

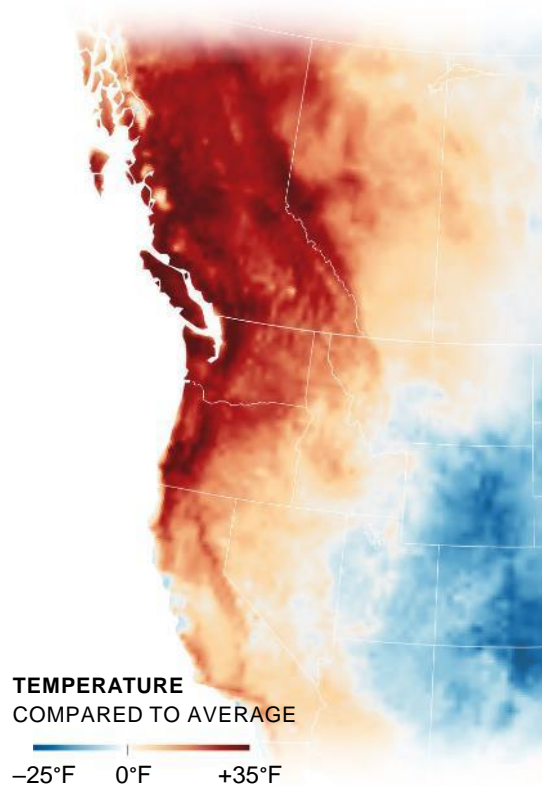
Preparing for Extreme Heat in Vermont

Jared Ulmer

Climate & Health Program Manager

May 31, 2023

2021 “Heat Dome” in Northwestern USA & Western Canada



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

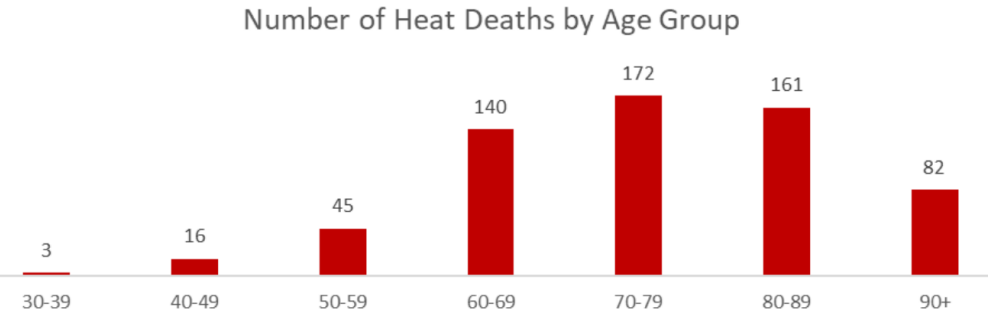
City	Average high (May-June)	Average low (May-June)	Record high (before Heat Dome)
Seattle, WA	65	48	103
Portland, OR	68	49	107
Victoria, BC	64	46	98
Burlington, VT	67	46	101

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:



98% of deaths occurred inside a residence
56% of decedents lived alone
10% had A/C in residence, **2%** had A/C on

Lessons learned / recommendations

Planning	<ul style="list-style-type: none">• Develop specific heat action plans
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, provide overnight shelters• Allow pets
Assistance for high-risk individuals	<ul style="list-style-type: none">• Conduct wellness checks for high-risk people• Provide home cooling assistance• Provide resources for unhoused individuals

Heat-related health risks in Vermont

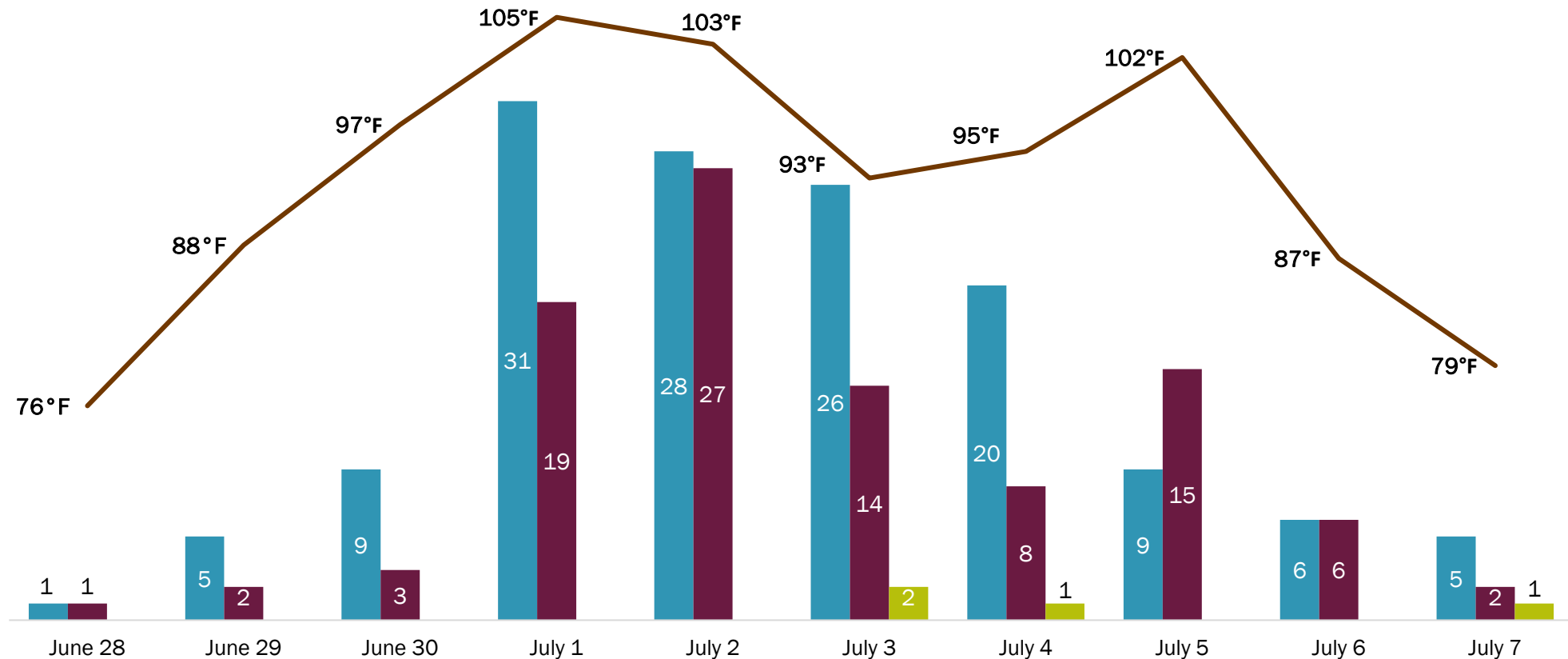
	May	June	July	August	September
Average daily high heat index (°F), Burlington Airport	68°	75°	83°	81°	72°
Heat-related ED visits, statewide total, per month (2009-2019)	14	19	47	17	7

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
- Unhoused
- Urban residents

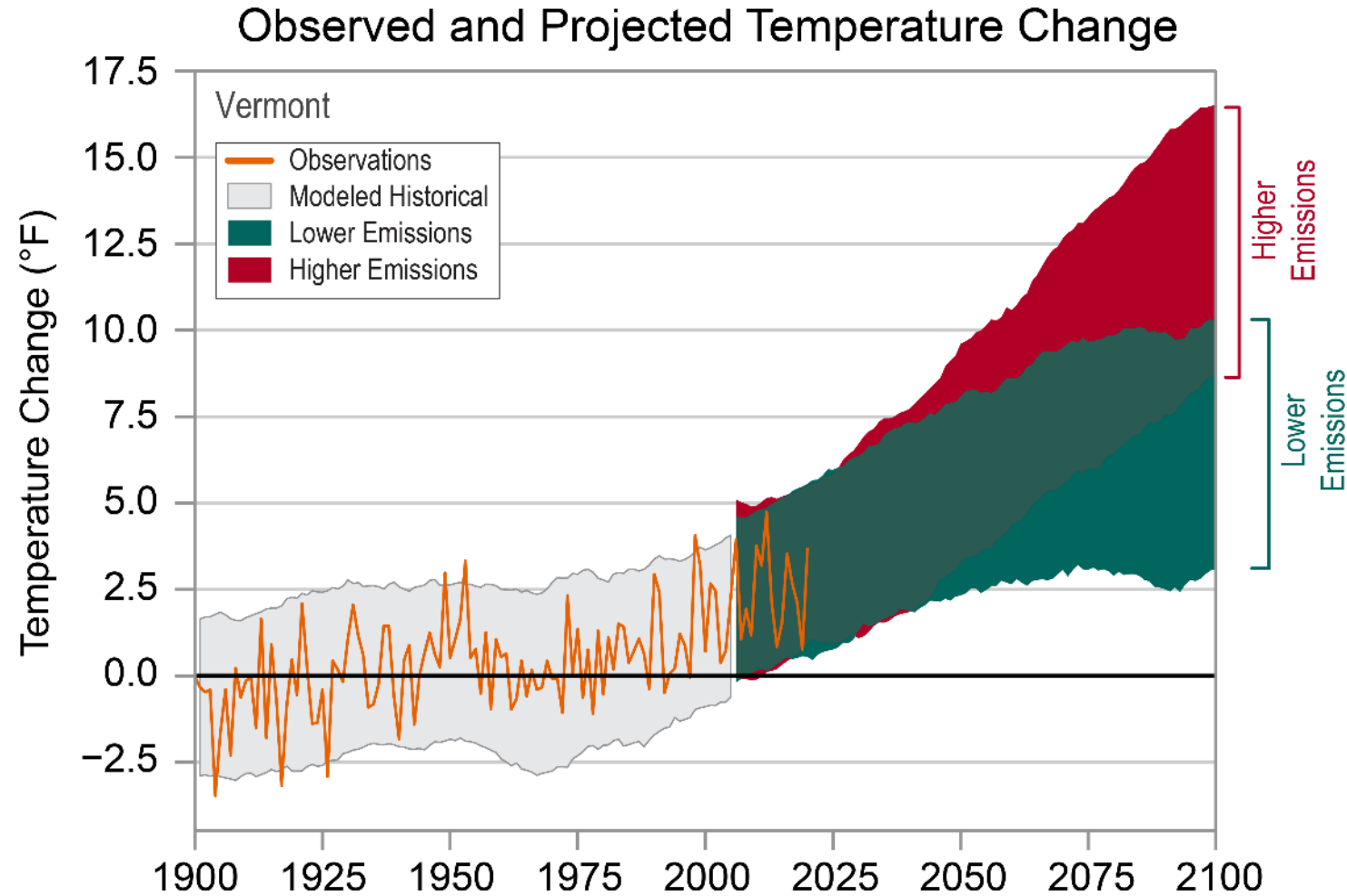
Particularly sensitive to heat exposure

- 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



Preparedness Guidance: www.healthvermont.gov/climate/heat#prepare



Local Hot Weather Preparedness Guidance

June 2022

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<https://www.healthvermont.gov/sites/default/files/documents/pdf/ENV-CH-hot-weather-planning-guidance.pdf>

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)

Heat response strategies to consider

Raise awareness	<ul style="list-style-type: none">• Alert the community about heat warnings, safety tips, resources.
Activate cooling facilities	<ul style="list-style-type: none">• Open or extend hours at public buildings with air conditioning.• Support access to cooling facilities, pools, beaches, etc.
Mobilize support networks	<ul style="list-style-type: none">• Work with community partners and volunteers to conduct wellness checks and assist people at highest risk.
Ensure safety for outdoor activities	<ul style="list-style-type: none">• Ensure access to water, shade, indoor cooling, and medical attention. Be prepared to modify or cancel activities.
Mobilize emergency response personnel	<ul style="list-style-type: none">• Emergency medical personnel may be needed for event support, wellness checks, cooling center staffing, or surge capacity.
Long-term adaptation	<ul style="list-style-type: none">• Address heat in the Local Hazard Mitigation Plan.• Consider public building upgrades, tree planting, supporting residents and organizations to pursue adaptation strategies.

Hot weather emergency planning template (example)

Overall responsibility / incident manager

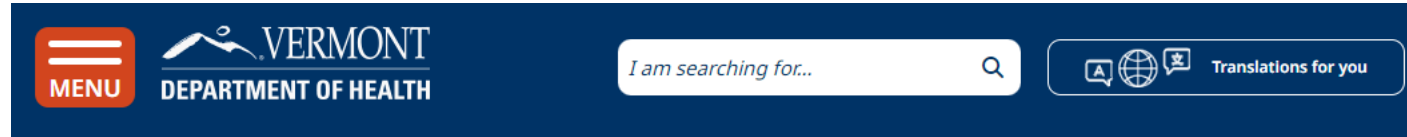
	Incident Manager	Deputy Incident Manager
Name	Sally	Matt
Title	Emergency Management Director	Emergency Management Coordinator
Primary contact info	802-123-4567	802-987-6543
Secondary contact info	emd@town.gov	emc@town.gov

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.

Heat Safety Info: www.healthvermont.gov/climate/heat



Home / Health & The Environment / Climate & Health / **Hot Weather**

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.**

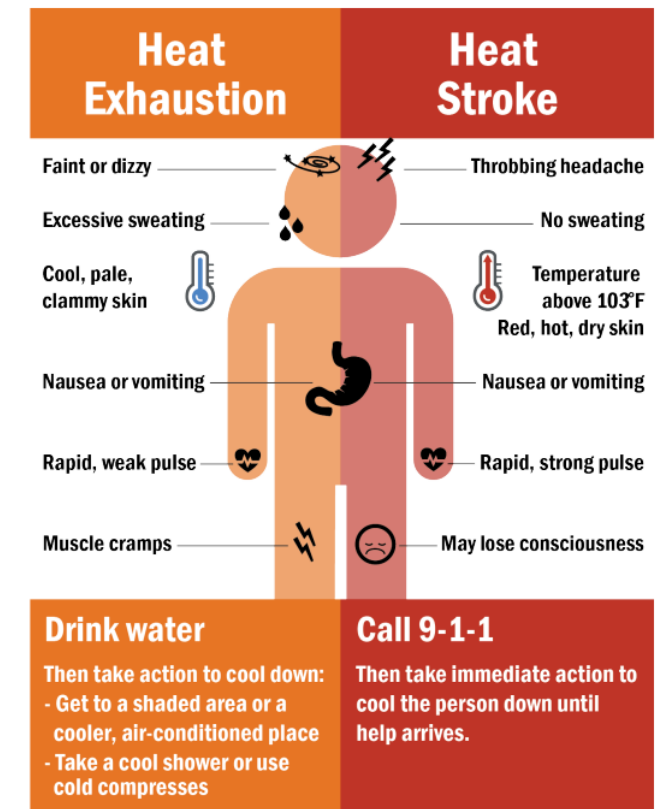
Know the **signs and symptoms of heat illnesses** →

Find tips on **how to stay safe when it's hot outside** →



Translated information in: [العربية \(Arabic\)](#) | [စာဖြင့်ဟ \(Burmese\)](#) | [中文 \(Chinese - simplified\)](#) | [Français \(French\)](#) | [ကဵုနီု \(Karen\)](#) | [Kirundi](#) | [नेपाली \(Nepali\)](#) | [Soomali \(Somali\)](#) | [Español \(Spanish\)](#) | [Kiswahili \(Swahili\)](#) | [Tiếng Việt \(Vietnamese\)](#)

Know the Signs and Symptoms of Heat Illnesses



Adapted from the National Weather Service

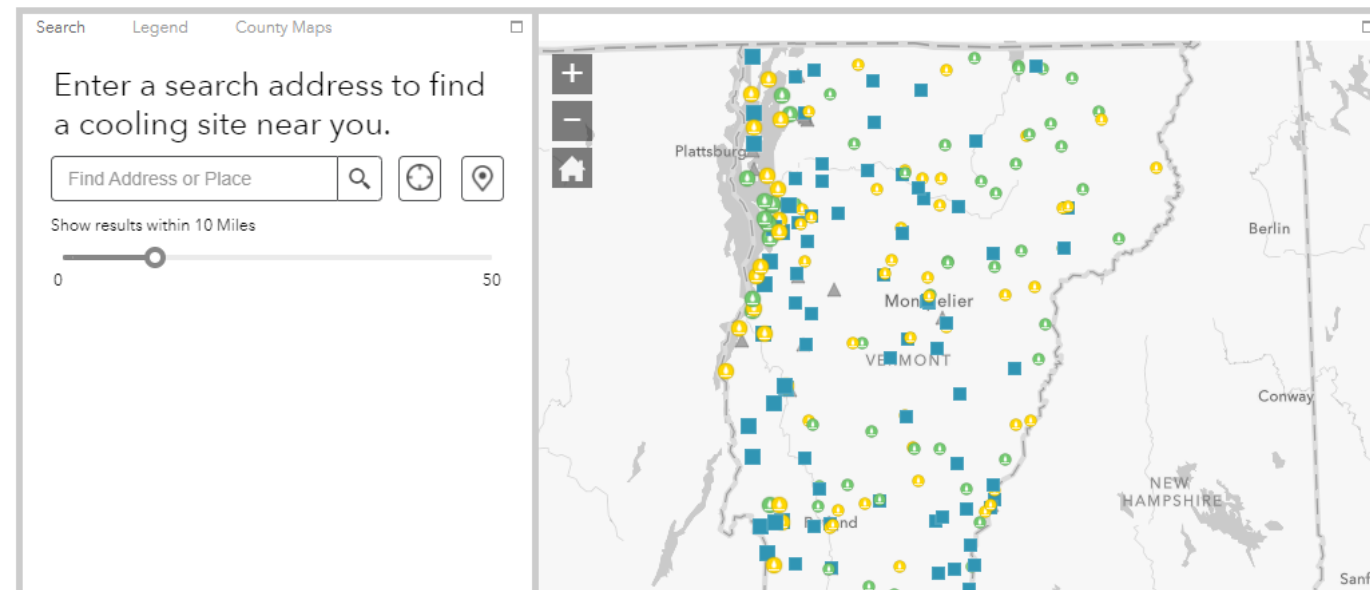
Cooling sites map: www.healthvermont.gov/climate/heat

Find Somewhere to Cool off This Summer

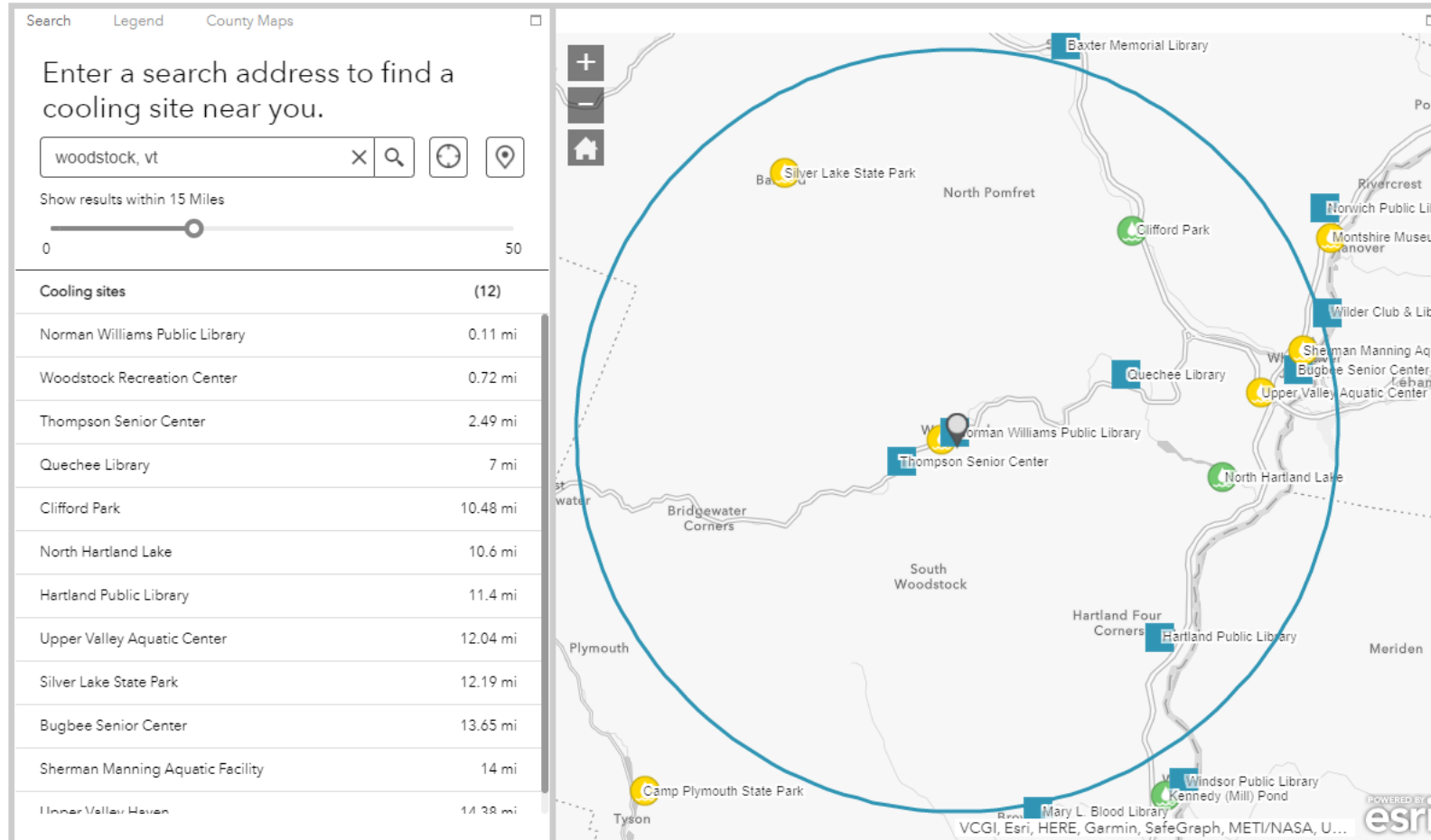
Use the map below to find somewhere to take a break in air conditioning or splash in cool water. Please call the site before you go to confirm it is open and if there are entry fees. If you're going to a lake or pond, be sure to [look for cyanobacteria blooms](#) before going in the water. If you need more help finding or getting to a cooling site, please call 2-1-1. Swimming holes are typically not displayed on this map, but they may provide a safe option when following these [safety tips](#).

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 →](#)



Cooling sites map: www.healthvermont.gov/climate/heat



Norman Williams Public Library

Site Type: Public facility with cooling

Status: Unknown

Address: 10 The Green, Woodstock

Website: Click [here](#) // **Phone:** 802-457-2295

Hours of Operation: Monday: 10am-6pm

Tuesday: 10am-8pm

Wednesday-Friday: 10am-6pm

Saturday: 10am-4pm

Extended Hours: Unknown

Entry Fee: No

- **Overnight Shelter Facilities:** Unknown
- **ADA Compliant:** Unknown
- **Water Available:** Unknown
- **Restrooms Available:** Unknown
- **Public Transportation:** Unknown
- **Parking:** Unknown
- **Pet Facilities:** Unknown
- **Refrigerator for Medications:** Unknown
- **Power for Medical Equipment:** Unknown
- **Generator on Site:** Unknown
- **Other indoor amenities:** Unknown
- **Outdoor amenities:**

Date last updated: July 19 2022

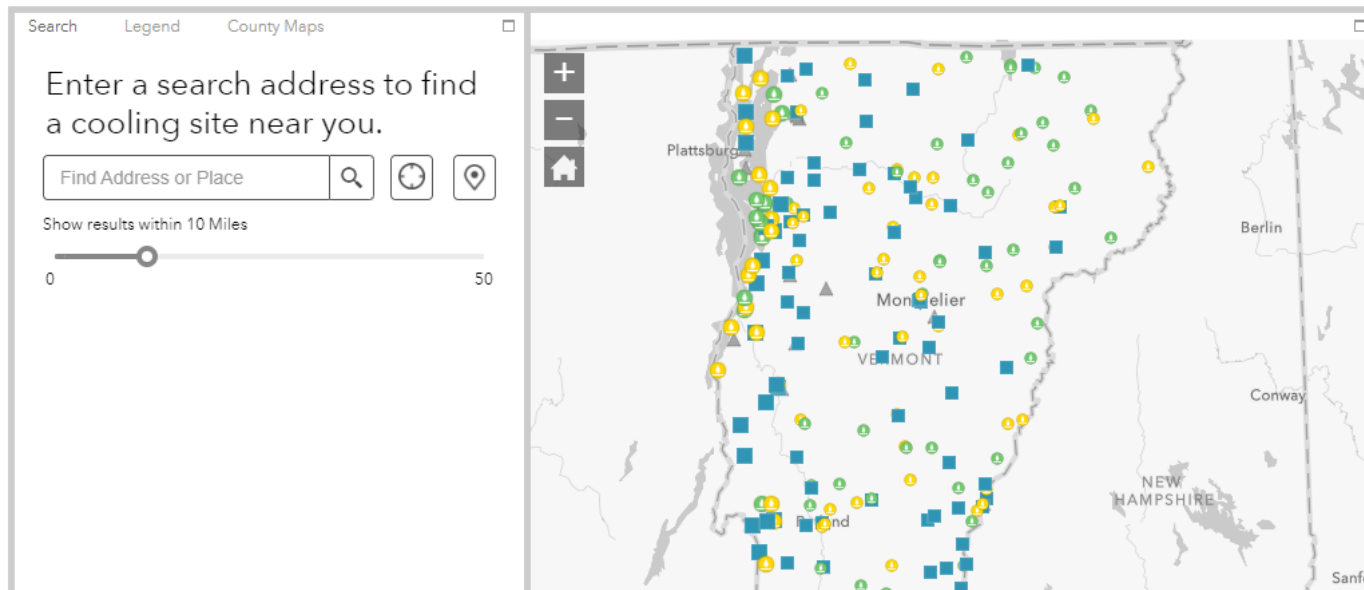
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* Required

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

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

Outreach toolkit: www.healthvermont.gov/climate/heat#prepare



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)