

Protecting Utah's Communities, Economy and Environment from Global Warming

Global warming is already affecting Utah, and will continue to do so for decades to come. Investing 5% of total allowance value generated from an energy and climate bill will protect communities and local economies across Utah and the rest of America by creating jobs that protect wildlife and natural resources from the effects of global warming.

Critical Issues for Utah:

- Increasing temperatures
- Changing precipitation levels
- Damage to local economy
- More frequent and intense droughts

Is Global Warming Affecting Natural Resources in Utah?

Yes, and Utah is warming. Since 1950, **temperatures across the state have risen approximately 2°F, and are expected to rise up to an additional 5°F by 2060.**¹ Increasing temperatures will likely lead to more frequent and intense precipitation events, such as heavy rainfall, throughout the state, to be followed by longer periods of dryness.² These changes are significant, and the impacts are already being felt.

Across the U.S., more than 80% of plant and animal species studied are shifting their ranges in reaction to less than 1° F of average warming globally in the last century.³ The Intergovernmental Panel on Climate Change predicts further warming could result in **up to 30% of known species becoming extinct**, and the disappearance of more than one-fifth of the world's ecosystems.⁴ This is especially critical for Utah, ranked the fifth-highest state in the U.S. for biodiversity, and home to more than 3,500 native and animal species.⁵

As temperatures rise across the state, Utah will have less snowpack throughout the fall and winter, leading to less water available in critical late summer months for agriculture and residential use. With most of Utah's water coming from snowmelt above 6,500 feet, **runoff is predicted to decrease up to 30% in this century throughout the state.**⁶ The Colorado River, already experiencing historic lows, is predicted to experience a decrease of 36% in water storage behind dams, and up to a 56% reduction in hydropower between 2010 and 2039.⁷ This decline will not only impact Utah's water resources, but the state's thriving snow-sport industry as well.

The time to act is now. In order to address global warming we must not only reduce carbon pollution, but also protect our communities, natural resources and economy from the effects of pollution already in the atmosphere. A renewed dedication to protecting America's natural resources will create tens of thousands of new jobs and secure clean air and water for us all.



Land management agencies need additional resources to protect iconic landscapes like the Hoodoo formations found across Utah from the effects of global warming.

What's at Stake?

Changes brought on by global warming are disrupting the careful balance of natural resources and having significant impacts on communities and businesses across the state.

- **Local Businesses:** Utah's outdoor recreation industry is dependent upon healthy ecosystems. Businesses that support Utah's \$5.8 billion outdoor recreation economy are threatened by the effects of global warming. One study shows that by the end of the century parts of Park City will be without snow, and the ski season may last a mere two months, affecting Utah's \$1 billion snow sport industry which employs 18,000 people.⁸

Economy at Risk:
\$5.8 Billion
Annual contribution of outdoor recreation to Utah's economy

- **Water Availability:** Drought is likely to become a very real and severe problem for Utahns as temperatures continue to rise. Not only will decreasing levels of snowpack lead to less water availability in reservoirs, but the demand for water will grow as the population of the state reaches an expected 38 million people in 2020.⁹

- **Agriculture:** Drying soils will undoubtedly impact Utah's \$1 billion annual agricultural economy as farmers will place increasing demands on already scarce water resources in order to maintain crop yield.¹⁰ Recent droughts have taken their toll on Utah's economy: in 2002, every county in the state qualified for disaster relief, harvest shrank by 30%, and 2,600 people lost their jobs.¹¹ By 2050, average soil conditions in the West are expected to be worse than anything previously experienced – including the Dust Bowl.¹²

- **The Great Salt Lake:** One of the U.S.' most important wetlands, the Great Salt Lake, will likely see lower average lake levels and increases in salinity, adversely impacting wildlife which depend on the lake for survival, as well as the economic benefits the lake provides.¹³ The Bear River watershed, which provides much of the lake's water, experienced snow pack levels 56% below normal in 2007, with water flows significantly below average every month of the year.¹⁴ The Great Salt Lake is just one example of threatened places that, once gone, are impossible to replace. Our children and grandchildren are counting on us to protect these uniquely American landscapes, and the opportunity to enjoy them, from the effects of global warming.



Dedicated funding for natural resource adaptation will help protect endangered species like the Utah prairie dog from the effects of global warming.

Protecting Natural Resources, Creating Jobs

Restoring ecosystem health helps ensure species have the best possible chance to adapt to the effects of global warming. Ecosystem adaptation projects, such as establishing wildlife corridors for animals migrating in search of needed habitat, are critical to the survival of many species. **Investing now in natural resources is the most cost-effective way to protect our treasured landscapes and the clean water, clean air and jobs they provide.**

Of the total allowance value generated from an energy and climate bill, 5% should be invested in protecting communities and local economies across America by protecting natural resources from the effects of global warming. This funding will allow Utah's wildlife and land management agencies, as well as the Land and Water Conservation Fund and the Forest Legacy Program, to ramp up important conservation projects.

This dedicated funding will allow scientists, engineers, construction crews, and others to be employed across Utah:

- Repairing damaged watersheds to ensure clean water for communities through removing impediments and deteriorating structures, restoring eroding river banks, and repairing in-stream habitat.
- Acquiring land and establishing migration corridors to increase species' survival as climates change.
- Monitoring wildlife, their habitat and local climate and developing appropriate adaptation responses.
- Restoring native landscapes to increase resiliency in a warming world by removing unnecessary roads and barriers, constructing riparian buffer strips, and removing invasive species.

This work will protect and create American jobs – providing new skills and income to workers and their families across the state.



Restoring river habitats protects ecosystems, jobs, and drinking water

Investing in Solutions for Families, Businesses and the Planet

The risks to Utah and the nation from global warming are significant—and require an extensive and sustained commitment to reducing heat-trapping pollution, protecting our natural resources, and the communities that rely on them. A cap-and-invest system that reduces pollution and auctions emission allowances will provide billions of dollars for combating the climate crisis.

Revenues from a cap-and-invest system must be directed to three primary solutions:

- **Invest 5% of the total allowance value generated in annual dedicated funding for natural resource protection** in order to create jobs while increasing resiliency across landscapes, protecting important ecosystem services and safeguarding communities.
- **Offset increased energy costs for at-risk consumers** by allocating roughly 14% of allowance auction revenues to consumers through existing mechanisms such as the Earned Income Tax Credit and the Low Income Home Energy Assistance Program.¹⁵
- **Invest in areas such as clean energy choices, job training, and business assistance**, which will aid businesses and communities in transitioning to a clean energy economy, while creating jobs and reducing heat-trapping pollution.

Utah and the country need your support for reducing carbon pollution and protecting communities by safeguarding our natural resources.

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Text Box: Outdoor Industry Association. 2007. "State by State Active Outdoor Recreation Economy Report." Available from http://www.outdoorindustry.org/research.php?action=detail&research_id=52

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