

[Back to issue](#)[More like this >](#)

Extreme storms are call for air quality

Kauffman, Gerald J.  **The News Journal** [Wilmington, Del] 20 Dec 2007: A.13.

Full text

Abstract/Details

Abstract [Translate](#)

Gerald J. Kauffman is director of the Water Resources Agency at the University of Delaware Institute for Public Administration and on the faculty in the School of Urban Affairs and Public Policy and Department of Civil and Environmental Engineering. Since 2000, he has served as water supply coordinator for Delaware.

Full Text [Translate](#)

DELAWARE VOICE

GERALD J. KAUFFMAN

On Dec. 4 Environment America released a report that indicates storms with heavy rainfall are now 42 percent more frequent in the Mid-Atlantic than they were 60 years ago. The report concludes that increased frequency of extreme storms may be tied to atmospheric warming due to air pollution.

This isn't a surprising finding because as the Earth gets hotter, evaporation increases, resulting in increased moisture in the atmosphere. As moisture cools and condenses in clouds, it results in more water for precipitation, hence more frequent and intense floods.

On the drought side of the water cycle, more arid conditions induce more evaporation and thus can result in more frequent and intense dry periods.

In the Mid-Atlantic, there is debate about the causes of increased precipitation and its impact on flooding. I believe increased precipitation frequency is due to a combination of natural variation in the Earth's climatic cycle and human influences.

Gauges indicate there have been more floods and droughts lately in Delaware. The Brandywine and White Clay creeks and St. Jones River have had measurable increases in peak flood flows since 1990.

We looked at 20 stream gauges in the Delaware River basin; 10 of them recorded higher flood flows since 1990.

Extreme floods ranging between 50-year and 500-year intensity occurred during Hurricane Floyd in 1999 and Tropical Storms Henri and Jeanne in 2003 and 2004. These extreme floods occurred between the droughts of 1995, 1999 and 2002, a striking weather swing.

There is enough evidence regarding global warming for the government to take action. I have witnessed the good that government can do in cleaning up the nation's rivers and streams through the Delaware River Basin Commission created in 1961 and the Clean Water Act and amendments passed during the 1970s.

In many watersheds draining to the Delaware River, dissolved oxygen, phosphorus, sediment, lead and copper levels have improved markedly. The American shad and bald eagle have returned as water gets cleaner. The bans on phosphorus detergent, leaded gas and DDT were successful actions prompted by the government.

These environmental improvements are due to progressive laws and efforts initiated during the John F. Kennedy and Richard Nixon administrations. To deal with emissions and climate change, we need a law to reverse the damage done to the atmosphere by air pollution. It's time the federal government set criteria that cap and control emissions to the atmosphere.

A federal approach is appropriate because air emissions extend downwind thousands of miles and include dozens of states from the Midwest to the Atlantic.

The biggest companies in America are also calling for federal cap-and-trade guidance so they can install innovative air pollution equipment while maintaining their competitive edge on a balanced playing field.

Governments can make a difference in cleaning up the environment. Then maybe the polar bears will return just as the bald eagles have.

Gerald J. Kauffman is director of the Water Resources Agency at the University of Delaware Institute for Public Administration and on the faculty in the School of Urban Affairs and Public Policy and Department of Civil and Environmental Engineering. Since 2000, he has served as water supply coordinator for Delaware.

Word count: **530**

Copyright 2007 - News Journal Wilmington, DE - All Rights Reserved

More like this



Search ProQuest...



Cite



Email



Save

 Add to Selected items