

Preparing for Extreme Heat in Vermont

Jared Ulmer

Climate & Health Program Manager

July 20, 2022

Record-setting heat is in the headlines

U.K. Heat Wave: Britain Sets New Record on a Second Day of Scorching Temperatures

Britain recorded a temperature of 40.3 degrees Celsius (104.5 Fahrenheit), the highest ever in the United Kingdom if confirmed. Fires broke out in parts of London, but evening thunderstorms brought a respite.

July 19, 2022

More than 100 million in the US face excessive warning or heat advisories as a dangerous heat wave continues

By Payton Major, [Judson Jones](#) and [Amir Vera](#), CNN

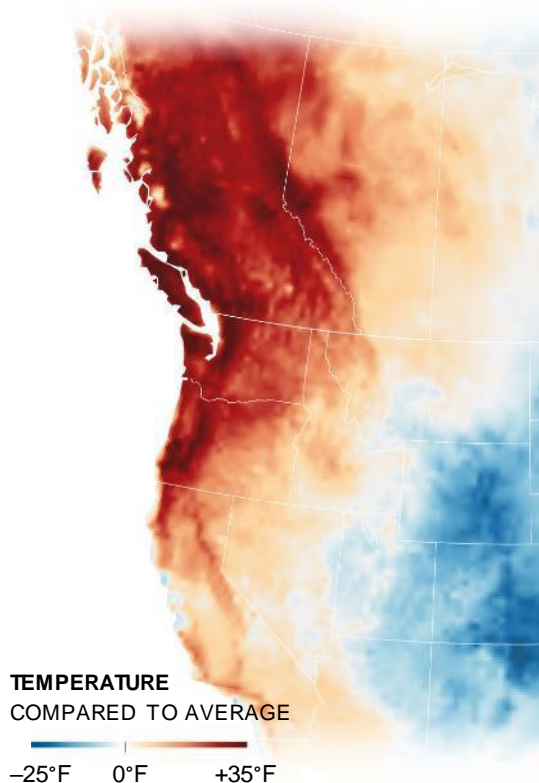
🕒 Updated 9:29 PM ET, Tue July 19, 2022



Vermont heat index could hit triple digits on Wednesday

Jul 19 2022, 6:24 PM

2021 “Heat Dome” in Northwestern USA & Western Canada



SOURCE: GODDARD EARTH OBSERVING
SYSTEM MODEL, NASA, JUNE 27, 2021.

City	Average high (May-June)	Average low (May-June)	Record high (before Heat Dome)
Seattle, WA	65	48	103
Portland, OR	68	49	107
Victoria, BC	64	46	98
Burlington, VT	67	46	101

City	June 26, 2021	June 27, 2021	June 28, 2021
Seattle, WA	102	104	108
Portland, OR	108	112	116
Victoria, BC	96	99	103

Well over 1,000 people died as a result of the Heat Dome event

	Excess deaths
Washington	450
Oregon	160
British Columbia	600
Vermont equivalent	45

Deaths in British Columbia:

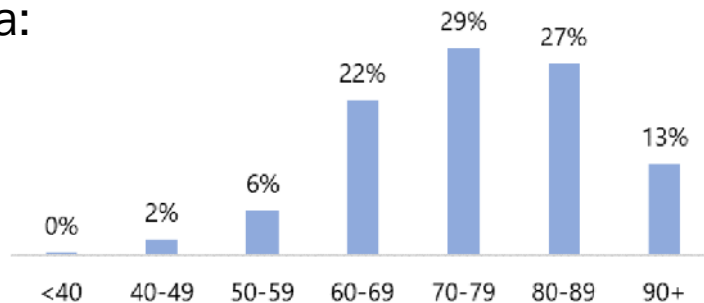


Fig. 3. Heat-Related Deaths by Age Group as % of Total, Jun 25 – Jul 1, 2021¹

¹Percentages may not sum to 100 due to rounding

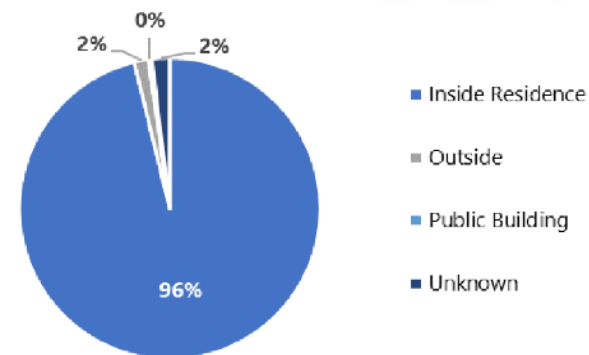


Fig. 6. Heat-Related Deaths by Injury Location as % of Total, Jun 25 – Jul 1, 2021

Lessons learned / recommendations

Planning	<ul style="list-style-type: none">• All-hazards plans were mostly insufficient
Communications	<ul style="list-style-type: none">• Increase “push” notifications to phones• Focus on highest risk groups
Cooling centers	<ul style="list-style-type: none">• Expand coverage, arrange transportation• Extend hours, including overnight shelters• Allow pets
Home-based assistance	<ul style="list-style-type: none">• Need home cooling assistance programs• Provide safety checks for high-risk people at their homes

Heat-related health risks in Vermont

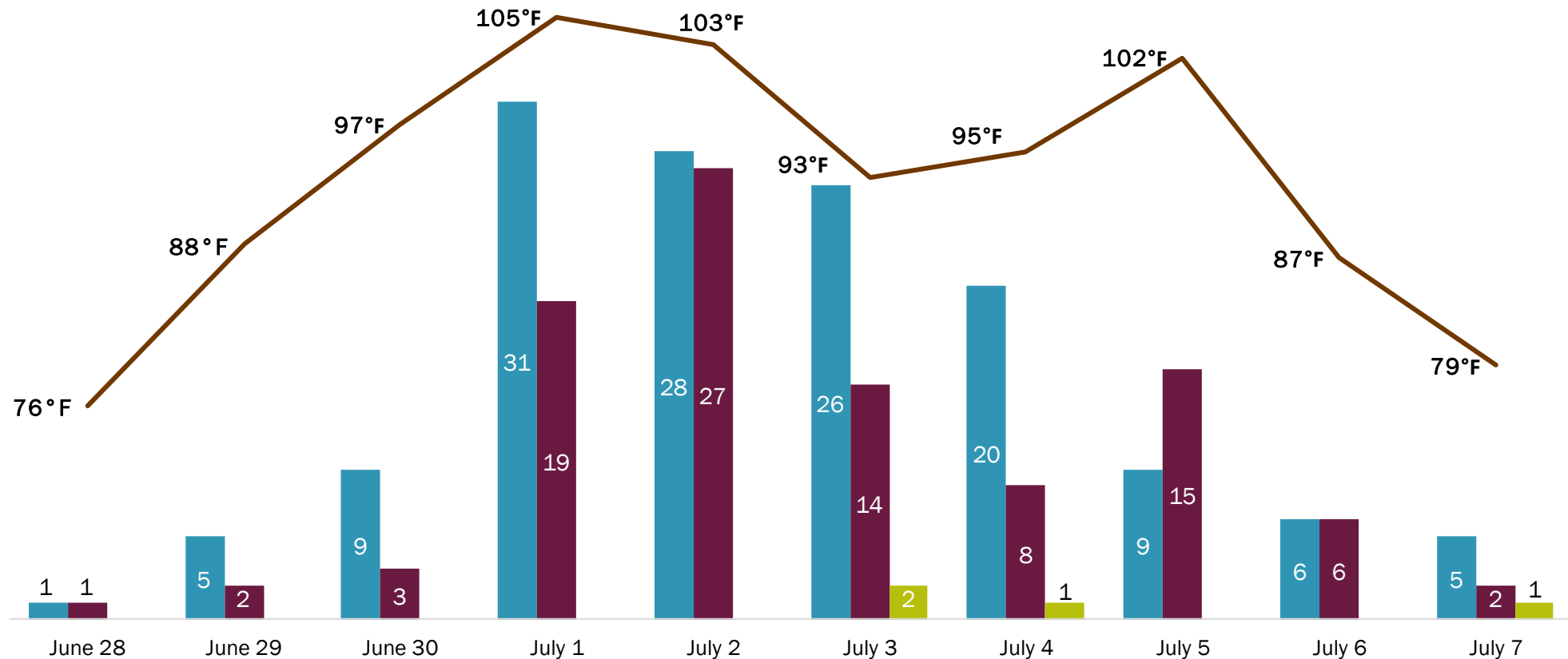
	May	June	July	August	September
Average daily high heat index (°F), Burlington Airport	68°	75°	83°	81°	72°
Heat-related ED visits, statewide total, per month (2009-2019)	14	19	47	17	7

Max heat index (°F), Burlington Airport	Days per year*	Heat-related ED visits, per day*	Heat-related deaths, total*	All ED visits, per day*	All deaths, per day*
Less than 80°	97	0.2	2	742	12.9
80° - 89°	46	1	2	778	13.3
90° - 94°	6	3	2	789	14.1
95° or hotter	3	7	6	795	14.2

* Heat-related data are reported for May-September, 2009-2019. ED visits and deaths are statewide totals.

June-July 2018 heat wave impacts

Heat-related **EMS calls** and **ED visits** increased with the **heat index** during the heat wave of July 2018. There were also four heat-related **deaths**.



June-July 2018 heat wave impacts

LOCAL

Vt. heat wave: Essex Junction woman died in home where temperature reached 115 degrees

Elizabeth Murray and Will DiGravio Burlington Free Press

Published 4:16 p.m. ET July 6, 2018 | Updated 5:32 p.m. ET July 10, 2018

[View Comments](#)



Vermont's death toll from last week's extreme heat wave has risen to four, state Department of Health Spokesman Ben Truman said Monday.

Among the deceased is Mary Myott, 79, of Essex Junction, who died in a home where the temperature had risen to 115 degrees.

Some people are at especially high risk during hot weather

More exposure to hot conditions

- Outdoor workers and hobbyists
- Experiencing homelessness
- Urban residents

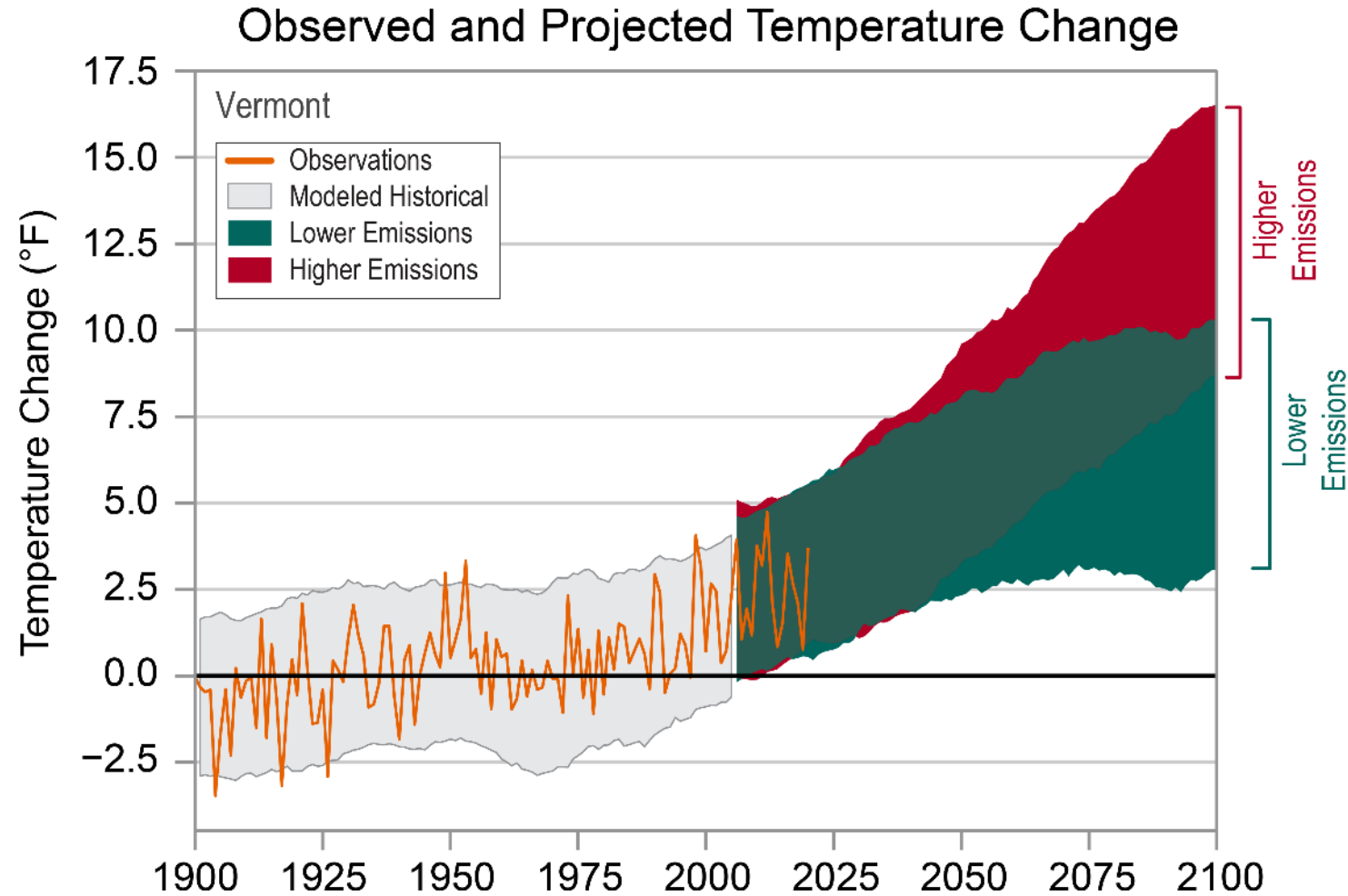
Particularly sensitive to heat exposure

- Anyone not acclimated to hot weather
- Older adults and young children
- Pregnant women
- Overweight or chronic medical condition
- Using drugs, alcohol, some prescription meds

Limited adaptation resources

- Live alone
- Unable to access community cooling sites
- Unable to keep their home cool

The frequency and intensity of hot weather is increasing



Vermont Cooling Site Map

www.healthvermont.gov/climate/heat

HEALTH & THE ENVIRONMENT

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CHILDREN'S ENVIRONMENTAL HEALTH

CLIMATE & HEALTH

DRINKING WATER

ENVIRONMENTAL CHEMICALS & POLLUTANTS

ENVIRONMENTAL PUBLIC HEALTH TRACKING

FOOD & LODGING PROGRAM

HEALTHY HOMES

HEALTHY SCHOOLS

RADIOLOGICAL HEALTH

RECREATIONAL WATER

TOWN HEALTH OFFICERS

PLANS & REPORTS

CONTACT:
Environmental Health Division
108 Cherry Street
P.O. Box 70 - Drawer 30
Burlington, VT 05402-0070
Phone: 802-863-7220 or
800-439-8550 (in Vermont)
Fax: 802-863-7483
AHS.VDHEnvHealth@vermont.gov

RETURN

QUICK LINKS

ALERTS

COVID-19 VACCINE


GET HELP NOW

SEARCH

RT @FCVVT: 1311 Barre Montpelier Road, (Behind Burger King) 10:00 am - 3:00 pm Waterbury Ambulance, 1727 Guptil Road 1:00 pm - 5:00 pm Not Quite Independence Day, Rusty Parker Memorial Park Waterbury Village Historic District 3:00 pm - 7:00 pm <https://t.co/hq13TDM1f> Read More

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HOT WEATHER AND HEALTH IMPACTS



Heat can cause serious illness. Heat illnesses can be deadly. On very hot days, sometimes your body temperature control systems can't keep up and your body temperature can get dangerously high. This makes you at greater risk for serious heat illnesses, including heat exhaustion and heat stroke. Heat stroke is a life-threatening emergency. **Dial 9-1-1** or get immediate medical help if you are concerned about your health or someone else's health when it's hot outside.

Know the [signs and symptoms of heat illnesses](#) ⓘ
Find tips on [how to stay safe when it's hot outside](#) ⓘ

Find heat safety tips in these languages: العربية (Arabic) | မြန်မာစာ (Burmese) | 中文 (Chinese - simplified) | Français (French) | ကရင်စာ (Karen) | Kirundi | नेपाली (Nepali) | Soomali (Somali) | Español (Spanish) | Swahili | Tiếng Việt (Vietnamese)

HOT WEATHER AND HEALTH IMPACTS

FIND SOMEWHERE TO COOL OFF THIS SUMMER

Use the map below to find somewhere to take a break in air conditioning or splash in cool water. Please call the site before you go to confirm open hours and if there are entry fees. If you need more help finding or getting to a cooling site, please call 2-1-1. The map is showing indoor cooling centers only. We will add outdoor public access water sites to the map when water temperatures are safer.

Are you aware of cooling sites that are not on the map? Please let us know ⓘ

We'd like to hear from you! Let us know if this map is helpful or if you'd like to share your impressions about cooling sites. Give us your feedback ⓘ

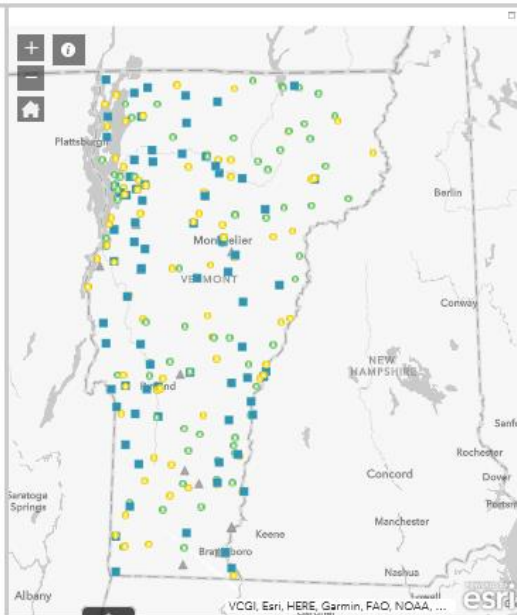
Search Legend County Maps

Enter a search address to find a cooling site near you.

Find Address or Place

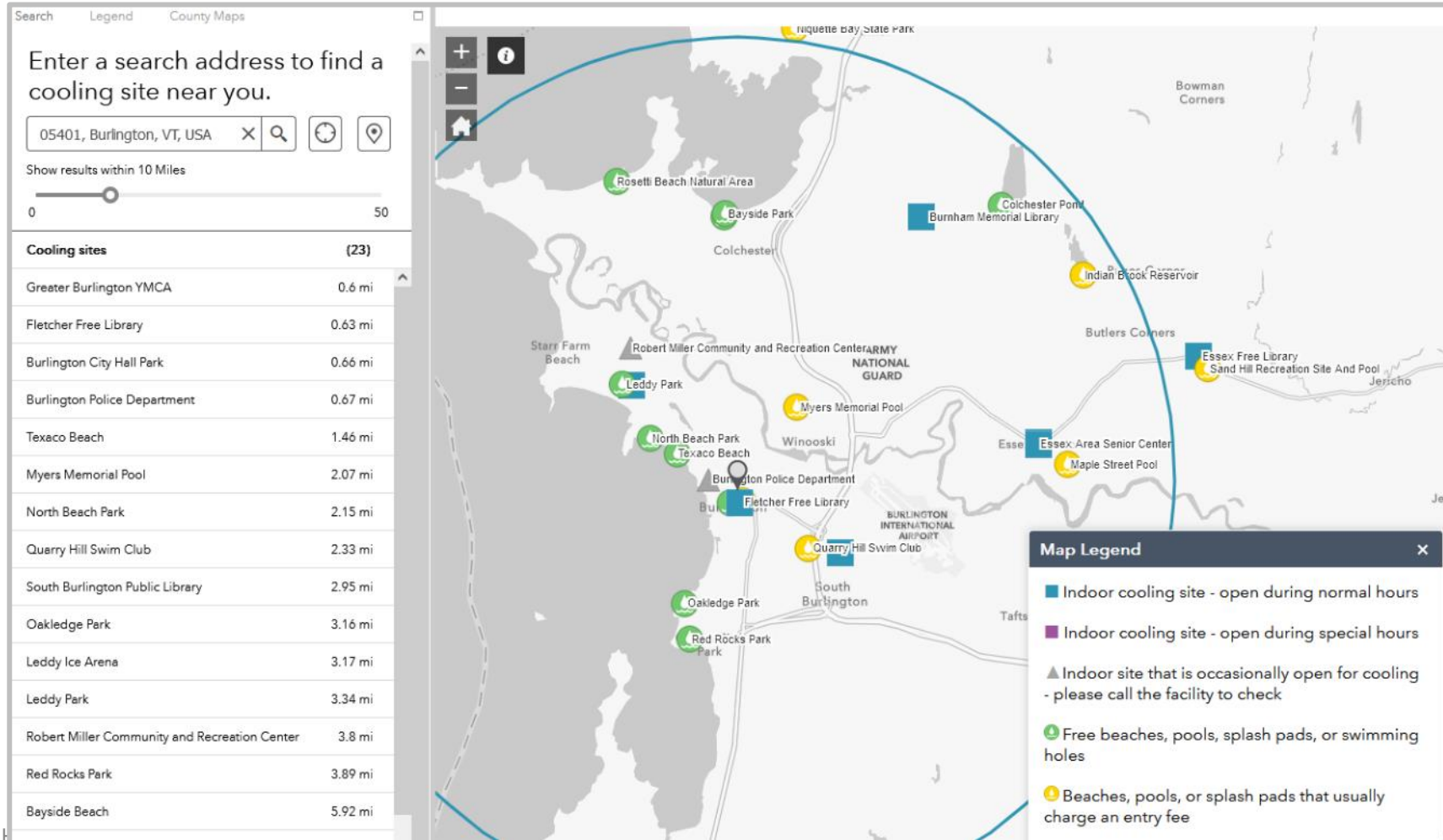
Show results within 10 Miles

0 50



VCGI, Esri, HERE, Garmin, FAO, NOAA, ...

Vermont Cooling Site Map



How to submit additional cooling sites

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ASBESTOS & LEAD IN BUILDINGS

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CONTACT:
Environmental Health Division
118 Cherry Street
PO Box 76 - Drawer 30
Burlington, VT 05409-0076
Phone: 802-863-7220 or
800-496-8550 (in Vermont)
Fax: 802-863-7483
AHE@VH@vtHealth@vermont.gov

QUICK LINKS

ALERTS

COVID-19 VACCINES


GET HELP NOW

SEARCH

RT @VHCOM: 1311 Queen's Burger King! 10:50 am - 3:0 1727 Sugar Road 1:00 pm - Independence Day: Rally P Waterbury Village Historic I https://t.co/37Tm1P 8:04:00am

HOME / HEALTH & THE ENVIRONMENT / CLIMATE & HEALTH /

HOT WEATHER AND HEALTH IMPACTS



Heat can cause serious illness. Heat illnesses can be dangerous. Sometimes your body temperature control systems can't keep up. Heat can get dangerously high. This makes you more likely to get sick. Heat illnesses, including heat exhaustion and heat stroke, are emergencies. Dial 9-1-1 or get immediate medical help if health or someone else's health when it's hot outside.

Know the signs and symptoms of heat illnesses. Find tips on how to stay safe when it's hot outside.

Find heat safety tips in these languages: العربية (Arabic) | မြန်မာစာ (Burmese) | 中文 (Chinese) (French) | ಕನ್ನಡ (Kannada) | Kikundi | नेपाली (Nepali) | Soomali (Somali) | Español (Spanish) | Swahili

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We'd like to hear from you! Let us know if this map is helpful or if you'd like to share your input. Give us your feedback.

Search

Legend


County Maps

Enter a search address to find a cooling site near you.

Find Address or Place

Show results within 10 Miles

0 50



If the map is not loading, you can try opening it in a new window or see if it will load in a different browser. You may need to clear your browser cache. Please let us know if you have problems loading the map.

Some people are at higher risk for heat illnesses

* Required

Basic cooling site info

Please only submit information for a single cooling site in this form. If there are multiple sites in your community, please submit additional forms for each site.

1. Cooling site name *

For example, Green Mountain Free Library or Sugar Maple State Park

Enter your answer

2. What type of cooling could be made available to the public at this location? *

☒ Indoor access to air conditioned or naturally cool space (like a basement)

☐ Outdoor site with swim/splash water access, shade, and/or drinking water

☐ Misting tent or other mobile cooling unit

☐ Other

3. What type of building is this? *

☐ Library

☒ Town/city hall

☐ Senior center

☐ Community/recreation center

☐ School

☐ Other

4. Street address *

Enter your answer

5. Town or city *

Enter your answer

6. Zip code *

Enter your answer

7. Thanks for providing basic information about this cooling site! *

Would you like to:

☐ Provide additional site details (takes about 5 minutes)

☐ End and submit the survey now

Next

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Local Hot Weather Preparedness Guidance



Local Hot Weather Preparedness Guidance

June 2022

[www.healthvermont.gov/
climate/heat#prepare](http://www.healthvermont.gov/climate/heat#prepare)

Why should Vermont communities prepare for hot weather?

Harmful hot weather occurs far less frequently than cold weather in Vermont, but we tend to be much less prepared for hot weather when it does occur. The result is that a similar number of Vermonters visit the emergency room or call 9-1-1 each year for heat-related illnesses as do for cold-related illnesses. Heat-related illnesses kill more people in the US each year than any other type of weather event. Over 1,400 people died during a 2021 heat wave in the Northwestern US and Western Canada, an area with a similar summer climate to Vermont.

Climate change is increasing heat-related health risks in Vermont. Average temperatures in Vermont have already risen by 3 °F since 1900¹, resulting in more days each year when heat may impact health. At the Burlington International Airport, hot days (exceeding 90 °F) and warm nights (above 70 °F) have occurred more than twice as often since 2010, as compared to the previous 60 years². Average temperatures in Vermont are projected to increase by an additional 3 to 12 °F by 2100¹, suggesting that we can expect more frequent and harmful hot weather in the future.

Vermont communities can enhance their emergency planning efforts for the growing threat of harmful hot weather. This guide provides information on who is most affected by hot weather, an overview of recommended actions to consider including in local emergency plans, and a template for hot weather emergency planning.

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National Weather Service advisory/warning thresholds

Forecasted heat index (° F)	Hazardous weather risk category	Advisory or warning triggered
Less than 80 °	Low Risk	None
80 ° - 89 °	Limited Risk	None
90 ° - 94 °	Elevated Risk	None
95 ° - 104 °	Significant Risk	Heat Advisory
105 ° or hotter	Extreme Risk	Excessive Heat Warning

For more info: [weather.gov/btv/heat](https://www.weather.gov/btv/heat)

Hot weather emergency planning template (example)

Overall responsibility / incident manager

	Incident Manager	Deputy Incident Manager
Name	Sally	Matt
Title	Emergency Management Director	Emergency Management Coordinator
Primary contact info	802-123-4567	802-987-6543
Secondary contact info	emd@town.gov	emc@town.gov

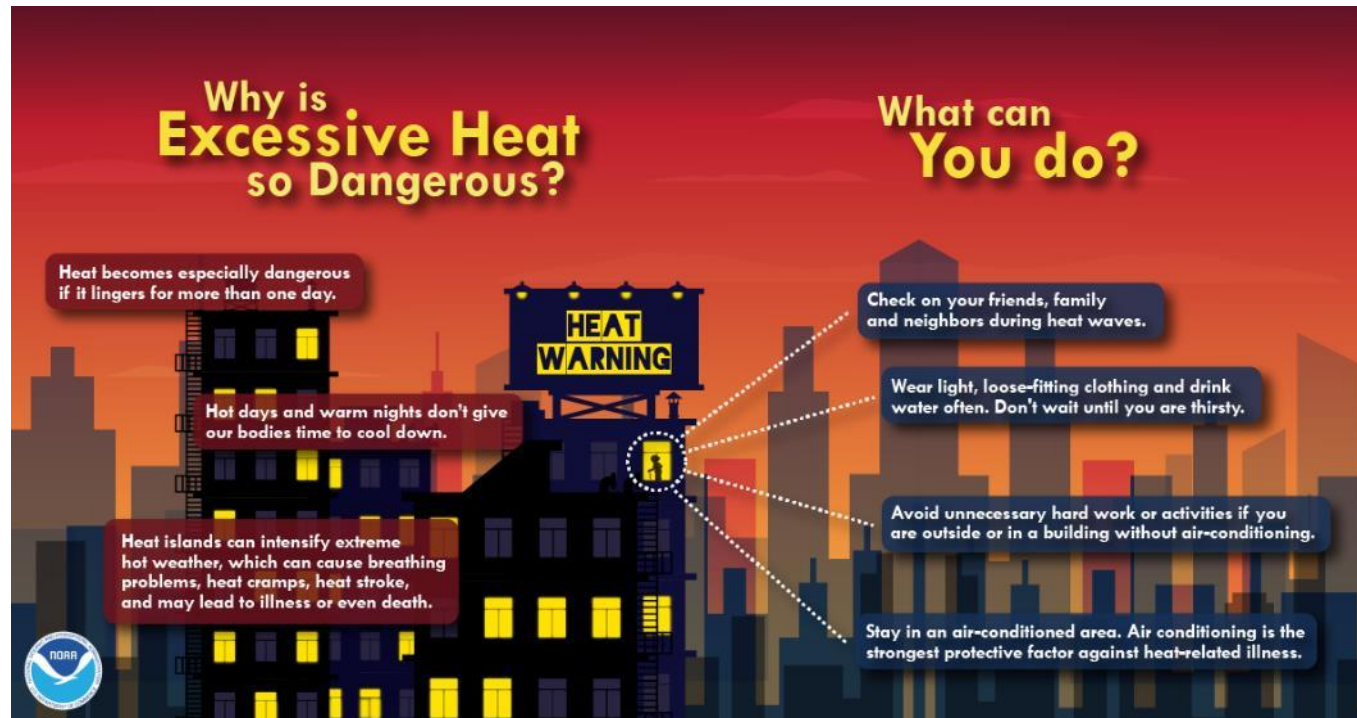
Overview of actions, triggers, and responsibilities

Action	Trigger*	Responsibility
Public outreach (seasonal awareness)	First forecasted heat index of 90°F+ each year	Deputy Incident Manager
Public outreach (advisory)	Heat Advisory	Deputy Incident Manager
Activate most cooling facilities	Heat Advisory	Incident Manager
Mobilize support networks	Heat Advisory	Deputy Incident Manager, Fire Chief, Senior Center Director
Consider activity modifications	Heat Advisory	Incident Manager
Coordinate with utilities	Heat Advisory	Deputy Incident Manager
Mobilize emergency personnel	Heat Warning	Deputy Incident Manager, Fire Chief
Activity modifications	Heat Warning	Incident Manager
Activate cooling shelter	Heat Warning for 2 or more consecutive days	Incident Manager

*Triggers are meant to be advisory. Actions and triggers should be modified based on the expected or actual severity of each hot weather event.

Hot weather media toolkit

www.healthvermont.gov/file/env-ch-hot-weather-media-toolkitdocx





Thank you!

Let's stay in touch.

Email: ClimateHealth@vermont.gov

Web: www.healthvermont.gov

Social: [@healthvermont](https://twitter.com/healthvermont)