

CITY OF GRASS VALLEY HEAT ILLNESS PREVENTION PLAN

ABSTRACT

This plan outlines how the City will protect its employees and prevent heat illness within indoor and outdoor spaces under its control.

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Heat Illness Prevention Plan for The City of Grass Valley

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PURPOSE

In 2006, the California Occupational Safety and Health (Cal/OSHA) Standards Board approved a permanent heat stress standard intended to protect outdoor employees from heat-related deaths and illnesses. In 2024, the Board approved a new standard that applies to indoor work areas. Both standards require employers to maintain a written plan and implement procedures that include employee training on the prevention of heat illness, identifying and responding to symptoms of heat illness, providing adequate amounts of water, allowing time to rest, granting access to adequate shade or cooling, and providing emergency medical services as needed.

Employees who work in situations or areas where environmental risk factors for heat illness are present should take adequate precautions to protect themselves. Accordingly, the City will take steps to control, to the extent possible, the risk factors that can lead to heat illness and develop employee and supervisor awareness of heat illness prevention and response. All employees at risk from heat illness are expected to comply with the procedures in this plan and in the Injury and Illness Prevention Program. This plan is based on the California Code of Regulations, Title 8, Sections 3395 and 3396.

Exemptions:

- This plan does not apply to places of employment where employees are teleworking from a location of the employee's choice that is not under the control of the City.
- This plan does not apply to incidental heat exposures where an employee is exposed to temperatures at or above 82 degrees Fahrenheit and below 95 degrees Fahrenheit for less than 15 minutes in any 60-minute period. **NOTE:** This exemption does not apply to vehicles without effective and functioning air conditioning.
- This plan does not apply to emergency operations directly involved in the protection of life or property.

DEFINITIONS

- **Acclimatization:** Temporary adaptation of the body to work in the heat that occurs gradually when a person is exposed. Acclimatization peaks in most people within 4 to 14 days of regular work for about two hours per day in the heat.
- **Clothing that restricts heat removal:** Full-body clothing covering the arms, legs, and torso that is any of the following: (A) Waterproof; (B) Designed to protect the wearer from a chemical, biological, physical, radiological, or fire hazard; or (C) Designed to protect the wearer or the work process from contamination.
- **Cool-down area:** An indoor or outdoor area that is blocked from direct sunlight and shielded from other high radiant heat sources to the extent feasible and is either open to the air or provided with ventilation or cooling.
- **Environmental risk factors for heat illness:** Working conditions that create the possibility that heat illness could occur, including air temperature, relative humidity, radiant heat from the sun and other sources, conductive heat sources such as the ground, air movement, workload severity and duration, protective clothing, and personnel protective equipment worn by employees.
- **Heat illness:** A serious medical condition resulting from the body's inability to cope with a particular heat load. This may include heat rash, heat cramps, heat exhaustion, heat syncope, and heat stroke.
 - **Heat cramps:** Painful muscle spasms that usually occur in the legs (hamstrings) and abdomen. Heat cramps are treatable and are the least severe form of heat-related illness.
 - **Heat exhaustion (heat syncope):** An early indicator that the body's cooling system is becoming overwhelmed. Signs of heat exhaustion include:
 - Cool, moist, pale, ashen, or flushed skin.
 - Headache, nausea, or dizziness.

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- Weakness or exhaustion.
- Heavy sweating (a capstone sign).
- **Heat stroke:** A medical emergency, heat stroke occurs when the body's systems are overwhelmed by heat and cease functioning. Heat stroke is a life-threatening condition and requires immediate, professional emergency medical intervention. Signs of heat stroke include:
 - Red, hot, and/or dry skin.
 - Changes in the level of consciousness.
 - Vomiting.
- **Heat index:** A measure of heat stress developed by the National Weather Service (NWS) for outdoor environments that takes into account the dry bulb temperature and the relative humidity. For purposes of this plan, heat index refers to conditions in indoor work areas. Radiant heat is not included in the heat index. The required NWS heat index chart (2019) is in [Appendix A](#).
- **Heat wave:** For purposes of this plan, any day in which the predicted high outdoor temperature for the day will be at least 95 degrees Fahrenheit and threshold to trigger the implementation of enhanced safety measures.
- **Indoor:** Refers to a space that is under a ceiling or overhead covering that restricts airflow and is enclosed along its entire perimeter by walls, doors, windows, dividers, or other physical barriers that restrict airflow, whether open or closed. All work areas that are not indoor are considered outdoor.
- **Personal risk factors for heat illness:** Factors such as an individual's age, degree of acclimatization, health, water consumption, alcohol consumption, caffeine consumption, and use of prescription medications that affect the body's water retention or other physiological responses to heat.
- **Preventative cool-down rest:** A rest that is taken in a cool-down area to prevent overheating.
- **Preventative recovery period:** A period of time to recover from exposure to heat in order to prevent developing heat illness.
- **Shade:** Blockage of direct sunlight. Canopies, umbrellas, and other temporary structures or devices may be used to provide shade. Shade is not adequate when the heat in the area of shade defeats the purpose of shade, which is to allow the body to cool, or if a secondary shadow can be cast under the shade structure. For example, a car sitting in the sun does not provide acceptable shade to a person inside it unless the air conditioning system is operating and effective at reducing temperature.
- **Supervisor:** Any employee who exercises supervisory functions (e.g., foreman, lead, manager, etc.) and is both capable of identifying existing and predictable lead hazards in the surroundings or working conditions and has authorization to take prompt corrective measures to eliminate them.

RESPONSIBILITY

Administrative EMS Coordinator, or another position appointed by the City Manager, has authority and responsibility for implementing the provisions of this plan in our workplace. In addition, all managers and supervisors are responsible for implementing and maintaining the Heat Illness Prevention Plan in their assigned work areas and ensuring employees receive answers to questions about the procedures in a language they understand.

All employees are responsible for using safe work practices, including following all directives, policies, and procedures and helping to maintain a safe work environment.

This plan is maintained on the City's webpage . It is available to employees or their representatives upon request.

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PROCEDURE

Procedures for the Provision of Water

1. Fresh, pure, suitably cool water will be provided to employees free of charge.
 - a. **Staff at fixed indoor locations** – water will be provided from water fountains, water dispensers, and/or water bottles.
 - b. **Staff at outdoor spaces** – water will be provided from water dispensers (including water coolers) and water bottles. Steps will also be taken to ensure the water is replenished and that at least one quart per employee per hour of drinking water is available for the entire shift.
2. Supervisors will ensure that the water is fresh, pure, and suitably cool. Supervisors will visually examine the water at the start of each shift and throughout the day as needed for purity and quantity. They will also pour a small sample of water on their skin to ensure that the water is suitably cool. During hot weather or high indoor heat working conditions, the water will be cooler than the ambient temperature but not so cool as to cause discomfort.
3. The water will be located in the cool-down areas and as close as possible to the areas where employees are located outdoors.
4. Employees will be reminded and encouraged to frequently consume small quantities (~8 ounces every 15 minutes) of water throughout their shifts. Supervisors will ensure these reminders are provided to employees.
5. All water containers will be kept in a sanitary condition. Water from non-approved or non-tested water sources (e.g., untested wells) is not acceptable. If hoses or connections are used, they must be approved for potable drinking water systems, as shown on the manufacturer's label.
6. For outdoor work locations in which the temperature equals or exceeds 95 degrees Fahrenheit or during a heat wave, pre-shift meetings will be conducted before the commencement of work to both encourage employees to drink plenty of water and remind them of their right to take cool-down rests when necessary. Supervisors will allow for additional water breaks on such high-heat days, as needed. Additionally, Supervisors will lead by example and remind employees throughout the work shift to drink water.

Procedures for Access to Cool-Down Areas for Indoor Places of Employment

1. This section applies to all indoor work areas where the temperature equals or exceeds 82 degrees Fahrenheit when employees are present.
2. Cool-down areas(s) will be located as close as practicable to work areas. The temperature in the indoor cool-down areas will be maintained at less than 82 degrees Fahrenheit through either air conditioning, evaporative coolers, and/or fans.
3. The cool-down area(s) will be available at the site to accommodate all employees who are on a break at any point in time and will be large enough to allow all employees on break sufficient space to sit in a fully normal posture without engaging in physical contact with each other.
4. Employees will be informed of the location of the cool-down area(s) and will be encouraged and allowed to take cool-down breaks in the cool-down area(s) whenever they feel they need a break. Employees who take a preventative cool-down rest break will be monitored and asked if they are experiencing symptoms of heat illness. In no case will the employee be ordered back to work until signs or symptoms of heat illness have abated (see the section on [Emergency Response](#) for additional information). If an employee exhibits signs or symptoms of heat illness while on a preventative cool-down rest, appropriate first aid or emergency response will be administered. Preventative cool-down rest periods will be at least 5 minutes, in addition to the time needed to access the cool-down area.

Procedures for Access to Shade for Outdoor Places of Employment

1. Shade will be as close as practicable to employees when the outdoor temperature equals or exceeds 80 degrees Fahrenheit. When the temperature is below 80 degrees Fahrenheit, access to

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shade will be provided promptly when requested by an employee. Sources of shade may include but are not limited to, trees, pop-up canopies, umbrellas, vehicles, awnings, and pergolas.

Note: *The interior of a vehicle will not be used to provide shade unless the vehicle has a working air conditioner and is cooled down before being utilized.*

2. Sufficient shade will be made available at the site to accommodate all employees who are on a break at any point in time. During meal periods, there will be enough shade for all employees who choose to remain in the general area of work or in areas designated for recovery and rest periods. To ensure that the provided shade will be sufficient, we will rotate employees in and out of breaks – including meal periods and recovery and rest periods – if the number of employees in the crew exceeds the number that can fit comfortably under the shade.
3. Employees will be informed of the location of the shade and will be encouraged to take five-minute cool-down rests in the shade, which will remain accessible at all times. An employee who takes a preventative cool-down rest break will be monitored, encouraged to remain in the shade, and asked if they are experiencing symptoms of heat illness. In no case will the employee be ordered back to work until signs and symptoms of heat illness have abated, and in no event will they be ordered to return to work until at least five minutes have elapsed after symptom(s) have abatement. See the section on [Emergency Response](#) for additional information.
4. As crews move, shade structures will be relocated to be placed as close as practicable to the employees so that access to shade is provided at all times. The onsite supervisor is responsible for moving the shade structures to ensure swiftness in making such adjustments as well as adequate coverage. All employees on a recovery rest break or a meal period will have full access to shade so they can sit in a normal posture without having to be in physical contact with each other.
5. Before trees or other vegetation are used to provide shade (such as in orchards), the thickness and shape of the shaded area will be evaluated to ensure that sufficient shadow is cast to protect employees throughout the workday as the area of shading moves.
6. In situations where it is not safe or feasible to provide access to shade (e.g., during high winds), the unsafe or unfeasible conditions will be documented, and alternative procedures will be used to provide access to shade that provides equivalent protection. Alternative procedures may include the use of vehicles or the interior of buildings.

Procedures for Temperature Assessment for Indoor Places of Employment

1. Initial measurements shall be taken when it is reasonable to suspect that (A) The temperature equals or exceeds 87 degrees Fahrenheit when employees are present; (B) The heat index equals or exceeds 87 degrees Fahrenheit when employees are present; (C) Employees wear clothing that restricts heat removal and the temperature equals or exceeds 82 degrees Fahrenheit; or (D) Employees work in a high radiant heat area and the temperature equals or exceeds 82 degrees Fahrenheit. Monitoring instruments will be maintained according to the manufacturer's recommendations, and the instruments used to measure the heat index shall be based on the heat index chart in [Appendix A](#). The locations for the temperature measurements will be taken in areas of the indoor environment that best represent the space as a whole (e.g., the middle of the shop or warehouse).
2. The temperature and/or heat index will be measured and recorded by the on-site supervisor. Employees will be actively involved in the planning, conducting, and recording of measurements of temperature or heat index.
3. Records of the temperature or heat index measurements, whichever value is greater, will be retained for one year or until the next measurements are taken, whichever is later. Measurements will be made available from Managers and Supervisors to employees or designated representatives upon request. The records will include the date, time, and specific location of all measurements.
4. Measurements will be taken again when they are reasonably expected to exceed previous measurements by 10 or more degrees Fahrenheit in areas where employees work and at times

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when employee exposures are expected to be the greatest.

Employees will be actively involved in identifying and evaluating other environmental risk factors for heat illness that may exist in the workplace. This includes examining such factors as employees' clothing that restricts heat removal, personal protective equipment, and work or tasks that are in high radiant heat areas.

Procedures for Monitoring the Weather for Outdoor Places of Employment

1. Supervisors will be trained and instructed to check the extended weather forecast in advance with aid from internet sources (<http://www.nws.noaa.gov/>), the [OSHA-NIOSH Heat Safety Tool](#), the local Weather Channel TV Network, or some other reliable source. The work schedule will be planned in advance and will take into consideration the likelihood of high temperatures or a heat wave. This type of advance planning should take place whenever the temperature is expected to reach 70 degrees Fahrenheit or higher.
2. Prior to each workday, the supervisor will monitor the weather at the worksite using the methods described above. This critical weather information will be taken into consideration to evaluate the risk level for heat illness and to determine when it will be necessary to make modifications to the work schedule (e.g., stopping work early, rescheduling the job, working at night or during the cooler hours of the day, increasing the number of water and rest breaks, etc.).
3. The supervisor will use a thermometer, weather station, or weather mobile app at the job site and throughout the work shift to monitor for an increase in outdoor temperature and ensure that once the temperature exceeds 80 degrees Fahrenheit, shade structures will be made available to employees. In addition, when the temperature reaches or exceeds 95 degrees Fahrenheit, additional preventive measures, such as high-heat procedures, will be implemented. See the [High-Heat Procedures](#) section for additional information.

Procedures for Control Measures for Indoor Places of Employment

Control measures will be implemented when either of the following occurs:

- Indoor temperature/heat index reaches or exceeds 87 degrees Fahrenheit
 - Indoor temperature reaches or exceeds 82 degrees Fahrenheit, and employees are either:
 - Wearing clothing that restricts heat removal; or
 - Working in an area with high radiant heat.
1. Feasible engineering controls will be implemented first to reduce the temperature and heat index below 87°F (or temperature below 82°F for those working in clothing that restricts heat removal or in high radiant heat areas). Administrative controls will be added if feasible engineering controls are not sufficient to comply with the standard. If both feasible engineering and administrative controls do not sufficiently decrease the temperature and minimize the risk of heat illness, then personal heat-protective equipment will be provided.
 2. The following engineering controls will be implemented to lower the indoor temperature, heat index, or both to the lowest possible level. These controls help make the work environment cooler or create a barrier between the employee and the heat:
 - Cooling fans or air conditioning
 - Increased natural ventilation, such as open windows and doors when the outdoor temperature or heat index is lower than the indoor temperature and heat index
 - Local exhaust ventilation at points of high heat production or moisture
 - Reflective shields to block radiant heat
 - Insulating/isolating heat sources from employees or isolating employees from heat source
 - Evaporative coolers
 - Dehumidifiers

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3. The following administrative controls will be implemented once all feasible engineering controls have been employed. These controls are modified work practices that can reduce heat exposure by adjusting work procedures, practices, or schedules:
 - Modify work schedules and activities to times of the day when the temperature is cooler or schedule shorter shifts, especially during heat waves. “Heat wave” refers to any day in which the predicted high temperature for the day will be at least 80 degrees Fahrenheit and at least 10 degrees Fahrenheit higher than the average high daily temperature in the preceding five days. For newly hired employees and unacclimatized existing employees, gradually increase shift length over the first one to two weeks.
 - Require mandatory rest breaks in a cooler environment, such as a shady location or an air-conditioned building. The duration of the rest breaks should increase as heat stress rises.
 - Rotate job functions among employees to help minimize exertion and heat exposure. If employees must be in proximity to heat sources, mark such heat sources clearly so they are aware of the hazards.
 - Require employees to work in pairs or groups during extreme heat so they can monitor each other for signs of heat illness.
4. The following personal heat-protective equipment will be provided if feasible engineering controls do not decrease the temperature enough, and administrative controls do not minimize the risk of heat illness. This personal heat-protective equipment consists of special cooling devices that can be worn to protect employees in hot environments:
 - Water and/or air-cooled garments, cooling vests, jackets, and neck wraps (the cooling source can be reusable ice packs or cooled air connected to an external source)
 - Supplied air personal cooling systems
 - Insulated suits
 - Heat-reflective clothing
 - Infrared-reflecting face shields

HIGH HEAT PROCEDURES

Procedures for Outdoor Places of Employment

High-heat procedures are additional preventive measures that this organization will follow when the temperature reaches or exceeds 95 degrees Fahrenheit in outdoor places of employment.

1. Effective communication by voice, direct observation (applicable for work crews of 20 or fewer), mandatory buddy system, or other methods will be maintained to allow those at the work site to contact a supervisor when necessary. If the supervisor is unable to be near the employees to observe them or communicate with them, then cell phones, text, or two-way radio will be used for this purpose.
2. Frequent communication will be maintained with employees working by themselves or in smaller groups by cell phone, text, or two-way radio to be on the lookout for possible symptoms of heat illness. The employee(s) will be contacted regularly and as frequently as possible throughout the day since an employee in distress may not be able to summon help on their own.
3. Effective communication and direct observation for alertness and signs and symptoms of heat illness will be conducted frequently. When the supervisor is not available, an alternate responsible person will be designated by the supervisor ahead of time, and the responsible person must be assigned to observe and look for signs and symptoms of heat illness. If a supervisor, designated responsible person, or any employee reports any signs or symptoms of heat illness in any employee, the supervisor or designated person will take immediate action commensurate with the severity of the illness (see [Emergency Procedures](#)).
4. Employees will be reminded throughout the work shift to drink plenty of water and take preventative cool-down rest breaks when needed. The supervisor will remind employees to drink water regularly.

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5. Meetings will be held before the commencement of each shift to review the high-heat procedures, encourage employees to drink plenty of water, and remind employees of their right to take cool-down rests when necessary.
6. When the temperature reaches or exceeds 95 degrees Fahrenheit, employees will be provided one 10-minute preventative cool-down rest period every two hours. During the first eight hours of a shift, the cool-down periods may be provided at the same time as the scheduled rest periods.
7. Employees working longer than eight hours will be provided with an additional 10-minute cool-down rest period every two hours. For example, if the shift extends beyond eight hours, an additional rest period will be taken at the end of the eighth hour of work. If the shift extends beyond 10 hours, another rest period will be taken at the end of the 10th hour, and so on.
8. All employees will be **required** to take the cool-down rest periods; merely offering the opportunity for a break will not be sufficient to maintain compliance with this plan.

Procedures for Handling a Heat Wave for Outdoor Places of Employment

1. During a heat wave, all employees will be closely observed by a supervisor or designee.
2. During a heat wave or heat spike, the workday may be rescheduled (e.g., conducted at night or during cooler hours).
3. During a heat wave or heat spike and before starting work, “tailgate” or “pre-shift” meetings will be held to review the Heat Illness Prevention Plan, the weather forecast, and emergency response procedures. Additionally, if schedule modifications are not possible, employees will be provided with an increased number of water and rest breaks and observed closely for signs and symptoms of heat illness.
4. Each employee will be assigned a “buddy” to be on the lookout for signs and symptoms of heat illness and to ensure that emergency procedures are initiated when someone displays possible signs or symptoms of heat illness.

ACCLIMATIZATION

Acclimatization is the gradual, temporary adaptation of the body to work in the heat after repeated exposure. The body needs time to adapt when temperatures rise suddenly; therefore, employees may be at heightened risk for heat illness if they overexert themselves when a heat wave or heat spike strikes or if they are newly exposed to heat to which the body hasn't yet adjusted. Inadequate acclimatization can be significantly more perilous in conditions of high heat and physical stress. The following are additional protective procedures that will be implemented when conditions result in sudden exposure to heat that employees are not accustomed to:

1. The weather will be monitored daily. The supervisor/designee will be on the lookout for heat waves, heat spikes, or temperatures to which employees haven't been exposed for several weeks or longer.
2. New employees and those who have been newly assigned to a high-heat area will be closely observed by the supervisor or designee for the first 14 days on duty.
3. The intensity of the work will be lessened during a two-week break-in period by using procedures such as scheduling slower-paced, less physically demanding work during the hot parts of the day, with the heaviest work activities scheduled during the cooler parts of the day (early morning or evening). Steps taken to lessen the intensity of the workload for new employees will be documented.
4. For indoor work areas, this 14-day observation period applies when the temperature or heat index reaches or exceeds 87 degrees Fahrenheit, or when the temperature or heat index reaches or exceeds 82 degrees Fahrenheit, when an employee wears clothing that restricts heat removal or when an employee works in a high radiant heat area.
5. Employees and supervisors will be trained in the importance of acclimatization, how it is developed, and how these procedures address it.

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EMERGENCY PROCEDURES

Emergency Response

1. The following details the effective means by which this organization will ensure employees receive appropriate emergency services when needed:
 - For outdoor places of employment, employees and supervisors assigned to a particular worksite will be provided access to address, or the names of the nearest crossroads for clear and precise directions to the worksite (e.g., street or road names, distinguishing features, and distances to major roads) to avoid potential delays in receiving emergency medical services.
 - For indoor places of employment, employees and supervisors will be provided a street address to provide clear and precise directions to the worksite (e.g., street or road names, distinguishing features, and distances to major roads) to avoid potential delays in emergency medical services.
 - Supervisors will also designate employees to physically travel to the nearest road or highway where emergency responders can be signaled. If daylight is diminished, the designated employee(s) shall be provided reflective vests or flashlights to direct emergency personnel to the sick employee's location, which may not be visible from the road or highway.
2. Effective communication will be ensured by voice, direct observation, mandatory buddy system, or electronic means such as cell phone, text, or two-way radio and will be maintained so that employees can contact a supervisor when necessary. If the supervisor is unable to be near the employees to observe them or communicate with them, then cell phone, text, or two-way radio may be used for this purpose.
3. To ensure that emergency medical services can be called, all supervisors will have access to or carry communication devices such as a cell phone or landline. These communication devices will be checked prior to each shift to ensure that they are functional.
4. When an employee shows signs or symptoms of severe heat illness, emergency medical services will be called, and steps will be immediately taken to keep the stricken employee cool and comfortable to prevent the progression to a more serious illness. Under no circumstances will the affected employee be left unattended.
5. During a heat wave, heat spike, or hot temperatures, employees will be reminded and encouraged to immediately report to a supervisor any signs or symptoms they are experiencing.
6. Employees and supervisors will be trained in these written procedures for emergency response.

Handling a Sick Employee

1. When an employee displays possible signs or symptoms of heat illness, a trained supervisor will evaluate the sick employee and determine whether resting in the nearby shade or cool-down area and drinking cool water will suffice to alleviate symptoms or if emergency service providers are required. A sick employee will not be left alone in the nearby shade or cool-down area, as their condition could take a turn for the worse.
2. When an employee displays possible signs or symptoms of heat illness and no trained first aid employee or supervisor is available at the site, emergency service providers will be immediately contacted by the designated alternate.
3. Emergency service providers will be contacted immediately if an employee displays signs or symptoms of severe heat illness (e.g., decreased level of consciousness, staggering, vomiting, disorientation, irrational behavior, incoherent speech, convulsions, red and hot face, etc.), appears sickly, or whose symptoms are not alleviated after drinking cool water and resting in the shade. While the ambulance is in route, first aid will be administered to cool the employee by such means as placing the employee in the shade, removing excess layers of clothing, placing ice packs in the armpits and groin area, or fanning the victim to provide cool airflow. A sick employee should not be sent home – even if they start to feel better – as their condition could worsen, and they may die

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before reaching a hospital.

4. If an employee displays signs or symptoms of severe heat illness (e.g., decreased level of consciousness, staggering, vomiting, disorientation, irrational behavior, incoherent speech, convulsions, red and hot face), emergency service providers will be contacted, the signs and symptoms of the victim will be communicated to them, and an ambulance will be requested.

TRAINING

To be effective, employees must understand training. Training records will be maintained and will include the date(s) of the training, who performed the training, who attended the training, and the subject(s) covered. Training records will be maintained and retained as outlined in the City Injury and Illness Prevention Program.

1. It is the City's responsibility to ensure supervisors and employees are trained on this plan as to the provision of water, access to cool-down areas or shade, preventative cool-down rests, and first aid, as well as each employee's ability to exercise their rights under this standard without retaliation.
2. Supervisors will be trained prior to assuming supervisory responsibilities over other employees. Training will additionally include the written procedures outlined in this policy and the steps to follow when employees exhibit symptoms consistent with heat illness.
3. Supervisors and employees will be trained on appropriate first aid and/or emergency response to different types of heat illness. This training will emphasize that heat illness may progress quickly from mild signs and symptoms to a serious, life-threatening illness.
4. Supervisors will be trained on strategies to track the weather at the job site, specifically by monitoring predicted temperature or heat index highs and periodically using a thermometer. Supervisors will be instructed on the ways in which weather information may be used to modify work schedules, increase the number of water and rest breaks, or cease work early if necessary.
5. All employees and supervisors must receive training prior to commencing field or on-the-job work. Training will cover all aspects of implementing this organization's written procedures, including access to sufficient water, shade or cool-down area, rests, high-heat procedures, emergency response procedures, control measures, the importance of frequent consumption of water, different types of heat illness, common signs and symptoms of heat illness, and acclimatization procedures. Employees and supervisors will also be trained on environmental and personal risk factors of heat illness as well as the burden of heat load on the body caused by exertion, clothing, and personal protective equipment. The importance of immediately reporting signs and symptoms of heat illness will be especially emphasized.
6. In addition to initial training, employees will be retrained annually.
7. Employees will be trained on the steps for contacting emergency medical services, including ways to ensure non-English speaking employees receive appropriate and swift aid, tips for providing clear and precise directions to the worksite, instructions for transporting ill employees to a location where they can be reached by emergency responders, and recognizing the importance of making visual contact with emergency responders at the nearest road or landmark to direct them to their worksite, if necessary.
8. When the temperature is expected to exceed 80 degrees Fahrenheit, short "tailgate" or "pre-shift" meetings will be held to review the weather report, reinforce heat illness prevention with all employees, provide reminders to drink water frequently, inform employees of which specific shade or cool-down area(s) will be available, and remind employees to be on the lookout for signs and symptoms of heat illness.
9. New employees will be assigned an experienced co-worker "buddy" to ensure sufficient understanding of the training and encourage employees to follow company procedures.

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APPENDIX A

National Weather Services Heat Index Chart (2019)

	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	85	86	86	87
	81	78	79	79	79	80	80	80	81	81	82	82	83	84	85	86	86	87	88	90
	82	79	79	80	80	80	80	81	81	82	83	84	84	85	86	88	89	90	91	93
	83	79	80	80	81	81	81	82	82	83	84	85	86	87	88	90	91	93	95	97
	84	80	81	81	81	82	82	83	83	84	85	86	88	89	90	92	94	96	98	100
	85	81	81	82	82	82	83	84	84	85	86	88	89	91	93	95	97	99	102	104
	86	81	82	83	83	83	84	85	85	87	88	89	91	93	95	97	100	102	105	108
	87	82	83	83	84	84	85	86	87	88	89	91	93	95	98	100	103	106	109	113
	88	83	84	84	85	85	86	87	88	89	91	93	95	98	100	103	106	110	113	117
	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						

	- Shade temp. trigger
	- Indoor Heat w/radiant heat or restrictive clothing trigger
	- Indoor Heat control trigger
	- High Heat Procedures trigger
	- Danger
	- Extreme Danger