requests for energy conservation efforts have assisted in avoiding rolling blackouts.

Actions include: mobilizing cooling/heating centers, cooling/heating stations and voluntary relief centers that have been identified and opened to provide residents with relief from the heat or cold. VCPH and HSA may work with OES to contact vulnerable members of the population for wellness checks, and to advise of resources available in the form of heating/cooling centers and methods of available transportation. Contact may take place either manually or by the county’s VC Alert electronic system. Establish communication with

211, and issue press releases with locations of cooling centers or stations and advice to mitigate the weather effects. Public Health will monitor the situation and communicate with necessary stakeholders as needed.

Assumptions

- a. Logistical support and coordination based on information from local agencies and NOAA will be provided by Public Health. VCPH will communicate with OA stakeholders as needed.
- b. Operations at the county level will not preclude cities from establishing cooling centers or stations; it is expected, however, that cities will notify applicable county agencies (VCPH, HSA, OES) if these centers are opened.

Roles and Responsibilities

All bullet points are points for consideration or conversation by response agencies in collaboration. They are meant to serve as a guide to drive conversation related to response activities.

Public Health - Emergency Medical Services Agency (EMSA)

- Coordinates support to medical facilities and other stakeholders;
- Assists in identifying the need for local cooling/heating centers, cooling/heating stations or voluntary heat/cooling relief centers;
- Collaborates in identifying and responding to the needs of vulnerable populations;
- Works with PIO to issue press releases concerning heat/cold-related illness and safety based on established trigger points;
- Provides critical information to the Emergency Planning Council, Board of Supervisors and other elected officials;
- Coordinates and provides heat/cold-related information to 211, including locations of open Cooling Centers or Stations;
- Coordinates with cities regarding health needs of residents; and
- Activates Public Health staff to assess status of high-risk individuals who live alone during weather emergencies and take appropriate actions.
- Provide operation area Situation Status Report per EOM.

Sheriff's Office of Emergency Services (OES)

- Directs countywide response resources in support of the Ventura County Operational Area;
- Monitors National Weather Service forecasts;
- Coordinates and issues warnings via pre-established alert/notification systems;
- Activates County Emergency Operations Center to coordinate emergency response activities as needed.
- Assists in providing informational releases to the public;
- Procures state and federal assistance as needed; and
- Coordinates with other local agencies and local governments' informational releases and resource support

National Weather Service (NWS)

- Provides notification of heat and cold events via email to key partners in Ventura County including; Special Weather Statements (heat/cold outlooks), Weather Watches, and Weather Warnings;
- Provides GIS shape files of the maximum and minimum temperatures and heat index forecasts on the NWS website (www.weather.gov/losangeles);
- Notifies interested parties of anticipated start and end of heat/cold-related event. Maintains current information on the [NWS heat risk webpage](#)

Human Services Agency (HSA)

- Initiates phone contacts and/or home visits when appropriate to ensure the well-being of adults/elderly, and other special needs/vulnerable clients with documented health conditions; contact may take place either manually or by the county's VC Alert electronic dialing system;
- May provide outreach to clients for the various social service programs for which displaced individuals may be entitled;
- Upon HSA determination, provides benefit assistance to individuals and families in cooling centers or stations;

211 (information and referral call line)

- Provides information & referral to public calls;
- Maintains central list of open cooling/warming cooling centers or stations for public information;
- When a heat/cold event occurs, 211 will receive notification and updates from VCPH.

Area Agency on Aging (AAA)

- Coordinates with VCPH and HSA to address needs of the elderly. AAA can arrange and/or provide meals for seniors and their caregivers who are at the heating /cooling centers. Information regarding cooling centers or stations or ways to stay cool/warm can be distributed in advance to seniors through the Senior Nutrition Program contractors and other senior services providers.

American Red Cross (ARC)

- During extended periods of weather, the chapter will issue weather safety messages through its normal public affairs channels. This information will also be included in community disaster education/preparedness presentations during this period;

- If either rolling or unplanned blackouts occur and are expected to last for extended periods, the Chapter will open cooling centers or stations in the affected areas. These will be minimally staffed, open during extended daylight hours only, and may provide meals and snacks; and
- The chapter will issue press releases regarding any opening of cooling centers or stations and inform VCPH and community partners, including animal regulation.

Animal Services (VCAS)

- Facilitates the use of fairgrounds in support of local government needs;
- Coordinate the disposal of dead livestock;
- Coordinates pet care for residents of cooling centers or stations; and
- Provides cooling/heating center support as needed

City and County Agency EOCs and DOCs (Department Operations Centers)

- Coordinate activation of any stations, centers and voluntary relief centers with VCPH;
- City EOCs will activate according to their own city activation plan as the need arises in the geographic area and will communicate needs to the County EOC; and
- County agencies may activate their DOCs to assist in assessing the impacts on vulnerable populations as well as addressing any health related issues.

Regional Emergency Operations Center (REOC)

- Cal OES may activate the Regional EOC and the State Operations Center to coordinate the support activities of the state that include tasking state agencies, procuring federal resources, issuing public information releases, keeping the Governor and Legislature informed.

Appendices

Appendix A: NOAA/National Weather Service (NWS) Information

The National Weather Service (NWS) will issue an excessive heat warning for any duration of high to very high heat risk, and a freeze warning for temperatures of 29-32 degrees for a duration of two or more hours. A hard freeze warning may be issued for temperatures at or below 28 degrees.

The California State Warning Center is currently used as a “pass through” for information on a daily basis by the National Weather Service. NWS Weather Emergency Information received by the CSWC is then:

- Forwarded to the Operational Areas via the California Law Enforcement Telecommunications System (CLETs), and
 - Forwarded to third party distribution systems, the media and subscribing Emergency Managers through the Emergency Digital Information Service (EDIS).
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- Items which meet thresholds of immediate action are also verbally transmitted to operational areas, Cal OES duty officers and other state duty officers. Such items are run away trains, flash flood warnings, tornado warnings and tsunamis.

NOAA/National Weather Service (NWS) Information

NOAA/National Weather Service issues extreme weather products using the outlook/advisory/watch/warning concept. **Outlooks**, also known as special weather statements, may be issued several days in advance of an event to provide an alert that some sort of damaging extreme heat or cold situation is possible. In the case of heat, an **Advisory** is issued when the Heat Risk reaches a Level 2 based on the National Weather Service's Heat Risk scale. The Heat Risk scale is a ranges from 0-4 and indicates the level of heat concern for a location. **Watches**, usually issued 12-48 hours in advance of a potential weather event, indicate that the situation is likely to occur but details may be uncertain about timing, extent, and severity. **Warnings** indicate a high degree of confidence that the event will occur as described and they usually are issued within 24 hours of the event. **Warnings** may be issued even if neither an **outlook** nor **watch** was issued in advance. Similarly, **outlooks** and **watches** may have been issued but conditions then change enough that a **warning** is not needed.

Cold weather Specific information

California, in some years, experiences extreme freeze conditions that cause extensive crop damage and result in the shutdown of related processing plants, trucking companies that transport agricultural resources and affect other related services. This type of business shutdown results in high

unemployment, and the ramifications are significant. For resource information relating to extreme cold/freeze conditions the following National Weather Service data is being included. NOAA/National Weather Service issues frost and freeze products using the ‘watch/warning’ concept. Special weather statements may be issued several days in advance of an event to provide an alert that some sort of damaging freeze situation is possible. **Watches**, usually issued 12-48 hours in advance of a potential freeze event, indicate that the situation is likely to occur but details may be uncertain about timing, extent and severity. **Warnings** indicate a high degree of confidence that the event will occur as described and they usually are issued within 24 hours of the event. **Warnings** may be issued even if a **watch** was not issued in advance. Similarly, **watches** may have been issued but conditions then change enough that a **warning** is not needed.

There are two types of cold weather products used in California. In general these products are only issued for lower elevation areas (below about 2000 feet MSL) such as the coastal valleys, the Central Valley and lower foothills and southern California agricultural areas where frost and freeze events are relatively rare. This also corresponds to the areas in California whose commercial agriculture is most vulnerable to freezing temperatures.

Frost Advisories - These are issued when widespread frost may occur with temperatures between 33-35 degrees F for at least two consecutive hours.

Freeze Warnings - These are issued for areas with significant commercial agriculture whenever temperatures of 29-32 degrees will occur for at least two consecutive hours. There are no freeze advisories.

Hard Freeze Warnings – These are issued for areas with significant commercial agriculture whenever temperatures of 28 degrees or less will occur for at least two consecutive hours.

NWS Winter Storm Warning

Hazardous winter weather conditions that pose a threat to life and/or property are occurring, imminent or likely. The generic term, winter storm warning, is used for a combination of two or more of the following winter weather events; heavy snow, freezing rain, sleet and strong winds. The following event-specific warnings are issued for a single weather hazard.

Blizzard Warning - Sustained winds or frequent gusts of 35 mph or greater, considerable falling and/or blowing snow reducing visibility frequently to 1/4 mile or less for a period of three hours or more. There are no temperature criteria in the definition of a blizzard, but freezing temperatures and 35 mph winds will create single digit wind chills.

Winter Storm Warning - Snowfall of 4 inches or more in 12 hours or less, or 6 inches or more in 24 hours or less. Heavier amounts of 8 to 12 inches needed in the mountains, respectively.

Appendix B: Heat Risk

Recently, the NWS phased out the criteria and terminology related to excessive heat warning for heat index of 105 degrees or more. It was discovered that heat index, a combination of temperature and humidity, is often not a factor for a threatening heat event in southern California or western states in general. In the last few years the NWS has developed a different heat risk system that takes into account day and night temperatures, duration, climatology, and historical temperature records. This has resulted in much better results, but it does prohibit use of an exact temperature threshold for a warning criteria as it depends on the impacts of the heat event more than a single value. In addition, the NWS now issues heat advisories for moderate risk heat events.

NWS Heat Risk Webpage

This page shows the next 7-days and gives a quick glance of the potential heat risk, you can click on the map over any location for a pop-up specifically for a point. There is also a [pdf](#) that explains more about the different color-coded levels and heat risk effects.

NWS thresholds for deciding when to issue a heat advisory or an excessive heat warning are built around these color-coded risk levels (below). In general the more red on the map would likely trigger an advisory and the more magenta would be at a warning level, but there can be other factors like heat wave duration and time of year that influence that decision. NWS would normally have issued an excessive heat watch in advance of the advisory or warning for the potential of a significant heat wave, as well as messaged this through partner emails and social media accounts. Please note that preferred lead times are in the 3rd column.

Excessive Heat Warning (EH.W) NPWLOX	HeatRisk (Red to Magenta) over large area	0 – 36 hrs	For more information on the HeatRisk Program: https://goo.gl/Z1mK85
Excessive Heat Watch (EH.A) NPWLOX	HeatRisk (Red to Magenta) over large area possible	12 – 72 hrs	
Heat Advisory (HT.A) NPWLOX	HeatRisk (Orange to Red) over large area	0 – 36 hrs	

Appendix C: Health Information and Vulnerable Populations

Heat Exhaustion occurs when the body is dehydrated resulting in an imbalance of electrolytes. Similarly, in extreme cold temperatures, you want to be aware of signs of frostbite and hypothermia. Frostbite is a reaction to extreme cold temperatures that can cause permanent harm. Hypothermia occurs when the body's temperature drops below 95 degrees Fahrenheit.

Recognizing symptoms of cold exposure.

Watch for signs of frostbite and hypothermia. Frostbite is a reaction to cold that can cause permanent harm. Hypothermia occurs when the body's temperature drops below 95° Fahrenheit. Symptoms include:

- Confusion, dizziness, exhaustion and shivering are signs of hypothermia. If you experience any of these symptoms, seek medical attention immediately.
- Gray, white or yellow skin discoloration, numbness or waxy skin are symptoms of frostbite. If you experience any of these symptoms, seek immediate medical attention.
- In the case of overexposure to freezing temperatures, remove wet clothing and immediately warm the body with a blanket or warm fluids like hot cider or soup. Avoid caffeine or alcohol.

Centers for Disease Control and Prevention (CDC) guidance on warming procedures:

- Get the victim into a warm room or Cooling Center/Station.
- If the victim has on any wet clothing, remove it.
- Warm the center of the body first – chest, neck, head and groin – using an electric blanket, if available; or use skin-to-skin contact under loose, dry layers of blankets, clothing, towels or sheets.
- Warm beverages can help increase the body temperature, but do not give alcoholic beverages.
- After body temperature has increased, keep the person dry and wrapped in a warm blanket, including the head and neck.

Signs and Symptoms of Heat Exhaustion

- Headache, nausea, dizziness, cool and clammy skin, pale face, cramps, weakness, profuse perspiration.
- First Aid – move to a cooler spot, drink water with a small amount of salt added (one teaspoon per quart).
- Without Intervention – it can lead to collapse and heatstroke.

Signs and Symptoms of Prolonged Exposure to Cold

- Confusion, dizziness, exhaustion and shivering are signs of hypothermia.
- Gray, white or yellow skin discoloration, numbness or waxy skin are symptoms of frostbite.

Signs and Symptoms of Heatstroke

- Symptoms – headache, nausea, face flushed, hot and dry skin, no perspiration, body temperature over 101°F, chills, rapid pulse
- First Aid – cool person immediately, move to shade or indoors, wrap in a cool, wet sheet, get medical assistance

- Without Intervention – it can lead to confusion, coma, and death.

Appendix D: Vulnerable Populations

Situational and physical characteristics help to identify vulnerable populations who may not comfortably or safely access and use disaster resources. Specifically, when discussing heat related emergency preparedness, the individuals that have disability access and functional needs could be considered vulnerable or at greater risk in a heat emergency. In order to remain consistent with FEMA and the California Office of Emergency Services, disability access and functional needs populations are defined as those whose members may have additional needs before, during and after an incident in functional areas, including but not limited to: maintaining independence, communication, transportation, supervision, and medical care. Individuals in need of additional response assistance may include those who have disabilities, live in institutionalized settings, are elderly, are children, are from diverse cultures, have limited English proficiency, or are non-English speaking, or are transportation disadvantaged. An individual with a disability is defined by the ADA as a person who had a physical or mental impairment that substantially limits one or more major life activities, a person who has a history or record of such an impairment, or a person who is perceived by others as having such an impairment. The ADA does not specifically name all of the impairments that are covered.

Considerations related to DAFN individuals, and the various roles/responsibilities are outlined and discussed in greater detail in the DAFN Annex of the County Emergency Operations Plan.

Other Considerations related to Small Children and animals (Hot Cars)

Cars with windows trap heat/light energy resulting increased temperature inside closed vehicles:

Outside air = 85 degrees Fahrenheit

- After 10 minutes: inside car = 102 degrees Fahrenheit
- After 30 minutes: inside car = 120 degrees Fahrenheit

Outside air = 72 degrees Fahrenheit + humidity

- After 30 minutes: inside car = 104 degrees Fahrenheit
- After 60 minutes: inside car = 112 degrees Fahrenheit

Appendix E: Transportation Considerations

The need to move people in an extreme cold/freeze emergency where power outage is a factor will most likely center on moving vulnerable populations to/from warming centers and/or medical facilities. Transporting under these circumstances can be very complex. Complications can be caused by a variety of factors including locating people that need to be transported, the medical condition of the individual, vehicle accessibility, pet and service animal issues, forced transport and liability issues.

Transportation providers linked via interagency agreements or other contractual arrangements could provide a valuable resource in time of emergencies and facilitate cost reimbursement for local agencies if a state and/or federal disaster is declared. These activities should be undertaken prior to any emergency in the preparedness phase of emergency management and included as a vital component in emergency plans and procedures.

Ventura County has a variety of resources within the jurisdiction to use in the movement of people during an extreme cold/freeze event. Transportation service systems specifically for people with disabilities and older adults need to be integrated into all evacuation and warming center (Cooling Center/Stationing) plans. Agreements should be developed between local governments and transportation providers in advance of an event, and should include crossing jurisdictions for mutual aid assistance. Disability and older adult transportation service providers should become routine partners in emergency planning. Agreements should be made with providers in advance of an event when possible. Resources for accessible transportation that may be available in an area may include:

ADA-mandated para transit systems/accessible transportation providers

Dial a Ride

Non-profits (i.e. United Cerebral Palsy)

Area Agencies on Aging

Private providers of services to people with disabilities

Taxi systems

Non-emergency vans, medical vans

School district transportation systems

Adult Day Health Care (ADHC)

Airport shuttle buses/airport car rental shuttle buses

Senior centers

Health care centers

Appendix F: Animal Vulnerabilities (in extreme weather)

California does have its few days of record cold temperatures, with ice and snow in parts of the state. Animal owners should be aware and ready to protect their pets and livestock to help them through these unusual cold spells. Following are a number of concerns and recommendations.

Concerns

- Our animals, especially indoor/outdoor pets, probably do not have an adequate winter coat for protection in these very low temperatures.
- Hypothermia and dehydration are the two most probable life-threatening conditions for animals in cold weather.
- Wet conditions and wind chill add greatly to the cold-stress for animals (and people).

Preventive actions to consider when the temperature is below freezing

- Pets should be brought inside or into protected covered areas, provided with plenty of bedding, food and drinking water.
- Livestock
- Livestock should be provided with wind-break and roof Cooling Center/Station, and monitored for signs of discomfort (extensive shivering, weakness, lethargy, etc.).
- It is very important that livestock be provided extra hay/forage/feed as up to double the calories for normal body heat maintenance may be needed in extreme cold.
- It is critical that animals have access to drinking water. Usual water sources may freeze solid in low temperatures and dehydration becomes a life-threatening factor. Many of our animals, especially the young, may not know how or be unable to break several inches of ice to reach water. In general, animals tend to drink less in extreme cold, risking dehydration. Research with horses shows horses drink more water if it is warmed during winter weather.
- Adding a warm sloppy bran mash, sloppy moistened beet pulp or soaking pelleted feed in warm water is a good way to add water to your horses' diet and provide some "comfort food" in the cold weather.

Special attention should be paid to very young and old animals. They may be less able to tolerate temperature extremes and have weaker immune systems.

Pets:

Dogs and cats are in danger of heat stroke at 110 degrees Fahrenheit. Pets' sweat glands are located on the nose and footpads which are inadequate for cooling on hot days. Panting and drinking water help cooling.

Animals, especially indoor and outdoor pets do not have adequate winter coating for protection in very low temperatures. Hypothermia and dehydration are the two most common life-threatening conditions for animals in cold weather.

Prevention:

- Never leave pets in a car on warm days
- Call animal control or police immediately if an animal is in distress in a car
- Be alert for any sign of heat stress: heavy panting, glazed eyes, a rapid pulse, unsteadiness, a staggering gait, vomiting, deep red or purple tongue
- Never leave pets tied up without shade, air circulation, and fresh water

- Offer a cool place to rest when temperatures are uncomfortable

Treatment:

- Overheated pets must be cooled immediately
- Move pet to shade
- Apply cool water all over body
- Apply ice packs to neck and chest area
- Allow licking ice and small amount of water (large amount will cause vomiting)

Livestock and Poultry:

Producers should assure that all livestock and poultry are provided adequate and accessible drinking water, shade, fans and water-cooling, where feasible. Many producers have back-up generators for their facilities, which should be inspected to ensure operational condition in the event of rolling or rotating blackouts or power failures. Emergency power should also be available for fans and well pumps. Misters, soakers and fans should be checked to ensure they are operational. Shade structures (especially shade cloths) should be in good repair. Livestock should be provided with a wind-break and roof Cooling Center/Station. They should also be monitored for signs and symptoms of discomfort such as extensive shivering, weakness, and lethargy.

During an excessive heat emergency, dairy producers have used a variety of temporary cow-cooling methods. Fire hoses can be hooked up to water trucks and used to soak the cattle. Strings of cows can be cooled in sprinkler pens, if they are not in constant use for milking. Temporary soaking lines can be devised using flexible landscaping PVC hose and high volume emitters positioned over the cattle. Industrial fans have been rented to augment these water cooling methods. Temporary shade structures have been erected. In general, working cattle should be avoided except in the early morning.

If producers are experiencing difficulties or delays in having dead animals picked up by rendering companies, they should immediately contact the Ag Commissioner, the local office of emergency services or department of environmental health and make them aware of the situation. Local officials are in a position to assist with alternate methods of disposal, including evaluating the need for a declaration of a local emergency.

Appendix G: Local Resources

For People with Disabilities Access and Functional Needs (DAFN)

Integrating people with disabilities and seniors into extreme cold/freeze emergency planning efforts, especially at a local level, will improve related services to vulnerable populations. In fact, it is essential that disability and senior service providers are partners in all disaster planning efforts. The following organizations provide services that may be useful for vulnerable populations during any emergency:

County In-Home Supportive Services (IHSS)

IHSS public authority

Paratransit

Dial a Ride

Deaf/hearing impaired organizations

Blind/visual impaired organizations

Independent living centers

Regional centers on developmental disabilities

Area Agencies on Aging

Adult Protective Services

Meals-on-wheels

Faith-based organizations

Postal service

Electric companies/other utility companies

Animal control

Community action agencies

Rotary Club

Lions/service organizations

Masons

Nursing homes

Residential care facilities for the elderly

Adult residential facilities

Community colleges and universities with disability services programs

Homeless Cooling centers or stations

Food kitchens

Local county food banks

Veterans of Foreign Wars

Health education training centers

Private providers of services to people with disabilities

Appendix H: Cooling Center Checklist

The following is a list of important criteria for setting up a cooling center. Additionally, **unless a special exemption has been given by the local Utilities**, facilities used as Cooling Centers are not exempt from rotating blackouts.

Important Criteria

- Air conditioning or equivalent (temperature maintained at 79°F)
- Accessible to people with disabilities /ADA compliant
- Ample seating
- Public restrooms accessible to people with disabilities
- Access to potable water (drinking fountain, etc.)
- Access to 911 services (payphone)
- Publicly advertised
- Parking access
- Proximity to public transit

Suggested Criteria

- Back-up generators
- Secure, facility has security service
- Communications, phone (including TDD/TTW), internet access, sign-language interpreters
- Child friendly with materials for children to play with while at the cooling center
- Medical Personnel such as nurses and/or aides
- 24 hour, 7 days a week operation
- Large capacity
- Personnel Assistance Services for people with disabilities
- Available televisions, books, games
- Transportation for those lacking their own, including wheelchair accessible services
- Follow-up procedures for those in need of additional services (health care, social services, etc.)
- Area for pets
- Veterinary resources available if needed

Appendix I: List of Ventura County Cooling Centers and Stations

Camarillo	Camarillo Public Library 4101 Las Posas Road, Camarillo (805) 388-5222	
El Rio	Albert H. Soliz Library 2820 Jourdan Street, Oxnard (805) 485-4515	
Fillmore	Fillmore Active Adult Center 533 Santa Clara Street, Fillmore (805) 524-3030	Fillmore Library 502 Second Street, Fillmore (805) 524-3355
Moorpark	Moorpark City Library 699 Moorpark Avenue, Moorpark (805) 517-6370	Moorpark Active Adult Center 799 Moorpark Avenue, Moorpark (805) 517-6261
Oak Park	Oak Park Library 897 N. Kanan Road, Oak Park (818) 889-2239	
Ojai	Help of Ojai 111 W. Santa Ana Street, Ojai (805) 646-5122	Oak View Library 555 Mahoney Avenue, Oak View (805) 649-1523
	Ojai Library 111 E. Ojai Avenue, Ojai (805) 646-1639	Meiners Oaks Library 114 N. Padre Juan, Meiners Oaks (805) 646-4804
Oxnard	Main Library 251 S. A Street, Oxnard (805) 385-7500 **CLOSED FRIDAY	South Oxnard Library 4300 Saviers Road, Oxnard (805) 385-8129 **CLOSED FRIDAY
	Colonia Gymnasium 195 Marquita Street, Oxnard (805) 385-7966	Multipurpose Center – Colonia 1500 Camino Del Sol, Oxnard
	South Oxnard Center 200 Bard Road, Oxnard (805) 385-8042	
Piru	Piru Library 3811 Center Street, Piru (805) 521-1753	
Port Hueneme	Port Hueneme Community Center 550 Park Avenue, Port Hueneme (805) 986-6542	Ray D. Prueter Library 510 Park Avenue, Port Hueneme (805) 486-5460
Santa Paula	Santa Paula Community Center 530 W Main Street, Santa Paula (805) 933-4226	
Simi Valley	Simi Valley Public Library 2969 Tapo Canyon Road, Simi Valley (805) 526-1735	Simi Valley Senior Center 3900 Avenida Simi, Simi Valley (805) 583-6363
Thousand Oaks and Newbury Park	Thousand Oaks Alex Fiore Teen Center 1375 E. Janss Road, Thousand Oaks (805) 494-5156	Thousand Oaks Goebel Adult Community Center 1385 E. Janss Road, Thousand Oaks (805) 381-2744
	Thousand Oaks Grant R. Brimhall Library 1401 E. Janss Road, Thousand Oaks (805) 449-2660	The Oaks Mall 344 W. Hillcrest Drive, Thousand Oaks (805) 495-2032

	Newbury Park Branch Library 2331 Borchard Road, Newbury Park (805) 498-2139	
Ventura	Pacific View Mall 3301-1 E Main Street, Ventura (805) 642-5530	Avenue Library 606 North Ventura Avenue, Ventura (805) 643-6393
	Saticoy Library 1292 Los Angeles Street, Saticoy (805) 671-5148	Hill Road Library 1070 S Hill Road, Ventura (805) 677-7180

Appendix J: Checklist for a “Warming Center”

The following is a list of important criteria for setting up a warming center. Additionally, **unless a special exemption has been given by the local utilities**, facilities used as warming centers are not exempt from rotating blackouts.

Important Criteria

- Heating or equivalent (temperature maintained at a minimum of 68°)
- Accessible to people with disabilities/ADA compliant
- Ample seating appropriate to the jurisdiction
- Public restrooms accessible to people with disabilities
- Access to potable water (drinking fountain, etc)
- Access to 911 services (phone or payphone)
- Publicly advertised
- Parking access
- Proximity to public transit

Suggested Criteria

- Back-up generators
- Area for pets
- Secure, facility has security service
- Communications, phone (including TDD/TTY), internet access, sign-language interpreters
- Child friendly with materials for children to play with while at the warming center
- Medical personnel such as nurses and/or aides
- 24-hour, 7 days a week operation
- Large capacity
- Personnel assistance services for people with disabilities
- Available televisions, books, games
- Transportation for those lacking their own, including wheelchair accessible services
- Follow-up procedures for those in need of additional services (health care, social services, etc.)
- Veterinary resources available if needed

Appendix K: Definitions

The following terms are presented here with the commonly accepted definitions to avoid confusion and misunderstanding. Some of the terms may have different meanings outside of the scope of this plan. Weather definitions are NWS information.

Cooling Centers: facilities made available by public, private and volunteer organizations as a heat relief station. There is no agreement that these facilities will be exempt from power outages. Additional resources may be committed as needed and locations may need to remain open for extended hours until threshold drops below 105°

Cooling Stations: Facilities such as hospitals, skilled nursing facilities that are exempt from rotating outages. They allow their facility to be used for this purpose without compensation. Their hours of availability vary by facility.

Contingency Plan - Refers to a subset of an existing emergency plan focused on addressing the particulars of a specific emergency scenario (i.e., earthquake, flood, extreme cold/freeze, etc.).

Emergency Plans - As defined in Government Code §8560 (a) "Emergency plans" means those official and approved documents which describe the principles and methods to be applied in carrying out emergency operations or rendering mutual aid during emergencies. These plans include such elements as continuity of government, the emergency services of governmental agencies, mobilization of resources, mutual aid and public information.

Freeze - A freeze is when the surface air temperature is expected to be 32°F or below over a widespread area for a climatologically significant period of time. Use of the term is usually restricted to advective [horizontal air flow] situations or to occasions when wind or other conditions prevent frost. "Killing" may be used during the growing season when the temperature is expected to be low enough for a sufficient duration to kill all but the hardiest herbaceous crops.

Freezing Level - The altitude at which the air temperature first drops below freezing.

Freeze Warning: Issued during the growing season when surface temperatures are expected to drop below freezing over a large area for an extended period of time, regardless whether or not frost develops.

Heat Disorders: Conditions that result in the body's inability to maintain a normal temperature. The four major heat disorders are:

Heat Cramps – Symptoms: painful spasms usually in leg muscles and possibly the abdomen, heavy sweating.

Heat Exhaustion – Symptoms: heavy sweating, weakness, cold, pale and clammy skin, possible fainting and vomiting. Normal temperature is possible.

Heat Stroke – Symptoms: high body temperature (106° F or higher), hot, dry skin, rapid and strong pulse, possible unconsciousness.

Heat Index (also referred to as the “apparent temperature”): A factor used to determine how hot it feels based on temperature and relative humidity. Heat Index values can be up to fifteen

degrees higher with exposure to direct sunlight. Heat index values assume calm wind conditions. Hot dry winds can decrease heat index factors.

Heat Wave (Extreme/Excessive Heat Event) : When temperatures reach 15-20% or more above the average high temperature for the region, last, or predicted to last, for a prolonged period of time. A heat wave is often accompanied by high humidity.

Heat-Related Death: Most heat-related deaths are a direct result of heat stroke, which is almost always fatal when not treated. Dr. E. R. Donoghue (of the Chicago 1995 heat wave response) includes these as definitions of heat-related death: a measured body temperature of 105 degrees at the time of death or immediately after; or other substantial circumstantial evidence of heat as a contributor to death (such as a decedent found in a room without air conditioning, all windows closed, and excessive ambient heat at time of discovery). Heat stroke is more likely to lead to death despite treatment if the decedent's condition was aggravated by other medical conditions.

Joint Information Center: A centralized facility for coordinating an organized, integrated, release of critical emergency information, crisis communications and public affairs functions, which is timely, accurate, and consistent.

Local Emergency - As defined in Government Code §8558 (c)"...means the duly proclaimed existence of conditions of disaster or of extreme peril to the safety of persons and property within the territorial limits of a county, city and county, or city, caused by such conditions as air pollution, fire, flood, storm, epidemic, riot, drought, sudden and severe energy shortage, plant or animal infestation or disease, the Governor's warning of an earthquake or volcanic prediction, or an earthquake, or other conditions, other than conditions resulting from a labor controversy, which are or are likely to be beyond the control of the services, personnel, equipment, and facilities of that political subdivision and require the combined forces of other political subdivisions to combat, or with respect to regulated energy utilities, a sudden and severe energy shortage requires extraordinary measures beyond the authority vested in the California Public Utilities Commission."

Local Government - As defined in SEMS Regulations §2402 (m) "means local agencies as defined in Government Code §8680.2 and special districts defined in California Code of Regulations, Title 19, §2900(y)."'

Multi-Agency Cold Emergency Task Force - A working group formed at the direction of the Governor to establish health and safety protocols for public education and outreach efforts, safety checks on vulnerable Californians, evacuations of medical facilities and establishment of warming centers and information lines during future cold events.

Operational Area - As defined in Government Code §8559 (b) "An 'operational area' is an intermediate level of the state emergency services organization, consisting of a county and all political subdivisions within the county area."

Rotating Blackout: A process of cutting off service to selected customers for a predetermined period (usually not more than two hours) in order to retain the integrity of the power grid.

Standardized Emergency Management System (SEMS) - As defined in California Code of Regulations §2400 as..."based upon the Incident Management System (ICS) adapted from the system originally

developed by Firefighting Resources of California Organized for Potential Emergencies (FIRESCOPE) program including those currently in use by state agencies, the Multi-Agency Coordination System (MACs) as developed by FIRESCOPE program, the operational area concept, and the Master Mutual Aid Agreement and related mutual aid systems."

State Emergency Plan - As defined in Government Code §8560 (b) "...means the State of California Emergency Plan as approved by the Governor." (Where in effect as defined in Government Code §8568, "...The State Emergency Plan shall be in effect in each political subdivision of the state, and the governing body of each political subdivision shall take such action as may be necessary to carry out the provisions thereof.")

State of Emergency - As defined in Government Code §8558 (b)"...means the duly proclaimed existence of conditions of disaster or of extreme peril to the safety of persons and property within the state caused by such conditions as air pollution, fire, flood, storm, epidemic, riot, drought, sudden and severe energy shortage, plant or animal infestation or disease, the Governor's warning of an earthquake or volcanic prediction, or an earthquake, or other conditions, other than conditions resulting from a labor controversy or conditions causing a 'state of war emergency,' which, by reason of their magnitude, are or are likely to be beyond the control of the services, personnel, equipment, and facilities of any single county, city and county, or city and require the combined forces of a mutual aid region or regions to combat, or with respect to regulated energy utilities, a sudden and severe energy shortage requires extraordinary measures beyond the authority vested in the California Public Utilities Commission."

Synoptic Model - Any model specifying a space distribution of some meteorological elements. The distribution of clouds, precipitation, wind, temperature and pressure in the vicinity of a front is an example of a synoptic model.

Voluntary Relief Centers: City or governmental facilities, operating with air conditioning that is activated to allow public access during a heat event, without compensation.

Warming Centers: Facilities that are made available by public, private and volunteer organizations as an extreme cold/freeze relief station.

Appendix L: Acronyms

Acronyms used throughout this plan and their full names are listed below as they appear in the document:

- AA/CA – After Action (report)/ Corrective Action (plan)
- CAHAN – California Health Alert Network
- Cal OES – California Office of Emergency Services
- CAISO – California Independent System Operator
- CCLHO – California Conference of Local Health Officers
- CBO – Community-based Organizations
- CCB – California Council of the Blind
- CDFA – California Department of Food & Agriculture
- CDPH – California Department of Public Health (formerly CDHS)
- CHEAC – County Health Executives Association of California
- CDSS – California Department of Social Services
- CPUC – California Public Utility Commission
- CRC – Regional Council of Rural Counties
- CSAC – California State Associations of Counties
- CSC – California Service Corps (now called California Volunteers)
- CSWC – California State Warning Center
- CUEA – California Utilities Emergency Association
- DCA – Department of Consumer Affairs
- DDS – Department of Developmental Services
- DHCS – Department of Health Care Services (formerly CDHS)
- DME – Durable Medical Equipment (i.e., wheelchairs, shower chairs)
- DMH – Department of Mental Health
- DOA – Department of Aging
- DOR – Department of Rehabilitation
- EAS – Emergency Alert System
- EDIS – Emergency Digital Information System
- EMSA – Emergency Medical Services Authority
- EOCs – Emergency Operations Centers
- FTB – Franchise Tax Board
- GEOEC – Governor's Emergency Operations Executive Council
- IHSS – In-Home Support Services
- JEOC – Joint Emergency Operations Center (State level CDPH/EMSA)

JIC – Joint Information Center
JPA – Joint Powers Authority
LEAGUE – League of Cities
LEMSA – Local Emergency Medical Services Agency
MHOAC – Medical Health Operational Area Coordinator
MOT – Maritime Tropical Oppressive Air Mass
NGOs – Non-Governmental Organizations
NWS – National Weather Service
OA – Operational Area
OES – Office of Emergency Services
PD – Police Department
PHO – Public Health Officer
PIO – Public Information Office / Public Information Officer
PSAs – Public Service Announcements
REOC – Cal EMA Regional Emergency Operations Center (Coastal, Inland, Southern)
RDMHC – Regional Disaster Medical Health Coordinator
RDMHS – Regional Disaster Medical Health Specialist
RIMS – Response Information Management System
SEMS – Standardized Emergency Management System
SIRL – State Information and Referral Line
SNFs – Skilled Nursing Facilities
SOC – State Operations Center
SRO – Single Room Occupancy

Appendix M: Public Information

Increased readiness efforts must begin when high temperatures are forecast rather than when they arrive. Preparedness includes media spots, meetings, fairs that include circulation of pre-event preparedness materials to facilities and groups who have close contact with vulnerable populations. These outreach activities will assist in developing community-based partnerships to assist in the active phases during heat events.

Cal OES will initiate a heat awareness campaign during the month of May, or earlier in the event of forecasted heat events. Messages will also ensure that people with visual and hearing impairments receive disability and culturally appropriate materials:

- heat safety awareness (for all populations, including workers)
- heat safety health tips
- when to use 911 and hospital emergency departments
- advocacy of checking on family, friends, neighbors
- availability of resources nearby for assistance and respite

VCPH will initiate surveillance of cooling center activations and coordinate communication with other agencies involved.

Outreach should include the use of mass media as well as community education strategies:

- Sending notification and prevention tips through schools, businesses and associations
- Posting public information tips at hospitals, medical offices, grocery stores, and community centers
- Additional outreach to parks and recreation, coaches and outdoor activity venues, senior and day care centers and organizations serving non-English speakers

Joint Information Center (JIC) Activation

As a heat emergency unfolds, determine when to activate a JIC and bring together representatives from all responsible agencies to coordinate public information as needed. Previously developed heat emergency pre-scripted materials can be distributed to local agencies prior to any excessive heat event.

Appendix N: Helpful Web Site Resources

- [California Contingency Plan for Excessive Heat Emergencies - CalOES](#)
- [California Contingency Plan for Extreme Cold / Freeze Emergencies - CalOES](#)
- [Centers for Disease Control and Prevention – Extreme Heat](#)
- [City of Los Angeles Emergency Operations Plan, Adverse Weather Hazard Specific Annex.](#)
- [Electric Power Disruption, Toolkit for Local Government - CalOES](#)
- [Heat Illness Prevention Resources - CalOSHA](#)
- [NWS Forecast Office Los Angeles, CA](#)
- [Ready Ventura County Emergency Preparedness Guide](#)
- [US EPA Excessive Heat Events Guidebook](#)