SAN JOAQUIN COUNTY

Greatness grows here.

Severe Weather Hazard Annex

July 22, 2020

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Letter of Promulgation

This annex to the County of San Joaquin Emergency Operations Plan describes how San Joaquin County will manage emergency incident or disaster mitigation, preparedness, response, and restoration related to this annex. All Primary and Support agencies identified as having assigned responsibilities in this annex shall perform the emergency tasks as described to include preparing and maintaining Standard Operating Guidelines and Procedures, and by carrying out the training, exercises and plan maintenance needed to support the plan.

This annex was developed using the Comprehensive Planning Guide 101 version 2 from the Federal Emergency Management Agency and California's emergency planning guidance documents. Adoption will occur following the established maintenance schedule; however, the plan may be modified in the interim without prior approval and formal adoption under the direction of the Director of Emergency Operations. The modified plan will be relayed digitally to all Primary and Support agencies identified as having assigned responsibilities in this annex. In addition, the plan will be available on the San Joaquin County Office of Emergency Services webpage and within the Advanced File Library of WebEOC. The Primary assigned agency will coordinate the review and update of the plan with the Support agencies as needed at least every two years. This annex supersedes any previous versions.

This annex applies to Primary and Support agencies within San Joaquin County who are assigned responsibilities in *Section 4.3.1 Responsibilities by Emergency Support Function* of the All-Hazard EOP and/or identified within the annex.

This annex replaces previous annexes of the same title.

Shellie Lima
Shellie Lima, Director Emergency Operations

July 22, 2020
Date

This annex will be formally promulgated by the chairperson of the Disaster Council of San Joaquin County at the next regularly scheduled meeting. The Disaster Council is empowered by County Ordinance to review and approve emergency and mutual aid plans.

Marcia Cunningham
Marcia Cunningham
Chair, San Joaquin County Disaster Council
Director of Emergency Services

August 3, 2020
Date

Plan Administration

San Joaquin County Office of Emergency Services Director of Emergency Operations will coordinate review, revision, and re-promulgation of this annex at least once every two years or when key changes occur, such as lessons learned from exercises or real events. Changes may be made by the San Joaquin County Director of Emergency Operations without formal Disaster Council approval. This document supersedes all previous severe weather, heat and cold appendices and annexes for the Operational Area.

Record of Changes

All updates and revisions to this annex will be tracked and recorded in the following table. This process will ensure that the most recent version of the plan is disseminated and implemented by emergency response personnel.

Date	Change No.	Change made by (name/title)	Summary of Changes

Plan Distribution

San Joaquin County Office of Emergency Services maintains the Master Emergency Operations Plan and annexes in the San Joaquin County Emergency Operations Center Library. This document, upon signature, will become an annex to the San Joaquin County Emergency Operation Plan. The primary method of Emergency Operation Plan and annex distribution is electronic, with a copy available in the document library of WebEOC and on the County's web page.

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1 EXECUTIVE SUMMARY

The Severe Weather Hazard Annex is a support annex to the San Joaquin County Emergency Operations Plan (EOP). It represents a consolidation of extreme weather events, specifically extreme heat and cold temperatures and wind events.

The annex describes the Operational Area (OA) coordination during extreme weather events and guides County government, special districts, local government, community-based organizations, and faith-based organizations in preparation for, and response to emergency incidents involving extreme weather.

This annex recognizes the need for the OA to communicate and coordinate with local agencies through the San Joaquin County Office of Emergency Services (OES) and to support local agencies' actions consistent with the Standardized Emergency Management System (SEMS).

The Severe Weather Annex outlines criteria and response triggers for each specific type of event. It further identifies event-specific department and agency roles and responsibilities, in addition to those outlined in the Basic EOP.

Departments and agencies identified in this document shall review the plan to familiarize themselves with their roles and responsibilities. Local agencies are advised to develop their plans and prepare agreements for support in response to any emergency.

2 INTRODUCTION

2.1 PURPOSE

This annex is developed to identify actions that may need to be taken to address the needs of populations in an extreme or severe weather emergency. This document is for immediate use and is designed to provide agencies within San Joaquin County (County) with specific roles and responsibilities related to the implementation of severe weather response. OES in coordination with county departments and affected cities, will direct implementation of this guidance.

2.2 SCOPE

Emergency response to a severe weather event may require an increase in resources from the entire OA. To meet the response objectives outlined in this annex, both public and private agencies are assigned specific tasks. This plan identifies roles, responsibilities, and coordination lines between the County, cities, and non-government organizations with a role in response to a severe weather event. This plan further identifies a phased approach to extreme weather response and the triggers for increasing operation activities.

2.3 PLANNING ASSUMPTIONS

Weather emergencies are mild in the County compared to other parts of the country. However, the County has experienced periods of extreme temperatures that were hazardous to health, crops, and animals. The following assumptions were used in the development of this annex.

- Emergencies involving cold or heat are often slower to develop, taking several days of continuous cold/heat before a significant impact can be seen.
- The County has the primary responsibility to meet the needs of citizens living in unincorporated areas during emergencies.

- Incorporated cities have the primary responsibility to meet the needs of citizens living within their boundaries during emergencies.
- Numerous populated communities may be impacted.
- Extreme temperatures have increased effects on vulnerable populations or those with lower thresholds, including:
    - The elderly and the very young
    - Medically fragile
    - Homeless
    - Those without access to reliable cooling/heating/shelter
- Large-scale movement of at-risk populations may be necessary, causing otherwise non-impacted jurisdictions to become “host” to displaced populations.
- Power outages may occur.
- The OA will communicate and coordinate actions with local, regional, and State Governments, as needed.
- Reimbursement of expenditures from the State during a proclaimed emergency is not guaranteed; all agencies involved must carefully track costs associated with any emergency response.
- Local cities, special districts, and County agencies may have programs to address extreme temperatures. This plan does not restrict their operations, providing they are consistent with SEMS and NIMS.

3 HAZARD ANALYSIS

3.1 EXTREME TEMPERATURES

The County has a mild climate and an abundance of sunshine year-around. The summers are virtually cloudless, with warm, dry days and mild nights. The NWS has defined a weather year as beginning in October and ending with September; thus, rainfall averages are listed with that in mind. The annual rainfall of the County is between 13 - 14 inches, with 90% of that falling between November and April. Excessive rain and damaging storms are infrequent, occurring only about three or four days a year, and precipitation may exceed a half-inch on about nine days of the year.

Over the last 25 years, the County has faced extreme highs and lows in rain amounts. Historically, 1997-98 saw more than 27-inches of rain in Stockton. Contrary to that, 2013 recorded a record low of 4.59, a full inch lower than the previous record, adding to a multi-year drought that spanned 2012-2017. Snowfall in the County is rare.

Dense fog occurs primarily in late autumn and early winter. Light and moderate fog is more frequent and may happen anytime during the wet, cold season. Fog is usually confined to the early morning hours and burns off during the day. However, in December and January, under stagnant conditions, winter fog may continue for as long as four to five weeks with only brief periods of clearing, particularly in the delta regions of the county.

Prevailing winds in the County are from the Northwest. Occasionally there will be a southerly wind brought on during storms. Sometimes, a strong wind blows down the Sierra Nevada and is warmed as it reaches the valley floor, as a hot, dry north wind. These winds produce heatwaves in the summer, and fortunately are usually followed within two or three days by the cooling southwest delta breezes, especially at night.

Temperatures exceeding 100 degrees Fahrenheit can be expected, on average, about six days in July and 15 days during the entire summer.

Although there have been seasons where temperatures above 108 have been recorded for 3-5 days, in 2017, the average high temperature for the summer was 95, one of the hottest years on record since the 1940s. The Stockton area recorded 38 days of 100 degree plus days, including the all-time high of 112 in August. During these hot afternoons, the air is extremely dry, with relative humidity less than 20%. Even on these hot days, however, temperatures will fall into the sixties at night. In the winter, nighttime temperatures on clear nights will fall to, or slightly below, freezing and will rise in the afternoon into the low fifties.

In addition to the recorded high temperatures in 2017, 2014 was the hottest year ever recorded, with 2015 as the fourth hottest. Some climatologists forecast these extreme temperatures could become routine in the decades to come.

Within the San Joaquin Valley region, climate change modeling forecasts an increase in the frequency, intensity, and duration of extreme heat events and heatwaves, which are likely to increase the risk of mortality and morbidity due to heat-related illness and exacerbation of existing chronic health conditions.

Additionally, the higher temperatures throughout California will cause an earlier melting of the snowpack resulting in high water, stress on the Delta Levee system surrounding the County, and less drinking water available to citizens in non-rainfall months of the year.

Although the probability of drought is expected to increase throughout the 21st century due to the impacts of climate change, the possibility of increased intense rainfall with historical runoff is also projected. With the current high flood risk throughout the County, this could have widespread impacts throughout the county and the entire region, including floods and levee or dam failures.

Increased development contributes to the urban heat island (UHI) impacts. Areas that have an abundance of asphalt and building materials such as steel and brick absorb and hold in heat, whereas rural areas reflect some of the heat.

Historically, San Joaquin Valley has experienced record-setting low temperatures in the Stockton area, several times since 1990. In December 1990, temperatures did not rise above 25 degrees Fahrenheit in parts of the San Joaquin Valley for three to five days. Several records were set for the duration of freezing temperatures as well. In December 1998, an unusually cold winter led to crop freezes from December 20 through 27, 1998, and multiple days until May 1999 with freezing temperatures overnight. Again, in December 2006, freezing temperatures were attributed to several deaths throughout California. The numbers of vulnerable populations have increased, such as homeless and could potentially be a different outcome if it were to occur again.

3.2 Extreme Temperatures and Humans

Extreme temperatures can severely affect humans. When the body is hot for long periods, it loses its ability to perspire, which is how the body handles high temperatures. Heat exhaustion is a common reaction to severe heat and can include symptoms such as excessive perspiration, dizziness, headache, and fainting. It can usually be treated with rest, a cool environment, and hydration. When a person stops perspiring, they can move from heat exhaustion to heatstroke very quickly. Heatstroke is more severe and requires immediate medical attention. It is often accompanied by dry skin, body temperature above 103 degrees Fahrenheit, confusion, and sometimes unconsciousness. Untreated heatstroke may lead to death.

Prolonged exposure to freezing temperatures can cause frostbite to exposed skin, typically fingers, toes, ear lobes, or the tip of the nose. Increased winds, causing a wind chill effect, can further lower body temperatures at a faster rate. Hypothermia is another cold-related issue when the core body temperature drops below 95 degrees Fahrenheit. Medical attention is needed immediately for this condition.

Prolonged exposure to heat/cold can disproportionately affect certain populations. It is essential to include specific planning for groups including:

- Individuals with Access and Functional Needs (AFN) ;
- Chronic conditions or injuries;
- Limited English proficiency, or non-English speaking;
- Older adults;
- Young children;
- Pregnant;

- Living in institutional settings;
- Low income, homeless, or transportation disadvantages;
- From diverse cultures;
- Medically fragile;
- People that work outdoors, especially new workers, temporary workers, or those returning to work after a week or more off;
- People exercising or doing strenuous activities outdoors during the coldest or hottest point of the day; or
- Those not acclimated to the level of cold/heat expected, especially those that are new to a much warmer or cooler climate.

3.3 Extreme Temperatures and Animals

Excessive heat or cold can be hazardous to animals as well. Dogs and cats naturally conserve heat and are less efficient at cooling than humans. They are in danger of heatstroke at 110 degrees Fahrenheit. Sweat glands on pets are located on the nose and footpads, which are inadequate for cooling on hot days. Panting and drinking water can help with cooling, but if the air temperature is overheated, brain and organ damage can occur in 15 minutes. Risk factors to heat stress include body size, age (young and old), breed (short-nosed breeds, such as bulldogs), obesity, and existing metabolic, cardiovascular, or respiratory disease.

Livestock and poultry are also vulnerable during extreme temperature events. During heat events, livestock and poultry should be provided adequate and accessible cooled drinking water, shade, and fans where (or when) feasible. In addition, planning for rolling power outages can mitigate problems. Dairy farmers have used a variety of temporary cow-cooling methods. 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 in constant use for milking. Industrial fans can be rented to augment these water-cooling methods.

In addition, monitoring local rendering facility operations can provide early indicators as well. During a heat incident in July 2006, the County lost over 4,500 tons of livestock, mainly poultry and cows. The State's rendering system (six facilities Statewide) was overwhelmed, and animals were not disposed of promptly, leading to some animals being buried on site. The California Integrated Waste Management Board required an emergency waiver to dispose of the carcasses at the Fink Road Landfill. A local proclamation of emergency was prepared in advance, with animal mortality being one of the triggers.

Cold weather can also be dangerous to small animals that are not acclimated to cold weather (typically indoor pets). Hypothermia and dehydration are the two most probable life-threatening conditions for animals in cold weather. In general, animals tend to drink less in cold weather risking dehydration, or their typical watering sources can be frozen. Wet conditions and wind chill can add significantly to the cold-stress for animals as well. Particular attention should be paid to very young and old animals, as they may be less able to tolerate temperature extremes and have weaker immune systems.

3.4 National Weather Service Alerts and Warnings

NWS issues watches, warnings, and advisories to warn of extreme weather-related issues that are forecast to influence an area within the following 36 hours. If NWS forecasters predict an excessive heat/cold event beyond 36 hours, then the NWS will issue messaging in the form of Special Weather Statement, partner emails, and social media that is based on how far

in advance of the event they are making a prediction.

3.4.1 HeatRisk

The NWS has developed the experimental *HeatRisk* forecast to provide a quick view of the risk potential for the following seven days using color and numeric values.[1] This risk is assessed by comparing the official NWS temperature forecast to local thresholds, which change through the year based on climatology. This location-specific approach considers:

- Significantly above average temperatures;
- Time of year (e.g., early season vs. typical summer heat);
- Duration of unusual heat expected;
- If temperatures pose an elevated risk for heat complications;
- If overnight lows and humidity allow temporary relief or enhancement of the heatwave, and;
- The approximate role of humid air using well-known physical relationships of temperature to humidity.

All of these factors are used to create daily dynamic heat thresholds and then are matched to their appropriate *HeatRisk*. Information from both the overnight lows and daily highs are combined to create the final output - the experimental 24-hour *HeatRisk*.

Heat Advisory

A Heat Advisory will be tied to an event where the *HeatRisk* output is on the Orange/Red threshold (Orange will not always trigger an advisory).

Excessive Heat Watch / Warnings

An Excessive Heat Watch / warning will be tied to the *HeatRisk* Red/Magenta output.

The NWS has assigned a specific color to each *HeatRisk* category to make it easier for people to quickly understand whether heat is reaching a high enough level to create heat concerns for their situation. Each *HeatRisk* category corresponds to a different level of potential heat concern, which includes five categories from 0-4, with zero as the least concern. The following table provides a more detailed look at the color and numerical values.

Table 1 HeatRisk Number and Color Scale

HeatRisk Values	Risk of Heat Effects	Level of Heat Concern
When the HeatRisk value is:	...the risk of heat effects are:	…as symbolized by this color
0	**Very Low**	**Green**
1	**Low**	**Yellow**
2	**Medium**	**Orange**
3	**High**	**Red**
4	**Very High**	**Magenta**

The higher the value, the greater the level of heat concern for that location. If both the

[1] NWS– Experimental Potential Heat Risks https://www.wrh.noaa.gov/wrh/heatrisk/?wfo=sto

overnight lows and daytime highs are exceptionally warm for at least 48 hours, at levels that pose an elevated risk for heat complications, the highest level of 4 for *HeatRisk* is achieved.

Essentially, when *HeatRisk* values are 1 or higher, heat is considered to be of concern – at first for those who are extremely sensitive to heat, then for everyone as *HeatRisk* values get to the highest levels. For example, a *HeatRisk* value of 0 represents no elevated risk for heat concerns. A *HeatRisk* value of 2 represents a moderate potential risk for members of heat-sensitive groups, while a *HeatRisk* value of 3 represents a high potential risk of heat effects for anyone without proper hydration and adequate cooling.

In the detailed table that follows, the five levels of heat concern are listed with their definition, the risk to the population and/or animals, and the actions suggested at each level are highlighted.

Table 2 - HeatRisk Concerns and Risks to People and Animals

	Numerical Value	Meaning	Who/What is at Risk?	How Common is this Heat?	For those at risk, what actions can be taken?
GREEN	0	• Level of heat poses **little to no risk**	• No elevated risk	• Very Common	• No preventative actions necessary
YELLOW	1	• Heat of this type is tolerated by most; however there is a low risk for sensitive groups to experience health effects	• Primarily those who are extremely sensitive to heat	• Very Common	• Increase hydration • Reduce time spent outdoors or stay in the shade when the sun is strongest • Open windows at night and use fans to bring cooler air inside buildings
ORANGE	2	• Moderate risk for members of heat sensitive groups to experience health effects • Some risk for the general population who are exposed to the sun and are active • For those without air conditioning, living spaces can become uncomfortable during the day, but should cool below dangerous levels at night	• Primarily heat sensitive groups, especially those without effective cooling or hydration • Some transportation and utilities sectors	• Fairly common most locations • Very common in southern regions of country	• Reduce time in the sun between 10 a.m. and 4 p.m. • Stay hydrated • Stay in a cool place during the heat of the day • Move outdoor activities to cooler times of the day • Open windows at night

	Numerical Value	Meaning	Who/What is at Risk?	How Common is this Heat?	For those at risk, what actions can be taken?
RED	3	• High Risk for much of the population who are 1) exposed to the sun and active or 2) are in a heat sensitive group • Dangerous to anyone without proper hydration or adequate cooling • Poor air quality is possible • Power interruptions may occur as electrical demands increase	• Much of the population, especially people who are heat sensitive and those without effective cooling or hydration • Transportation and utilities sectors	• Uncommon most locations • Fairly common in southern regions of country	• Try to avoid being outdoors in the sun between 10 a.m. and 4 p.m. • Stay hydrated • Stay in a cool place especially during the heat of the day • If you have access to air conditioning, use it. Fans may not be adequate • Cancel outdoor activities during the heat of the day
MAGENTA	4	• Very High Risk for entire population • Very dangerous to anyone without proper hydration or adequate cooling. • This is a multi-day excessive heat event. A prolonged period of heat is dangerous for everyone not prepared. • Poor air quality is likely. • Power outages are increasingly likely as electrical demands may reach critical levels.	• Entire population is at risk. • For heat sensitive groups, especially people without effective cooling, this level of heat can be deadly. • Most Transportation and utilities sectors	• Rare most locations • Occurs up to a few times a year in southern regions of country, especially the Desert Southwest	• Avoid being outdoors in the sun between 10 a.m. and 4 p.m. • Stay hydrated • Stay in a cool place, including overnight • If you have access to air conditioning, use it. Fans will not be adequate • Cancel outdoor activities during the heat of the day

3.5 COLD EMERGENCIES

NWS 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 a damaging freeze situation is possible. **Watches** are usually used 12-48 hours in advance of a potential freeze event, indicated 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 released 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 the County. In general, these products are only issued for lower elevation areas where frost and freeze events are relatively rare.

Frost Advisories - These are issued when widespread frost may occur. Frost advisories are not issued after the first freeze event of the winter until spring bloom begins. Although warm-season plants may die with the first frost, there are no frost warnings because frost damage is generally cosmetic to cold season crops.

Freeze Warnings - These are issued for areas with significant commercial agriculture whenever the first freeze of the winter is expected. The first freeze is defined as "when minimum shelter temperature is forecast to be 32 degrees or less during the locally defined growing season."

There are no freeze advisories. Additional freeze warnings are issued when a hard freeze is expected, which could cause widespread damage to water pipes, harm ornamental plants, which usually are hardy in winter and cause significant damage to winter blooming crops such as almonds and cherries or to early grape leaves.

Cold weather also affects crops. In late spring or early fall, early arrival of cold air can damage or kill produce for farmers, as well as plants and flowers at your home or business. A freeze occurs when the temperature drops below 32°F. Freezes and their effects are significant during the growing season. Frost develops on clear, calm nights and can occur when the air temperature is in the mid-30s. Each plant species has a different tolerance to cold temperatures. NWS will issue a Winter Weather Advisory, Winter Storm Watch or Winter Storm Warning when warranted due to weather forecasts.

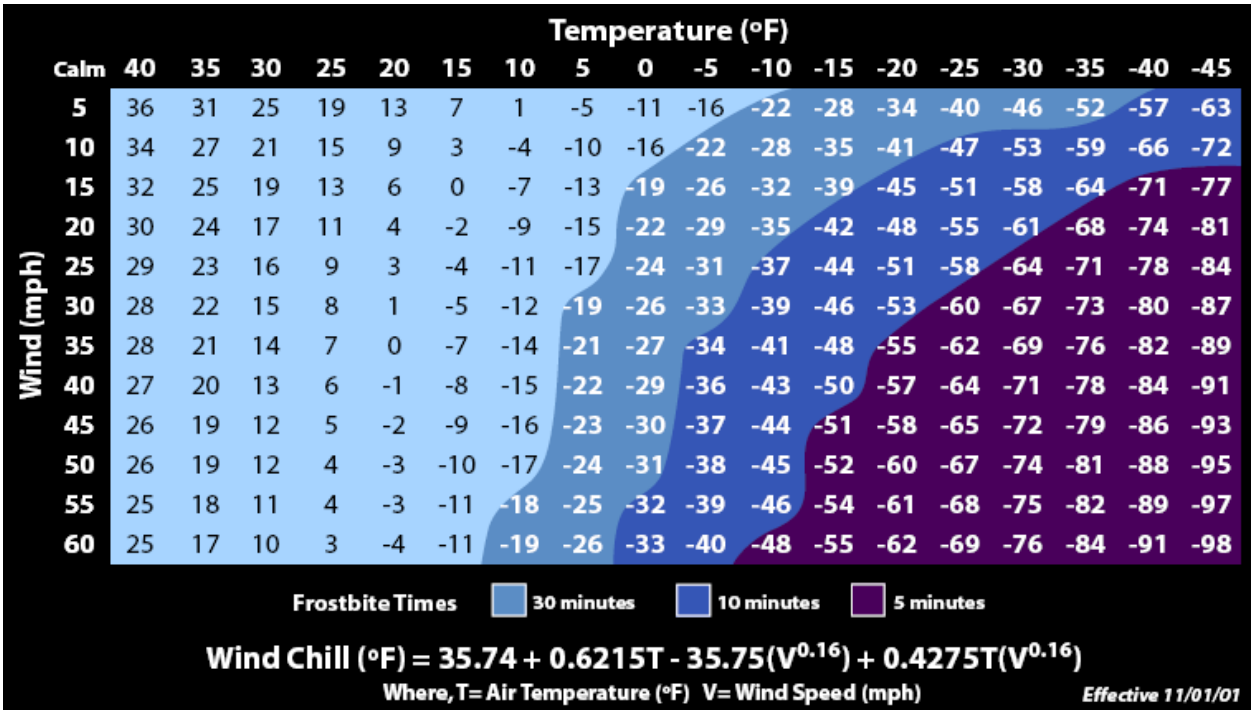
- **Winter Weather Advisory** – Be Aware Wintry weather expected. Exercise caution. Light amounts of wintry precipitation or patchy blowing snow will cause slick conditions and could affect travel if precautions are not taken.
- **Winter Storm Watch** – Be Prepared Snow, sleet, or ice possible. Be prepared. Confidence is medium that a winter storm could produce heavy snow, sleet, or freezing rain and cause significant impacts.
- **Winter Storm Warning** – Take Action Snow, sleet, or ice expected. Take action. Confidence is high that a winter storm will produce heavy snow, sleet or freezing rain and cause significant impacts.

Although building codes, plant type and age, crop location, the amount of time (duration) below 28 degrees, and the dew point temperature can change the impacts, the general rule is to look closely at the need for hard freeze warnings when temperatures in the Central Valley agricultural areas are expected to fall to 25 degrees or less. Because the impacts are not strictly based on temperature or durations, close coordination is needed with agriculture and health experts on determining the need for this type of warning. This type of freeze warning is nearly always preceded by watches.

NWS Wind Chill Temperature (WCT) index uses advances in science, technology, and computer modeling to provide an accurate, understandable, and useful formula for calculating the dangers from winter winds and freezing temperatures. The index does the following:

- Calculates wind speed at an average height of 5 feet, the typical height of an adult human face, based on readings from the national standard height of 33 feet, typical height of an anemometer
- Is based on a human face model
- Incorporates heat transfer theory based on heat loss from the body to its surroundings, during cold and breezy/windy days
- Lowers the calm wind threshold to 3 mph
- Uses a consistent standard for skin tissue resistance
- Assumes no impact from the sun, i.e., clear night sky

Wind chill temperature is the temperature it “feels like” outside and is based on the rate of heat loss from exposed skin caused by the effects of wind and cold. As the wind increases, the body is cooled at a faster rate causing the skin temperature to drop. Wind chill does not affect inanimate objects like car radiators and exposed water pipes because these objects cannot cool below the actual air temperature.



4 CONCEPT OF OPERATIONS

The San Joaquin County Emergency Operations Center (EOC) will be activated at the direction of the Director of Emergency Services, to a level as outlined in the EOP. This extreme weather plan may be activated at any of the phases outlined in the next section. In addition to the actions described, the County may provide supplemental support to Cities and special districts during any of the phases of an extreme weather emergency as necessary.

The County will adhere to SEMS. During times when the EOC is not activated, the OES Duty Officer will act as the coordinator for jurisdictions within the OA requesting support or assistance, as well as for all State inquiries. Once the EOC has been activated, the EOC will become the centralized point of coordination for all State, County and Local jurisdictions with regard to the OA. The ESF-05 Management further describes the EOC operations.

OES and the EOC are co-located. The OES Duty Officer is the initial point of contact for requests or information. The OES Duty Officer may be reached by contacting the OES at 209-953-6200 during regular business hours, or by calling the Sheriff's Dispatch at 209-468-4421 and requesting the OES Duty Officer.

If the event includes multiple jurisdictions, the need for collaboration and coordination between several entities through the operational area may be necessary. The use of the San Joaquin Multi-Agency Coordination Group (MAC Group) may be essential to develop or implement countywide policy-level decisions. The MAC Group as covered in the San Joaquin County Multi-Agency Coordination Support Annex, is to evaluate threat conditions, determine incident priorities, maintain situational awareness, or determine priorities related to the use of critical resources.

The following sections outline response phases for seasonal weather extremes, beginning with heat, followed by cold.

4.1 HEAT RESPONSE PHASES

A severe weather forecast by NWS will be the crucial indicator regarding the event type. The County Director of Emergency Operations or designee will determine the need to activate this guidance upon receipt of a forecast indicating such conditions will prevail.

The County uses a phased approach to extreme temperature emergencies that are consistent with the State of California's contingency plans for extreme cold/heat emergencies.

The phases for heat are:

I. Seasonal Readiness

II. Heat Watch / Advisory

III. Heat Warning

To prepare members of the public and government resources for extreme temperature conditions, the series of escalating response levels are referred to as Phase I, Phase II, and Phase III activations, depending upon the severity of the threat to public health as well as animals. Severity is determined by a number of factors, including the degree of temperature deviation to the levels that threaten health, factors such as humidity and diurnal (daily) variation, the expected duration of the event, and the status of community infrastructure (e.g. utilities, transportation) to allow the public to mitigate the impact of the temperature extremes. The general criteria for gauging the severity of the threat posed by a heat emergency are described in this section.

Beginning with Phase I, the Director of Emergency Operations, Public Health Officer, Medical Health Operational Area Coordinator (MHOAC), and Agricultural Commissioner will monitor a series of extreme cold/heat indicators. These indicators include:

- NWS warnings and advisories
- NWS *HeatRisk* forecast
- Heat/Cold related illnesses/deaths above average
- Extreme temperature accompanied by power outages/rolling black-outs
- Two or more jurisdictions declare heat/cold-related emergencies
- State declares a severe cold/heat emergency

NWS forecasts are an important indicator, the NWS is not the sole determinant of an extreme temperature event. For example, a single day of high heat may not trigger an emergency, but high temperatures during the day and night in excess of three days could trigger an emergency.

4.1.1 Heat Phase I – Pre-Seasonal Readiness

Phase I actions for heat are taken before the end of May each year to prepare for and maintain a state of increased readiness. Activities for Phase I Pre-Seasonal Readiness will be initiated each year by the Heat Specialist Group consisting of, but not limited to, representatives from OES, Public Health, Ag Commissioner, Emergency Medical Services Agency, Community Services Agency, other County Departments, and Cities within the County, Medical Response Agencies, and Non-Governmental Agencies (NGOs).

This includes the following actions:

- Review of existing plans, procedures, and resources with key stakeholders
- Verify list of Cool Zones with local government for publication with each agency
- Discuss transportation methods that may be utilized in Phase II and Phase III for Cool Zones and Cooling Centers
- Update and validate communication methods for response agencies
- Determine plan for public awareness outreach materials to include self- assessment and include a “watch out for your neighbor” campaign
- Identify and verify the list of vulnerable populations and coordinating agencies
- Update information and risk communication processes for vulnerable populations
- Review communication, coordination, and support capabilities and methods with local non-governmental and faith-based organizations
- Begin a public information campaign on extreme temperature (to begin on/near Memorial Day)

4.1.2 Heat Phase II – Excessive Heat Watch / Excessive Heat Advisory

Benchmarks for Phase II are monitored by local government and OES and include, but are not limited to, credible predictions by the NWS of excessive heat or of power outages during warmer than normal weather conditions in the County. During this phase, contact with local agencies, stakeholders, and coordination among State agencies increases.

Specific benchmarks include:

- A partner email from the NWS, giving an outlook for an extended period of much above average temperatures
- An Excessive Heat Watch or Excessive Heat Warning is issued by the NWS
- Credible predictions of power outages, electrical blackouts, or rotating blackouts (e.g., CAISO Stages 1- 3 Electrical Emergencies) are issued during periods of high heat
- Abnormal animal mortality rates (poultry and livestock)

Phase II actions by local government or OES may include the following:

- Participate in periodic or daily calls, as needed, with State agencies regarding weather and power updates
- Coordination between OES, cities, the Public Health Officer, Human Services Agency (HSA), Behavioral Health Services (BHS), Ag Commissioner, Emergency Medical Services (EMS), Environmental Health Department (EHD), utilities, Community Based Organizations (CBOs), Faith-Based Organizations (FBOs), and first responder agencies regarding potential activation of Multi-Agency Coordination for Emergency Operations Center (EOC) activation
- Activate the Joint Information Center (JIC) and increase public information efforts including Social Media and the OES website
- Release pre-scripted heat-protective measures to all media sources
- Initiate or continue risk communication efforts to vulnerable populations as outlined in Phase I
- Monitor impacts to agriculture including animal mortality, rendering plant impacts, and coordination with industry
- Initiate medical surveillance specific to heat impacts through the Medical Health Operational Area Coordinator (MHOAC), including long term care facilities, EMS ambulance runs, and hospitals
- Confirm details of agency participation, staffing
- Ensure employees have updated heat emergency materials
- Coordinate with the managers and owners of any Cool Zones considered for publication
- Publicize and communicate Cool Zone locations
- Utilize WebEOC for County agency information sharing and development of an Incident Action Plan.
- Consider need for activating Cooling Centers
- Identify potential Cooling Center sites
- Develop a transportation working group consisting of public, private, volunteer and service organizations to identify and develop a transportation component and procedures to ensure vulnerable populations are provided transportation to Cooling Zones or Centers
- Coordinate with local utilities to assess power restrictions or limitations

- Track heat-related fatalities
- Determine potential impacts on landfills due to heat-related animal mortality

4.1.3 Heat Phase III – Excessive Heat Warning

Phase III benchmarks include:

- NWS warnings for more than three consecutive days.
- Abnormal animal mortality rates due to excessive heat
- Abnormal human medical emergencies and mortality due to excessive heat
- CAISO Stage 3 Electrical Emergency and /or extended power outages during expected excessive heat conditions

Phase III efforts include urgent and comprehensive actions to mitigate injury, damage, and health threats during the most severe heat events. These actions may include:

- Continuing actions identified in Phase II
- Increasing coordinating calls with local, regional and State resources
- Determine need to activate the EOC or the Department Operations Center (DOC) if not already activated
- Determine the need for mutual aid resources
- JIC to increase and continue public information efforts
- Consider activating Cooling Centers
- Coordinate with local utilities to assess power restrictions or limitations
- Consider activating community information and public health call lines
- Consider providing wellness checks on vulnerable populations
- Conduct bed polling status of hospitals and monitor status of medical facilities
- Establish communication with local dialysis centers, skilled nursing facilities, and long-term care facilities to monitor for possible medical impacts if there is concern regarding potential, prolonged, or rolling power outages or blackouts
- Monitor rendering capacity statewide
- Consider a local proclamation
- Ensure employees have updated heat emergency materials
- Coordinate with the local electric utility to identify and develop procedures for the operations of volunteered “Cooling Centers” that could be exempted from rotating blackouts
- Ensure pet and animal heat impacts are being addressed through special facilities or pet accommodations at Cooling Centers or other locations
- Track heat-related fatalities and medical emergencies
- Monitor for possible medical implications of prolonged power outages or rolling blackouts
- Monitor Cooling Centers providing regular updates on numbers of persons at each,

access and functional related needs, support issues, and power availability

- Identify any regulatory or ordinance issues that may need to be suspended
- Identify transportation resources for Cooling Centers
- Continue use of WebEOC to track Cool Zones, Cooling Centers, Facility Status, and activity logs for information sharing

4.2 Roles and Responsibilities Table - Heat

The following table specifies specific agency roles and responsibilities for each phase. The agencies are listed in the left column, and are broken down by emergency support function.

CRITERIA	PHASE 1 Pre-Season Preparedness	PHASE 2 NWS Heat Advisory	PHASE 3 NWS Excessive Heat Watch/Warning
ESF#1 – TRANSPORTATION			
AGENCY	**PHASE 1**	**PHASE 2**	**PHASE 3**
San Joaquin Regional Transit District	• Review Heat Appendix • Review transportation plan	• Initiate transportation plan	• Implement transportation plan to Centers
Purchasing & Support Services	• Review Heat Appendix • Review transportation plan		• Implement transportation plan
ESF#2 – COMMUNICATIONS			
AGENCY	**PHASE 1**	**PHASE 2**	**PHASE 3**
Information Systems Division	• Review Heat Appendix • Prepare/post Heat OES page website	• Post information on website as provided by PIO	• Post information on website as provided by PIO
ESF#3 – CONSTRUCTION AND ENGINEERING			
AGENCY	**PHASE 1**	**PHASE 2**	**PHASE 3**
Public Works (Solid Waste)	• Review Heat Appendix	• Prepare to receive carcasses if needed	• Receive carcasses if needed
ESF #5 –EMERGENCY MANAGEMENT			
AGENCY	**PHASE 1**	**PHASE 2**	**PHASE 3**
Office of Emergency Services	• Emergency Management Committee • Review Heat Appendix • Coordinate with NWS and Cal ISO • Update websites and social media	• Emergency Management Committee • Activate EOC at Level 1 • Assign Ops Section Chief • Inform Cal OES Inland Region • Implement JIC / PIO • Issue heat awareness • Stage critical resources • Develop transportation plan	• Process mutual aid requests • Submit reports to Inland Region • Coordinate with power utilities • Distribute heat-related information • Participate in Cal OES and NWS briefings • Request cooling centers to open • Monitor usage of cooling centers

CRITERIA	PHASE 1 Pre-Season Preparedness	PHASE 2 NWS Heat Advisory	PHASE 3 NWS Excessive Heat Watch/Warning
Emergency Management Committee	• Review roles and responsibilities • Review Briefing form for currency of critical topics	• Set objectives • Share information • Set funding policy • Consider proclamations and orders	• Establish orders, policies, cost controls • Monitor plan implementation • Consider San Joaquin • County Multi-Agency Coordination Support Annex Activation needs
Cities	• Review Heat Appendix • Identify pet accommodations at Centers	• Open Cooling Centers as needed • Notify OA EOC • Assign PIO to JIC • Locate vulnerable populations • Provide transportation as needed	• Request/supply critical resources • Request OA open additional Centers as needed • Coordinate with County EOC, while activated
ESF #6 – CARE AND SHELTER			
AGENCY	**PHASE 1**	**PHASE 2**	**PHASE 3**
Human Services Agency	• Review Heat Appendix • Update critical resource list • Convene Housing/Shelter Working Group • Review Cooling Center operation criteria	• Coordinate locating vulnerable populations with cities, PHS, EHD, BHS and DRC. • Stage cooling fans for give-away program • Activate Centers as needed • Consider Care & Shelter Branch needs at County EOC	• Participate in meetings, etc. • Survey Centers for accessibility • Assess need for commodities • Coordinate needs to provide wellness checks on vulnerable populations with cities, PHS, BHS, EHD and DRC • Provide support to Care and Shelter Branch in EOC, as needed
American Red Cross	• Member of Outreach Group • Member of Shelter/Housing Working Group	• Activate facilities as Cooling Centers • Coordinate with OA EOC •	• Support ARC Centers with logistical resources • Inspect ARC Centers for health/safety • Coordinate with OA EOC

CRITERIA	PHASE 1 Pre-Season Preparedness	PHASE 2 NWS Heat Advisory	PHASE 3 NWS Excessive Heat Watch/Warning
Disaster Relief Coalition	• Member of Outreach Group • Member of Shelter/Housing Working Group	• Support locating vulnerable populations with HAS, PHS, BHS, EHD and cities • Stage cooling fans for give-away • Activate facilities as cooling centers • Stage critical resources at centers • Coordinate with OA EOC	• Outreach with heat-injury materials • Monitor use/effectives at DRC centers • Coordinate with OA EOC • Support notification of vulnerable populations with HSA, PHS, EHD, BHS, and cities.
ESF #7- RESOURCES			
AGENCY	**PHASE 1**	**PHASE 2**	**PHASE 3**
Purchasing & Support Services	• Review Heat Appendix • Review transportation plan	• Stage critical resources at cooling Centers, as needed	• Stage critical resources at cooling Centers, as needed • Implement transportation plan
ESF #8 – PUBLIC HEALTH AND MEDICAL			
AGENCY	**PHASE 1**	**PHASE 2**	**PHASE 3**
Public Health Services	• Review Heat Appendix • Develop outreach materials; templates should include media, public, and social media releases.	• Emergency Management Committee • Prepare to declare a health emergency • Assign PIO / Participate in JIC • Consider tracking heat-related illnesses at hospital emergency departments • Assign EOC Medical/health Branch Director	• Emergency Management Committee • Possible Health Emergency Declaration • Issue health advisories for outdoor activities • Outreach to distribute heat injury materials • Track heat-related fatalities • Track heat-related illnesses at hospital emergency departments • Support notification of vulnerable populations with HSA, BHS, EHD, DRC and cities • Support OA EOC Medical/Health Branch

CRITERIA	PHASE 1 Pre-Season Preparedness	PHASE 2 NWS Heat Advisory	PHASE 3 NWS Excessive Heat Watch/Warning
Emergency Medical Services	• Review Heat Appendix	• Coordinate/Monitor medical facilities and health agencies of heat emergency • Consider support needs of OA EOC at Medical/health Branch	• Monitor EMS system for heat-related illness • Support OA EOC Medical/Health Branch
Behavioral Health Services	• Review Heat Appendix • Locate vulnerable BHS populations (mentally ill) • To extent possible, assist in efforts to locate other vulnerable populations • Assist with education materials	• Locate vulnerable populations (mental ill) • Support locating other vulnerable populations with HSA, cities, EHD, PHS, and DRC. • Provide information for protection to vulnerable target population and others, to extent possible • Consider support needs at OA EOC in Medical/health Branch and/or Care & Shelter Branch	• Perform wellness checks on vulnerable BHS populations • Coordinate with HSA, PHS, EHD, DRC and Cities wellness checks on vulnerable populations • To extent possible, assist in efforts to provide wellness checks on other vulnerable populations • Provide information on cooling centers to BHS target population • Support OA EOC Medical/Health Branch or Care & Shelter Branch
Environmental Health Department	• Review Heat Appendix •	• Assign agency representative to coordinate with EOC • Coordinate with PHS, BHS, HSA, DRC, and cities on outreach activities	• Outreach to vulnerable populations, as needed • Monitor small public water systems • Monitor food facilities • Support notification of vulnerable populations with HSA, PHS, BHS, DRC and cities • Support OA EOC Medical/Health Branch or Care & Shelter Branch

CRITERIA	PHASE 1 Pre-Season Preparedness	PHASE 2 NWS Heat Advisory	PHASE 3 NWS Excessive Heat Watch/Warning
ESF #11- FOOD AND AGRICULTURE			
AGENCY	**PHASE 1**	**PHASE 2**	**PHASE 3**
Ag Commissioner	• Review Heat Appendix • Review Rendering Plan • Select education materials	• Emergency Management Committee • Outreach to Ag community •	• Emergency Management Committee • Outreach to Ag community • Monitor carcass collection; disposal activities
Environmental Health Department	• Review Heat Appendix • Review Rendering Plan	• Assign agency representative to coordinate with EOC • Coordinate with Ag about animal fatalities monitoring	• Inspect Cooling Centers for safe food service • Monitor carcass disposal activities • Coordinate approval of alternative disposal sites
UC Cooperative Extension	• Review Heat Appendix	• Outreach to agricultural community	• Outreach to agricultural community
ESF #12- UTILITIES			
AGENCY	**PHASE 1**	**PHASE 2**	**PHASE 3**
PG&E		• Monitor power availability	• Monitor power availability • Coordinate with EOC
NWS Sacramento	• Issue definition of terms for heat emergency	• Issue/update expected weather conditions	• Update weather conditions
CA Independent Service Operator		• Issue Stage 3 Electrical Emergency	• Update electrical emergency information

CRITERIA	PHASE 1 Pre-Season Preparedness	PHASE 2 NWS Heat Advisory	PHASE 3 NWS Excessive Heat Watch/Warning
ESF #13- LAW ENFORCEMENT			
AGENCY	**PHASE 1**	**PHASE 2**	**PHASE 3**
Sheriff's Coroner	• Review Heat Appendix	• Monitor situation	• Report heat-related fatalities to Public Health
Sheriff's Animal Services	• Review Heat Appendix	• Monitor County area for animal carcasses	• Monitor County area for animal carcasses • Monitor HSA-operated Centers for pet accommodations
Sheriff's Communications	• Review Heat Appendix	• Distribute any MACS Mode changes	• Distribute heat-related information to local jurisdictions
ESF #15- PUBLIC INFORMATION			
AGENCY	**PHASE 1**	**PHASE 2**	**PHASE 3**
Public Information Officer	• Review Heat Appendix • Develop/select educational material • Prepare media releases of seasonal awareness	• Issue heat injury prevention advisories • Post Cooling Center information on websites and social media • Participate in JIC/JIS	• Distribute heat-related information • Issue outdoor activity advisories • Issue list of cooling Centers

4.3 COLD OR FREEZE RESPONSE PHASES

The phases for action with regard to cold or freezing are:

I. Seasonal Readiness

II. Cold/Freeze Alert

III. Cold/Freeze Emergency

Phases II and III are activated based on the severity of the risk of extreme cold/freeze to vulnerable populations, farm labor workers, animals, agriculture, and population in general. The direct involvement by government agencies increases with the severity of the risk.

4.3.1 Cold Phase I – Seasonal Readiness

Seasonal readiness typically begins prior to the cold months (in October or November) of each year to prepare for, and maintain, a state of increased readiness. An emergency management committee, consisting of the Director of Emergency Services, Director of Emergency Operations, County Health Officer, representatives of the cities, along with county departments, including Agricultural Commissioner, Behavioral Health Services, Community Development, Emergency Medical Services, Environmental Health Department, General Services, Human Services Agency, Information Systems, Public Health Services, Public Works, Purchasing and Support Services and Sheriff's department representative, will review this plan and familiarize themselves with their responsibilities.

Pre-Season Readiness includes:

- Review of existing plans, procedures, and resources with key stakeholders
- Verify list of Warming Zones with local government for publication with each agency (i.e. senior centers, libraries, community centers)
- Discuss transportation methods that may be utilized in Phase II and Phase III for Warming Centers
- Update and validate communication methods for response agencies
- Determine plan for public awareness outreach materials to include self-assessment and social media campaigns
- Identify and verify list of vulnerable populations and coordinating agencies
- Update information and risk communication processes for vulnerable populations
- Review communication, coordination and support capabilities and methods with local non-governmental and faith-based organizations.

4.3.2 Cold Phase II – Cold / Freeze Warning

Benchmarks for Phase II are monitored by local government and include, but are not limited to credible predictions by the NWS of excessive cold/freeze or of power outages during colder than normal weather conditions in the County. During this phase, contact with local agencies, stakeholders and coordination among State agencies increases. During this phase, there is an increased need to share information to the public using methods outlined in the Alert and Warning Annex.

Phase II benchmarks include:

- A Partner email from the NWS, giving an outlook for an extended period of colder than average temperatures
- A Winter Storm Warning or Watch is issued by the NWS
- Credible predictions of power outages, electrical blackouts, or rotating blackouts (e.g., CAISO Stages 1- 3 Electrical Emergencies) are issued during periods of cold/freeze
- Abnormal animal mortality rates (poultry and livestock) and trees / crop impacts

Phase II actions by local government may include the following:

- Participate in periodic or daily calls as needed with State agencies regarding weather and power updates
- Coordination between OES, cities, the Public Health Officer, HSA, BHS, Ag Commissioner, EMS, EHD, utilities, CBOs, FBOs, and first responder agencies regarding potential activation of Multi-Agency Coordination for Emergency Operations Center (EOC) activation.
- Activate the JIC and increase public information efforts including Social Media and SJReady.org
- Release pre-scripted winter weather protective measures to all media sources
- Initiate or continue risk communication efforts to vulnerable populations as outlined in Phase I
- Monitor impacts to agriculture including animal mortality, trees / crop impacts and coordination with industry
- Initiate medical surveillance specific to cold/freeze impacts through the Medical Health Operational Area Coordinator (MHOAC), including long term care facilities, EMS ambulance runs and hospitals
- Confirm details of agency participation, staffing
- Ensure employees have updated cold/freeze emergency materials
- Coordinate with the managers and owners of any Warming Centers considered for
- publication
- Publicize and communicate Warming Zone locations
- Consider need for activating additional Warming Centers
- Develop a transportation working group consisting of public, private, volunteer and service organizations to identify and develop a transportation component and procedures to ensure vulnerable populations are provided transportation to Warming Zones or Centers
- Coordinate with local utilities to assess power restrictions or limitations
- Track cold/freeze related fatalities

4.3.3 Cold Phase III- Excessive Cold/Freeze Emergency

Phase III benchmarks include:

- NWS warnings for more than three consecutive days.

- Abnormal animal mortality rates due to excessive cold/freeze.
- Extensive damage to trees / crops.
- Abnormal human medical emergencies and mortality due to excessive cold/freeze.
- CAISO Stage 3 Electrical Emergency and /or extended power outages during expected excessive cold/freeze conditions.

Phase III efforts include urgent and comprehensive actions to mitigate injury, damage and health threats during the most severe cold/freeze events.

These actions may include:

- Continuing actions identified in Phase II.
- Increasing coordinating calls with local, regional and State resources.
- Determine need to activate the Emergency Operations Center (EOC) and/or the Department Operations Center (DOC) if not already activated.
- Determine need for mutual aid resources.
- JIC to increase and continue public information efforts.
- Consider activating Warming Zones and Centers.
- Coordinate with local utilities to assess power restrictions or limitations.
- Consider activating community information and public health call lines
- Conduct bed polling status of hospitals and monitor status of medical facilities
- Establish communication with local dialysis centers, skilled nursing facilities, and long-term care facilities to monitor for possible medical impacts if there is concern regarding potential, prolonged, or rolling power outages or blackouts
- Monitor rendering capacity statewide
- Consider local proclamation
- Ensure employees have updated cold/freeze emergency materials
- Ensure pet and animal cold/freeze impacts are being addressed through special facilities or pet accommodations at Warming Zones or other locations
- Track cold/freeze related fatalities and medical emergencies
- Track damage to trees/ crops
- Monitor for possible medical impacts of prolonged power outages or rolling blackouts
- Monitor Warming Centers providing regular updates on numbers of persons at each, access and functional related needs, support issues, and power availability
- Identify any regulatory or ordinance issues that may need to be suspended
- Identify transportation resources for Warming Centers

Local preparedness efforts must be coordinated across levels of local government, within the SEMS/NIMS framework. The following table indicates the lead and support response agencies by emergency support function.

4.4 Roles and Responsibilities Table - Cold

CRITERIA	PHASE 1 Seasonal Readiness	PHASE 2 Cold/Freeze Warning	PHASE 3 Cold/Freeze Emergency
ESF#1 – TRANSPORTATION			
AGENCY	**PHASE 1**	**PHASE 2**	**PHASE 3**
San Joaquin Regional Transit District	• Extreme Weather Plan • Review transportation plan	• Initiate transportation plan	• Implement transportation plan
Purchasing & Support Services	• Extreme Weather Plan • Review transportation plan		• Implement transportation plan
ESF#2 – COMMUNICATIONS			
AGENCY	**PHASE 1**	**PHASE 2**	**PHASE 3**
Information Systems Division	• Extreme Weather Plan • Prepare/post Cold info to OES webpages	• Post information on website as provided by PIO	• Post information on website as provided by PIO
ESF#3 – CONSTRUCTION AND ENGINEERING			
AGENCY	**PHASE 1**	**PHASE 2**	**PHASE 3**
Public Works (Solid Waste)	• Extreme Weather Plan	•	•
ESF #5 –EMERGENCY MANAGEMENT			
AGENCY	**PHASE 1**	**PHASE 2**	**PHASE 3**
Office of Emergency Services	• Emergency Management Committee • Extreme Weather Plan • Coordinate with NWS • Update websites and social media	• Emergency Management Committee • Activate EOC at Level 1 • Assign Ops Section Chief • Inform Cal OES Inland Region • Implement JIC / PIO • Issue cold/freeze awareness and warming zones • Develop transportation plan	• Process mutual aid requests • Submit reports to Inland Region • Coordinate with power utilities • Distribute cold/freeze information • Participate in Cal OES and NWS briefings • Request warming centers to open • Monitor usage of warming centers

CRITERIA	PHASE 1 Seasonal Readiness	PHASE 2 Cold/Freeze Warning	PHASE 3 Cold/Freeze Emergency
ESF #5 –EMERGENCY MANAGEMENT (continued)			
Emergency Management Committee	• Review roles and responsibilities • Review Briefing form for currency of critical topics	• Set objectives • Share information • Set funding policy • Consider proclamations and orders	• Establish orders, policies, cost controls • Monitor plan implementation • Consider SJ MAC Group Activation needs
Cities	• Extreme Weather Plan • Identify pet accommodations at Centers	• Open warming zones/centers as needed • Notify OA EOC • Assign PIO to JIC • Locate vulnerable populations • Provide transportation as needed	• Request/supply critical resources • Request OA open additional warming centers as needed • Coordinate with County EOC, while activated
ESF #6 – CARE AND SHELTER			
AGENCY	**PHASE 1**	**PHASE 2**	**PHASE 3**
Human Services Agency	• Extreme Weather Plan • Update critical resource list • Convene Housing/Shelter Working Group • Review warming center operation criteria	• Coordinate locating vulnerable populations with cities, PHS, EHD, BHS and DRC. • Activate Centers as needed • Consider Care & Shelter Branch needs at County EOC	• Participate in meetings, etc. • Survey Centers for accessibility • Assess need for commodities • Coordinate needs to provide wellness checks on vulnerable populations with cities, PHS, BHS, EHD and DRC • Provide support to Care and Shelter Branch in EOC, as needed
American Red Cross	• Member of Outreach Group • Member of Shelter/Housing Working Group	• Activate facilities as warming Centers • Coordinate with OA EOC	• Support ARC Centers with logistical resources • Inspect ARC Centers for health/safety • Coordinate with OA EOC

CRITERIA	PHASE 1 Seasonal Readiness	PHASE 2 Cold/Freeze Warning	PHASE 3 Cold/Freeze Emergency
ESF #6 – CARE AND SHELTER (continued)			
Disaster Relief Coalition	• Member of Outreach Group • Member of Shelter/Housing Working Group	• Support locating vulnerable populations with HAS, PHS, BHS, EHD and cities • Activate facilities as warming centers • Stage critical resources at centers • Coordinate with OA EOC	• Outreach with cold/freeze injury materials • Monitor use/effectives at DRC centers • Coordinate with OA EOC • Support notification of vulnerable populations with HSA, PHS, EHD, BHS, and cities.
ESF #7- RESOURCES			
AGENCY	**PHASE 1**	**PHASE 2**	**PHASE 3**
Purchasing & Support Services	• Extreme Weather Plan • Review transportation plan	• Stage critical resources at warming centers, as needed	• Stage critical resources at warming centers, as needed • Implement transportation plan
ESF #8 – PUBLIC HEALTH AND MEDICAL			
AGENCY	**PHASE 1**	**PHASE 2**	**PHASE 3**
Public Health Services	• Extreme Weather Plan • Develop outreach materials; templates should include media, public, and social media releases.	• Emergency Management Committee • Assign PIO / Participate in JIC • Assign EOC Medical/health Branch Director	• Participate in the Emergency Management Committee • Possible Health Emergency Declaration • Issue health advisories for outdoor activities • Outreach to distribute cold/freeze materials • Track cold-related fatalities • Track cold-related illnesses • Support notification of vulnerable populations with HSA, BHS, EHD, DRC and cities • Support OA EOC Medical/Health Branch

CRITERIA	PHASE 1 Seasonal Readiness	PHASE 2 Cold/Freeze Warning	PHASE 3 Cold/Freeze Emergency
ESF #8 – PUBLIC HEALTH AND MEDICAL (continued)			
Emergency Medical Services	• Extreme Weather Plan	• Coordinate/Monitor medical facilities and health agencies of cold emergency • Consider support needs of OA EOC at Medical/health Branch	• Monitor EMS system for cold-related illness • Support OA EOC Medical/Health Branch
Behavioral Health Services	• Extreme Weather Plan • Locate vulnerable BHS populations (mentally ill) • To extent possible, assist in efforts to locate other vulnerable populations • Assist with education materials	• Locate vulnerable populations (mental ill) • Support locating other vulnerable populations with HSA, cities, EHD, PHS, and DRC. • Provide information for protection to vulnerable target population and others, to extent possible • Consider support needs at OA EOC in Medical/health Branch and/or Care & Shelter Branch	• Perform wellness checks on vulnerable BHS populations • Coordinate with HSA, PHS, EHD, DRC and Cities wellness checks on vulnerable populations • To extent possible, assist in efforts to provide wellness checks on other vulnerable populations • Provide information on warming centers to BHS target population • Support OA EOC Medical/Health Branch or Care & Shelter Branch
Environmental Health Department	• Extreme Weather Plan	• Assign agency representative to coordinate with EOC • Coordinate with PHS, BHS, HSA, DRC, and cities on outreach activities	• Outreach to vulnerable populations, as needed • Support notification of vulnerable populations with HSA, PHS, BHS, DRC and cities • Support OA EOC Medical/Health Branch or Care & Shelter Branch

CRITERIA	PHASE 1 Seasonal Readiness	PHASE 2 Cold/Freeze Warning	PHASE 3 Cold/Freeze Emergency
ESF #11- FOOD AND AGRICULTURE			
AGENCY	**PHASE 1**	**PHASE 2**	**PHASE 3**
Ag Commissioner	• Extreme Weather Plan • Select educational materials	• Emergency Management Committee • Outreach to Ag community	• Emergency Management Committee • Outreach to Ag community • Prepare and submit Disaster Report Form.
Environmental Health Department	• Extreme Weather Plan	• Assign agency representative to coordinate with EOC	• Inspect warming centers for safe food service
UC Cooperative Extension	• Extreme Weather Plan	• Outreach to agricultural community	• Outreach to agricultural community
ESF #12- UTILITIES			
AGENCY	**PHASE 1**	**PHASE 2**	**PHASE 3**
PG&E		• Monitor power availability	• Monitor power availability • Coordinate with EOC
National Weather Service-Sacramento	• Issue definition of terms for cold emergency	• Issue/update expected weather conditions	• Update weather conditions
CA Independent Service Operator			• Update electrical emergency information
ESF #13- LAW ENFORCEMENT			
AGENCY	**PHASE 1**	**PHASE 2**	**PHASE 3**
Sheriff's Coroner	• Extreme Weather Plan	• Monitor situation	• Report cold-related fatalities to Public Health
Sheriff's Animal Services	• Extreme Weather Plan	• Monitor HSA-operated Centers for pet accommodations	• Monitor HSA-operated Centers for pet accommodations
Sheriff's Communications	• Extreme Weather Plan	• Distribute any MACS Mode changes	• Distribute cold-related information to local jurisdictions

EMERGENCY SUPPORT FUNCTION AREA	LEAD AGENCIES	SUPPORT AGENCIES

CRITERIA	PHASE 1 Seasonal Readiness	PHASE 2 Cold/Freeze Warning	PHASE 3 Cold/Freeze Emergency
ESF #15- PUBLIC INFORMATION/ EXTERNAL AFFAIRS			
AGENCY	**PHASE 1**	**PHASE 2**	**PHASE 3**
Public Information Officer	• Extreme Weather Plan • Develop/select educational material • Prepare media releases of seasonal awareness	• Issue cold injury prevention advisories • Post cooling center information on websites and social media • Participate in JIC/JIS	• Distribute cold-related information • Issue outdoor activity advisories • Issue list of warming centers

5 AUTHORITIES AND REFERENCES

Cal OES Contingency Plan for Extreme Cold / Emergencies

6 DEFINITIONS

Community Based Organization or *CBO* means “a public or private nonprofit organization of demonstrated effectiveness that: Is representative of a community or segments of a community; and provides educational or related services to individuals in the community”.

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, etc.).

Cool Zones - A Cool Zone is a location to get out of the heat for a period of time to let your body cool down. Cool Zone facilities may include libraries, community centers, malls, and senior centers. During a heat event, community and senior centers may extend hours into the evening to give citizens a longer period of respite.

Cooling Centers - A Cooling Center is a temporary air-conditioned public space set up by local authorities to deal with the health effects of extreme heat over an extended period of time. Usually sited at several locations throughout a city, Cooling Centers are meant to prevent hyperthermia, especially among the elderly without air conditioning at home. Cooling Centers provide shade, water, and sometimes medical attention, along with referrals to social services.

Cooling Stations - Facilities that can be used for heat relief that are exempt from rotating power outages (mandated by CPUC Decision 02-04-060, 4/25/02). Typically these are facilities such as hospitals, skilled nursing facilities, etc.

Emergency Plans - As defined in Government Code §8560 (a) "Emergency Plans" means those official and approved documents which describe the principles and method 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.

Faith Based Organization or *FBO* - means a religious-based organization that provides community services.

HeatRisk Output – Used by the NWS as tool to determine Potential Heat Risks up to seven (7) days in advance. The Risk is assessed by comparing the official NWS temperature forecast to local thresholds which change through the year based on climatology. The approach considers: 1) how significant above high and low temperatures are at your location in a 24 hour period; 2) Time of year; 3) Duration of unusual heat expected; 4) If temperatures pose an elevated risk for heat complications and; 5) If overnight lows and humidity allow temporary relief or enhancement of the heat wave. *HeatRisk* is portrayed in a numeric (0-4) and color (green/yellow/orange/red/magenta) scale. Essentially, the higher the value, the greater the potential heat risk.

Heat Wave (Extreme / Excessive Heat Event) - When temperatures reach 10° 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.

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 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)."

NWS Information - Using the climate-region-specific criteria, if NWS forecasters predict for a given region an extreme temperature event, then the NWS will issue alerts in the form of a Special Weather Statement that is based on several criteria, including how far in advance of the event they are making the prediction.

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 §2401, " . . . 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."

WebEOC – Software tool used by emergency managers to track an incident or events. Initial rollout includes San Joaquin County Healthcare Coalition agencies, Office of Emergency Services and County Fire Districts.

7 ACRONYMS

Acronyms used throughout this plan and their full names are listed below in alphabetical order by their acronyms.

ADA	American Disabilities Act
BHS	Behavioral Health Services
BOS	Board of Supervisors
CAL	ISO - California Independent System Operator
Cal OES	California Office of Emergency Services
CAO	County Administrative Officer
CBO	Community Based Organization
CPUC	California Public Utility Commission
EHD	Environmental Health Department
EMC	Emergency Management Committee
EMS	Emergency Medical Services
EOC	Emergency Operations Center
FBO	Faith Based Organization
HSA	Human Services Agency
IAP	Incident Action Plan
ICS	Incident Command System
JIC	Joint Information Center
MHOAC	Medical Health Operational Area Coordinator
NGO	Non-Governmental Organization
NIMS	National Incident Management System
NOAA	National Oceanic and Atmospheric Administration
NWS	National Weather Service
OA	Operational Area
OES	Office of Emergency Services (County)
PG&E	Pacific Gas and Electric
PHS	Public Health Services
PHO	Public Health Officer
PNP	Private Non-Profit
PIO	Public Information Officer
SEMS	Standardized Emergency Management System
UHI	Urban Heat Island
WebEOC	Software tool used by emergency managers to track an incident or events