



# Arizona Climate Change Advisory Group

STAPPA/ALAPCO Spring 2006 Business Meeting  
Newport, Rhode Island  
May 2, 2006

Presentation of Steve Peplau  
Arizona Dept of Environmental Quality

# Outline

- Timelines
- Sector Workgroups
- Sector Options
- GHG Goals and Timelines
- Southwest Climate Change Initiative

# Arizona Climate Change Advisory Group Timeline

- February 2, 2005 – Governor Janet Napolitano signs Executive Order 2005-02 establishing the Climate Change Advisory Group

# Arizona Climate Change Advisory Group Timeline

- Executive Order 2005-02 set forth two objectives for the Advisory Group:
  - Establish a baseline inventory and forecast of greenhouse gas emissions in Arizona
  - Produce an action plan with recommendations for reducing those emissions

# Arizona Climate Change Advisory Group Timeline

- June 2005 – Arizona completes a baseline inventory and forecast of statewide greenhouse gas emissions
- June 2006 – The Climate Change Advisory Group is scheduled to complete its work and submit a final report to the Governor

# Arizona Climate Change Advisory Group Process

- The Arizona Climate Change Advisory Group has met four times since its inception:
  - July 14, 2005
  - September 29, 2005
  - December 13, 2005
  - March 17, 2006

# Arizona Climate Change Advisory Group Process

- Two more Advisory Group meetings are currently scheduled:
  - May 16, 2006
  - June 22, 2006

# Arizona Climate Change Advisory Group Process

- The Advisory Group established four sector-based Technical Work Groups to develop GHG reduction options:
  - Energy Supply
  - Residential-Commercial-Industrial Use
  - Transportation and Land Use
  - Agriculture and Forestry



# Arizona Climate Change Advisory Group Process

- The four sector-based technical work groups have each met seven times by conference call since last summer:
  - Aug. 31-Sept. 1, 2005
  - Sept. 14-15, 2005
  - Sept. 21-22, 2005
  - Oct. 26-27, 2005
  - Nov. 9-10, 2005
  - Nov. 30-Dec. 1, 2005
  - Feb. 22-23, 2006

# Energy Supply

## Summary List of Options (12)

### RENEWABLE AND LOW-EMITTING ENERGY

ES-1	Environmental Portfolio Standard
ES-2	Public Benefit Charge Funds
ES-3	Direct Renewable Energy Support (including Tax Credits and Incentives, R&D, and siting/zoning)

### EMISSIONS POLICIES

ES-4	GHG Cap and Trade
ES-5	Generation Performance Standards
ES-6	Carbon Intensity Targets
ES-7	Voluntary Utility CO2 Targets and/or Trading
ES-8	CO2 Tax

### GRID AND UTILITY POLICIES

ES-9	Reduce Barriers to Renewables & Clean DG
ES-10	Metering Strategies
ES-11	Pricing Strategies
ES-12	Integrated Resource Planning

# RCI

## Summary List of Options (12)

RCI-1	Demand-Side Efficiency Goals, Funds, Incentives, and Programs
RCI-2	State Leadership Programs
RCI-3	Appliance Standards
RCI-4	Building Standards/Codes for Smart Growth
RCI-5	“Beyond Code” Building Design Incentives and Programs for Smart Growth
RCI-6	Distributed Generation/Combined Heat and Power
RCI-7	Distributed Generation/Renewable Energy Applications
RCI-8	Electricity Pricing Strategies
RCI-9	Mitigating High Global Warming Potential (GWP) Gas Emissions (HFC, PFC)
RCI-10	Demand-Side Fuel Switching
RCI-11	Industrial Sector GHG Emissions Trading or Commitments
RCI-12	Solid Waste, Wastewater, and Water Use Management

# Transportation and Land Use Summary List of Options (7)

## **PASSENGER VEHICLE GHG EMISSION RATES**

TLU-1 California GHG Emission Standards

## **LAND USE AND LOCATION EFFICIENCY**

TLU-2 Smart Growth Bundle of Options

## **INCREASING LOW-GHG TRAVEL OPTIONS**

TLU-3 Multimodal Transit Bundle of Options

## **FREIGHT**

TLU-4 Promote Idle Reduction Technologies

TLU-5 Enforce Anti-Idling

## **FUELS**

TLU-6 Standards for Ethanol and Biodiesel Fuels

TLU-7 Gasoline Tax

# Agriculture & Forestry

## Summary List of Options (15)

### FORESTRY

- |      |   |
|------|---|
| F-1  | Forestland Protection from Developed Uses                             |
| F-2  | Reforestation/Restoration of Forestland                               |
| F-3a | Forest Ecosystem Management – Residential Lands                       |
| F-3b | Forest Ecosystem Management – Other Lands                             |
| F-4  | Improved Commercialization of Biomass Gasification and Combined Cycle |

### AGRICULTURE

- |      |  |
|------|--|
| A-1a | Manure Management – Manure Digesters   |
| A-1b | Manure Management – Land Application   |
| A-2  | Biomass Feedstocks for Electricity or Steam/Direct Heat                                |
| A-3  | Ethanol Production   |
| A-4  | Change Feedstocks (optimize nitrogen for N <sub>2</sub> O reduction) Change Feedstocks |
| A-5  | Reduce Non-Farm Fertilizer Use   |
| A-6  | Grazing Management   |
| A-7  | Convert Land to Grassland or Forest  |
| A-8  | Agricultural Land Protection from Developed Uses                                       |
| A-9  | Programs to Support Local Farming/Buy Local  |

# Arizona Climate Change Advisory Group Process

- A fifth Technical Work Group was established later to address Cross-Cutting Issues, including:
  - [Goals and Timelines](#) for GHG emission reduction
  - [Registry and Reporting](#) mechanisms
  - [Education](#) issues

# Arizona Climate Change Advisory Group Process

- The Cross-Cutting Issues Technical Work Group has met four times to date:
  - Feb. 24, 2006
  - March 3, 2006
  - March 10, 2006
  - March 30, 2006

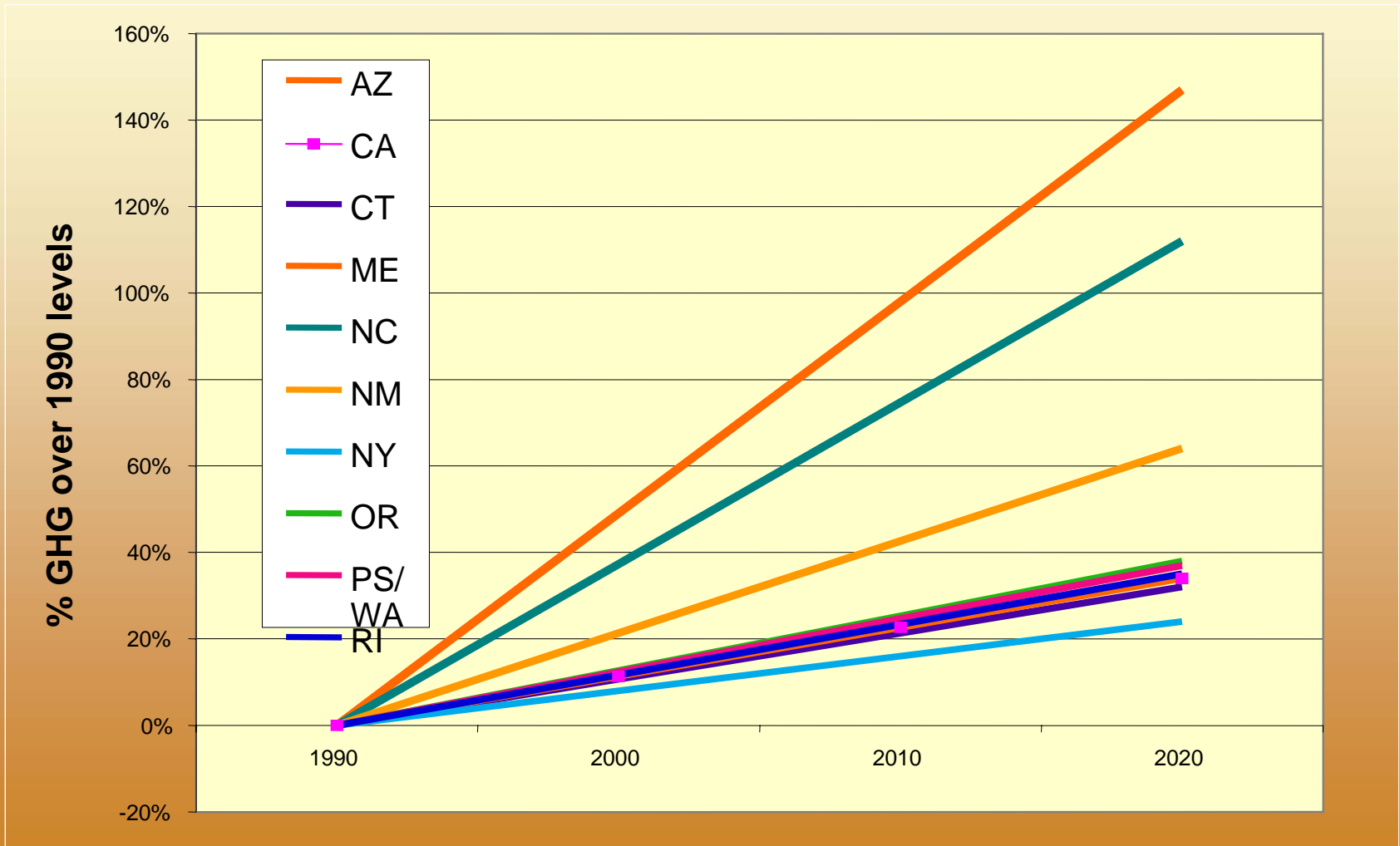
# Cross-Cutting Issues Summary List of Options (4)

- CC-1      State Greenhouse Gas Goals
- CC-2      State Greenhouse Gas Reporting
- CC-3      State Greenhouse Gas Registries
- CC-4      State Climate Action Education

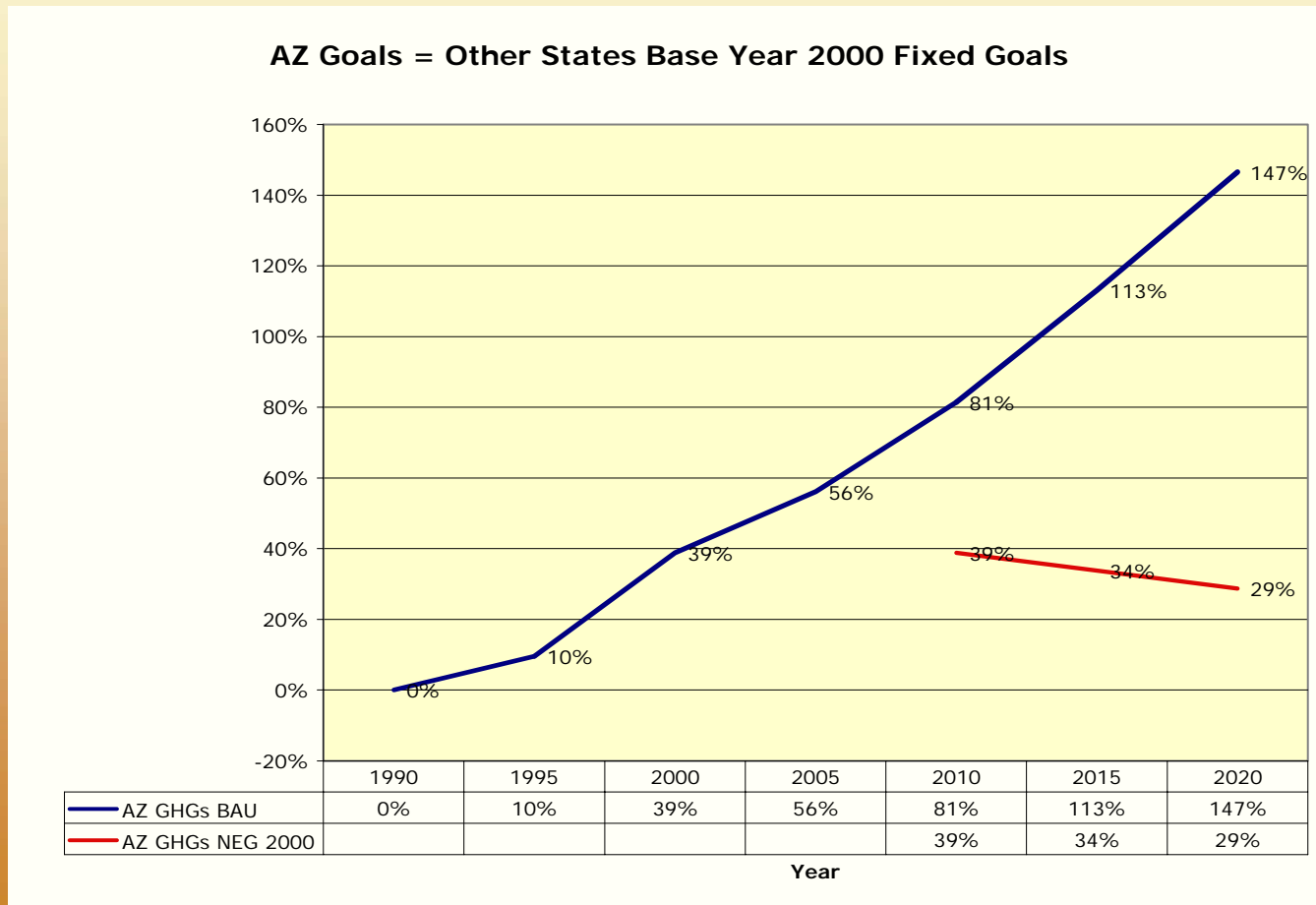


# GHG Emissions Reduction State Goals and Timelines

# State GHG Growth Forecasts

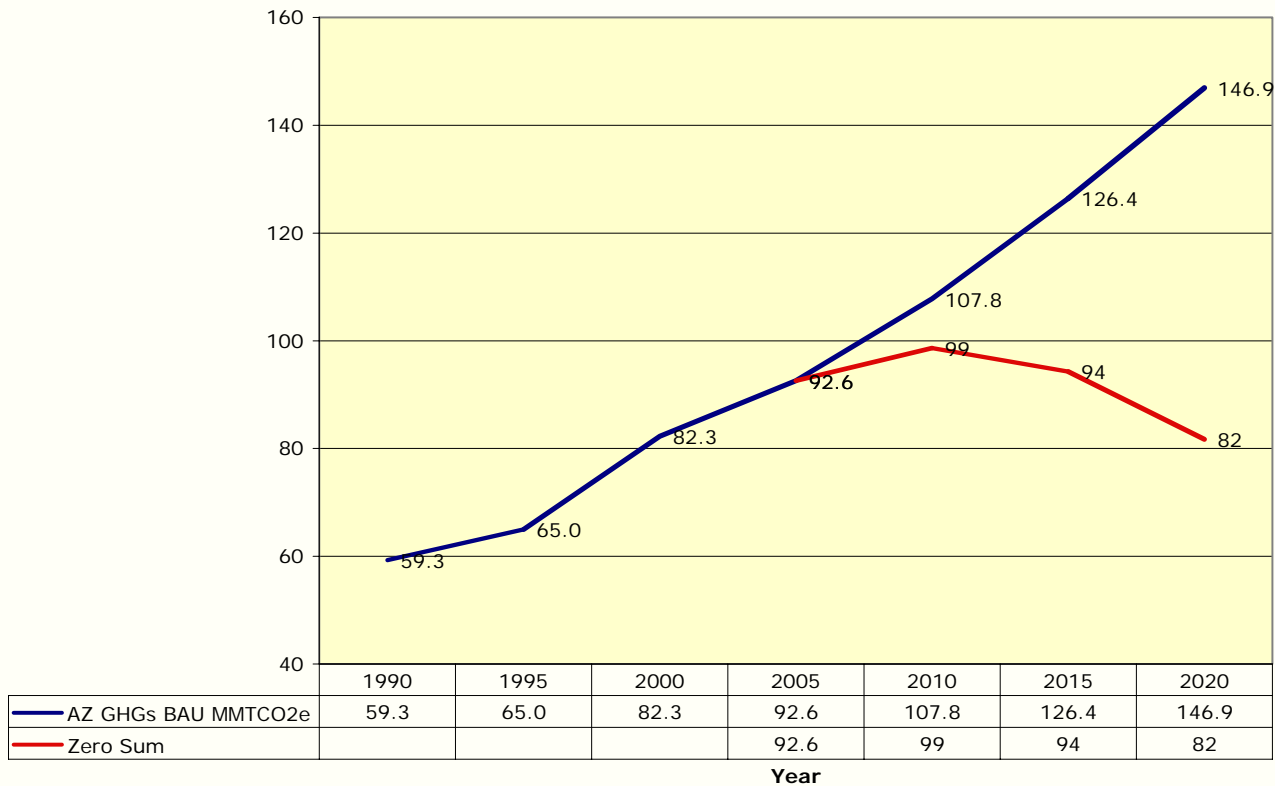


# Other States 2000 Base Year Goals Applied To AZ

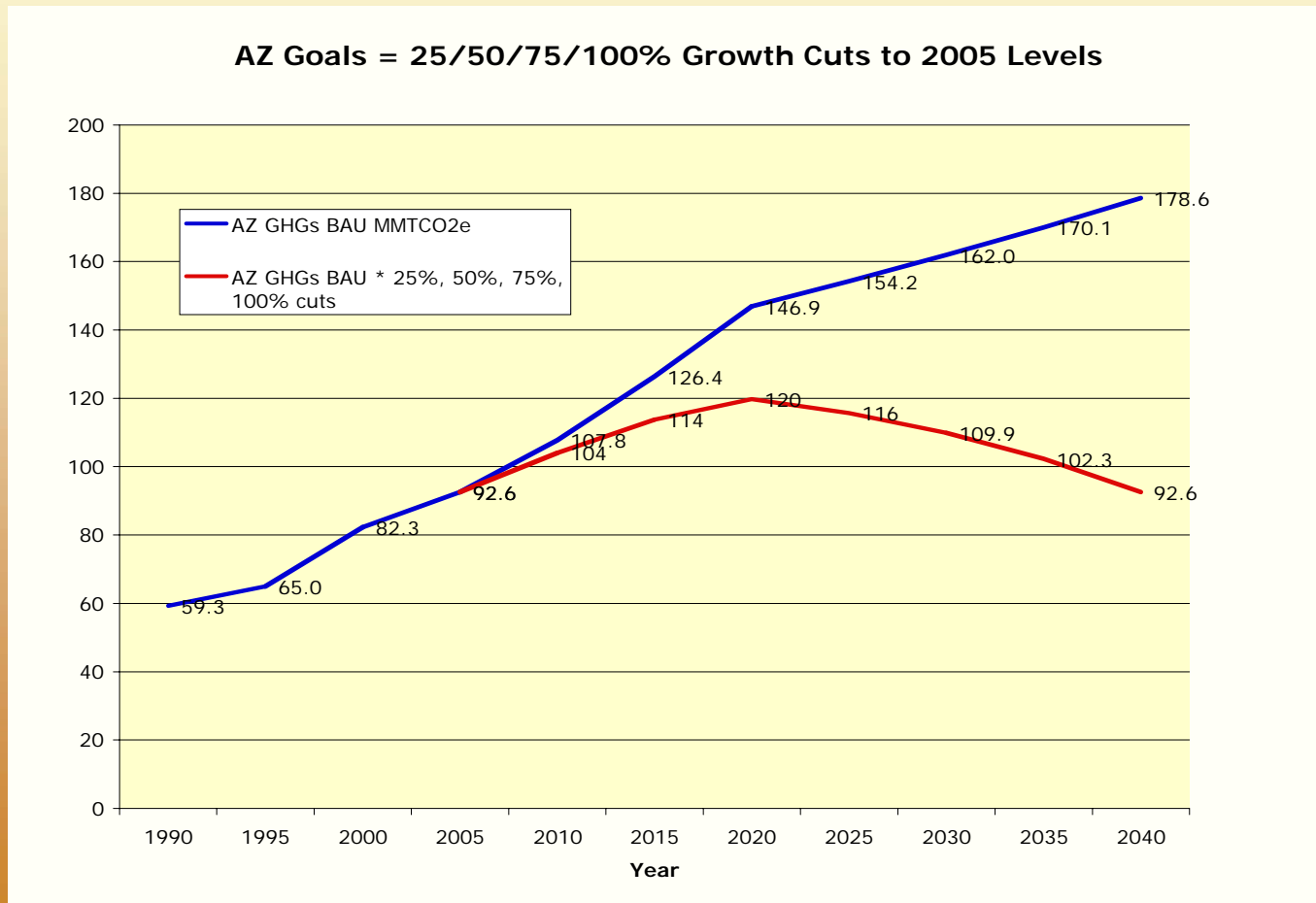


# 100% Avg Total GHG Growth Cut 2005-2020

AZ Goal = 100% Avg GHG Growth Cut 2005-2020



# 25/50/75/100% Total Growth Level Cuts 2005-2040



# Southwest Climate Change Initiative

- Signed by Arizona Governor Janet Napolitano and New Mexico Governor Bill Richardson on February 28, 2006.
  - The states “agree to collaborate in identifying, evaluating and implementing ways to reduce greenhouse gas emissions and achieve related co-benefits.”

# Southwest Climate Change Initiative

## Collaboration may include:

- Development of consistent approaches for measuring, forecasting and reporting emissions of greenhouse gases;
- Development of consistent approaches to recognize and give credit for public and private actions to reduce greenhouse gas emissions;
- Identification and evaluation of policy options for reducing greenhouse gas emissions within individual states and jointly across state, regional and international borders;

# Southwest Climate Change Initiative

## Collaboration may include:

- Establishment of cooperative policies, programs, pilots and/or demonstration projects for greenhouse gas reductions;
- Cooperation with Native American Tribes and communities;
- Identification and promotion of climate change mitigation actions, energy efficient technologies and clean and renewable energy sources that can enhance Southwestern economic growth and development;



# Southwest Climate Change Initiative

## Collaboration may include:

- Identification of and advocacy for regional and national climate policies that reflect the needs and interests of Southwestern states;
- Improvement of institutional capacity to address climate mitigation needs by Southwestern states, such as expanded analytical and outreach resources;
- Other appropriate actions to advance the needs and interests of states in reducing greenhouse gas emissions and mitigating climate change and its impacts on the West.

# Southwest Climate Change Initiative

To be administered by the  
Arizona Department of Environmental Quality  
and the  
New Mexico Environment Department

# THE ARIZONA REPUBLIC

50¢

azcentral.com

MONDAY, MARCH 23, 2006

## VALLEY & State

Kristin Wilkison, Valley & State editor, 602.444.NEWS  
or kristin.wilkison@arizonarepublic.com

MONDAY, APRIL 3, 2006

SECTION B

## EDITORIALS

THE ISSUE: GLOBAL WARMING

# Applying the brakes to a runaway train

**W**e listened to Smokey Bear and made sure our campfires were out. We heeded the tears of Iron Eyes Cody and stopped littering.

Now we need to pay attention to a freight train called global warming. It's coming at us full-speed, loaded with potentially devastating problems, including a drop in Arizona's water supplies.

The image of the freight train will appear in a new nationwide campaign unveiled today by Environmental Defense and the Ad Council, the non-profit that



Global warming is coming at us like a freight train. We might not be in front of it, but our children and grandchildren could be.

AD COUNCIL



# SCOTTSDALE Tribune



A Freedom Communications  
Newspaper © 2006  
**ScottsdaleTribune.com**

MONDAY • APRIL 3, 2006

ARIZONA'S NEWSPAPER OF THE YEAR

An edition of the EAST VALLEY Tribune **50¢**

## Can we still stem global warming tide?

**MELTING:** A section of the ice sheet covering much of Greenland is seen in 2005 as global warming continues to cause what scientists predict will be as much as a 3-foot rise in ocean levels by the end of the century.



ASSOCIATED PRESS FILE

THE ASSOCIATED PRESS

**WASHINGTON** • Global warming is roaring across the planet like what scientists compare to a runaway truck, and they're not sure it can be stopped.

"We certainly aren't going to stop that 18-wheeler that's rolling down the hill," said John Walsh, director of the Center for Global Change and Arctic System Research at the University of Alaska in

### MORE ON PAGE A7

**GLOBAL WARMING:** A look at what could happen and what to do.

Fairbanks. "In the short term, I'm not sure that anyone can stop it."

There are limits to how much individuals can do, leading climate scientists say. The best we can hope for is to prevent the worst — world-altering disasters such as

catastrophic climate change and a drastic rise in sea levels, they say.

The big disasters are believed to be just decades away. And stopping or delaying them will require bold changes by both individuals and government.

"The question is: How much worse is it going to get?" said Tim Barnett, a senior scientist at the Scripps Institution of Oceanography in California.