



## WATERSPIRIT MISSION

**WATERSPIRIT** is a center committed to informing, inspiring and enabling people to:

- \* Recognize the connection between ecology and spirituality
- \* Appreciate the interdependence and sacredness of all creation
- \* Become more aware of the significance of water and watersheds in the wider context of the story of the Universe and the life of planet Earth
- \* Grow in knowledge of ecological issues related to oceans, rivers, lakes, coastlines and wetlands
- \* Embrace life style changes necessary to protect and preserve creation
- \* Commit to joining efforts with others in confronting ecological issues

**WATERSPIRIT** collaborates with other groups locally, regionally, nationally and internationally in promoting informed concern and action

*A Ministry of the Sisters of St. Joseph of Peace*

## Global Warming: Tide of Scientific Evidence Causes Flood of Concern

Information floods the media in the wake of a scientific consensus about a global warming crisis. WATERSPIRIT looks at this crisis through the lens of water.

Global warming occurs when carbon dioxide and other "greenhouse gases" warm Earth's surface by trapping solar heat in the atmosphere making Earth habitable. Since the Industrial Revolution, increased burning of fossil fuels, such as coal, gas and oil, and removal of forests have increased the amount of carbon dioxide in Earth's atmosphere, heating air and water to an unhealthy level, adversely affecting Earth's climate.

Often global warming and climate change are used interchangeably. In a joint 2005 statement by scientists from eleven national scientific academies, including that of the United States, the scientists underscored the reality of global warming that has led to climate change.

Following the flow of water as glaciers, ocean currents, clouds, lakes, and rivers helped to lead scientists to a consensus regarding the critical nature of global warming and climate change. Some of the phenomena scientists point to and/or predict include the following:

- The link between intensity of storms and rapid and unnatural (human caused) heating of oceans
- Severe flooding and drought causing cascading effects such as:
  - Extreme run-off from more water at the wrong time, increased toxic organisms and increased rise of water-borne diseases.
  - Less water when it is needed could result in warmer streams and lakes,

adversely affecting existence of fish and other aquatic organisms.

- Drought could affect hydroelectric power; for example, Lake Powell, bordering Utah and Arizona, has lost half of its water due to drought and rising temperatures linked to global warming,

imperiling the hydroelectric generators, potentially resulting in electrical blackouts.

- Chemical changes in water due to global warming:

- Salt pollution of underground fresh water reserves by rising seas.

- Increased acidity of oceans from carbon dioxide absorbed by oceans becoming carbonic acid that over time accumulates, interfering with the ability of corals and other marine life to form their shells.

- Rising seas from 750,000 miles of ice sheet in Antarctica that are vulnerable to collapse and the rapid thinning of glaciers.

- Princeton study (2005) predicts a sea rise by the end of the century that could cause 1% to 3% of New Jersey's coast to disappear.
- Shrinking snowcaps in the Sierra Nevada Mountains causing early runoff that will not only affect the skiing industry, but also agricultural areas whose water supply will be drastically reduced.
- Changes in the North Atlantic as freshwater from the Arctic melts, as well as other changes in the circulation of currents in the oceans and Gulf Stream.

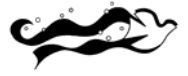
Even in the face of such mounting scientific concern about present and potential catastro-

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*The cycle of life is intricately tied up with the cycle of water*

*Jacques Cousteau*





## Global Warming

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phic effects from global warming, Robert Kunzig, the author of "Turning Point" in *Discover*, January 2005, says, "It's a gloomy forecast, but its most important implication is that human choices now can still make a big difference later." Some scientific experts are saying that without dramatic changes, we are in grave danger of crossing a point of no return within the next 10 years. The future is our legacy to the next generation, and because most global warming emissions remain in the atmosphere for decades or centuries, the choices we make today greatly influence the climate our children and grandchildren inherit.

It seems that we are on the crest of a wave swelled by scientific and civic consensus that we must and will respond to the global warming/climate change crisis. Many sources offer suggestions to mitigate the effects of global warming; including:

[www.fightglobalwarming.com](http://www.fightglobalwarming.com) has carbon calculator to help you estimate your personal contribution to global warming and suggestions about your home, yard, car, and even vacation! Also alternative solutions including solar and wind energy.

[www.protectingcreation.org](http://www.protectingcreation.org) provides information from the Interfaith Climate Change Network including their statement that the faith community is concerned about global warming/climate change as a matter of justice for future generations and for all creation that is affected by climate change.

[www.epa.gov/globalwarming](http://www.epa.gov/globalwarming), [www.stopglobalwarming.org](http://www.stopglobalwarming.org), and [www.ucsusa.org](http://www.ucsusa.org) are additional sites that provided information for this article and may be helpful to you.

—Joan Carey, ssj

## Droplets



- 2005 was the hottest year on record according to NASA. (Tied with 1998)
- There has been a 100% increase in intensity and duration of hurricanes and tropical storms since the 1970's.
- Glacier National Park will have no glaciers left by 2030 according to the U.S. Geological Survey predictions.
- In the last 30 years, 400,000 square miles (roughly the size of Texas) of Arctic Sea ice have melted, threatening polar bear habitats and further accelerating global warming worldwide.
- By 2050 15% to 37% of Earth's plant and animal species could be wiped out by global warming.
- Snowpack in the Sierra Nevada Mountains, which accounts for a third of the state's surface water, could virtually disappear by the end of the century if global warming continues unabated.
- A rise in sea level of 2 feet is likely by 2100 according to a Princeton University study. This would cause the ocean to creep 240 feet inland, inundating low-lying parts of the New Jersey shore.
- In response to rising global temperatures, spring comes as much as 13 days earlier in many parts of North America and 15 days earlier in Europe than 30 years ago.

**For more information on WATERSPIRIT and its programs, please visit our website at [www.waterspirit.org](http://www.waterspirit.org)**

## Practical Water Solutions to Help Minimize Global Warming

Water use can help with global warming since it takes energy to heat water causing carbon dioxide emission; therefore, use hot water only when necessary.

Use cold or warm water in the clothes washer.

Take shorter showers since showers account for two thirds of all water heating costs.

Boil water with the lid on since it boils faster reducing the energy needed.

If you stay at hotels during vacation, take advantage of environmentally friendly laundry options choosing not to have your towels washed every day.

Turn off your electric water heater while you are away on vacation.

If you have a pool or hot tub at home, before you leave for vacation turn off its heater and reduce pump operating times.

Install a low-flow showerhead since using less water means less energy and less carbon dioxide emission.

Check your water heater thermostat keeping it no higher than 120 degrees F.

