



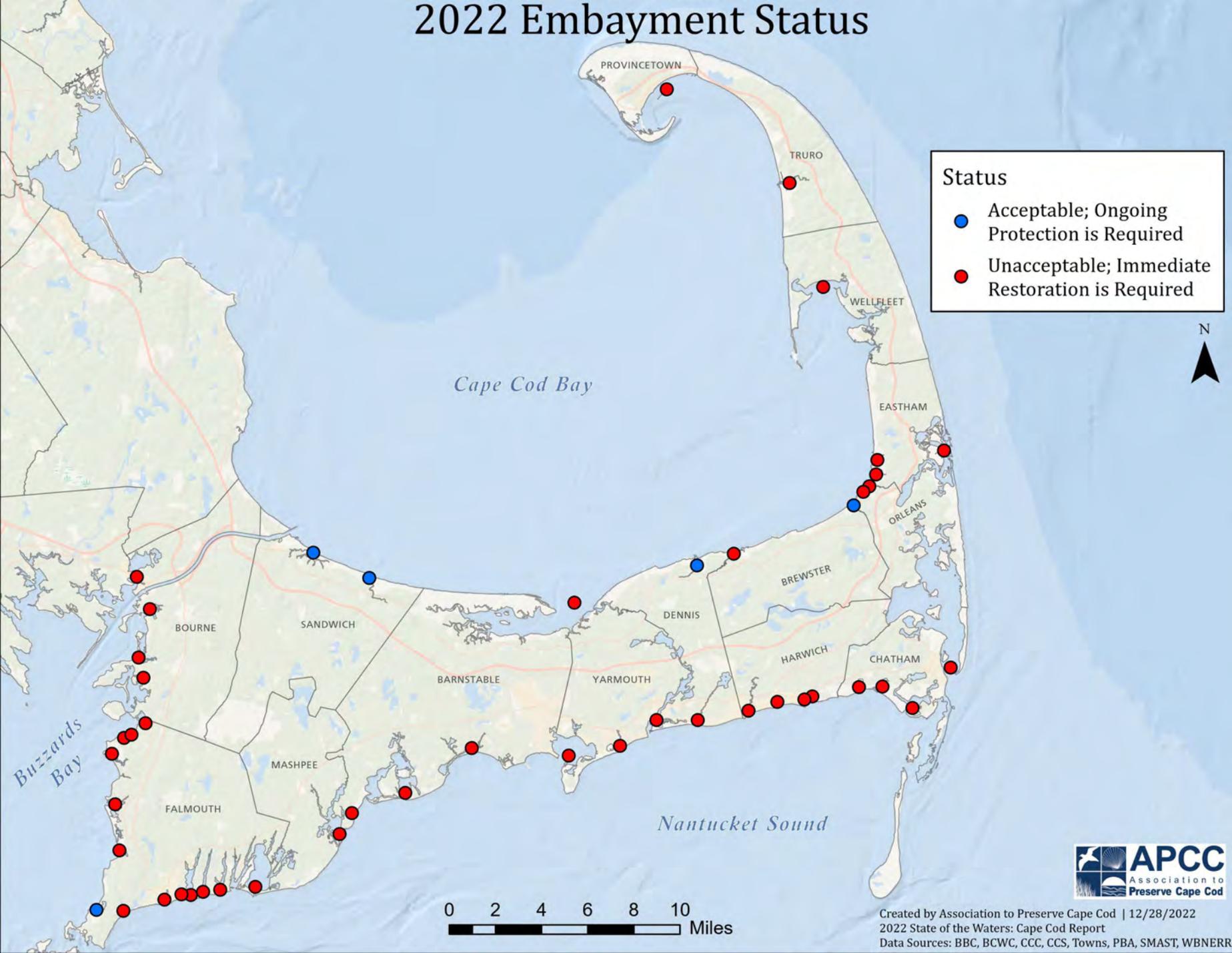
482 Main St, Rt 6A, Dennis

APCC.org

Andrew Gottlieb, Executive Director

Kristin Andres, Associate Director for
Education

2022 Embayment Status

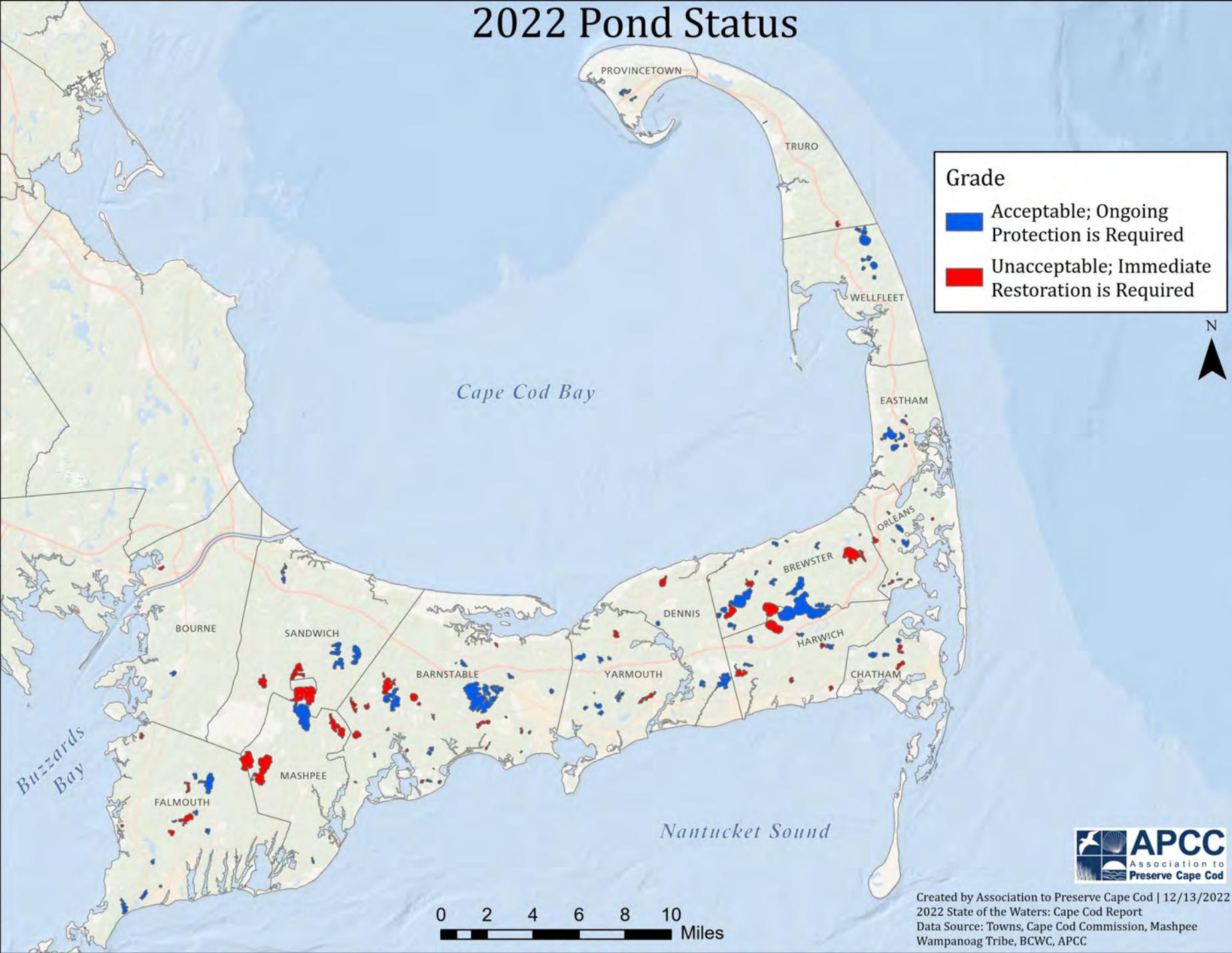


State of the Waters: Cape Cod 2022 Report



CapeCodWaters.org

2022 Pond Status



State of the Waters: Cape Cod 2022 Report



CapeCodWaters.org



More than 90% of coastal embayments and more than 37% of ponds are suffering from unacceptable water quality due to excess nutrients. (APCC's *State of the Waters: Cape Cod 2022*)

Nutrient overload due to wastewater, fertilizers and stormwater runoff.



CapeCodWaters.org



Worldwide, more than 40% of insect species are declining.

One third are at risk of extinction.

(Biological Conservation, 2019)

25% of native wild bee species in the U.S. are at risk of extinction.

Primary causes are habitat destruction, pesticide use, development, and a changing climate.

(Pollinators in Peril 2017 report, Center for Biological Diversity)



Since 1970, we have lost 3 billion birds.

In the last 50 years, 29% of the breeding birds in North America vanished. (*Science*, Sept. 2019)

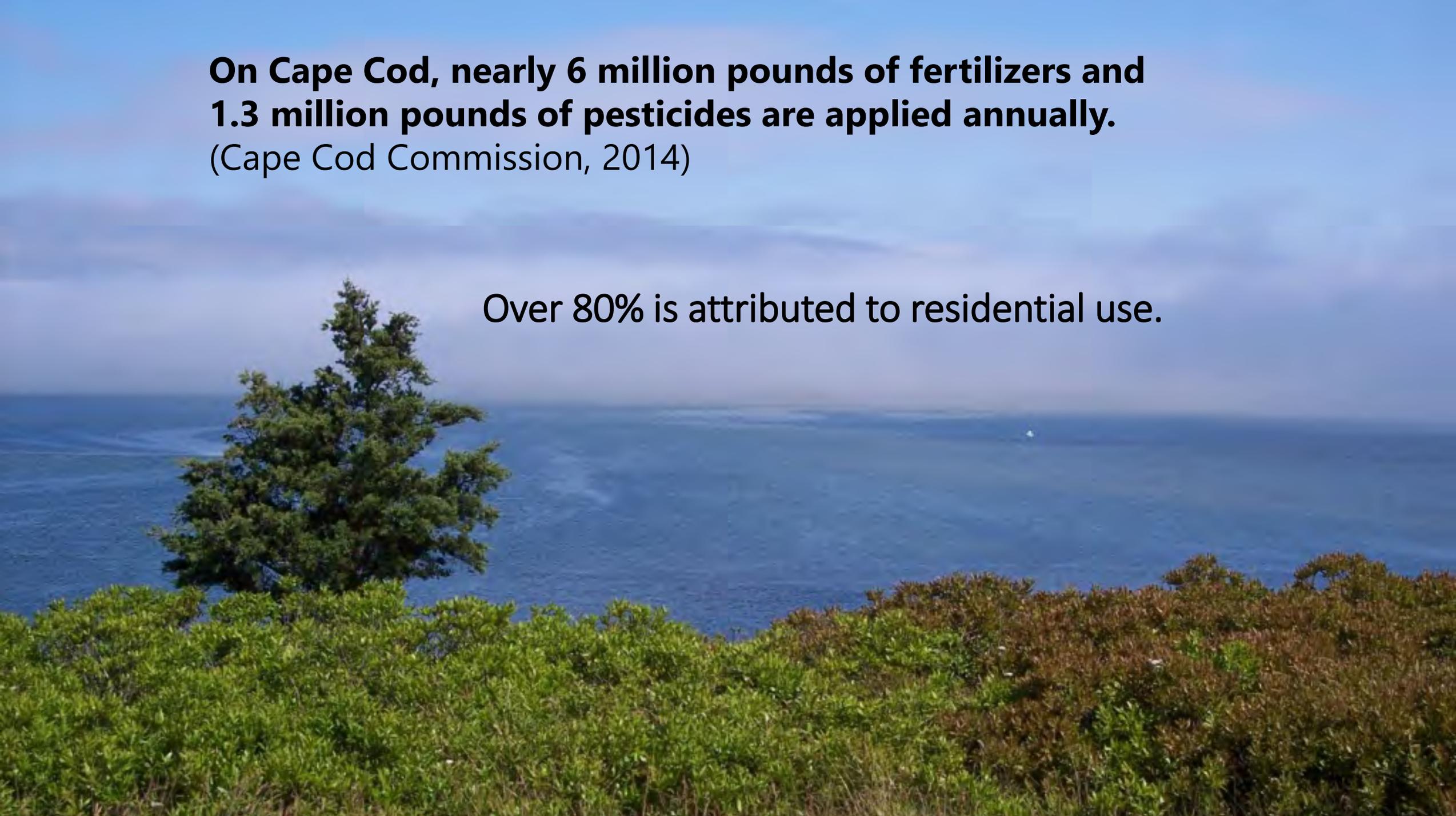
432 species of North American birds are threatened with extinction.

70 species are at the tipping point.
(*State of the Birds* 2016; Rosenberg, et. al. 2019, *State of the Birds* 2022)

Photo credit: Fred Atwood

On Cape Cod, nearly 6 million pounds of fertilizers and 1.3 million pounds of pesticides are applied annually.
(Cape Cod Commission, 2014)

Over 80% is attributed to residential use.

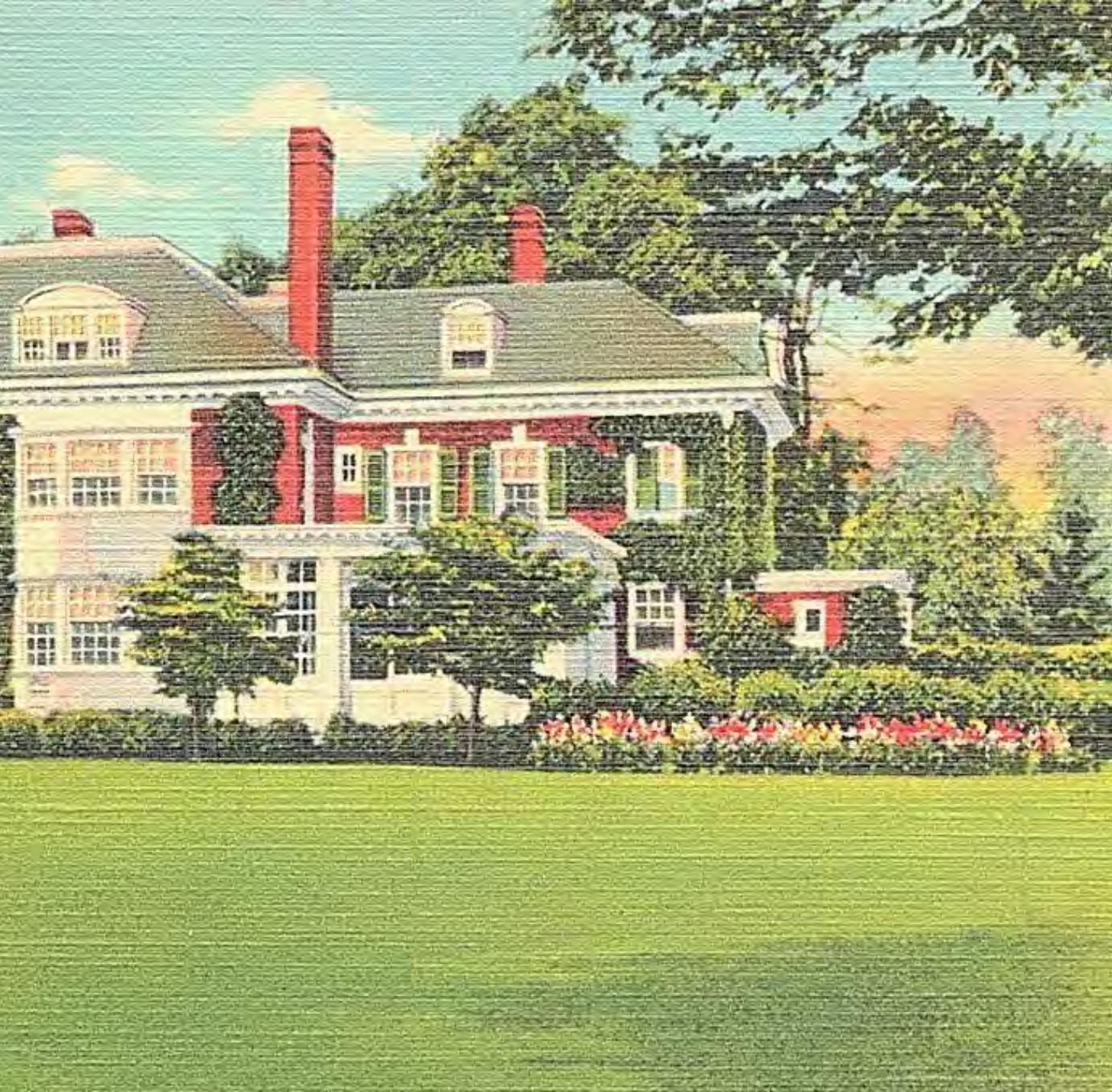


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What can we do?

We can shift away from the traditional landscape paradigm.



Ecological Landscapes are designed and cared for with nature in mind.

- Support local ecology
- Healthy landscapes for people, pets, and wildlife
- Protect water quality & conserve water
- Preserve a "sense of place"
- Reduce energy input and carbon footprint, store carbon
- Act of stewardship

Native Plants – The Cornerstone

Well-adapted

- Salt spray tolerant
- Drought tolerant
- Do well in nutrient-poor soils



Beach Plum



Spotted Bee Balm

Native Plants - Ecological Value

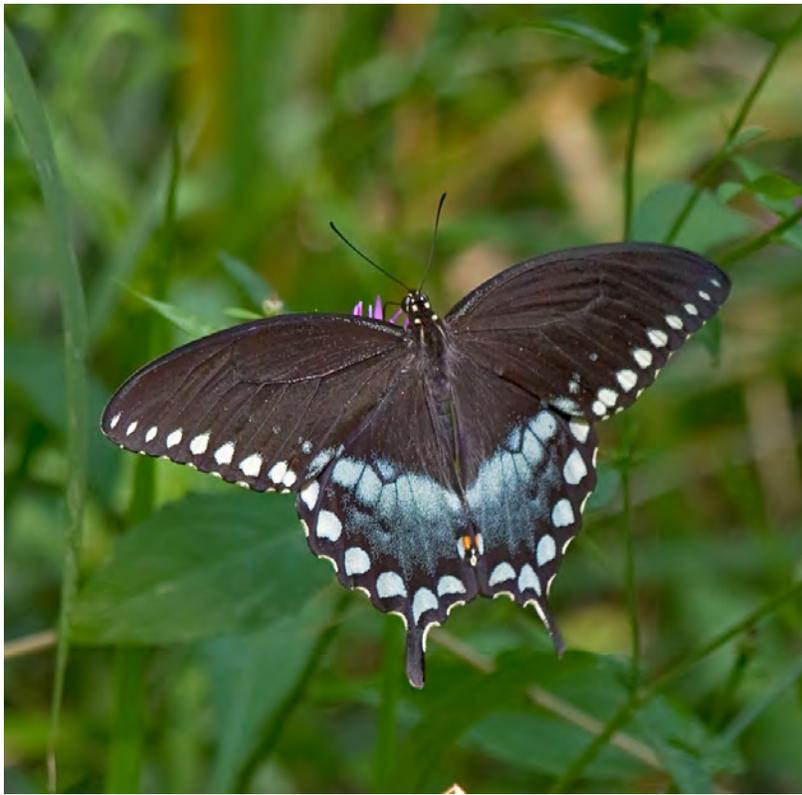
Plants are the basis for life. They capture the sun's energy and make it available for other living things.

Insects and plants co-evolved and have specialized relationships:

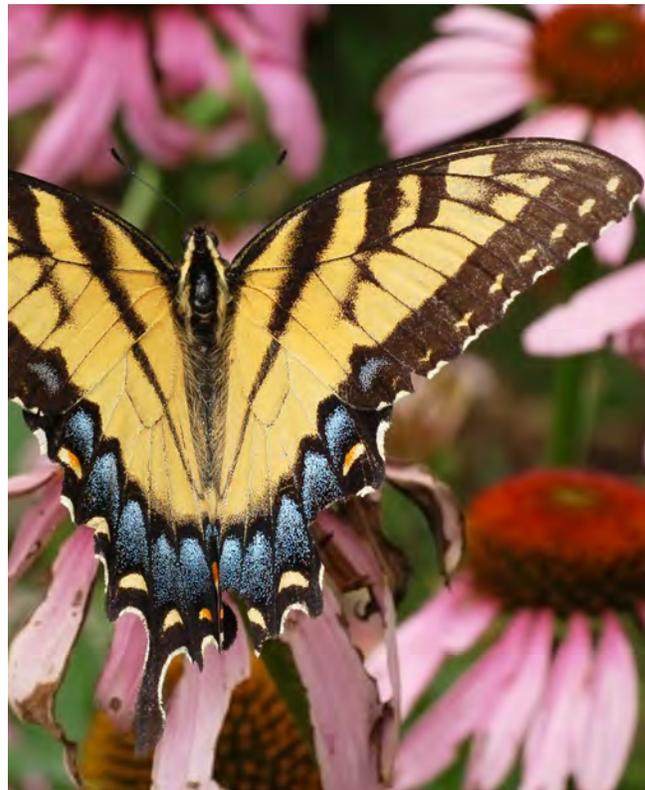
Pollinators are offered nectar & pollen in exchange for pollination

Monarch butterfly caterpillars can only eat milkweed – nothing else will do





Spicebush Swallowtail
~
spicebush and sassafras

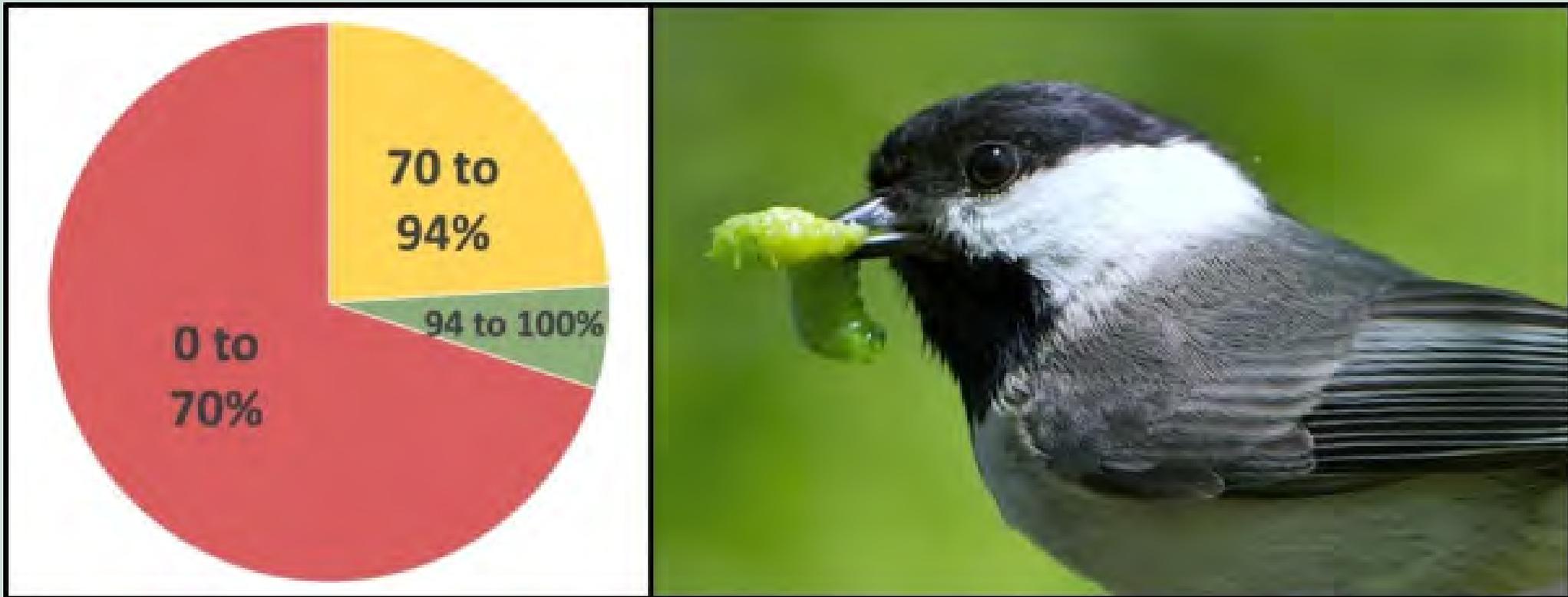


Eastern Swallowtail
~
wild black cherry,
birch, and tulip tree



What happens when you don't have host plants for caterpillars?

A study showed survival of baby chickadees significantly declined in suburban landscapes with less than 70% Native Plants. (*Narango, et al. 2018*)



#1. Reduce your lawn area to what you need.



- Reduce energy input: less mowing, less carbon emissions, and reduced cost.
 - Reduce need for irrigation.
- Allow for improved infiltration of precipitation back into groundwater.

Lawn alternatives: wild strawberry, bearberry, Pennsylvania sedge, meadows...

Make it a Cape Cod lawn. It's a thing!

clover, moss, violets without no irrigation, no fertilizers or pesticides.

#2. Incorporate more native plant species.





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

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 ▼



AROMATIC ASTER

SYMPHYOTRICHUM DBLONGFOLIUM



BLUE WOOD ASTER / HEART-LEAVED ASTER

SYMPHYOTRICHUM CORDEFOLIUM



SHOWY ASTER

EURIBIA SPECTABILIS

#3. Leave the leaves, leave the seeds, leave the stems.



#3. Avoid chemical use. Enjoy the discovery of life in your yard.

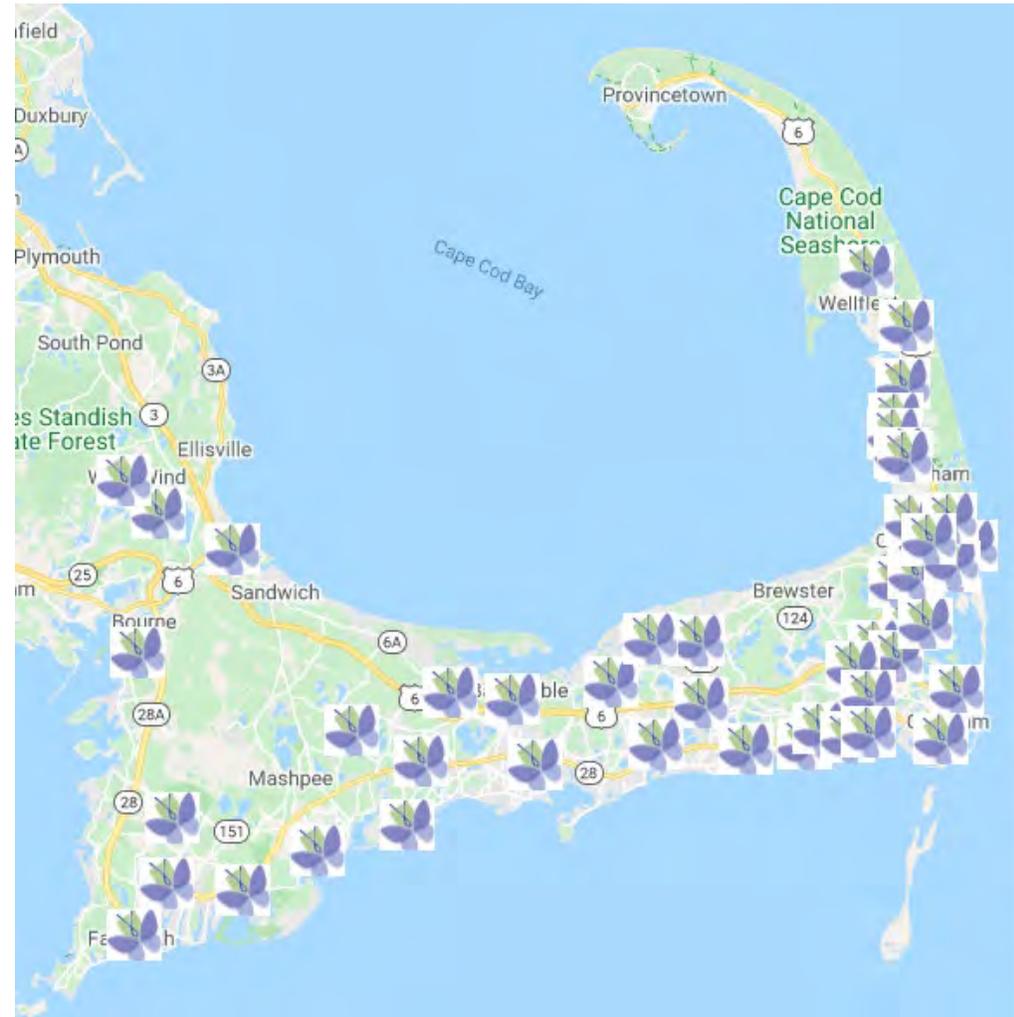




Pollinator Pathway Cape Cod



pollinator-pathway.org/towns/cape-cod



#5. Manage stormwater on your property.



Various means and methods of working with water to ensure infiltration and engineering with nature's functions, known as green infrastructure.

Rain Gardens



Rain Barrels

