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CHANGE THE FORECAST FOR WILDLIFE
SOLUTIONS TO GLOBAL WARMING

Global Warming and ARIZONA

The Environmental Protection Agency estimates average temperatures in Arizona could rise about 5 degrees Fahrenheit by 2100 if global warming continues unabated. The warmer climate is expected to cause more extreme fluctuations in precipitation levels across the region, contributing to heavier rainfall and flooding events in winter as well as more severe drought conditions and wildfires in summer. Global warming could also bring less snowpack in the mountains, reducing summer flows in many Arizona streams.



Global warming effects on Arizona wildlife

Arizona is home to an incredible diversity of native wildlife species, including 435 birds, 138 mammals, 28 fish, 102 reptiles and 25 amphibians. Rising temperatures in the state will likely change the makeup of entire ecosystems, forcing wildlife to shift their ranges or adapt.

- Higher average stream temperatures and declines in riparian vegetation due to global warming could contribute to a significant reduction in viable habitat for many of Arizona's already-threatened fish species, including native Apache trout.
- Scientists have found Mexican jays are breeding and laying eggs 10 days earlier than they did in 1971 due to warmer temperatures.
- The endangered southwestern willow flycatcher, which breeds in dense riparian areas along rivers and wetlands, has seen its numbers plummet during the last 100 years due to many factors leading to the loss of these fragile habitats. Global warming is projected to contribute to hotter, drier conditions in the region, which could cause the species to disappear.



- Logging and other destructive activities have already pushed the habitat of the Mount Graham red squirrel to higher elevations. Its remaining forest habitat faces an additional threat from global warming. Higher average temperatures have contributed to more severe outbreaks of spruce bark beetles throughout the region, making forests such as those on Mount Graham more susceptible to fires.

What is Global Warming?

When coal, gas and oil are burned, they produce carbon dioxide that builds up in the atmosphere and traps the sun's heat. Much of this greenhouse gas released today remains in the atmosphere after even 100 years, trapping more and more heat.

Since the mid-1800s, emissions of carbon dioxide have skyrocketed, and subsequently global temperatures have risen by about 1 degree Fahrenheit in the last century. Earth has not experienced such a rapid change in temperature in thousands of years.

Unless we reduce the pollution that causes global warming, temperatures could climb between 2-10 degrees Fahrenheit this century. Such a rapid rise in temperature would fundamentally reshape the planet's climate, forever changing the landscape and water resources people and wildlife depend upon.



What's at stake for Arizonians?

The recent drought and intense wildfire seasons in Arizona are consistent with what climate scientists expect will occur more and more as global warming continues. These destructive weather events are just one way the warmer climate will touch the lives of Arizonians, as global warming resonates through the tourism, agriculture, wildlife recreation and timber industries.

- Arizona currently is experiencing a decade-long drought that has shown no signs of stopping and has already depleted water reservoirs. A longer drying trend could lead to severe water shortages for the state.
- Global warming's effect on crop production could include a 70-percent reduction in wheat yields and 11-percent reduction in cotton yields as temperatures rise beyond the tolerance level of the crops. To compensate, farmers would have to increase the number of farmed acres requiring irrigation, further stressing the water supply.
- Loss of wildlife and habitat could mean a loss of tourism dollars. In 2001, more than 1.7 million people spent nearly \$1.6 billion on hunting, fishing and wildlife viewing in Arizona, which in turn created 31,654 jobs in the state.

“Global warming poses an overriding challenge to our responsibility to protect wildlife for our children’s future. We must advance balanced solutions that work for people, wildlife and the economy to overcome this challenge.”—

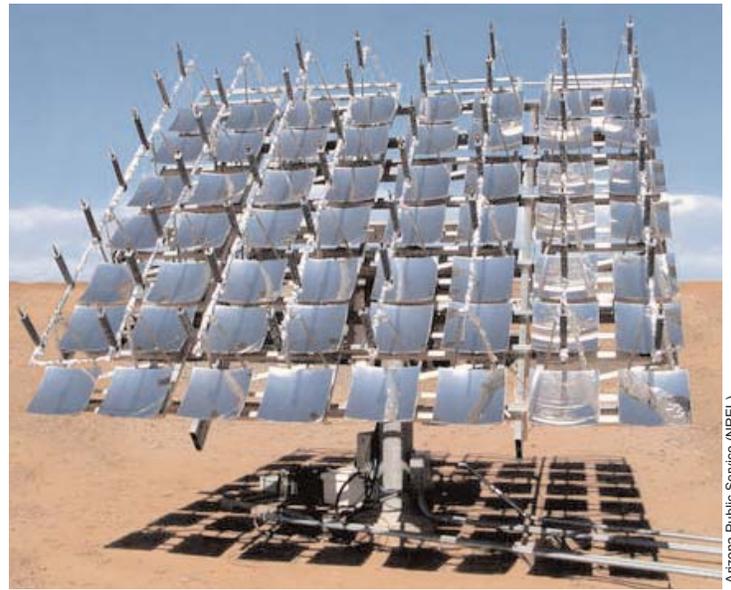
Larry Schweiger
President, CEO
National Wildlife Federation

THE CLIMATE STEWARDSHIP ACT:

The Climate Stewardship Act is a bipartisan plan of action in Congress that sets achievable goals for reducing global warming pollution in the United States. The bill requires power plants, oil companies and other major sources to collectively reduce emissions of carbon dioxide and other greenhouse gases to what they emitted in the year 2000. The bill also allows businesses to implement their own solutions, using a flexible emissions trading system that has successfully reduced air pollution under the Clean Air Act at a fraction of the anticipated costs. The Act will:

- Create more than 11,000 new energy technology jobs in Arizona by the year 2020.
- Provide Arizona with at least \$11.4 million each year in additional wildlife conservation funding to help protect the state's wildlife from the impacts of global warming.
- Provide new income to Arizona's farmers by rewarding environmentally friendly farming and forestry practices.

Visit www.nwf.org/globalwarming or www.climatenetwork.org/csa for more information.



Arizona Public Service (NREL)

Arizona's solutions to global warming

Arizona has the potential to be a leader on developing solutions to global warming.

- The state's solar energy credit provides an individual taxpayer with a credit for installing a solar or wind energy device at the taxpayer's Arizona residence.
- Arizona leads the nation in solar power generation potential and could additionally meet more than 16 percent of its electricity needs from other renewable sources including wind, geothermal and biomass.
- Arizona has a requirement that 1.1 percent of the state's energy come from renewable sources by 2007.
- In February, 2005, Gov. Janet Napolitano established a task force to create a climate action plan for the state.

Following some simple guidelines, you can cut your global warming pollution, become more energy efficient and give something back to nature.

- **Plant shade trees:** The Department of Energy says planting three trees strategically around your home can reduce your annual heating and cooling costs by an average of 40 percent.
- **Convert to compact fluorescent bulbs:** If every household in America replaced its next burned out light bulb with a compact fluorescent, we would prevent more than 13 billion pounds of carbon dioxide from being emitted.
- **Become a Green Tag subscriber:** Many states now offer options for homeowners to buy electricity from clean, renewable sources such as wind, solar and biomass that produce little or no global warming pollution. Green energy can also be purchased through the National Wildlife Federation by visiting www.nwf.org/energy.

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