

Global Warming

Tim Warman

Director, Global Warming Program

National Wildlife Federation



2ND-QTR SIZZLE PROFITS AT 900 COMPANIES (P.14) **PAYING FOR COLLEGE BEWARE OF THOSE HIGH 529 FEES** (P.16) **TERRORISM WHAT COMPANIES STILL NEED TO DO** (P.20)

The McGraw-Hill Companies
BusinessWeek
August 14, 2006 www.businessweek.com



GLOBAL WARMING

Why Business Is Taking It So Seriously
 BY JOHN CAREY (P.60)



Newsweek

Global Warming's First Victim



VANITY FAIR

A THREAT GRAVER THAN TERRORISM: GLOBAL WARMING
 How much of New York, Washington, and other American cities will be underwater?

SPECIAL **GREEN ISSUE**

GEORGE CLOONEY
 JULIA ROBERTS



TIME

GLOBAL WARMING

Climbing temperatures. Melting glaciers. Rising seas. All over the earth we're feeling the heat. Why isn't Washington?



The Economist

- The Blair leadership crisis
- The new boss at Ford
- An honest in-flight announcement
- Catastrophe looms in Darfur
- Fancy a Swedish model?

The heat is on

A special report on climate change



SPECIAL REPORT **GLOBAL WARMING**

TIME

BE WORRIED. BE VERY WORRIED.

Climate change isn't some vague future problem—it's already damaging the planet at an alarming pace. Here's how it affects you, your kids and their kids as well.

EARTH AT THE TIPPING POINT
 HOW IT THREATENS YOUR HEALTH
 HOW CHINA & INDIA CAN HELP SAVE THE WORLD—OR DESTROY IT
 THE CLIMATE CRUSADERS



START YOUR OWN HEDGE FUND • THE FUTURE OF COMPUTING

FORTUNE

WAL-MART SAVES THE PLANET

Well, not quite. But CEO LEE SCOTT's green campaign, which started as PR, is becoming a force of nature.

"What if I thought you were the hero of a dramatic rescue in a movie, and to be precisely the opposite."



**“Smoking causes cancer,
Elvis is dead,
global warming is real.”**

--Dr. Heidi Cullen
Climate Expert
The Weather
Channel

Greenhouse effect: a natural phenomenon essential for warming the surface of the Earth

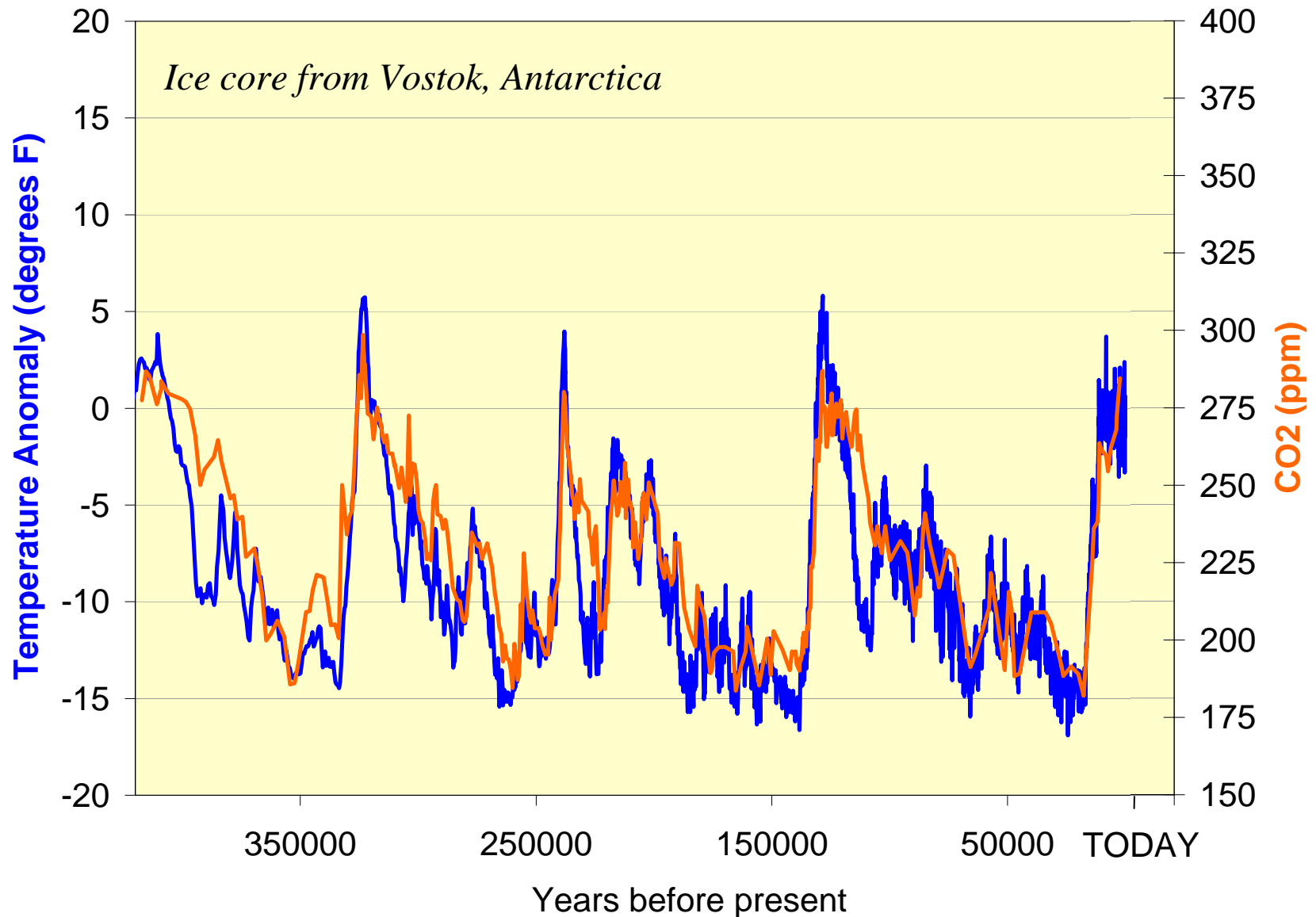
Natural greenhouse effect



Enhanced greenhouse effect



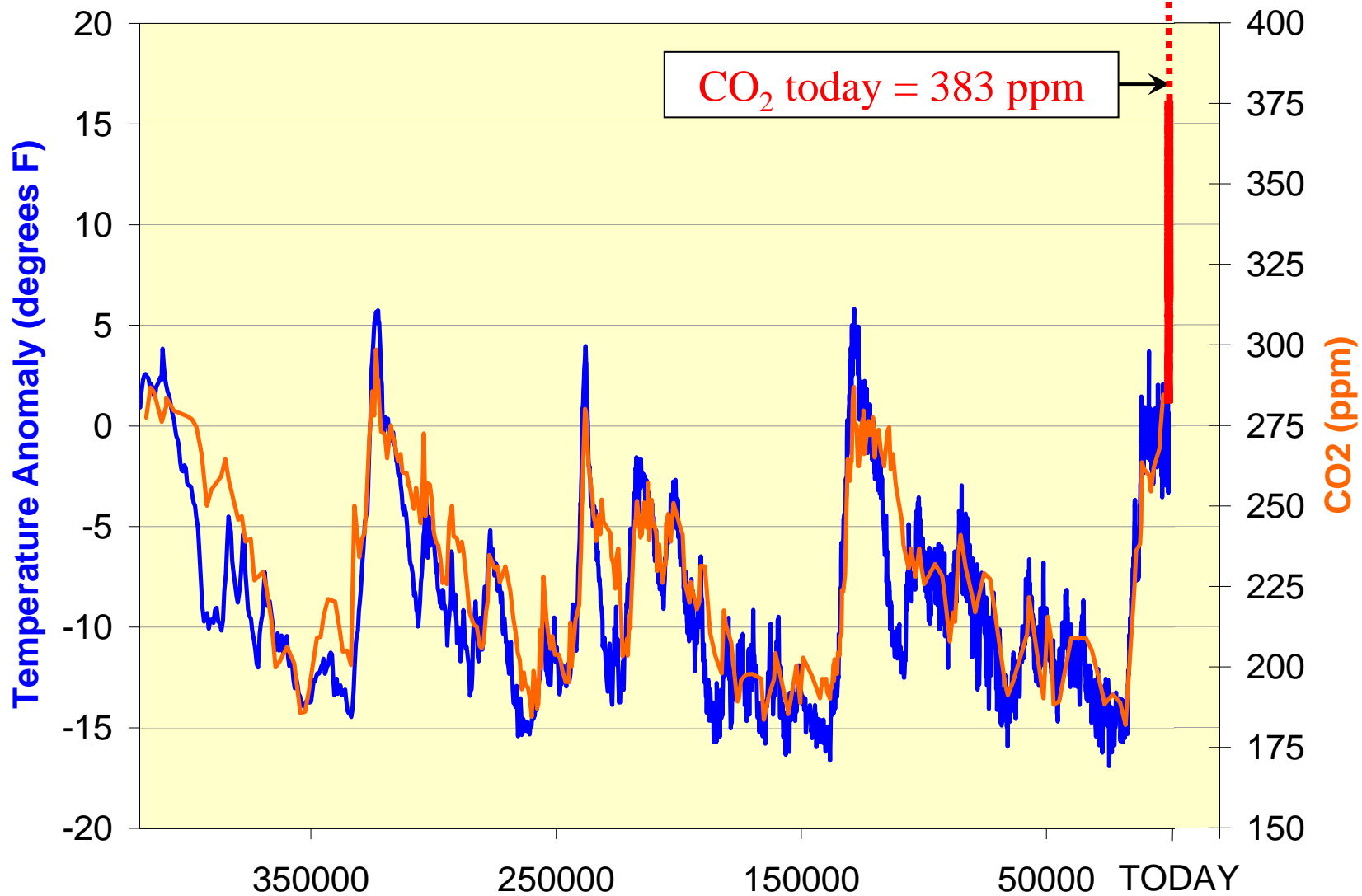
Temperature and CO₂ levels have been in lockstep for over 400,000 years



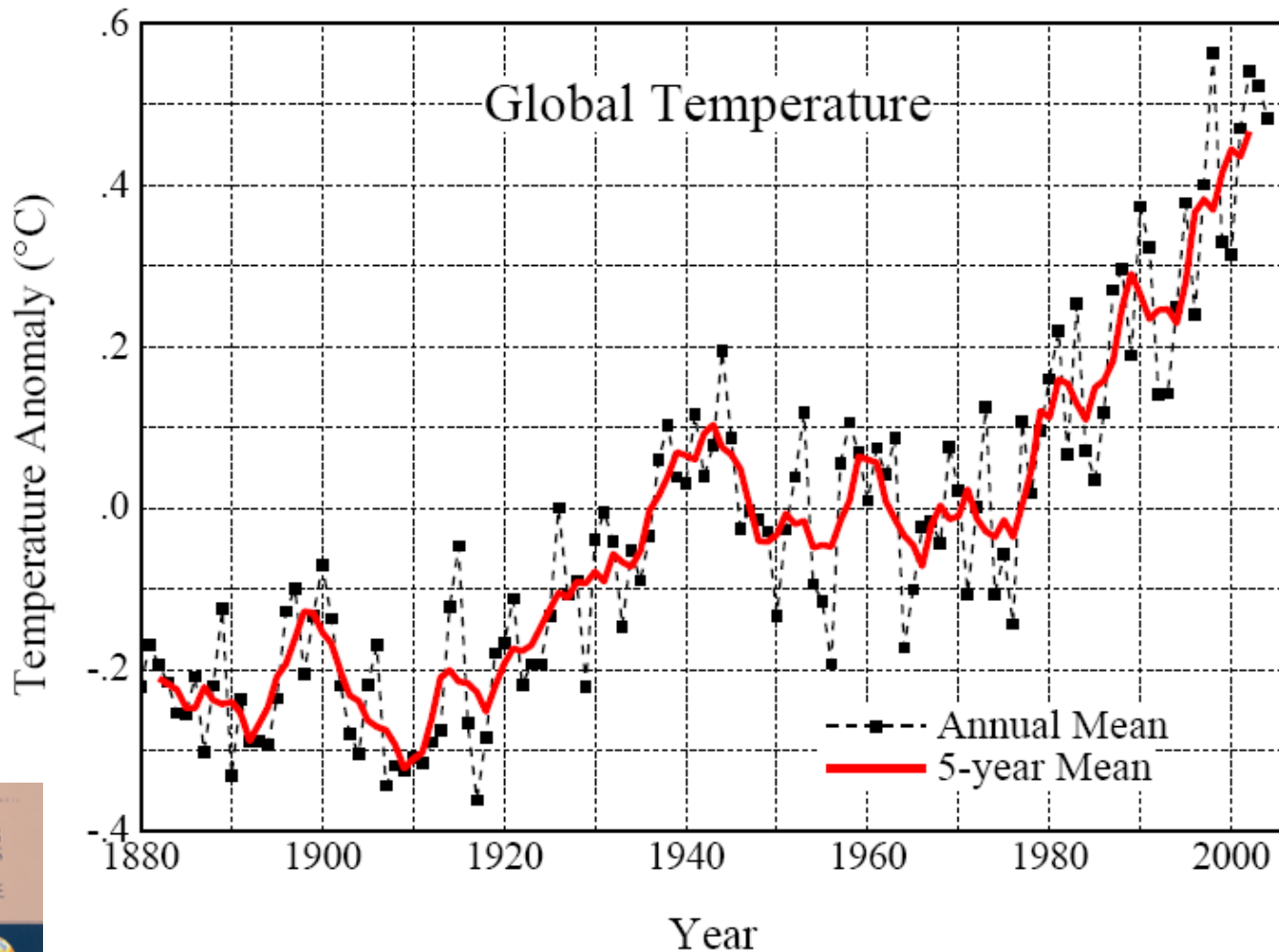
CO₂ in 2001: Business-as-usual = 650 ppm

CO₂ in 2001: Stabilization goal = 450 ppm

CO₂ today = 383 ppm



There is no debate that the Earth has warmed over the past 30 years.



*Data from
NASA's Goddard
Institute for
Space Sciences
(GISS)*

RECONCILING
OBSERVATIONS
OF GLOBAL
TEMPERATURE
CHANGE



Reconciling Observations of Global Temperature Change (2000)

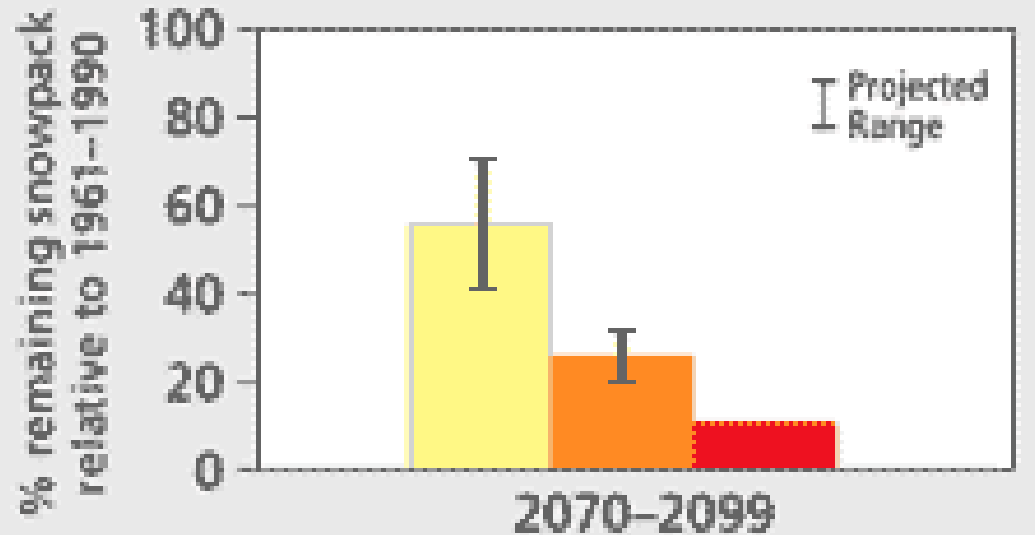
Impacts of Global Warming in California

- Declining water resources
- More severe wildfires
- Expansion of invasive species, pests and diseases
- Accelerating sea-level rise
- Loss of prime wine country



Declining Water Resources

The Sierra Nevada range could lose up to 90 percent of its average snowpack



More Severe Wildfires

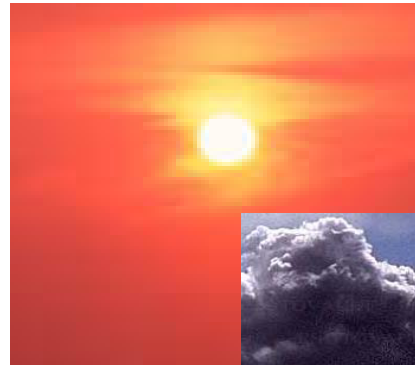


Expansion of Invasive Species, Pests, Diseases



Potential health risks of climate change

- heat stress
- air pollution
- weather disasters
- food insecurity
- water- and food- disease
- vector-borne disease



The actual health risks depend upon the **vulnerability** of the populations that are affected

Under the Weather: Climate, Ecosystems, and Infectious Disease (2001)



Accelerating Sea-Level Rise



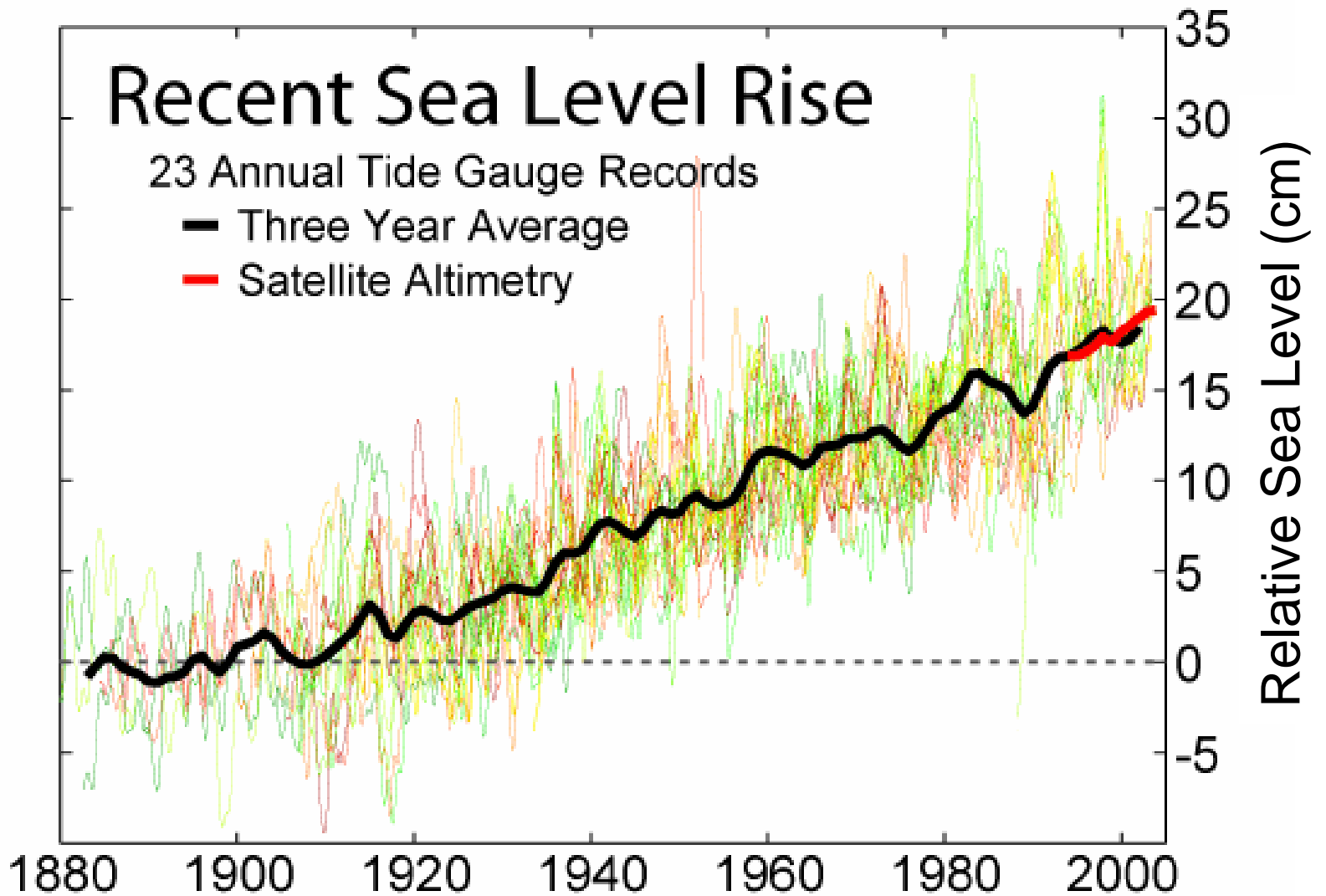


Figure prepared by Robert A. Rohde

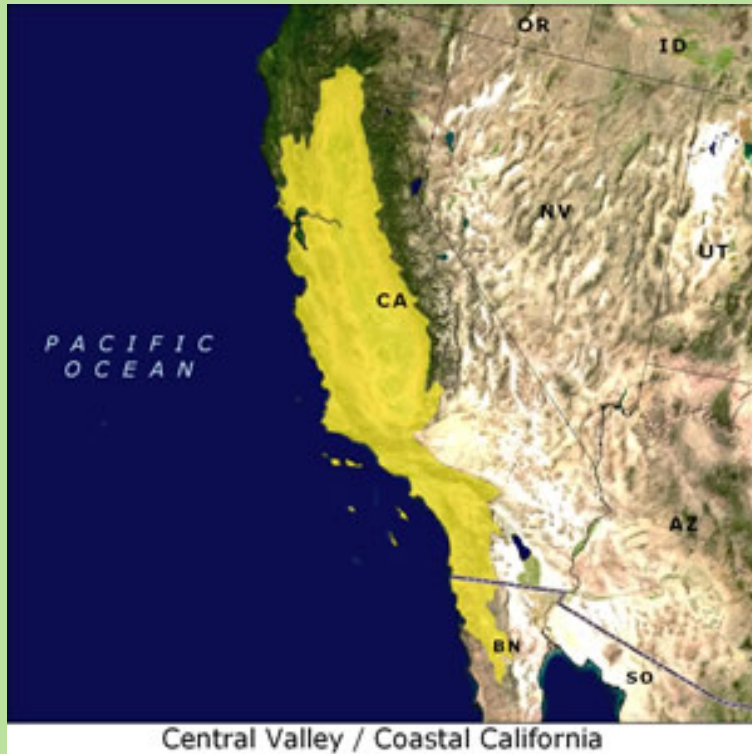
Disrupted Marine Ecosystems



Loss of Habitat for Cold-Water Fish



Loss of Habitat for Waterfowl



Loss of Prime Wine Country

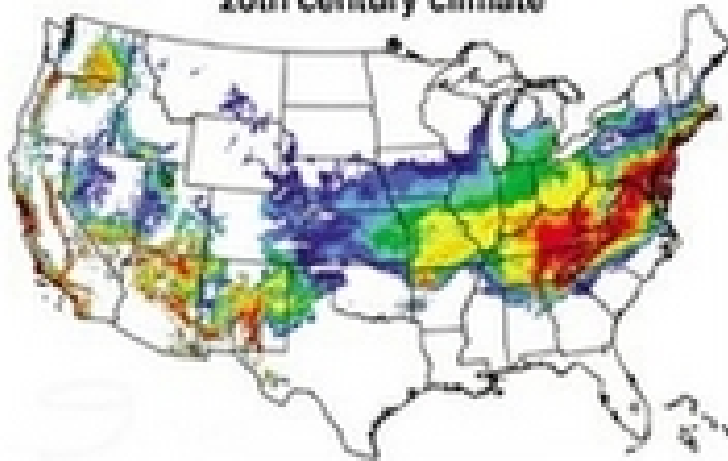
Climate warming could effect premium wine production

By the end of this century, rising temperatures across the U.S. could reduce the areas suitable for premium wine production by up to 81 percent.

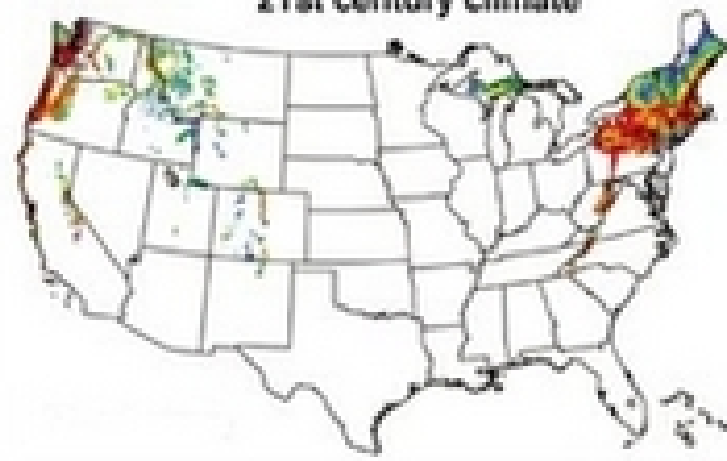
Suitable years for premium wine-grape production



20th century climate



21st century climate



SOURCE: Proceedings of the National Academy of Sciences

AP



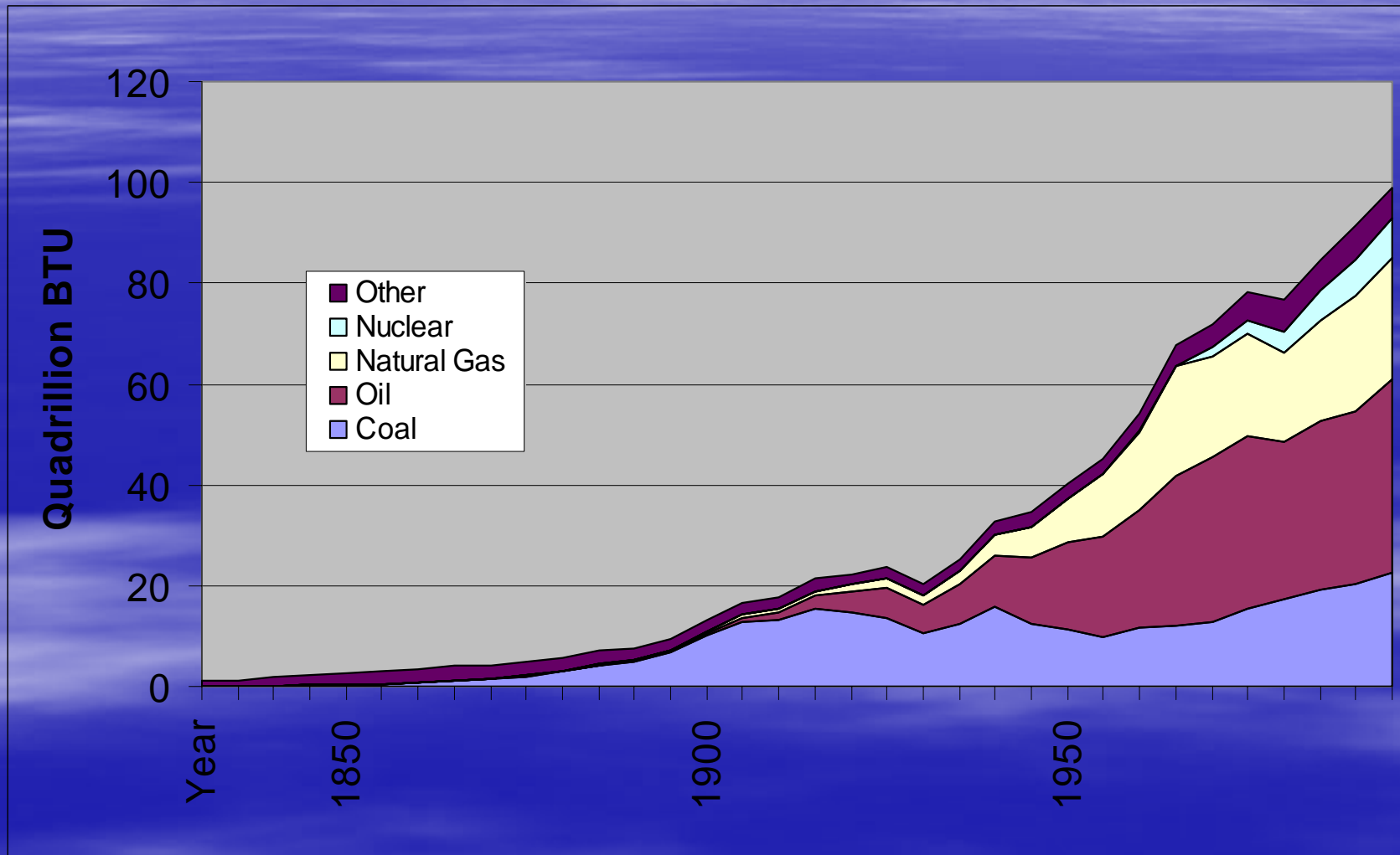
Solving The Problem of Global Warming and Protecting Wildlife

- What is the root of the problem?
- Can it be solved?
- What can individuals and communities do?

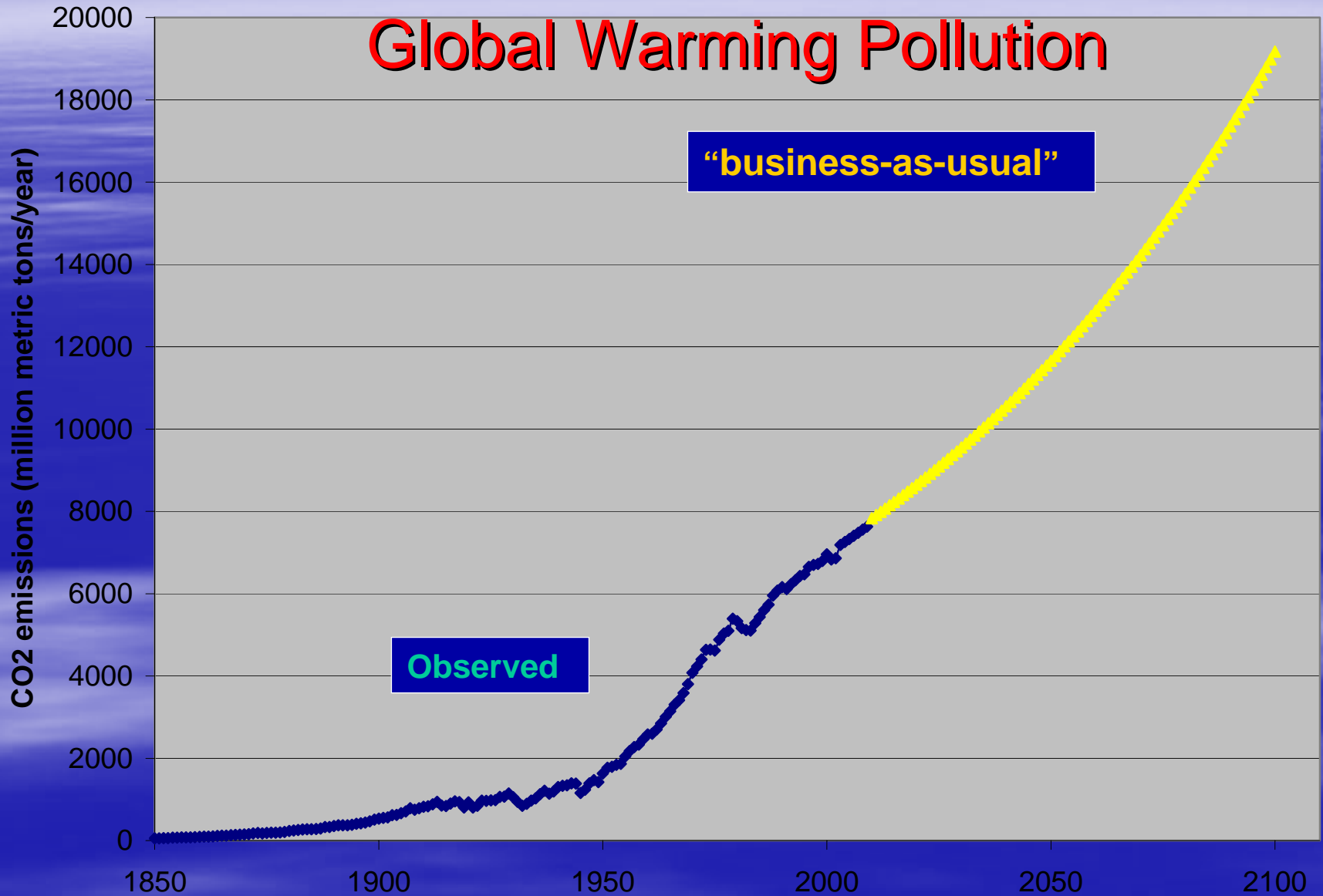
The Root of the Problem

- Using coal, oil and natural gas (fossil fuel) releases global warming pollution (CO₂) into the air.
- Increasing global warming pollution in the air causes the temperature to rise.

U.S. Energy Use by Source 1825-2000

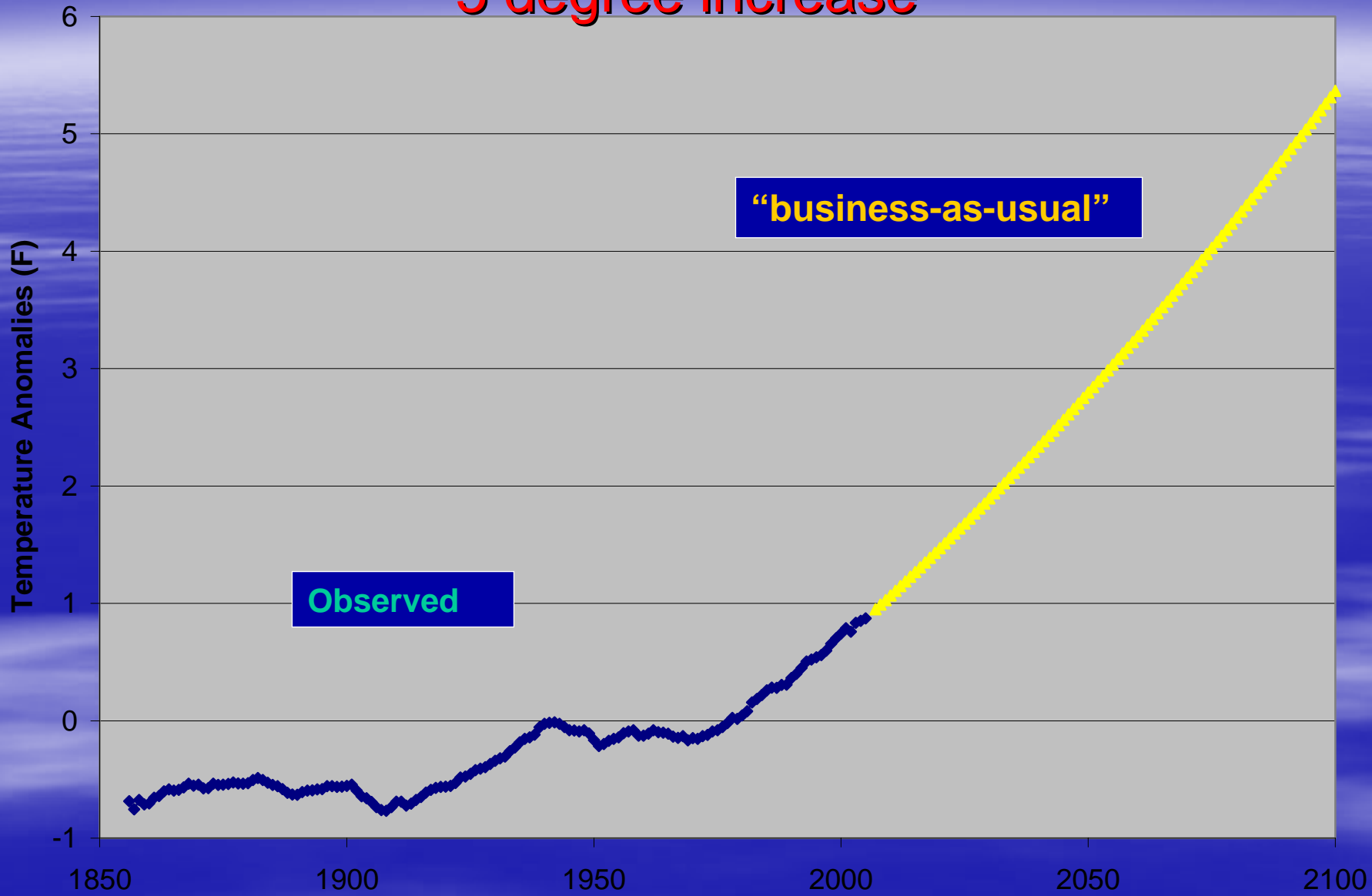


Pending Use of Coal, Oil and Gas



Climate Crisis

5 degree increase



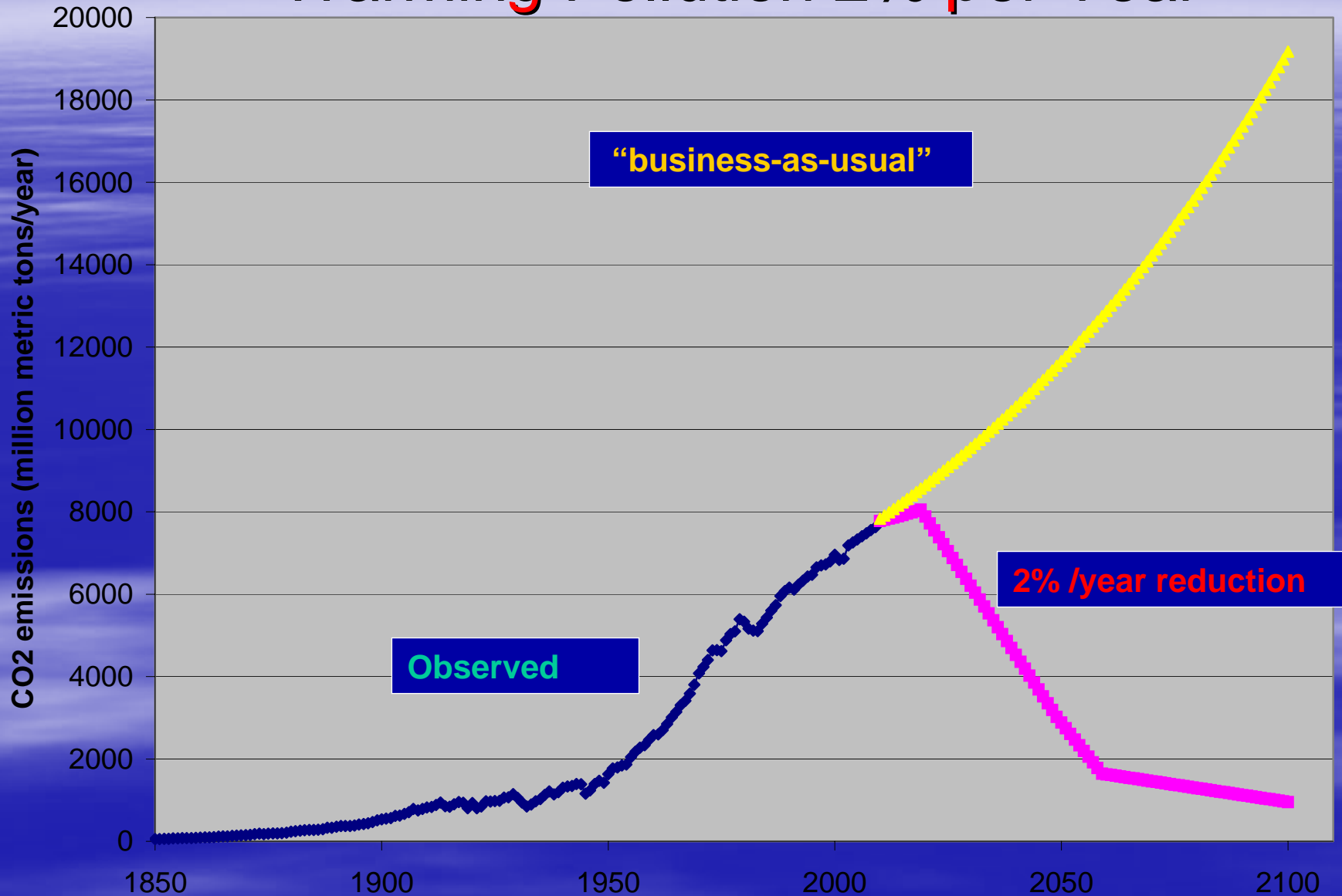
Observed

“business-as-usual”

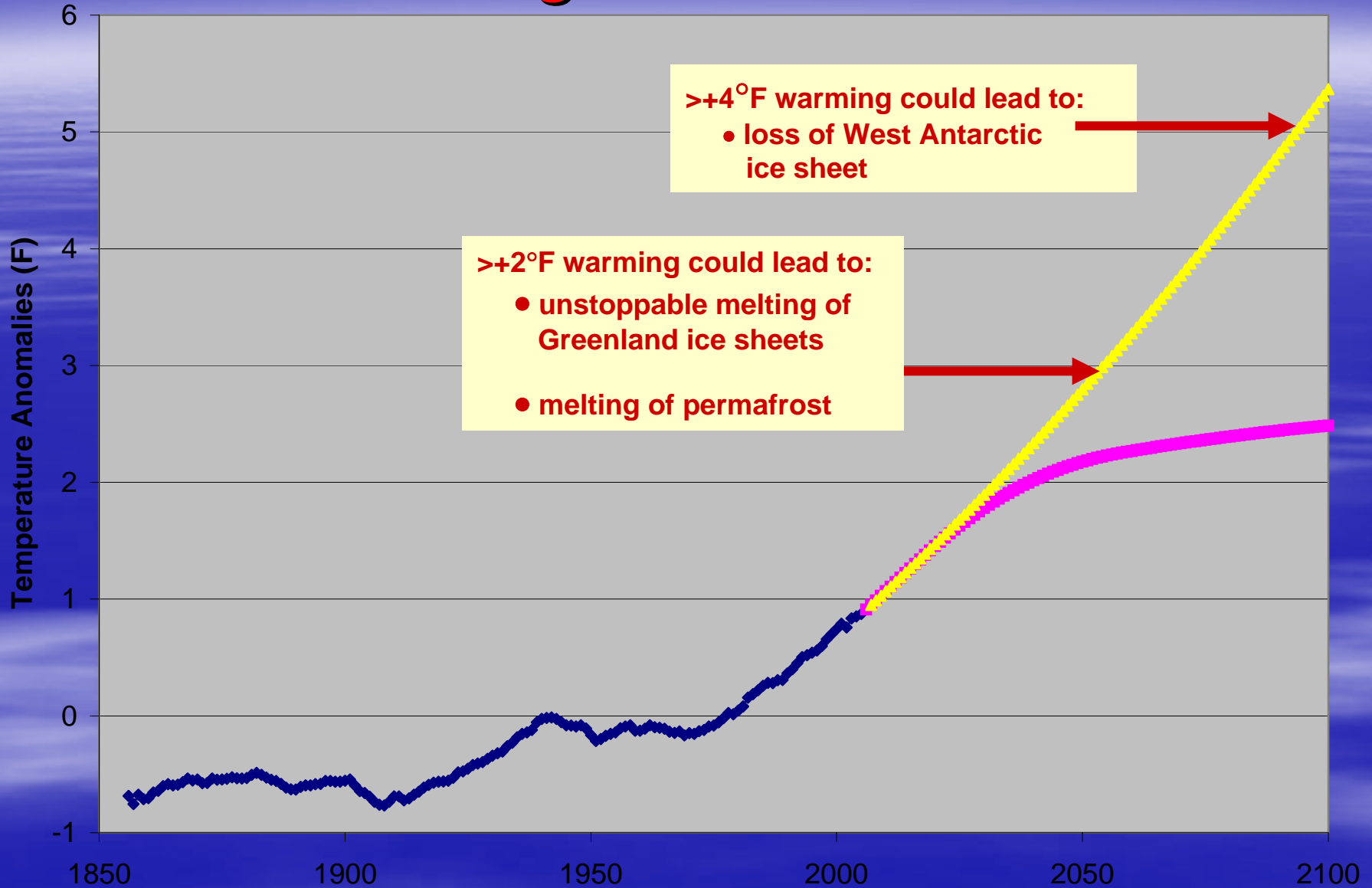
Is there a path to a better future?



Alternative Future – Reduce Global Warming Pollution 2% per Year



Avoiding Climate Crisis



Good News

Reducing use of coal, oil and natural gas by 2% per year through energy efficiency and substitution of renewable fuels will solve the global warming problem.



To Do Now

Fluorescent Bulbs



**Energy-Efficient
Appliances and
Cars**



Plant Trees



Energy Efficiency

Incandescent



Compact Fluorescent

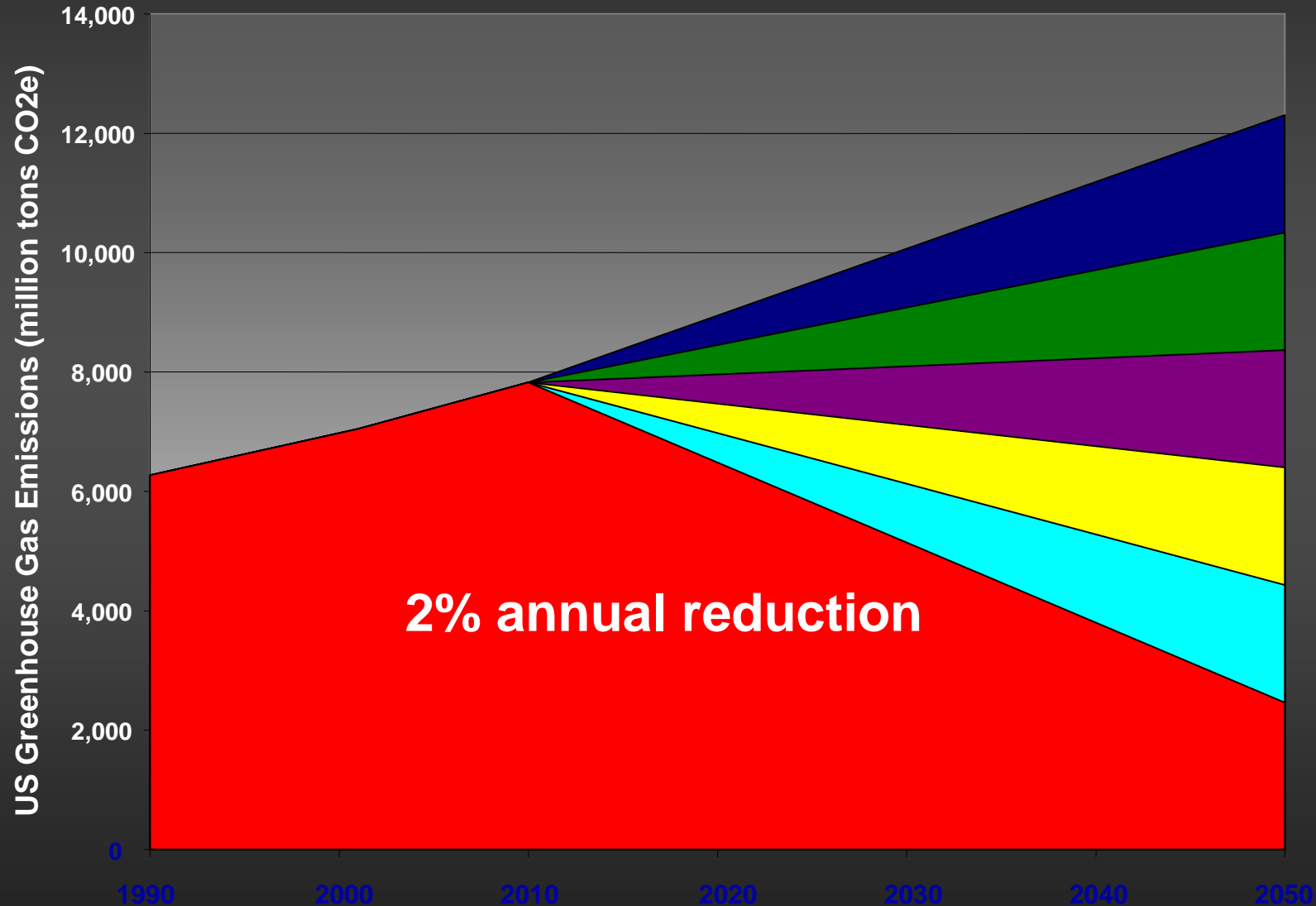


500 lbs
of coal

- 1,430 lbs CO₂ pollution avoided
- \$30 saved

Pathway to a Clean Energy Future

Silver Buckshot



Good bills have funding for wildlife!

