

# Public Works Outdoor Heat Exposure Plan

**Purpose:** To prevent heat-related illnesses and injuries every May-September.

Workers and supervisors share responsibility for safety at the jobsite. This includes watching out for yourself and others because heat illness can quickly become a life-threatening condition if unnoticed or ignored. Speak up if you notice anything that could be unsafe or result in someone getting hurt or sick.

## Covered Workers

Anyone working outdoors more than 15 minutes in any 60-minute period is covered by this program when temperatures are:

- As low as 52°F and up to 76°F if you are wearing non-breathable clothing, or clothing that provides a vapor barrier like rain gear or chemical-resistant suits.
- Between 77 and 88°F if you wear double-layer woven clothing like sweatshirts, shirts with undershirts, coveralls, or jackets on top of other clothes.
- At or higher than 89°F when you wear any other type of clothing like typical t-shirts and pants.

Some people are more susceptible to heat sickness than others. Certain demographics can impact how susceptible a person is, including: age, medical conditions and certain medications, hydration levels, and overall fitness. This includes anyone who comes to work dehydrated or who isn't used to the heat. Also, heat wave events can make everyone more susceptible to getting sick, even young and healthy workers, due to the rapid onset of the excessive heat and lack of time available to acclimatize.

If you perform any work outdoors for the City of Oak Harbor Public Works Department, you are covered by this plan.

## 1. Shade or Alternatives

The purpose of shade is to cool your body down to prevent or recover from the heat. Anything that defeats the purpose of shade or that discourages you from using it is **not** acceptable and must be reported to and addressed by leads and supervisors.

The Public Works Shop Break Room is large enough to accommodate the entire workforce and has air conditioning and room to sit comfortably in a normal posture. Use the break room whenever you need to cool-down and during any required cool-down rest period.

For long duration work sites away from the Shop, we will ensure you have ready access to shade, or some other cooling alternative, at all times. Here is what you can expect at our work sites:

- **Portable Canopies (check out from Facilities/Central Services) to create shade at jobsites expected to last the working day. Canopies are to be returned at the end of the workday and are not to be left in the field unattended.**

- **Vehicles with Air Conditioning equipped. Most (but not all) of the fleet vehicles are equipped with air conditioning. Leads or Supervisors will ensure at least one vehicle with AC is at a long duration worksite for use as a cooling station. Employees are encouraged to use this feature during hot weather while travelling to and from work locations.**

Leads and Supervisors are responsible to ensure shade (or an acceptable alternative) is provided at the job site. That person will:

- Assess the need for shade at the jobsite based on the size of the crew, the available means for shade or other cooling methods, the proximity to work areas, and other factors that affect the provision of shade or alternatives.
- Ensure shade or other alternatives are set up properly.
- Encourage you to use shade or the alternatives to prevent heat illness or to recover if you start to feel sick.

## **2. Hydration**

Drink water before work each day so you start your day hydrated.

Management will ensure that you have access to drinking water through:

Prefilled drinking water bottles.

Portable drinking water coolers to be filled with ice (ice can be collected at the Marina Harbor Master Building).

Access to the PW Shop break room for water and ice.

Don't wait to be thirsty to drink; and drink small amounts often throughout the day to stay hydrated.

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Drink at least 1 cup every 15-20 minutes.

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Sport drinks low in sugar are okay. Avoid drinks with caffeine and high sugar content like sodas because they won't hydrate you as effectively as water or low-sugar non-caffeinated, water-based drinks.

Crew Leads and Supervisors are responsible to ensure enough suitably cool water is available to allow you to drink at least a quart each hour.

## **3. Heat Waves and Adjusting to Heat (Acclimatization)**

Heat waves are those weather and climate conditions that result in a short period when unusually warmer temperatures than normal occur. Heat waves can last for multiple days, but generally subside within 3-5 days depending on weather patterns. For the purposes of this plan, a Heat Wave is when the National Weather Service office in

Seattle issues a Heat Advisory or Excessive Heat Warning for any or all of the following counties:

Island  
Jefferson  
San Juan  
Skagit  
Snohomish  
Whatcom

It can take 7-14 days to fully adjust to hot working conditions. Most of this adjustment (also called acclimatization) happens in the first 4-5 days. Acclimatization is lost if you are away from hot conditions for a week or more. Due to the nature of the surrounding climate and prevailing weather patterns, acclimatization may not be possible before conditions cool again. It is therefore important to stay alert to changing weather conditions and adjust work practices and behavior accordingly.

In addition, Leads and Supervisors will ensure workers are closely observed for signs and symptoms of heat illness both during and after heat waves. That person will ensure observation and communication is provided as follows:

- *Leads and Supervisors will either be on site in direct supervision of work crews or shall routinely be in contact by phone during a heat wave.*
- *If Leads or Supervisors cannot be on site or phone service is not reliable, crews shall work in teams of at least two persons to provide for monitoring for signs and symptoms of heat illnesses.*

During the onset of the summer months, workers should be monitored as they acclimatize to the hotter temperatures. A combination of supervisor involvement and a "buddy" system should be used.

#### **4. Cool-down Rest Periods**

When covered by this program you are encouraged to take a cool down rest period at any time to prevent overheating.

Furthermore, **when the temperature reaches 89°F, every worker is required to take at least a 10-minute cool down rest period every 2 hours** and Leads and Supervisors are responsible to ensure everyone is being observed for signs and symptoms of heat illness by taking breaks together.

All cool-down rest periods are paid time unless taken during a meal period.

Any worker who starts to experience heat illness must be relieved of duty, allowed to safely cool down, and be closely monitored to verify they are okay or if their condition is worsening. If the latter, the employee needs prompt medical attention. CALL 9-1-1!

Never leave someone experiencing heat illness alone.  
They could get worse, and even die!

## 5. Training

Each year, we will provide you safety training on the dangers of outdoor heat exposure, our protective measures, and actions you and supervisors must follow to prevent heat-related illness. This training will be provided in the Spring, usually in March or April.

Additional training will be scheduled and provided for new hires and anyone who needs a refresher. Training will be provided by the Safety Reps of each Division annually. Training records must be completed and submitted to HR.

*Options for providing training:*

- 1) *Individual Divisions may schedule the PW Conference Room to review the Outdoor Heat Exposure Safety PowerPoint as a group and to discuss Heat Exposure hazards that are unique to their working group. The Manager, Lead of the division, or the Division's Safety Committee Rep may be the instructor.*
- 2) *PW Admin Level may schedule and provide this same training in a larger scale with multiple divisions in attendance, utilizing a Manager or Lead or the Safety Committee Chairman as the instructor.*
- 3) *For newly hired employees, the training can be provided one-on-one with the Manager, Lead, or Division Safety Committee Rep.*
- 4) *All training will follow the approved curriculum to ensure that the requirements of the L&I rules are met:*

### 5.A Training Curriculum

Requirements: Workers need to be aware that:

- D Heat can make them sick, and how to recognize the common signs and symptoms of heat-related illness in themselves and coworkers. For most workers, common conditions are heat rash, heat cramps, heat exhaustion and heat stroke.
- D Environmental factors increase risk for heat-related illness such as higher temperatures, humidity, sunlight (working under direct sunlight makes it feel significantly hotter), additional sources of heat like powered equipment and asphalt, no wind, level of physical activity, and wearing of personal protective equipment (PPE) or layers of clothing.
- Personal factors that may increase susceptibility to heat-related illness including age, not being acclimatized, having medical conditions such as hormonal and heart issues and diabetes, dehydration, and use of substances that can affect the body's response to heat like drugs, alcohol, caffeine, nicotine, and medications.
- D Removing heat-retaining PPE such as non-breathable chemical resistant clothing during all breaks is necessary to allow their body to cool down.
- D Staying well hydrated by drinking small quantities of water or other acceptable beverages frequently throughout the day is a top priority to prevent heat illness.
- D Cool down rest periods are taken to prevent or recover from heat illness, they are mandatory when temperatures are 89°F or hotter, and are paid time unless taken

during a meal period.

- D The purpose of shade is to allow the body to cool down and anything that defeats that purpose or discourage or deters use of shade is unacceptable. Workers also need to know the employers procedures for providing shade (or alternative ways to cool off) including locations and how to access.
- When the temperature reaches 89°F or hotter, everyone must be closely observed for signs and symptoms of heat illness; and how the employer will ensure observation and communication for crews and lone workers.
- Heat illness can progress quickly and how to immediately report signs or symptoms of heat-related illness they experience or observe in coworkers, and how to **immediately** respond to prevent the situation from becoming a medical emergency. They will also need know how to identify and what to do during a heat-related medical emergency (e.g., potential heat stroke).

Supervisors need to know the following (in addition to what is detailed for employees above):

- The procedures to follow to implement the heat-related illness prevention plan including the acclimatization schedule, how to keep track of environmental conditions throughout the day, when to increase the number of breaks or stop work early, to check that workers are accessing shade and water (especially for mobile operations), encourage them to stay hydrated, and communicate with lone workers to ensure they are safe.
- Type of shade or cooling method that will be provided for all employees and where it's located. For example: when to provide alternative cooling methods like cooling vests and gel-filled bandanas or effective means.
- Close observation procedures at or above 89° F.
- What the Supervisor needs to do if an employee shows signs and symptoms of possible heat-related illness including appropriate emergency response procedures including how to transport any affected employees to a medical service provider.

## 6. Responding to Heat-related Illness

Let a supervisor or someone nearby know if you or a co-worker is experiencing any signs or symptoms of heat-related illness, and take immediate action to ensure things don't get dangerously worse.

1. Time is critical. Quick action increases the chances for a full recovery. Get the worker away from the hot area and into the cool shaded area provided.

Indoors in AC is best, indoors out of direct sun with fan is next; if outdoors, seek a vehicle with AC, or utilize room under a pop-up canopy or other open-air structure).

2. Let the worker rest and drink cool water.  
Remove PPE such as Tyvek coveralls, rain gear, rubber boots. Protect the modesty of the worker but remove sufficient clothing to allow for as much heat release as possible.
3. Never leave an employee who is experiencing heat-related problems alone, things could get worse.  
If work requirements demand workers be alone, if a Lead or Supervisor is notified of that employee suffering from signs or symptoms of heat related illness, that Lead or Supervisor shall make every effort to immediately travel to the worksite of that employee to monitor recovery and if needed activate 9-1-1.
4. If the employee show signs of progressing into more severe states of heat related illnesses and the above interventions are not effective, call 9-1-1 for emergency medical services and intervene with First Aid as appropriate. Notify the next higher level in the organizational chart after activating 9-1-1.
5. *If the employee is in a remote work location far away from an accessible road surface, have a team member meet the emergency services at the nearest access.*
6. If the employee receives medical attention get a written authorization from the provider that the worker can get back to work and if there is any restriction or limitations.
7. Supervisors are to notify HR and the Public Works Safety Committee Chairman of the incident, and complete necessary reporting requirements in keeping with the Employee Policy Manual and the Accident Prevention Plan. The Safety Committee will evaluate this plan's contents, the implementation of the plan in the field, the outcome, and provide recommendations for improving the plan or work practices.
8. If an employee is taken from the job site to the hospital for treatment, the employee's Lead, Supervisor, or Manager must take all reasonable action to ensure that the employee is able to return home as soon as practical.