

June 26, 1998 (Amended)

PARKS AND RECREATION DIRECTIVE #94-2

TO: All Staff

SUBJECT: Procedure For Canceling Recreation Programs During Stressful Weather Conditions

1. Purpose - To anticipate and minimize the adverse affects of the environment on the health and safety of participants, as well as the protection of facilities from unnecessary damage or abuse.

2. Background - Harford County Department of Parks and Recreation has developed this procedure to protect the welfare of the public, as well as the integrity of our finite facilities. Whenever environmental factors pose a threat to participants' well being, programs will be suspended or modified. Additionally, the unnecessary damage and abuse to playing fields must also be considered in the decision to conduct an activity.

3. Action - The attached guidelines define stressful weather conditions and the adverse affects these conditions may have on individuals. Furthermore, it suggests what action should occur to mitigate the consequence of these conditions.

4. Effective - This directive is effective immediately and will remain in effect until canceled or superseded.

Procedure for Canceling Recreation Programs During Stressful Weather Conditions

Heat Stress

Exercise increases the core temperature of the body. Under moderate environmental conditions, the temperature regulating mechanism of the body provides for adequate heat dissipation. However, under extremely hot and humid conditions, the body temperature will continue to rise, eventually presenting a serious danger to participants.

The Temperature Humidity Index (**THI**) serves as a guide to help determine when various combinations of the air temperature and humidity present an environmental risk to active sports participants. The Temperature Humidity Index is computed by using the formula:

$$[(T+H)\times.4] + 15 = \text{THI}$$

Very simply, the **THI** is found by multiplying the sum of the temperature and humidity figures by

four tenths and adding 15. For example, the temperature may be 85 degrees and the humidity 90%. Temperature (85) plus humidity (90%) equals 175. Multiply 175 by four tenths and the number computed in 70. Finally, 70 plus 15 results in a **THI** of 85.

When the **THI** is between 65 and 80, leaders and coaches should be cautious and alert to the signs of heat related problems. If the **THI** reaches between 80 and 85, extreme caution should be taken while conducting sports activities. If the **THI** is 85 and above or the temperature reaches 100 degrees, all practices and games should be canceled.

Heat disorders develop after prolonged exposure and physical exertion. Each person will respond differently to the effects of heat and humidity when conditions are borderline. Participants should be monitored for signs of dizziness, cramping, loss of physical and/or mental coordination, and cold skin. Program leaders and coaches have the responsibility and authority to modify and/or cancel activities when necessary.

If activities are conducted under stressful conditions, when the **THI** is between 65 and 85, the Harford County Department of Parks and Recreation strongly recommends that practices and games be modified in several ways:

- limit the intensity of activity;
- have players wear sensible porous, light-colored, loose fitting clothing;
- allow participants to drink all the water they can comfortably consume;
- find a cool place for rest periods (10 minutes every hour);
- change t-shirts when wet; and
- reschedule the program to a cooler time in the morning or the evening.

TEMPERATURE HUMIDITY INDEX (THI)	ACTION TO BE TAKEN
65-80	Be cautious and alert to the signs of heat-related problems.
80-84	Extreme caution should be taken.
85-above	Cancel activity.
100° (temperature) and above	Cancel activity.

Hypothermal Stress

Exercise usually generates enough heat to keep participants warm in cold weather. The primary concern in exposure to the cold is the prevention of injuries. Improper warm-up, inadequate clothing and extreme wind chill are the major contributors to musculoskeletal injury,

chilblains (redness of skin), and frostbite. Cold air may make breathing feel uncomfortable, but there is little danger of damage to the lungs. The respiratory system has the ability to adequately warm and humidify the air we breathe.

The chart below indicates the equivalent temperature or wind chill index and the relative danger of freezing from exposure.

ACTUAL THERMOMETER READINGS (F)

	50	40	30	20	10	0
Wind Speed MPH	Equivalent Temperature (F)					
Calm	50	40	30	20	10	0
5	48	37	27	16	6	- 5
10	40	28	16	4	- 9	-21
15	36	22	9	- 5	-18	-36
20	32	18	4	-10	-25	-39
25	30	16	0	-15	-29	-44
30	28	13	- 2	-18	-33	-48
35	27	11	- 4	-20	-35	-49
40	26	10	- 6	-21	-37	-53
Wind speeds greater than 40 MPH have little additional effect	LITTLE DANGER (for properly clothed person)			INCREASING DANGER (from freezing of exposed flesh)		

As a general rule, when the temperature is 30° or less, it is mandatory that proper clothing be worn and all weather conditions be assessed, i.e., wind, rain, snow, etc., to determine if conditions are safe for participation.

Wind chill illustrates the effect of wind speed on heat loss from the body. When your

body loses heat faster than it can be produced, you are undergoing what is known as exposure. To prevent exposure, the following guidelines should be practiced.

- warm-up clothing and uniforms should be light, loose and in layers for best insulation;
- layers should be removed before you begin to perspire and replaced as you cool down;
- if players become wet, have them dry off as soon as possible;
- have players avoid excessive fatigue; and
- participant's extremities and head should be protected.

NOTE: The red itching of chilblains is not dangerous, but is a warning that exposure is, at least, bordering excessive.

Inclement Weather

The decision regarding participation during inclement weather should be based solely on the welfare and safety of the participants. Whenever there is a risk of injury to participants, the activity must be canceled and rescheduled. The loss of a game or practice time must never influence one's decision to cancel or reschedule an event.

Unnecessary damage and abuse to playing fields must also be considered in the decision to conduct an event. When field conditions are wet and soft, damage to the turf is more prevalent and extensive. Activities must be canceled and rescheduled.

Thunderstorms and Lightning

Outdoor Activities - Whenever a thunderstorm is approaching or sighted, all field activities should be postponed until the storm has cleared. If it becomes apparent that the storm will not abate, the activity should be canceled.

Lightning Safety Rules

"When a thunderstorm threatens, get inside a home, a large building, or an all-metal (not convertible) automobile. Do not use the telephone except for emergencies.

If you are caught outside, do not stand underneath a tall isolated tree or a telephone

pole. Avoid projecting above the surrounding landscape. For example, don't stand on a hilltop. In a forest, seek shelter in a low area under a thick growth of small trees. In open areas, go to a low place, such as a ravine or valley.

Get off or away from open water, tractors, and other metal farm equipment or small metal vehicles, such as motorcycles, bicycles, golf carts, etc. Put down golf clubs and take off golf shoes. Stay away from wire fences, clotheslines, metal pipes, and rails. If you are in a group in the open, spread out, keeping people several yards apart.

Remember -- lightning may strike some miles from the parent cloud. Precautions should be taken even though the thunderstorm is not directly overhead. If you are caught in a level field or prairie far from shelter and if you feel your hair stand on end, lightning may be about to strike you. Drop to your knees and bend forward, putting your hands on your knees. Do not lie flat on the ground."¹

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