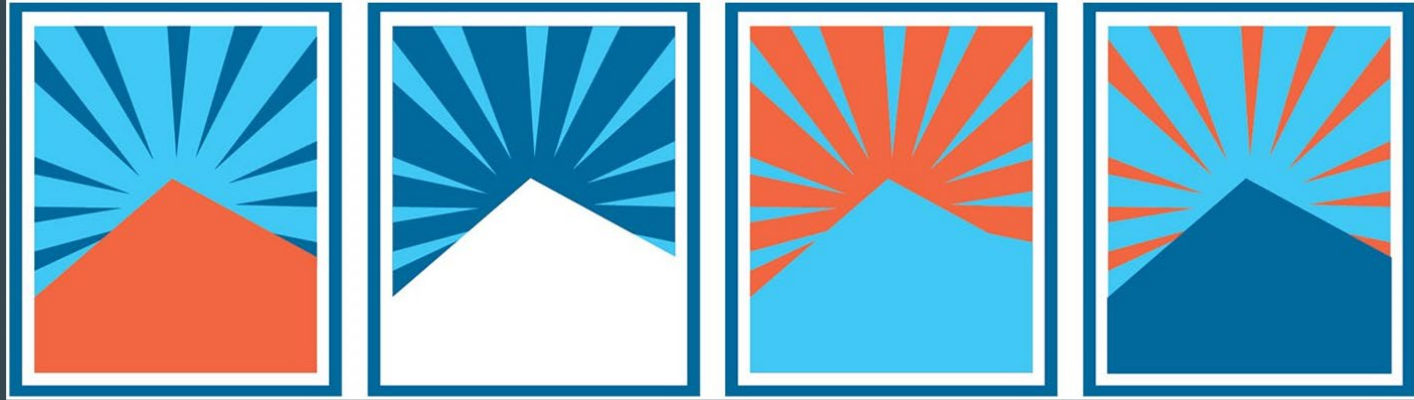


Connecting Teachers to Climate Change using Science on a Sphere



Michael Trumbower- School Programs Coordinator
The Wild Center, Tupper Lake, NY





THE W!LD CENTER



New York

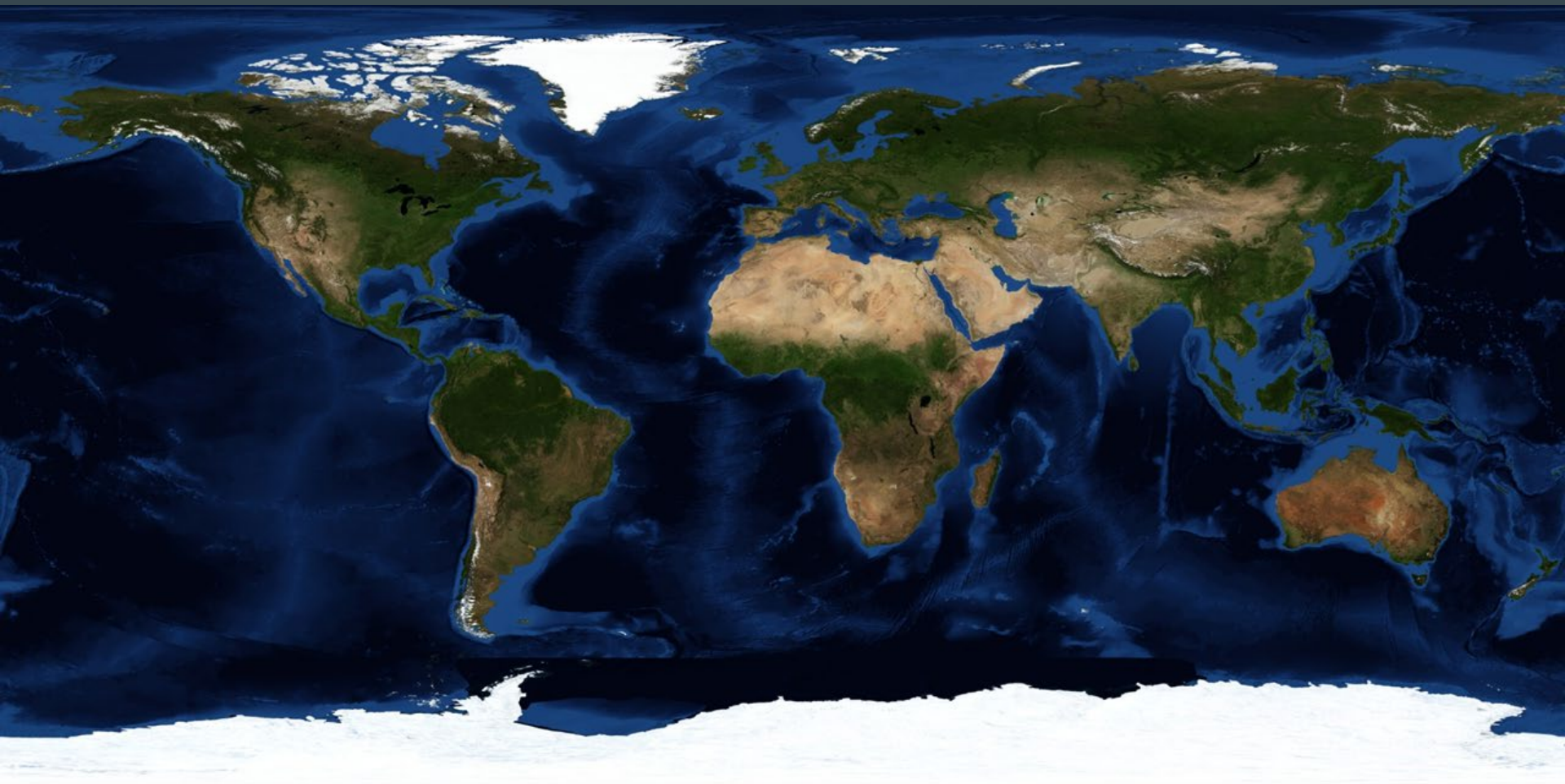


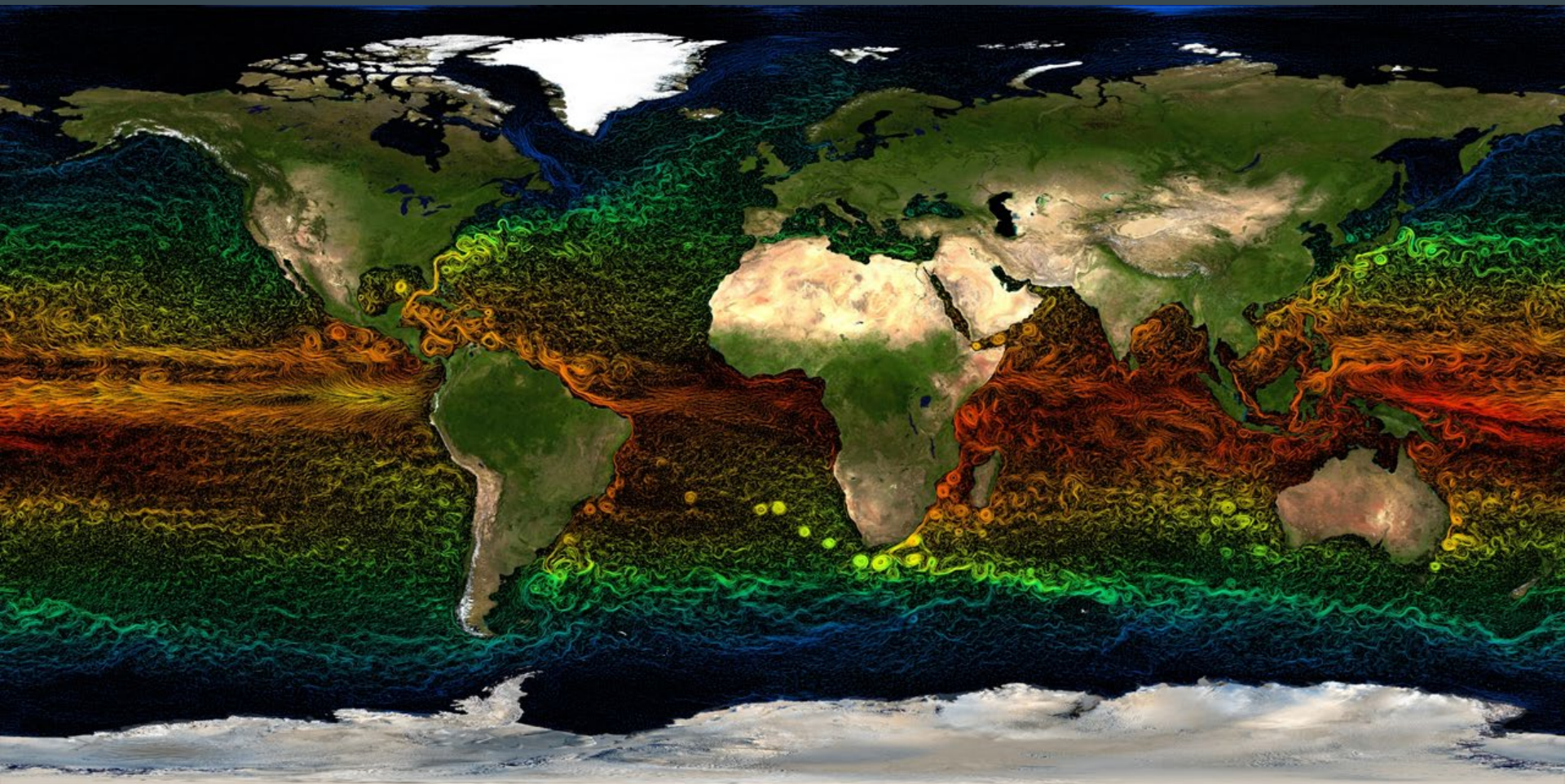
Climate Program Values

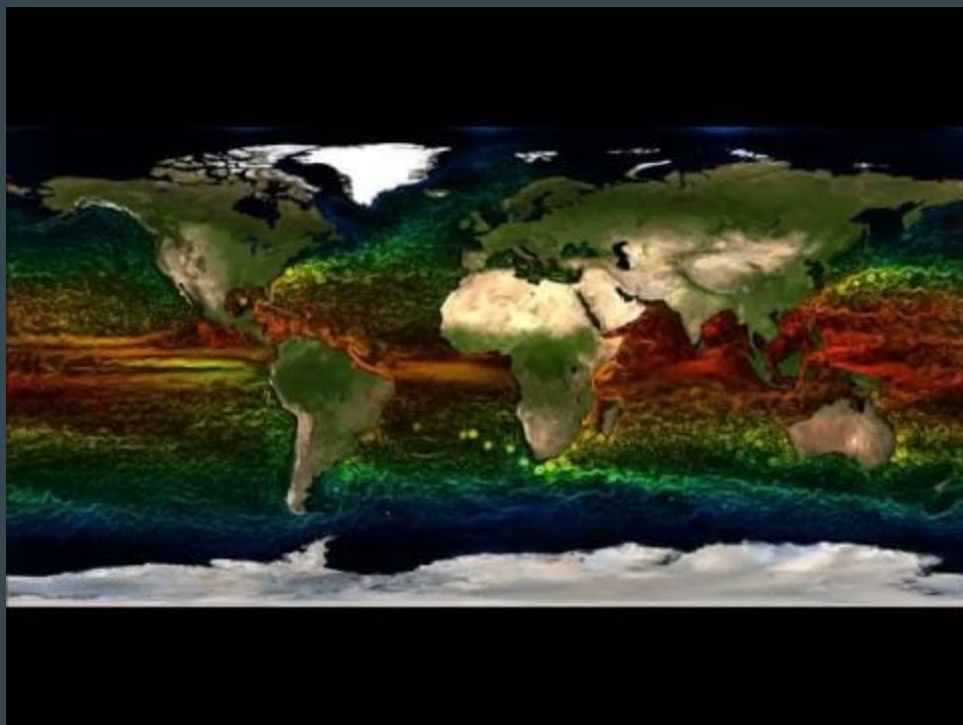


Engaging with Science on a Sphere

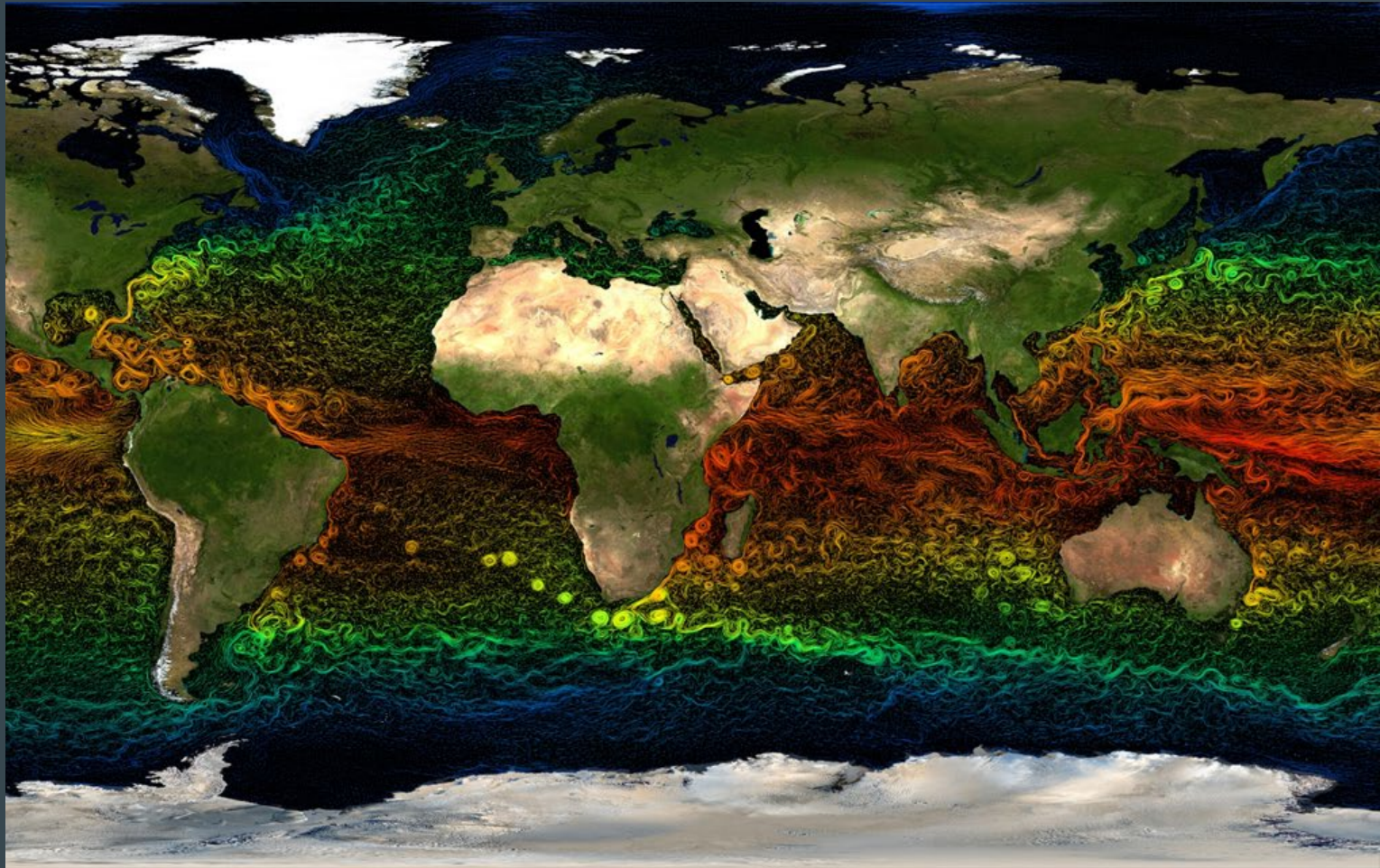








Visual Thinking Strategies



**Teacher
Climate
Institutes**





Climate Resiliency: Empowering Students Across Curriculum

October 19, 2018

Teacher Climate Institute

Get hands-on with
exploration of climate
change across curriculum

Collaborate with other educators

Experience and take home ready-to-teach
lessons that support interdisciplinary
learning and New York State Science
Learning Standards

FREE Professional Development Event!



Located at The Wild Center, 45 Museum Drive, Tupper Lake, NY. 8:00am-3:00pm.

To register, visit www.fehb.org and click the My Learning Plan icon

For questions contact Michael Trumbower, School Programs Coordinator:
mtrumbower@wildcenter.org, (518) 359-7800 x112



The Wild Center's Teacher Climate Institute

Climate Resiliency:

Empowering Students Across Curriculum

Hosted by The Wild Center, Tupper Lake, NY

October 19, 2018

Agenda

8:00 – Arrival at The Wild Center

8:15-8:30 - Welcome & Introduction

Presented by Michael Trumbower, and Erin Griffin, The Wild Center

8:30-9:15: Understanding Climate Change in The North Country with Science on a Sphere

Presented by Michael Trumbower, The Wild Center

9:15-10:45: Connecting with Climate Change

- Circle of Commonalities, UN Sustainable Development Goals

Presented by Erin Griffin, The Wild Center

10:45-11:00: Break

11:00-12:00: Diving into the Data

- Climate Generations Grades 6-8 Curriculum - Lessons 1+2 – Human Impacts and Reading Graphs

Presented by Nicole Morin and Michael Trumbower, The Wild Center

12:00-1:00: Lunch

1:00-2:30: Sustainability & Climate Solutions

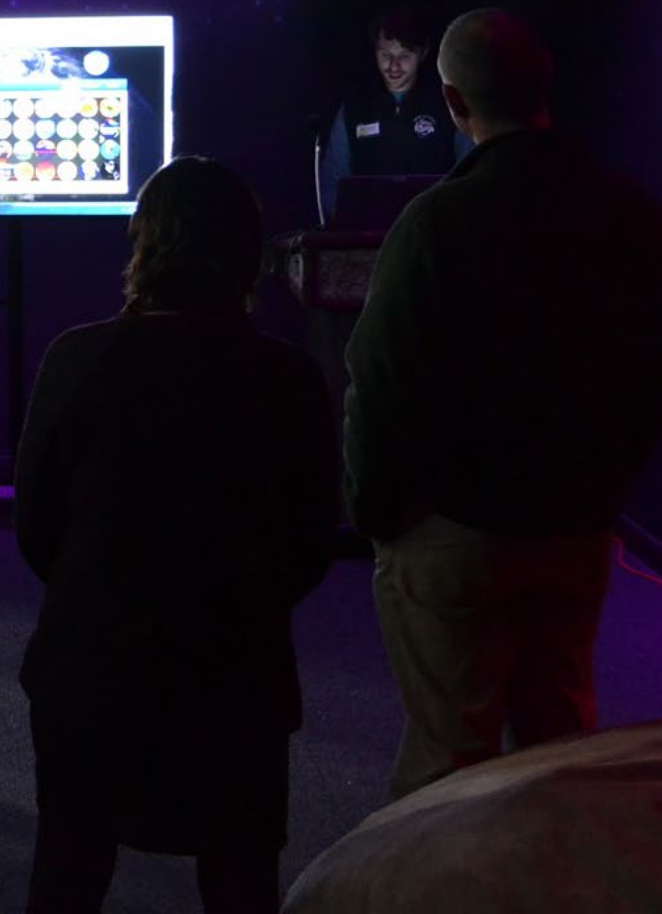
Green Technology Tour by Nick Corcoran

Sustainable School Activity presented by Michael Trumbower, The Wild Center

2:30-3:00: Discussion & Wrap-Up

- Reflection on how to best implement changes in their curriculum
- Post-Surveys

Facilitated by Michael Trumbower, The Wild Center





Adirondack Youth Climate Summit



Building Connections

Global SOS datasets → Resources that teachers can use in the classroom

- SOS Explorer (Lite)
- U.S. Climate Resilience Toolkit
- New York State Climate Change Clearinghouse



[Steps to Resilience](#) [Case Studies](#) [Tools](#) [Expertise](#) [Regions](#) [Topics](#)

Search 

Meet the Challenges of a Changing Climate

Find information and tools to help you understand and address your climate risks.

[LEARN HOW TO BUILD RESILIENCE >](#)

[SEE WHAT OTHERS ARE DOING >](#)

[USE THE CLIMATE EXPLORER >](#)

[TOUR THE TOOLKIT ▾](#)



STEPS TO RESILIENCE

Use this framework to discover and document climate hazards, then develop workable solutions to lower climate-related risks. Watch the overview video or click any step to learn more.

1 Explore Hazards

2 Assess Vulnerability & Risks

3 Investigate Options

4 Prioritize & Plan

5 Take Action





Case Studies

Filter by climate threat/stressor: ▼

Filter by topic: ▼

Filter by steps to resilience: ▼

Filter by region: ▼

Communities, businesses, and individuals are taking action to document their vulnerabilities and build resilience to climate-related impacts. Click dots on the map to preview case studies, or browse stories below the map. Use the drop-down menus above to find stories of interest. To expand your results, click the Clear Filters link.



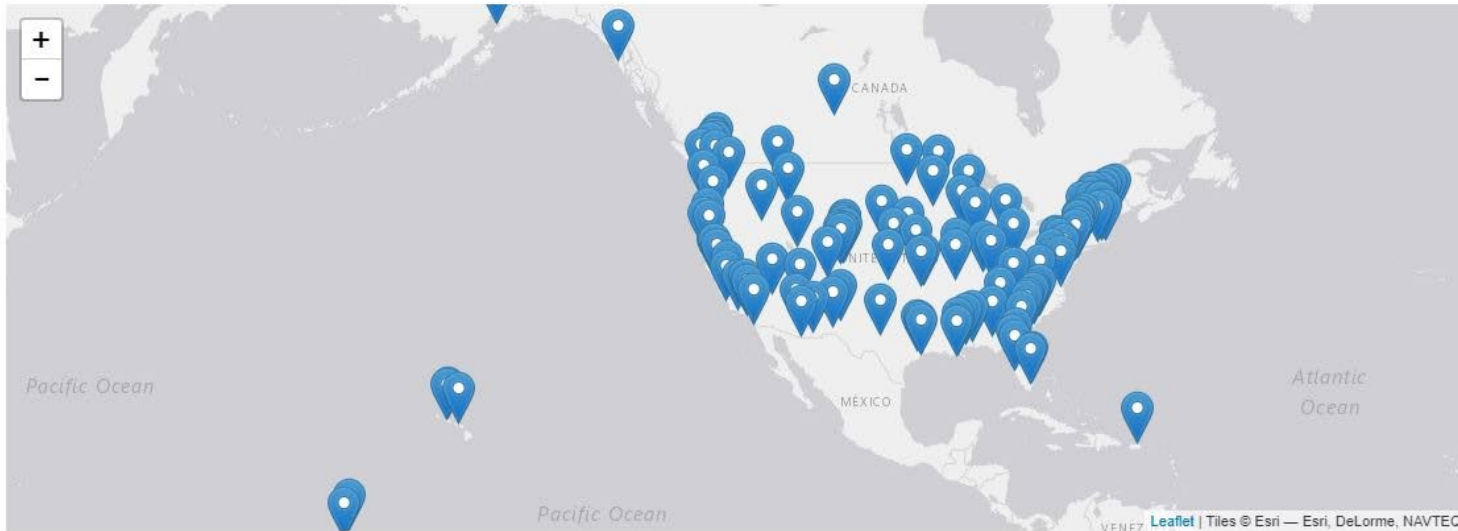
SHARE



TWEET

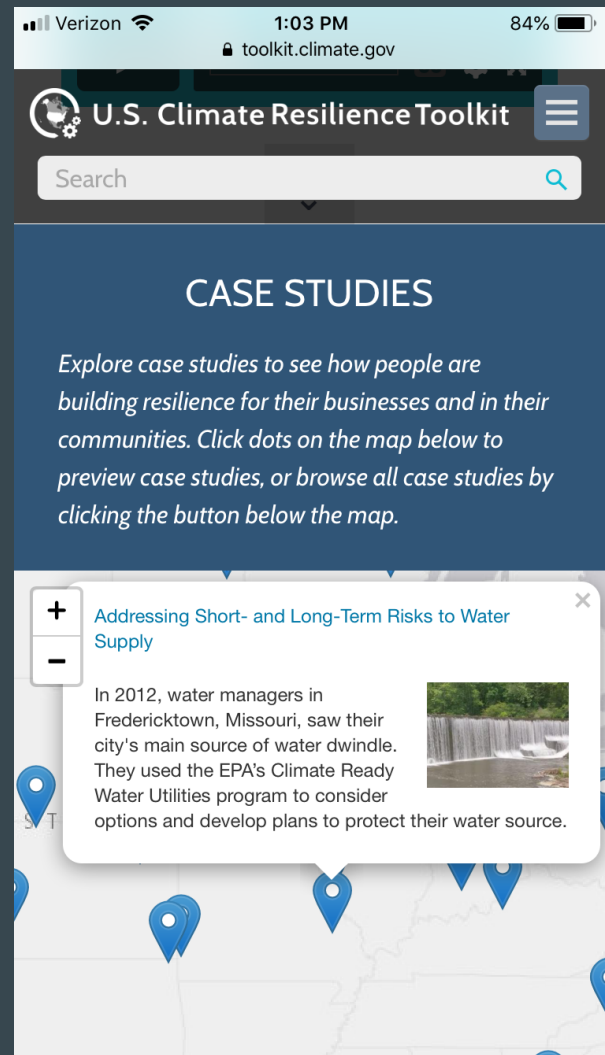


PRINT



Exploring Case Studies

- 1 - Break into Groups
- 2 - Send a representative to pick a town/state
- 3 - Pull out your phone and head to <https://toolkit.climate.gov/>
- 4 - Scroll down to Case Studies find your town/state
- 5 - Start Exploring!





Exploring Climate Resilience Case Studies around the Nation

- **Head to the US Climate Resilience Toolkit website and select the Case Studies option at the top of the page.**
- **Zoom in to locate your group's town or state.**
- **Take a look at what they are doing to build a more Resilient Community and reflect on your findings below.**

Climate Risk/Impact:

Town/State of Case Study:

Who is working on the issue?

What is being done to address the issue and build Resilience?

What surprises/interests you in this project?

Can you see using any ideas from this in your community?

Solutions

What resiliency measures did you explore?

Did they surprise or inspire you in any way?

New York State Climate Smart Communities

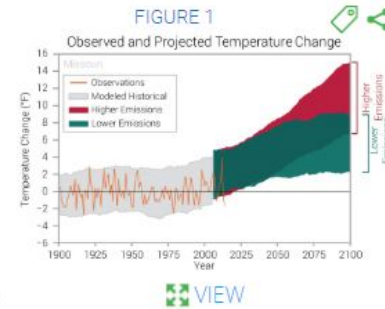


State Climate Summaries

MISSOURI

Missouri's location in the interior of the North American continent exposes it to a climate with large ranges in temperature with hot, humid summers and cold winters. The lack of mountain barriers both to the north and to the south, and the state's inland location away from the moderating effects of the oceans, allow it to be influenced by both cold Arctic air masses and warm, moist air masses from the Gulf of Mexico. Average annual temperatures across the state vary over a range of about 10°F from north to south. The year 2012 was the hottest on record, with an average annual temperature of 58.6°F, 4.1°F higher than the long-term average.

Since the beginning of the 20th century, temperatures in Missouri have risen approximately 0.5°F (Figure 1) and temperatures in the 2000s have been higher than any other historical period with the exception of the early 1930s Dust Bowl era. This warming has been concentrated in the winter and spring while average summer temperatures have not increased substantially in the state until the most recent 5 years, a feature characteristic of much of the Midwest (Figure 2). Due to extreme drought and poor land management practices, the summers of the 1930s remain the warmest on record. The recent summer warming has been characterized by much warmer nights (above "Dust Bowl" levels) while daytime highs have only increased a little. The state has also experienced a below average occurrence of extremely hot days (maximum temperature above 100°F) (Figure 3a). In addition to the overall trend of higher average temperatures, the state has experienced an above average number of very warm nights (minimum temperature above 75°F) (Figures 2 and 4). Since 1950, the annual number of these very warm nights has increased by about 2 days per decade at St. Louis Lambert Airport. Also, there is an upward trend in summer humidity since the mid-20th Century. The winter warming trend is reflected in a below average number of very cold nights (minimum temperature below 0°F) over the past 25 years (Figure 3b).



Resources

Michael Trumbower- mtrumbower@wildcenter.org

NOAA Science on a Sphere [https://sos.noaa.gov/What is SOS/](https://sos.noaa.gov/What%20is%20SOS/)

Visualizing Change <http://vischange.org/>

US Climate Resilience Toolkit <https://toolkit.climate.gov/>

NYS Climate Smart Communities <https://climatesmart.ny.gov/>

NOAA National Centers for Environmental Information | State Climate Summaries - <https://statesummaries.ncics.org/>

LabX- Extreme Event Game <https://labx.org/>