



WHAT DO HYDRANGEAS AND CORAL REEFS HAVE IN COMMON?

The Law Quad is home to several panicle hydrangeas, famous for their distinctive, colorful ball-shaped flowers.

A FLOWER THAT CHANGES COLOR

Many gardeners don't realize that the very same plant can produce blue, purple, or pink flowers depending on the pH of the surrounding soil, which is a measure of how acidic or basic something is.



pH 4.5

pH 7

THE OCEAN IS CHANGING, TOO

The same chemistry that changes a hydrangea's color also affects life underwater. In a garden, changing pH can create beautiful colors. In the ocean, it can threaten entire ecosystems.

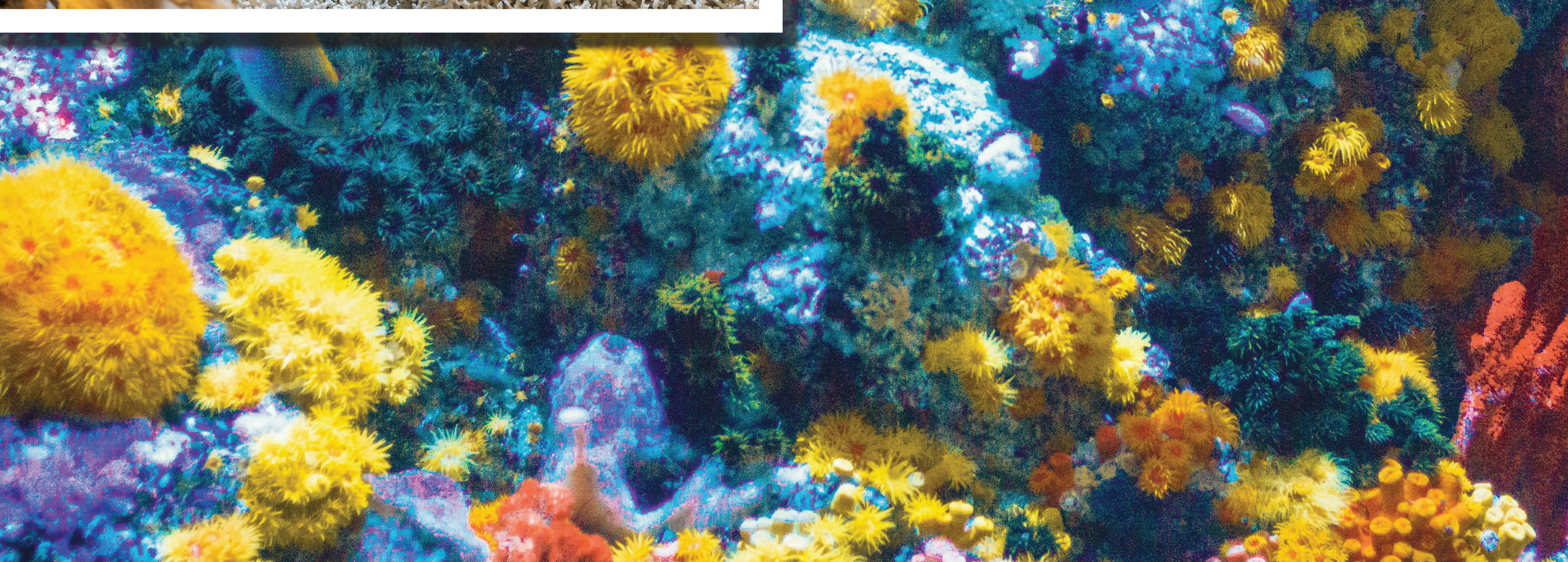
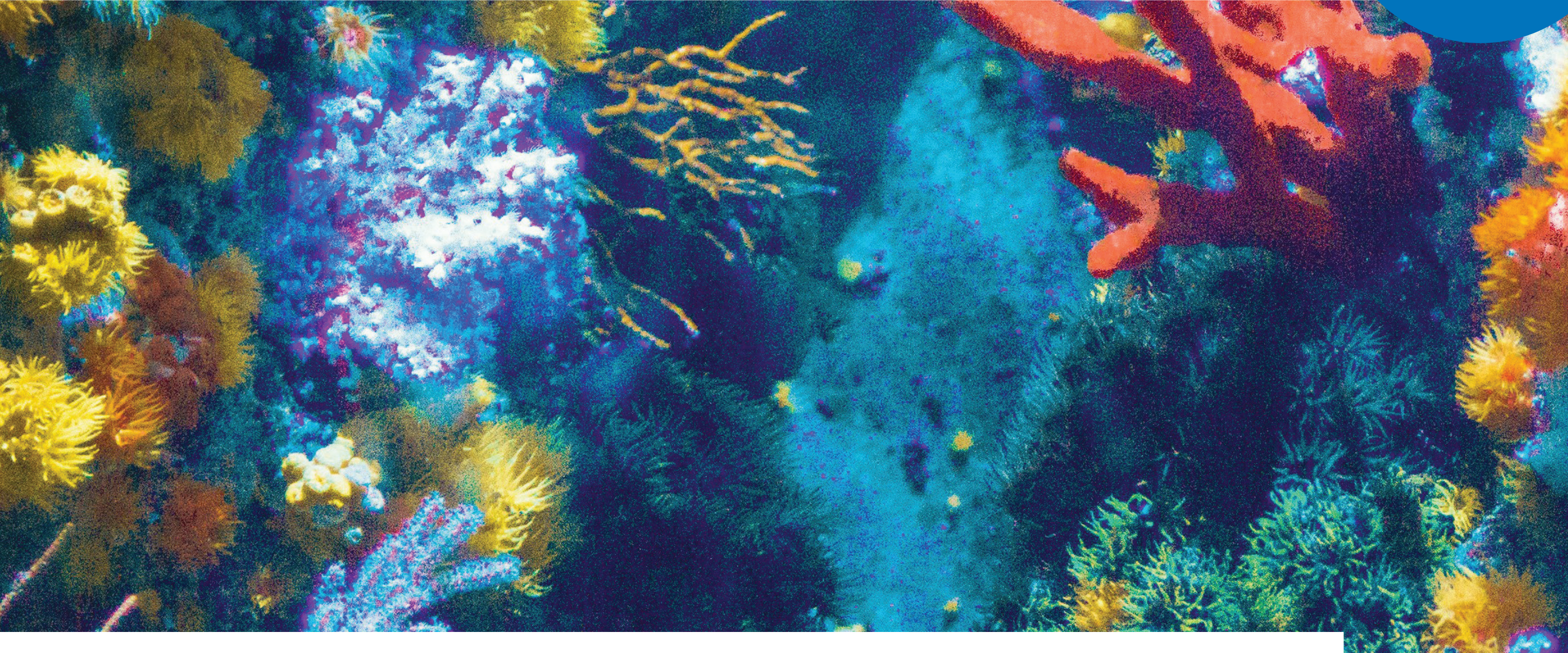
As oceans absorb rising levels of carbon dioxide, seawater becomes more acidic. That acidity makes it harder for corals to build the calcium carbonate skeletons that form reefs.

Excess greenhouse gases also warm the oceans. As water warms, corals expel the tiny algae that provide much of their food and brilliant color. Without these algae, reefs turn white: a phenomenon known as coral bleaching.



DID YOU KNOW?

Between 2023 and 2025, more than 80% of the world's coral reef area experienced bleaching-level heat stress during the largest global coral bleaching event ever recorded.





THE LOST GIANTS OF THE LAW QUAD

Until just a few years ago, several American elm trees shaded this part of the Law Quad. One stood exactly where this mulch bed is today.

A DEADLY INVADER

The trees were estimated to be 100 to 120 years old but shared the fate of millions of American elms: death from Dutch elm disease.

The disease began spreading across North America in the 1930s after it was accidentally introduced on imported logs. The fungus, carried from tree to tree by invasive bark beetles, blocks water from reaching an elm's leaves, often killing mature trees within just a few years.



More than 75% of North America's 77 million American elm trees were lost during the 20th century.

Climate change is increasing the challenge. Warmer temperatures keep bark beetles active longer and allow them to expand farther north, creating more opportunities for the disease to spread.

HOPE FOR THE FUTURE

Fortunately, there are positive developments. Scientists are identifying elm trees with natural resistance to Dutch elm disease and using them to breed new generations of disease-resistant American elms. Their goal is to restore these iconic trees to forests, neighborhoods, and campuses like the University of Michigan.





CAN A LAW FROM 1970 FIGHT CLIMATE CHANGE?

THE CLEAN AIR ACT AND CLIMATE?

When Congress enacted the Clean Air Act in 1970, its primary focus was reducing conventional air pollutants such as soot, smog, and lead. The law did not establish a program specifically aimed at regulating greenhouse gas emissions, and for decades, the government did not invoke the law to address those emissions.

As climate change became a defining environmental challenge, courts and the EPA were asked whether the law covered greenhouse gas emissions.

ARE GREENHOUSE GASES AIR POLLUTANTS?

In the early 2000s, Massachusetts and other states asked the EPA to regulate greenhouse gas emissions from new vehicles.

At the time, the EPA argued that the Clean Air Act did not authorize it to regulate greenhouse gases. The dispute reached the Supreme Court, which faced the question:

Did Congress write the Clean Air Act broadly enough to allow the EPA to regulate greenhouse gases?

At the center of the case was this language from the Clean Air Act:

The term ‘air pollutant’ means any air pollution agent...including any physical, chemical...substance or matter which is emitted into or otherwise enters the ambient air.

What do you think?

Is carbon dioxide or another warming gas like methane an “air pollutant” under this definition?

The Supreme Court’s answer:

In 2007, the Supreme Court held that greenhouse gases can qualify as air pollutants under this definition.

But the court said the EPA still had another question to answer for it to take action.





CAN A LAW FROM 1970 FIGHT CLIMATE CHANGE?

DO GREENHOUSE GASES ENDANGER PUBLIC HEALTH OR WELFARE?

The Clean Air Act requires the EPA to regulate emissions from new motor vehicles if they:

“...cause, or contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare.”

What do you think?

Does climate change “endanger public health or welfare” under this standard?

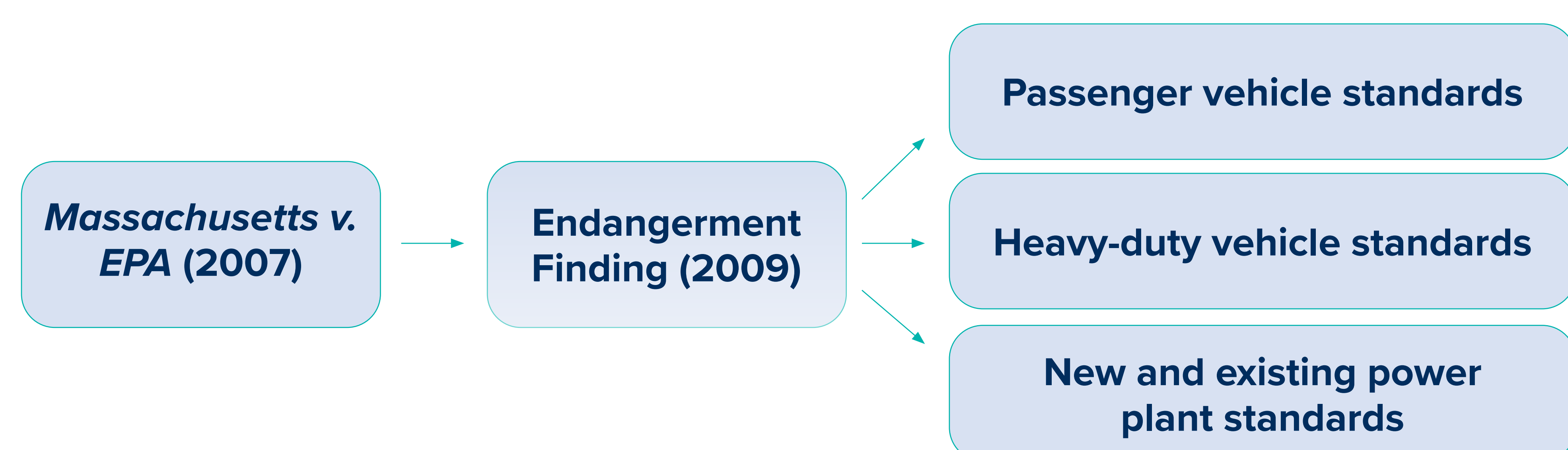
The EPA’s answer:

In 2009, after reviewing the scientific evidence, the EPA concluded that greenhouse gases meet this standard.

This decision became known as the **Endangerment Finding**.

It established the legal foundation for many of the federal government’s major climate regulations over the next 15 years.

WHAT FOLLOWED?



WHY IS IT BACK IN THE NEWS?

The EPA repealed the Endangerment Finding in February 2026.

Since that time, it has begun the process of repealing federal greenhouse gas regulations for cars, trucks, and power plants since it claims that the legal foundation for these rules no longer exists. Legal challenges are expected.





WHAT IS HAPPENING WITH EVs AND MICHIGAN'S BIG 3?

Transportation is the largest source of greenhouse gas emissions in the United States. Cars, trucks, and buses release greenhouse gases when they burn gasoline or diesel.

Shifting transportation to electric power is a key part of addressing climate change. Electric vehicles produce no tailpipe emissions and use energy far more efficiently than gasoline-powered vehicles.

HOW CAN LAW DRIVE INNOVATION?

Laws can encourage innovation and adoption in several ways.

Loans to Manufacturers: The **Energy Independence and Security Act of 2007** authorized the US Department of Energy to provide loans for new vehicle technology. Tesla received a \$465 million loan that helped finance its first manufacturing facility and production of the Model S. Tesla fully repaid the loan in 2013.

Tax Credits for Consumers: Federal laws have created and expanded tax credits of up to \$7,500 for qualifying EV purchases. Congress can, and has, ended these credits.

Charging Infrastructure: The **Infrastructure Investment and Jobs Act of 2021** invested billions of dollars to build EV charging stations across the country.

WHAT'S HAPPENING HERE IN MICHIGAN?

Michigan's automakers once appeared poised to lead the transition to EVs. Ford, GM, and Stellantis announced major EV investments across Michigan.

Ford to build \$3.5B electric vehicle battery plant in Mich.

G.M. will increase investment in electric vehicles by 30 percent and build more battery plants

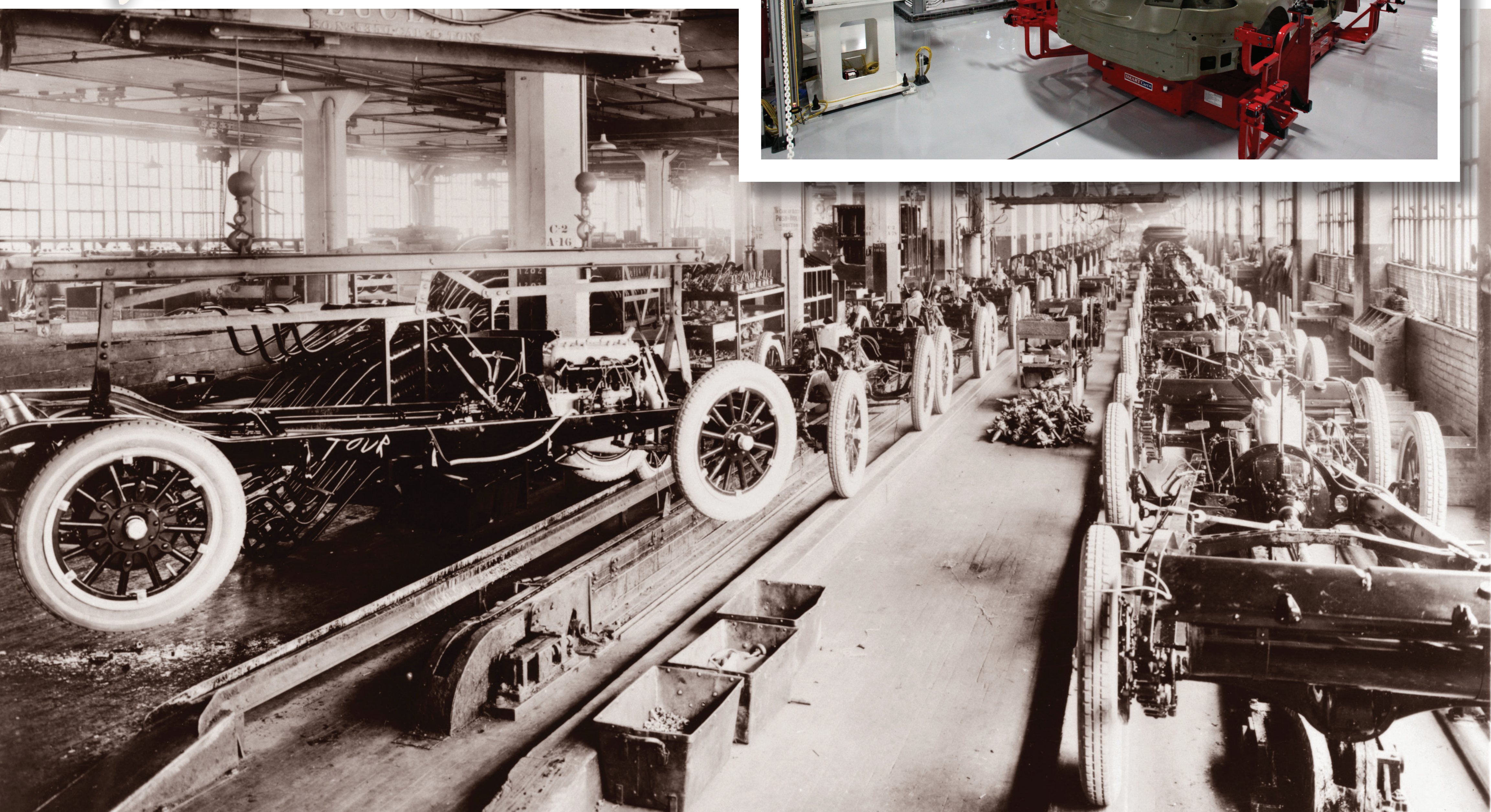
Jeep plans to go from gas-guzzling SUVs to 'green' off-road electric vehicles

The transition has proved more difficult than many expected. Although EV sales continue to grow, demand has increased more slowly than early projections. Several automakers have delayed or scaled back some investments while continuing to produce gasoline-powered and hybrid vehicles.

The future of transportation remains uncertain. How quickly consumers adopt EVs, and how governments continue to shape the market, will help determine the future of Michigan's auto industry and efforts to address climate change.

Ford scales back Michigan battery plant, restarts construction

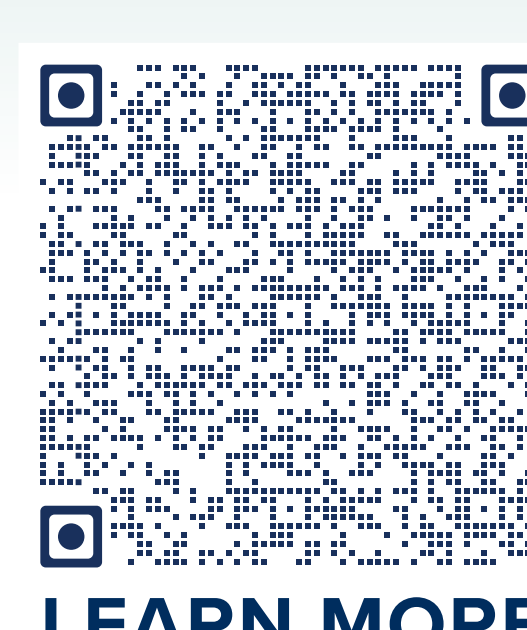
GM to Exit Michigan EV Battery Plant





FROM THE LAW QUAD TO THE CONFERENCE ROOM

MICHIGAN LAW'S ENVIRONMENTAL AND ENERGY LAW PROGRAM 2026 CONFERENCE



LEARN MORE

FRIDAY, OCTOBER 2

The exhibits around the Law Quad introduce some of the legal questions shaping environmental and energy policy today. The conference takes those questions further.

With a focus on the Great Lakes region, the conference brings together experts and advocates to explore the latest developments in environmental and energy law and how states, local governments, and Tribal Nations are taking action.

Attend the sessions below. All panels are free and open to the public.

Panel #1: AI and the Great Lakes Region: Energy, Innovation, Development

Experts in law, policy, and advocacy explore how Great Lakes governments can employ AI for climate adaptation and mitigation while managing the resources required to develop and operate it.

 Friday, October 2  9:15–10:30 A.M.  Jeffries Hall 1225

Panel #2: Environmental and Energy Justice Work in Trump 2.0

Speakers examine how the second Trump administration has reshaped justice efforts in environmental and energy law and how environmental justice advocates are pushing forward in times of legal rollbacks.

 Friday, October 2  10:45 A.M. – Noon  Jeffries Hall 1225

KEYNOTE ADDRESS: Debra Shore, Former Regional Administrator (Region 5), US Environmental Protection Agency

 Friday, October 2  12:15–1:15 P.M.  Jeffries Hall 1225

Panel #3: Tribal Nations at the Helm: Environmental and Energy Governance Beyond Federal Minimums

Tribal Nations across the Great Lakes are using their unique status to regulate energy development, protect water and natural resources, and shape environmental policy. Speakers will explore how tribal law, intergovernmental agreements, and collaboration with Canadian First Nations are creating new models of environmental governance.

 Friday, October 2  1:15–2:30 P.M.  Jeffries Hall 1225

Panel #4: The Future of Water Resources in the Great Lakes Region

As federal water protections change and agencies face reduced staffing, states and local governments are taking the lead. Speakers will examine recent federal rollbacks, state and local responses, and new approaches to protecting water resources.

 Friday, October 2  2:45–4 P.M.  Jeffries Hall 1225

