



Environmental Plan/Protocols

Updated 12/28/17

General Considerations:

The Environmental Plan and Protocols are developed as a guideline for Program Manager decision making, ex. consideration for when to cancel a program at a Brookline Recreation and actions to take to better care for extreme environmental situations, i.e. in situations where the temperature, wind, and weather are at either extreme, hot or cold – high or low.

- Risk can be assessed using these categories: Human, Environmental & Physical. Environmental risks are wind, weather, and temperature of environment. Environmental risks are what we are intending to give guidelines on. Remember water temperature if you are kayaking is an important factor, as it can be much cooler in New England than the air temperature.
- We recommend using the Beaufort Scale Below (see Table 2) and When to Alter a Program & When to Consider Cancelling a Program as guidelines.
- The word extreme temperature will be used in the guidelines below to include extreme hot or cold temperature. (See Guidelines for Extreme Temperature, Table 1).
- Consider the compounding risk of weather forecast for incoming storm warnings; see Resources Links – below Table 2.

When to Adjust/Alter A Program: *If you decide that you cannot manage the approved adjust steps outlined below in extreme environmental conditions, we recommend cancelling the program.*

- Consider adjusting the normal program if temperatures, including wind chill or weather forecast or actual are out of the ordinary/normal range for the time of year.
- If extreme temperature (temps below 0 or above 100) You'd want to adjust your program to add more safety measures and communicate and enforce them with all program staff and management.
- Recommended added safety measures for hot extreme temps, consider internal temperature and external temperature cooling:
 - o **Read the General Protocols for Extreme Temperatures (below, Table 1) and take recommended action.**
 - o Add more intentionally planned water breaks and enforce water intake.
 - o Consider moving venue to a location with prevalent shade.
 - o Consider postponing trip/rescheduling
 - o Consider shifting program to cooler time of day.
 - o Consider adding a wading component.
 - o You'll also want to consider adding more electrolytes to the menu for the day as many are lost through physical activity.

- Add more intentional breaks in activity (rest in a cool place if possible).
- Move planned breaks and additional breaks to the shade.
- Bring a tarp of some sort to provide shade from the sun.
- Recommended added safety measures for cool extreme temps, consider internal and external body heating measures.
 - **Read the General Protocols for Extreme Temperatures (below, Table 1) and take recommended action.**
 - Adding hand warmers to the supply list, for customers and staff.
 - No charge for warm drinks for customers and staff.
 - Consider shifting program to warmer time of day. Are you able to move the program to a warmer time of the day? If warm, can you move the active component to a cooler time of the day and stay away from mid-day? Could you take a longer lunch break mid-day to stay out of the hottest part of the day?
 - Consider adding more calories to the planned menu.
 - Ask people to eat more. Add more calories to menu if Brookline Rec provides the food.
 - Consider moving venue to a location with prevalent sun.
 - Consider postponing trip/rescheduling.
 - Intentionally plan, communicate, and execute additionally planned warming breaks for all staff and customers. Insist verbally, several times throughout the program, that everyone take more warming breaks that they normally would.
 - Communicate that extremities can be especially sensitive, so those areas deserve special concern.
 - Feet Warmers and Hand Warmers are considered for purchase or for free to customers and staff.

Cancelling a Program: Recommendations for Cancelling a Program

- If wind temperature index (wind chill) falls to -10 or lower, you would need to be in an urban setting and have adequate heating supplies (ex. hand warmers, hot choc. Coffee) and warming space (indoors) for customers that is easily accessible. *If you do not, we recommend reschedule or cancellation of program.*
- If you are operating an active program with heat index above 100, are in a wilderness setting where adequate water is not available, we recommend you cancel/reschedule due to the potential of heat exhaustion or heat stroke.

Table 1

Keep in mind to use “Feels like” temperature as a Guideline. “Feels like” = outside air temperature and wind together.

Guidelines for Extreme Temperature	Outside Air Temperature	Wind	The Wind Posted Here is in MPH not knots. For Knots, traditionally disclosed measure used for boating, see Beaufort Scale Below, Table 2	Action Requested
	-15 - -20	0	Extreme temperature	Cancel the Program; Text Supervisor
	-8 - 15 degrees	0-10	Extreme temperature	Consider Cancellation; Seek Supervisor Approval
	-1—7 degrees	0-10	Unusually cold	Consider Adapting or Cancelling Program
	10—1 degree	0-18	Cold	Consider Adapting or Cancelling
	10-32 degrees	0-18	Cold	Consider Adaptations
	32-65 degrees	0-18	Relatively cool	Take Precautions and Proceed
	60 – 85 degrees	5-8	Temperature are in the normal range	Proceed
	85-90 degrees	8-10	Consider Adapting	Proceed
	90-95 degrees	8-10	Consider Adapting or Cancelling Program	Update Supervisor
	95 -100 degrees	5-15	Consider Adapting or Cancelling Program	Update Supervisor with Plan
	100 – 105 degrees	0	Temperature is unusually warm	Consider Reschedule or Cancellation
	>105 degrees	0	Temperature is extreme	Seek Supervisor Approval

Table 2
Beaufort Scale

Beaufort Wind Scale			The wind speed for the Beaufort scale is noted in Knots (not mph) – the key to this scale is the characteristics of what is visible at the venue. (see highlighted orange sections)	
Force	Wind (MPH)	WMO Classification	On the Water	On Land
0	< 1	Calm	Sea surface smooth and mirror-like	Calm, smoke rises vertically
1	1-4	Light Air	Scaly ripples, no foam crests	Smoke drift indicates wind direction, still wind vanes
2	5-7	Light Breeze	Small wavelets, crests glassy, no breaking	Wind felt on face, leaves rustle, vanes begin to move
3	8-11	Gentle Breeze	Large wavelets, crests begin to break, scattered whitecaps	Leaves and small twigs constantly moving, light flags extended
4	12-18	Moderate Breeze	Small waves 1-4 ft. becoming longer, numerous whitecaps	Dust, leaves, and loose paper lifted, small tree branches move
5	19-24	Fresh Breeze	Moderate waves 4-8 ft taking longer form, many whitecaps, some spray	Small trees in leaf begin to sway
6	25-31	Strong Breeze	Larger waves 8-13 ft, whitecaps common, more spray	Larger tree branches moving, whistling in wires
7	32-38	Near Gale	Sea heaps up, waves 13-20 ft, white foam streaks off breakers	Whole trees moving, resistance felt walking against wind
8	39-46	Gale	Moderately high (13-20 ft) waves of greater length, edges of crests begin to break into spindrift, foam blown in streaks	Whole trees in motion, resistance felt walking against wind
9	47-54	Strong Gale	High waves (20 ft), sea begins to roll, dense streaks of foam, spray may reduce visibility	Slight structural damage occurs, slate blows off roofs
10	55-63	Storm	Very high waves (20-30 ft) with overhanging crests, sea white with densely blown foam, heavy rolling, lowered visibility	Seldom experienced on land, trees broken or uprooted, "considerable structural damage"
11	64-72	Violent Storm	Exceptionally high (30-45 ft) waves, foam patches cover sea, visibility more reduced	
12	73+	Hurricane	Air filled with foam, waves over 45 ft, sea completely white with driving spray, visibility greatly reduced	