



# **CONTINGENCY PLAN FOR EXCESSIVE HEAT EMERGENCIES**

*A Supporting Document to the Nevada  
County Emergency Operations Plan*

Reviewed Annually  
Last updated: July 2017 DRAFT

## OVERVIEW

This is a contingency plan supporting the Nevada County Emergency Operations Plan and the State Contingency Plan for Excessive Heat Emergencies.

This plan describes county operations during heat related emergencies and provides guidance for local governments, non-governmental organizations, the private sector and faith-based organizations in the preparation of their heat emergency response plans and other related activities.

The plan recognizes the need for Nevada County to:

1. Identify when the health of populations and/or subpopulations of local residents may be threatened by extreme heat conditions;
2. Communicate with the public to convey information about resources available for protection against extreme heat emergencies in time to allow preparations to be made;
3. Communicate and coordinate with State and Local Agencies;
4. Mobilize resources and initiate actions to augment local resources, as needed;

This plan recognizes three (3) phases of activation.

- I. Pre-Seasonal Readiness**
- II. Excessive Heat Watch / Advisory**
- III. Excessive Heat Warning**

- **Excessive Heat Warning—Take Action!** An Excessive Heat Warning is issued within 12 hours of the onset of extremely dangerous heat conditions. The general rule of thumb for this Warning is when the maximum heat index temperature is expected to be 105° or higher for at least 2 days and night time air temperatures will not drop below 75°; however, these criteria vary across the country, especially for areas not used to extreme heat conditions. If you don't take precautions immediately when conditions are extreme, you may become seriously ill or even die.
- **Excessive Heat Watches—Be Prepared!** Heat watches are issued when conditions are favorable for an excessive heat event in the next 24 to 72 hours. A Watch is used when the risk of a heat wave has increased but its occurrence and timing is still uncertain.
- **Heat Advisory—Take Action!** A Heat Advisory is issued within 12 hours of the onset of extremely dangerous heat conditions. The general rule of thumb for this Advisory is when the maximum heat index temperature is expected to be 100° or higher for at least 2 days, and night time air temperatures will not drop below 75°; however, these criteria vary

across the country, especially for areas that are not used to dangerous heat conditions. Take precautions to avoid heat illness. If you don't take precautions, you may become seriously ill or even die.

**Excessive Heat Outlooks** are issued when the potential exists for an excessive heat event in the next 3-7 days. An Outlook provides information to those who need considerable lead-time to prepare for the event.

- a. Excessively hot weather with credible weather forecasts of excessively hot weather of three days or less.
- b. These weather conditions include high daytime temperatures accompanied by night temperatures of 75 degrees or more.

#### **IV. Heat Emergency**

- a. Weather conditions with a heat index of over 105 degrees with NWS Heat Advisories or Warnings or excessively hot weather for more than three days.
- b. These weather conditions include high daytime temperatures accompanied night temperatures of 75 degrees or more.
- c. Proclamation of an emergency related to excessive heat.

These phases are activated based on the severity of the risk of heat to animals, vulnerable populations and the population in general. The direct involvement of county and local agencies to protect individuals increases with severity of the risk.

The plan contains a checklist to guide local actions. The specific actions steps include:

- Coordinating among county and local agencies (All phases)
- Disseminating information (All phases)
- Providing cooling facilities (Phase II and III)
- Directly contacting and monitoring those at risk (Phase II and III)
- Transporting those at risk to cooling facilities (Phase II and II)
- Proclamation of a state of emergency (Phase III)

**Phase 1 – Pre-Seasonal Readiness (May to September)**

PLANNING	RESPONSIBLE AGENCY
<ul style="list-style-type: none"> <li>• Establish a “working group” consisting of those agencies/departments to identify the vulnerable populations and develop a strategy for notification and emergency actions to include establishing cooling centers and transportation.</li> <li>• Meet monthly through September               <ul style="list-style-type: none"> <li>○ Initial Face to Face meeting in May</li> <li>○ Maintain contact via e-mails through September</li> </ul> </li> <li>• Review the California Contingency Plan for Excessive Heat Emergencies</li> <li>• Develop a plan for coordinating in-home visits to vulnerable populations.</li> <li>• Identify any unanticipated needs or problems</li> <li>• Establish a notification process to contact agencies assigned to the ‘working group’.</li> <li>• Review data base of vulnerable populations and group into geographical areas.</li> </ul>	<p>OES/HHSA</p> <p>OES/HHSA/PH/PW/GIS</p> <p>OES</p> <p>HHSA</p> <p>OES/HHSA/PH/PW</p> <p>OES/PH</p> <p>HHSA</p>
AWARENESS	
<ul style="list-style-type: none"> <li>• Develop press releases for increasing awareness for general and vulnerable populations.</li> <li>• Establish process to rapidly disseminated extreme heat emergency advice to vulnerable populations in a timely manner.</li> </ul>	<p>PH/OES/PIO</p> <p>PH/OES/PIO</p>
COOL ZONES	
<ul style="list-style-type: none"> <li>• Identify facilities that can be used for cooling zones and contact facility owners.</li> </ul>	<p>OES</p>
COOLING CENTERS	
<ul style="list-style-type: none"> <li>• Identify facilities that can be used for cooling centers and contact facility owners.</li> <li>• Confirm points of contact for cooling centers.</li> <li>• Develop and implement a plan that identifies potential cooling centers/shelters that are ADA compliant.</li> </ul>	<p>OES</p> <p>OES</p> <p>OES/HHSA</p>
TRANSPORTATION	
<ul style="list-style-type: none"> <li>• Identify and coordinate procedures, to ensure transportation, including wheelchair accessible transportation, is available for those in need of cooling centers.</li> <li>• Identify ways for people with disabilities to notify appropriate authorities when transportation to cooling centers is needed.</li> </ul>	<p>HHSA/OES</p> <p>HHSA/OES</p>


**Phase II – Increased Readiness**

<b>PLANNING</b>	<b>RESPONSIBLE AGENCY</b>
<ul style="list-style-type: none"> <li>• Convene “working group” to discuss further actions by the county.</li> <li>• Identify any unanticipated needs or problems</li> <li>• Establish a notification process to contact agencies assigned to the ‘working group’.</li> <li>• Review data base of vulnerable populations and group into geographical areas.</li> </ul>	<p style="text-align: center;">HHSA/OES</p> <p style="text-align: center;">Working Group</p> <p style="text-align: center;">OES</p> <p style="text-align: center;">HHSA/GIS</p>

<b>PLANNING (continued)</b>	
<ul style="list-style-type: none"> <li>Identify extreme heat emergency actions that will require emergency regulations or ordinances</li> </ul>	PH/OES
<b>AWARNNESS</b>	
<ul style="list-style-type: none"> <li>Disseminate advice on extreme heat emergency to vulnerable populations.</li> <li>Public announcement on recognizing heat stress and tips on mitigation.</li> </ul>	PH
<b>COOLING CENTERS</b>	
<ul style="list-style-type: none"> <li>Ensure that the facilities identified for cooling centers will be available</li> </ul>	OES
<ul style="list-style-type: none"> <li>Confirm points of contact for cooling centers.</li> </ul>	OES
<ul style="list-style-type: none"> <li>Coordinate with the local utility to identify and develop procedures for the operations of volunteered cooling centers that could be exempt from rotating blackouts if necessary.</li> </ul>	OES
<b>TRANSPORTATION</b>	
<ul style="list-style-type: none"> <li>Notify private, volunteer and service organizations involved in the transportation component to ensure availability.</li> </ul>	HHS/OES

**PHASE III – Heat Alert**

<b>PLANNING</b>	
<ul style="list-style-type: none"> <li>Convene “working group” daily.</li> </ul>	OES
<ul style="list-style-type: none"> <li>Notify the OES Regional Coordinator of Phase III activation.</li> </ul>	OES
<ul style="list-style-type: none"> <li>Alert volunteer groups.</li> </ul>	HHS/OES
<ul style="list-style-type: none"> <li>Coordinate with local utilities to assess power restrictions or limitations.</li> </ul>	OES
<ul style="list-style-type: none"> <li>Consider activating the EOC to the extent necessary.</li> </ul>	OES
<ul style="list-style-type: none"> <li>Implement a method to track extreme heat emergency relate deaths and medical emergencies.</li> </ul>	PH
<ul style="list-style-type: none"> <li>Determine whether or not to proclaim a local emergency (or public health emergency).</li> </ul>	PH/OES/BOS
<b>AWARNNESS</b>	
<ul style="list-style-type: none"> <li>Release extreme heat emergency protective measures to all media sources</li> </ul>	PH
<ul style="list-style-type: none"> <li>Release locations of Cooling Centers to all media sources</li> </ul>	OES
<ul style="list-style-type: none"> <li>Post locations of Cooling Centers on the county website.</li> </ul>	OES
	OES

<ul style="list-style-type: none"> <li>Enter Cooling Center information into the State OES website.</li> </ul>	
<b>AWARENESS (continued)</b>	
<ul style="list-style-type: none"> <li>Establish regular public official briefings to include weather updates and actions taken and planned.</li> </ul>	PH/OES
<ul style="list-style-type: none"> <li>Activate a “hot line” for public information</li> </ul>	
<b>COOLING CENTERS</b>	
<ul style="list-style-type: none"> <li>Begin activating pre-identified Cooling Centers and identify additional Cooling Centers that may be needed.</li> </ul>	OES
<ul style="list-style-type: none"> <li>Direct public buildings to provide cooling center areas to those in need as appropriate.</li> </ul>	OES/CEO
<ul style="list-style-type: none"> <li>Schedule regular reporting and monitoring procedures with cooling centers.</li> </ul>	OES
<b>TRANSPORTATION</b>	
<ul style="list-style-type: none"> <li>Notify transportations resources of the potential need to transport individuals to cooling centers.</li> </ul>	HHS/OES

#### **PHASE IV – Heat Emergency**

<b>PLANNING</b>	
<ul style="list-style-type: none"> <li>Declare Emergency (local and/or public health) as appropriate</li> </ul>	PH/BOS
<ul style="list-style-type: none"> <li>Activate the EOC</li> </ul>	OES
<ul style="list-style-type: none"> <li>Request state activation of state emergency cooling centers</li> </ul>	OES
<ul style="list-style-type: none"> <li>Monitor and determine the need for more cooling centers</li> </ul>	PH/OES
<ul style="list-style-type: none"> <li>Track extreme heat emergency related fatalities and medical emergencies</li> </ul>	PH
<ul style="list-style-type: none"> <li>Prioritize public offices that should remain open and close others to conserve energy</li> </ul>	PH/CEO/Agency Directors
<ul style="list-style-type: none"> <li>Establish regular briefings with the NWS</li> </ul>	
<b>AWARENESS</b>	
<ul style="list-style-type: none"> <li>Establish regular media releases.</li> </ul>	PH/OES
<ul style="list-style-type: none"> <li>Issue targeted extreme heat emergency advisories to vulnerable populations.</li> </ul>	PH
<ul style="list-style-type: none"> <li>Notify Ambulance providers and hospitals to expect and prepare for surge.</li> </ul>	PH/OES
<b>COOLING CENTERS</b>	

<ul style="list-style-type: none"> <li>• Ensure pet and animal extreme heat emergency impacts are being addressed through special facilities or pet accommodations at cooling centers.</li> </ul>	OES
<b>COOLING CENTER (continued)</b>	
<ul style="list-style-type: none"> <li>• Assess supplies at each cooling center</li> </ul>	OES
<ul style="list-style-type: none"> <li>• Assure back-up generators are in-place and functioning</li> </ul>	OES
<b>TRANSPORTATION</b>	
<ul style="list-style-type: none"> <li>• Notify transportations resources as the needs arise for transporting individuals to cooling centers</li> </ul>	HHS/OES
<ul style="list-style-type: none"> <li>• Ensure all fleet vehicles fuel tanks have ample fuel in the event of power failure</li> </ul>	OES

### NWS Alerts and Heat Risk

The National Weather Service (NWS) issues Excessive Heat Watches, Excessive Heat Warnings and Heat Advisories to warn of an extreme heat event (heat wave) beyond 36 hours. If NWS forecasters predict an excessive heat event beyond 36 hours, the NWS will issue messaging in the form of a Special Weather Statement, Partner e-mails, and Social Media between the 3-7 day time frame. The NWS will use Potential HeatRisk output to determine if an excessive Heat Watch/Warning or Heat Advisory is warranted to when an extreme heat event (heat wave) is expected within the next 36 hours.

Numerical Value	Meaning	Who/What is at Risk?	How Common is this Heat?	For those at risk, what actions can be taken?
0	<ul style="list-style-type: none"> <li>Level of heat poses <b>little to no risk</b></li> </ul>	<ul style="list-style-type: none"> <li>No elevated risk</li> </ul>	<ul style="list-style-type: none"> <li>Very Common</li> </ul>	<ul style="list-style-type: none"> <li>No preventative actions necessary</li> </ul>
1	<ul style="list-style-type: none"> <li>Heat of this type is <b>tolerated by most</b>; however there is a <b>low risk for sensitive groups</b> to experience health effects</li> </ul>	<ul style="list-style-type: none"> <li>Primarily those who are extremely sensitive to heat</li> </ul>	<ul style="list-style-type: none"> <li>Very Common</li> </ul>	<ul style="list-style-type: none"> <li>Increase hydration</li> <li>Reduce time spent outdoors or stay in the shade when the sun is strongest</li> <li>Open windows at night and use fans to bring cooler air inside buildings</li> </ul>
2	<ul style="list-style-type: none"> <li><b>Moderate risk for members of heat sensitive groups</b> to experience health effects</li> <li><b>Some risk for the general population who are exposed to the sun and are active</b></li> <li>For those without air conditioning, <b>living spaces can become uncomfortable during the day</b>, but should cool below dangerous levels at night</li> </ul>	<ul style="list-style-type: none"> <li>Primarily heat sensitive groups, especially those without effective cooling or hydration</li> <li>Some transportation and utilities sectors</li> </ul>	<ul style="list-style-type: none"> <li>Fairly common most locations</li> <li>Very common in southern regions of country</li> </ul>	<ul style="list-style-type: none"> <li>Reduce time in the sun between 10 a.m. and 4 p.m.</li> <li>Stay hydrated</li> <li>Stay in a cool place during the heat of the day</li> <li>Move outdoor activities to cooler times of the day</li> <li>Open windows at night</li> </ul>
3	<ul style="list-style-type: none"> <li><b>High Risk for much of the population who are 1) exposed to the sun and active or 2) are in a heat sensitive group</b></li> <li><b>Dangerous to anyone without proper hydration or adequate cooling</b></li> <li><b>Poor air quality is possible</b></li> </ul>	<ul style="list-style-type: none"> <li>Much of the population, especially people who are heat sensitive and those without effective cooling or hydration</li> </ul>	<ul style="list-style-type: none"> <li>Uncommon most locations</li> <li>Fairly common in southern regions of country</li> </ul>	<ul style="list-style-type: none"> <li>Try to avoid being outdoors in the sun between 10 a.m. and 4 p.m.</li> <li>Stay hydrated</li> <li>Stay in a cool place especially during the heat of the day</li> <li>If you have access to air conditioning, use it. Fans may not be adequate</li> <li>Cancel outdoor activities during the heat of the day</li> </ul>

- **Power interruptions may occur** as electrical demands increase

- Transportation and utilities sectors

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

		Relative Humidity (%)																			
		5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
Temperature (°F)	80	77	78	78	79	79	79	80	80	80	81	81	82	82	83	84	84	85	86	86	87
	81	78	79	79	79	79	80	80	81	81	82	82	83	84	85	86	86	87	88	90	91
	82	79	79	80	80	80	80	81	81	82	83	84	84	85	86	88	89	90	91	93	95
	83	79	80	80	81	81	81	82	82	83	84	85	86	87	88	90	91	93	95	97	99
	84	80	81	81	81	82	82	83	83	84	85	86	88	89	90	92	94	96	98	100	103
	85	81	81	82	82	82	83	84	84	85	86	88	89	91	93	95	97	99	102	104	107
	86	81	82	83	83	83	84	85	85	87	88	89	91	93	95	97	100	102	105	108	112
	87	82	83	83	84	84	85	86	87	88	89	91	93	95	98	100	103	106	109	113	116
	88	83	84	84	85	85	86	87	88	89	91	93	95	98	100	103	106	110	113	117	121
	89	84	84	85	85	86	87	88	89	91	93	95	97	100	103	106	110	113	117	122	
	90	84	85	86	86	87	88	89	91	92	95	97	100	103	106	109	113	117	122	127	
	91	85	86	87	87	88	89	90	92	94	97	99	102	105	109	113	117	122	126	132	
	92	86	87	88	88	89	90	92	94	96	99	101	105	108	112	116	121	126	131		
	93	87	88	89	89	90	92	93	95	98	101	104	107	111	116	120	125	130	136		
	94	87	89	90	90	91	93	95	97	100	103	106	110	114	119	124	129	135	141		
	95	88	89	91	91	93	94	96	99	102	105	109	113	118	123	128	134	140			
	96	89	90	92	93	94	96	98	101	104	108	112	116	121	126	132	138	145			
	97	90	91	93	94	95	97	100	103	106	110	114	119	125	130	136	143	150			
	98	91	92	94	95	97	99	102	105	109	113	117	123	128	134	141	148				
	99	92	93	95	96	98	101	104	107	111	115	120	126	132	138	145	153				
	100	93	94	96	97	100	102	106	109	114	118	124	129	136	143	150	158				
	101	93	95	97	99	101	104	108	112	116	121	127	133	140	147	155					
	102	94	96	98	100	103	106	110	114	119	124	130	137	144	152	160					
	103	95	97	99	101	104	108	112	116	122	127	134	141	148	157	165					
	104	96	98	100	103	106	110	114	119	124	131	137	145	153	161						
105	97	99	102	104	108	112	116	121	127	134	141	149	157	166							
106	98	100	103	106	109	114	119	124	130	137	145	153	162	172							
107	99	101	104	107	111	116	121	127	134	141	149	157	167								
108	100	102	105	109	113	118	123	130	137	144	153	162	172								
109	100	103	107	110	115	120	126	133	140	148	157	167	177								
110	101	104	108	112	117	122	129	136	143	152	161	171									
111	102	106	109	114	119	125	131	139	147	156	166	176									
112	104	107	111	115	121	127	134	142	150	160	170	181									
113	104	108	112	117	123	129	137	145	154	164	175										
114	105	109	113	119	125	132	140	148	158	168	179										
115	106	110	115	121	127	134	143	152	162	173	184										
116	107	111	116	122	129	137	146	155	166	177											
117	108	112	118	124	132	140	149	159	170	181											
118	108	113	119	126	134	142	152	162	174	186											
119	109	114	121	128	136	145	155	166	178												
120	110	116	122	130	138	148	158	170	182												
121	111	117	124	132	141	151	162	174	187												
122	111	118	125	134	143	154	165	178													
123	112	119	127	136	146	157	169	182													
124	113	120	129	138	148	160	172														
125	114	121	130	140	151	163	176														

# Heat Index



Extreme Danger	Heat stroke likely.
Danger	Sunstroke, muscle cramps, and/or heat exhaustion likely. Heatstroke possible with prolonged exposure and/or physical activity.
Extreme Caution	Sunstroke, muscle cramps, and/or heat exhaustion possible with prolonged exposure and/or physical activity.
Caution	Fatigue possible with prolonged exposure and/or physical activity.