

Land Preservation and Climate Change: What You Can Do



**Brewster Conservation Trust
Annual Meeting 2021
Kristin Andres, APCC Associate Director for Education**

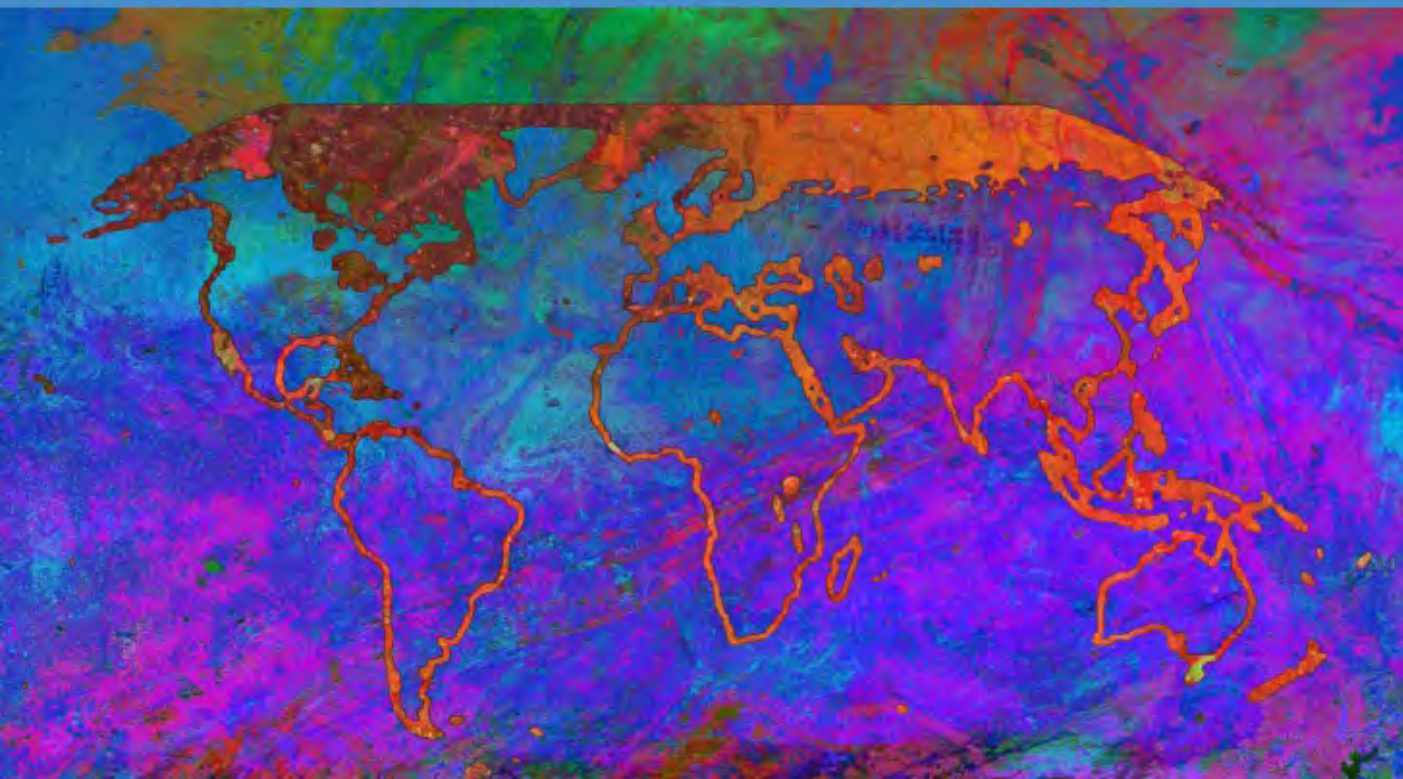
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INTERGOVERNMENTAL PANEL ON climate change

Climate Change 2021

The Physical Science Basis

Summary for Policymakers



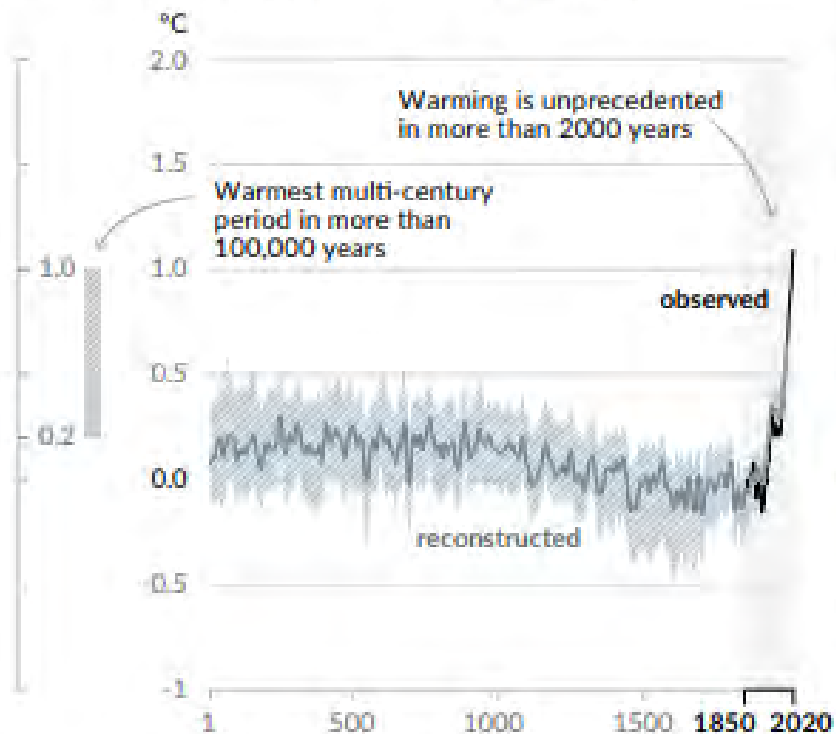
"It is unequivocal that human influence has warmed the atmosphere, ocean and land.

Widespread and rapid changes in the atmosphere, ocean, cryosphere and biosphere have occurred."

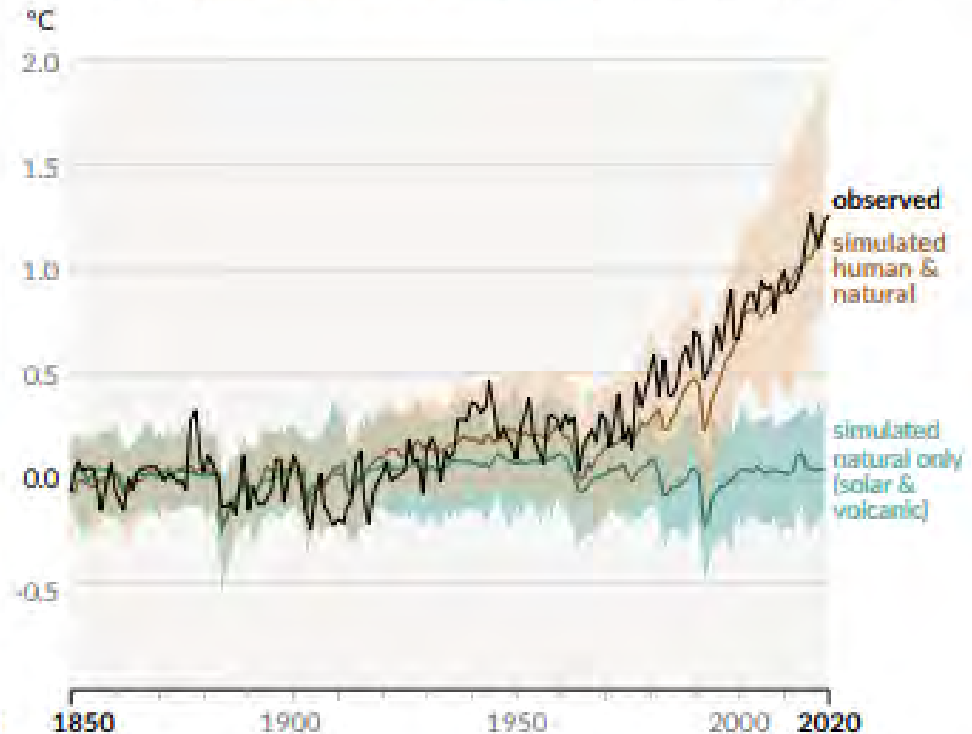
Human influence has warmed the climate at a rate that is unprecedented in at least the last 2000 years

Changes in global surface temperature relative to 1850-1900

a) Change in global surface temperature (decadal average) as reconstructed (1-2000) and observed (1850-2020)



b) Change in global surface temperature (annual average) as observed and simulated using human & natural and only natural factors (both 1850-2020)

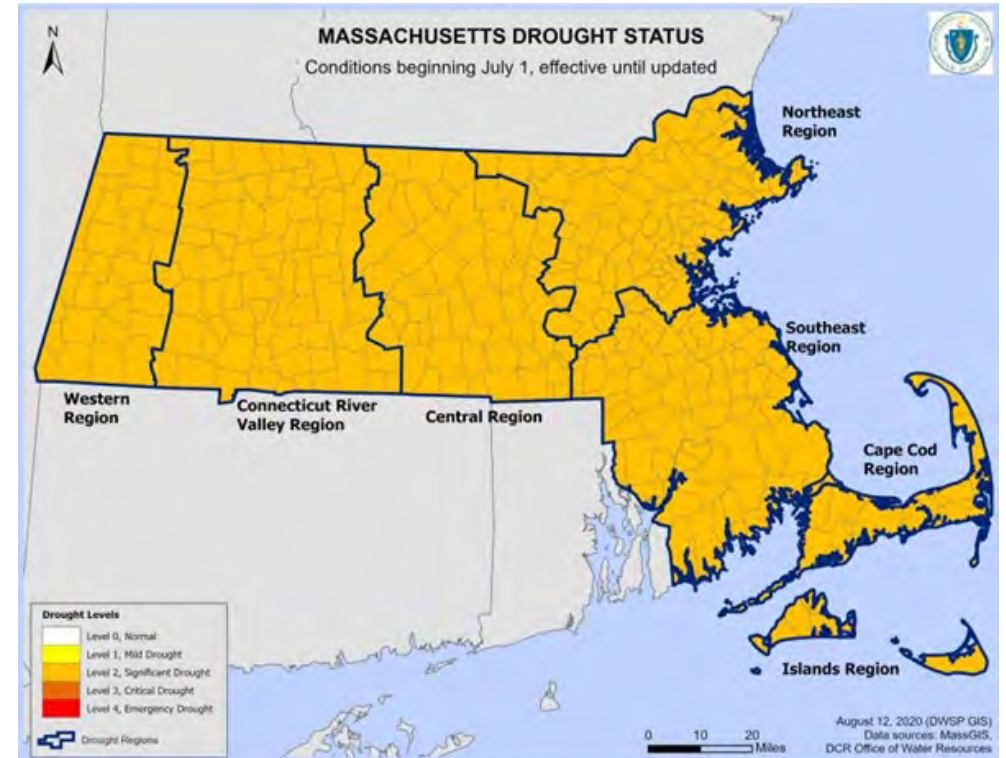


Climate Change Impacts

Drought, Heatwaves & Wildfire Risk



2016 Scituate Reservoir, Scituate, MA - photo by Qainat Kahn for WBUR



2020 Drought Map







CAUTION
WATER MAY BE DEEP
NO WAKE










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V74263







A small, vibrant green plant with several leaves is growing out of a crack in a dark asphalt surface. The background is a bright, hazy sky with a prominent orange and yellow light source, possibly the sun, creating a lens flare effect. The overall scene symbolizes resilience and growth in a challenging environment.

Mitigate, Adapt, Build Resilience



Land Preservation & Stewardship

Protect Health of Ecosystems – their function & services –

- **Ecosystem services:** the direct and indirect benefits we derive from nature (e.g.) oxygen, clean water, flood storage capacity, carbon storage, and our health & well-being.

Protect Habitat & Biodiversity



Eastern Box Turtle








Solar vs Forests



What you can do:

- Preserve forested land, particularly when contiguous to other protected land.
- Develop a management plan to control invasive species and implement.
- Be vigilant in monitoring for encroachment and vandalism.
- Develop a wildfire plan.



A photograph of a pond with lily pads and reeds in the foreground, and a dense line of trees in the background. The water is calm and reflects the surrounding greenery.

What you can do:

- Permanently protect land around ponds.
- Preserve naturalized vegetation around a pond.
- Avoid fertilizer and pesticide use to protect water quality.
- Plant more native plants to support biodiversity and the local food web.
- Manage stormwater runoff.
- Pump your septic system at least every 3 years.

A Guide to Pond Stewardship

How to start a Pond Association





State of the Waters Action Plan

The most common threats to our water quality are:

- Nutrient pollution from septic system wastewater and from fertilizers
- Stormwater runoff containing roadside pollutants, including nutrients and bacteria
- Contaminants of emerging concern such as pharmaceuticals, personal care products, PFAS and industrial chemicals

Action is needed now, especially on the municipal level. Moving forward immediately on

Recommended Actions for Coastal Embayments

- For Municipalities
- For Homeowners/Business Owners
- For State Government
- For Regional Government

Recommended Actions for Ponds

- For Municipalities
- For Homeowners/Business Owners









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What you can do:

- Preserve flood plain land.
- Support local restoration efforts.
- Volunteer to be a herring monitor.
- Support town stormwater improvement projects.



Land preservation
& stewardship
begin at home.



Nature is all around
us, not just in parks
or wild areas.



“Everybody says they love Mother Nature, but if you look at people’s yards, very few people actually invite her over.” – Neil Diboll, Native Plant Ecologist

















CapeCodNativePlants.org

CHOOSE THE PERFECT PLANT

This online tool is designed to help you find the native plants best-suited for specific sites that provide the greatest ecological function and benefit, and that will also complement your Cape Cod landscape design. Using the dropdowns below, you have the ability to find plants based on these six criteria: Plant Type, Sunlight, Soils, Bloom Month, Size, and Nature Benefits. Based on your choices, the results will automatically populate.

SEARCH

search by common or scientific name then press ENTER

PLANT TYPE

Choose an Option ▼

SUNLIGHT

Choose an Option ▼

SOILS

Choose an Option ▼

BLOOM MONTH

Choose an Option ▼

SIZE BY HEIGHT

Choose an Option ▼

NATURE BENEFITS

Choose an Option ▼

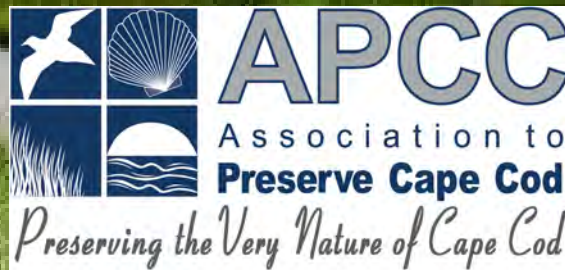








Thank you.



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