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Natural News

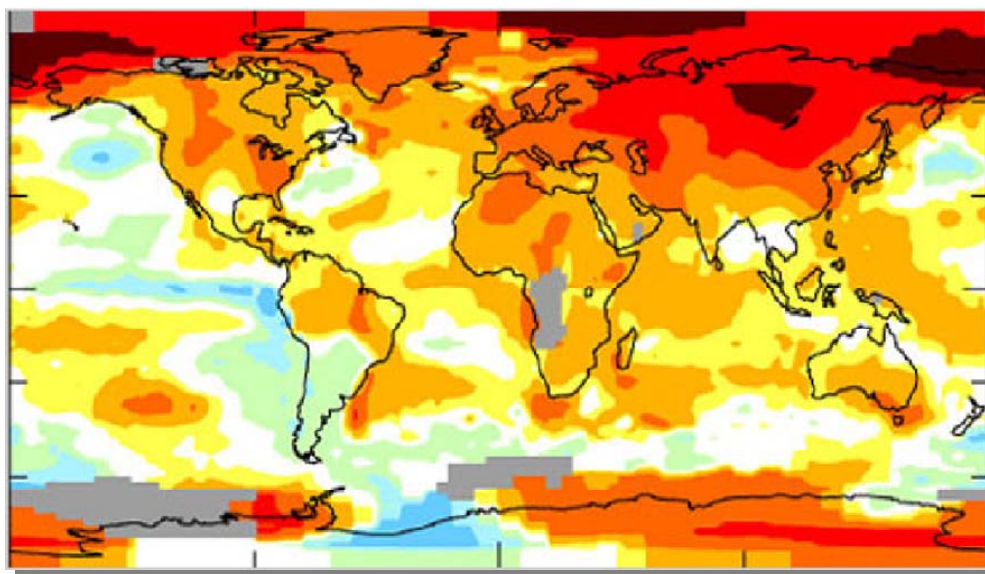
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“Global warming may be the most serious environmental threat facing the West.”

~Turlock, 1991

What is Climate Change, Who is Saying What, and Why Should You Care?

~ Carol Russell, EPA Region 8

The term climate change refers to any significant change in measures of climate (such as temperature, precipitation, or wind) lasting for an extended period (decades or longer). Although the term climate change is often used interchangeably with the term global warming, the National Academy of Sciences prefers climate change because there are other

changes in addition to rising temperatures. In some circles, the term is further evolving into Global Change (as in EPA's Office of Research and Development Global Change Research Program) to reflect the scope of the issue.

The Intergovernmental Panel on Climate Change (IPCC) received the Nobel Peace Prize with Al Gore for their work on climate change -- visit www.ipcc.ch. The IPCC was established almost 20 years ago by the World Meteorological Organization and the United Nations Environment Program to provide a clear, balanced

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"Global warming may be the most serious environmental threat facing the West. If, as many believe, global warming is occurring, there is increased urgency to begin the necessary modification of our historic water allocation policies, which are premised on an unlimited ability to outwit nature to accommodate all people attracted to the West. Federal and state western water managers are presented with a unique opportunity to begin the task of designing a set of water allocation institutions that will allow the modern West to continue as a viable region, even as aridity becomes an operational fact of daily life."

view of the present state of understanding of climate change on a global scale. The IPCC doesn't do research itself: it reviews and assesses the scientific, technical and socio-economic information published in the scientific literature. The Fourth Assessment Report is an overwhelming body of evidence regarding climate change, noting key impacts that are probably inevitable for the planet. For example, North America is projected to warm between 3 - 4 degrees F by 2100, depending on the region (IPCC, 2007). Other expected impacts include:

- Summer heat extremes will become more frequent and last for longer periods,
- Storms may become more severe and rain rather than snow,
- Air conditioning and water demand will stress utilities,
- Vulnerable populations will suffer from heat-related illnesses,
- Summer air pollution levels will increase,
- Ecosystem structures will change,
- Wildfire seasons will be longer and more intense,
- Winter thawing will come earlier, possibly increasing flooding and placing added stress on reservoirs, and
- Groundwater aquifers will become depleted and stream base flows will decrease.

On a National scale, Ben Grumbles Assistance Director of EPA's Office of Water recently said: "EPA and its partners, locally and globally, are learning more and

doing more to confront the serious challenges of climate change. Increasingly, we understand climate change may have impacts on water resources, and watersheds and affect our efforts to ensure progress under the Clean Water Act, Safe Drinking Water Act, and various ocean and coastal laws." Soon, EPA will be releasing its draft Climate Change Strategy for Water at: www.epa.gov/climatechange/

Please respond to Carol Russell, EPA Region 8, if you would like to be notified when the draft strategy is released. Contact information is given below.

Regionally, following the suggestion of several State Environmental and Agricultural Directors at a June 2007 meeting in Denver, "Climate Change" was added to the list of Region 8 priorities. Some examples of current climate change activities include: ENERGY STAR and other energy-saving programs, Water Wise and utility water conservation efforts, using NEPA to promote energy efficiency and greenhouse gas emissions reduction, promoting renewable energy, encouraging recycling, and climate change education.

For EPA Region 8 activities go to: www.epa.gov/region8/climatechange/

Another source of regional water information is sponsored by the National Oceanic and Atmospheric Administration (NOAA) and the University of Colorado through the Western Water Assessment at www.colorado.edu

Many States, Tribal Nations and local governments have also moved to adopt climate change initiatives, such as: Colorado www.cdphe.state.co.us, Montana www.mtclimatechange.us/ and Utah www.deq.utah.gov/brac_climate.

Personally, what can you do at home, work and on the road?

- Use energy wisely: install timed thermostats, increase insulation, change to compact fluorescent light bulbs, and purchase ENERGY STAR products,
- Reduce, reuse and recycle: not just newspapers and aluminum but water and compostable materials (or food waste),
- Manage office equipment efficiently, use less energy in your commute, and encourage your business to look at its carbon footprint (e.g., have



Brad Crowder — Friend, co-worker, and passionate steward of the environment

~ Photo by Tonya Fish, EPA Region 8

teleconferences rather than face-to-face meetings),

- Purchase vehicles with a thought to the environment; drive smart and save money, check your tires and tune your ride.

For more information, contact **Carol Russell**, EPA Region 8 Water Climate Coordinator at 303-312-6310 (russell.carol@epa.gov), or **Laura Farris**, EPA Region 8 Climate Change Coordinator at 303-312-6388 (farris.laura@epa.gov).

Goodbye to Brad

~ Wayne Wathen and Phil Strobel, EPA Region 8

Everyone needs a friend, and anyone who is passionate about protecting and preserving environmental resources places a high value on friends who share their passion. We lost such a person on September 18th, 2007, after a short bout with pancreatic cancer. That friend and environmental watchdog was Brad Crowder.

Brad's professional career included time with the Bureau of Reclamation in Denver, and with EPA in headquarters and in Region 8. Most of his time in Region 8 was in the NEPA Program where he worked with great success to improve environmental outcomes in Federal decisions. In his civil service career, and in his life outside of work, Brad strove to make this a better world. As his wife, Debbie, has stated, "Brad's passion, vision and courage inspired his friends and co-workers."

We can honor Brad's memory by maintaining our resilience and demonstrating an unwavering commitment to a better environment for the generations to follow. We owe it to him, to Debbie, and to our planet.

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"Our lives begin to end the day we become silent about things that matter."

~ Dr. Rev. Martin Luther King, Jr.



Pingree Park Valley, North of Rocky Mountain National Park, Colorado

~ Photo by Peter Ismert, EPA Region 8

In or Out? The New Rulebook for Determining if Waterbodies are Protected by the Clean Water Act

~ Noah Greenberg, EPA Region 8 Intern

Since last June, the EPA Region 8 Wetlands team has spent a lot of time coordinating with the Army Corps of Engineers (Corps) to determine which aquatic habitats receive the protection of the federal Clean Water Act (CWA). In the past seven years, two Supreme Court cases have restricted CWA protection, leaving many waterbodies such as wetlands and streams vulnerable to alteration and development. One type of vulnerable waterbody, ephemeral streams, can make up the majority of the surface waters in a watershed, especially in the Central and Western United States. Ephemeral streams flow only in direct response to precipitation. These streams are the source of water for downstream waterbodies and provide physical habitat, nutrients, food sources and sediment. Some ephemeral streams and isolated waterbodies now require a greater level of proof of their connection to traditionally navigable waters

(TNW), or of their importance to interstate commerce, in order to be subject to CWA regulations. The task of sifting through the data and making a jurisdictional determination (JD) as to which waterbodies are protected by the CWA is shared by EPA and the Corps.

In the 2001 United States Supreme Court case *SWANCC v. Army Corps of Engineers*, the Court ruled that CWA jurisdiction was being overextended under the “migratory bird” rule. This language indicated that wetlands used by migratory birds may be jurisdictional (protected) under the CWA due to the interstate commerce created through hunting and bird-watching. Then, in 2006, in the consolidated Supreme Court case now referred to as *Rapanos*, the Court stated that the Army Corps of Engineers had not fully explained why a waterbody was jurisdictional under the CWA. In the *Rapanos* plurality opinion, the judges issued two different ways of determining CWA jurisdiction. (A plurality opinion is the opinion from a group of justices in which no single opinion received the support of a majority of the court. This is a rare

occurrence.) In Justice Scalia's opinion, CWA protection extends from traditionally navigable waters (TNW) to their "relatively permanent" tributaries and associated wetlands. In Justice Kennedy's opinion, the CWA should protect those waters which have a physically, chemically, or biologically "significant nexus" (connection) to TNW. EPA and the Corps are trying to be responsive to both the Scalia and Kennedy opinions issued in this case.

These opinions written by Scalia and Kennedy have significantly different implications for which waterbodies are considered jurisdictional under the CWA. Waterbodies located close to each other will often share physical, chemical and biological connections. However, some may not share an actual surface connection through a stream or tributary, as required by Scalia's definition. In this respect, Justice Kennedy's opinion of CWA jurisdiction may include more aquatic habitat than Justice Scalia's. To meet Justice Kennedy's interpretation of the CWA, however, there must be sufficient evidence to support the connection or "significant nexus" between a waterbody and a TNW. Developing the evidence to make this determination can be a difficult and complex task.

Since last June, EPA and the Corps have worked together to issue JDs through a process which responds to the *Rapanos* decision. JDs are required any time material may be discharged into a waterbody as a result of various regulated activities. A JD establishes whether or not the waterbody is subject to the CWA Section 404 regulatory program ("dredge and fill"). In this process, a draft JD is issued by the Corps and reviewed by EPA. Each waterbody is evaluated individually to determine if it meets **either** Justice Scalia's or Justice Kennedy's criteria for jurisdiction, as stated in the June 2007 guidance.

EPA and the Corps are expected to use all available data to make an appropriate decision on CWA jurisdiction. The draft guidance and JD handbook, available on the Corps website listed below, discuss the standards that are currently being used to assert jurisdiction. A public comment period on the draft guidance has recently closed and review is underway by EPA and the Corps to determine if, and how, the JD coordination process should be changed to enhance efficiency and accuracy. The conclusion of this review is expected in the summer of 2008 and will be available on both the EPA and the Corps websites (see links below). If you have any further questions about the JD process, please contact: **Brian Caruso** at (303)312-

6573 or caruso.brian@epa.gov

For more information go to:

EPA CWA jurisdiction page:

www.epa.gov/owow/wetlands/guidance/CWAwaters.html

Army Corps of Engineers Jurisdictional Determination homepage:

www.saw.usace.army.mil/WETLANDS/JDs/

Waterborne Pathogens: A Threat to Drinking Water Sources? Primer Explains Threats and Ways to Reduce Risk ~ The Groundwater Foundation

Preventing pathogenic contamination is vitally important to public health. Waterborne pathogens are organisms that live and thrive in water supplies, including rivers, lakes, streams, and even some aquifers. When these water supplies are used for drinking, the pathogens in the supplies can cause people to become sick and even die. In the United States, public water supplies are regularly tested, monitored and, if needed, treated to prevent illness and death.

Protecting Our Water: A Primer for Preventing Pathogenic Contamination of Drinking Water Sources, was developed by The Groundwater Foundation to describe how pathogens get into drinking water, how to identify and monitor land use for potential sources of pathogens, and how to prevent pathogenic contamination of drinking water sources. The primer includes six case studies that describe how communities can take action to reduce pathogenic threats to their source water.

Non-community water systems are often at greater risk from pathogenic threats. Non-community water systems are those that serve a non-residential population, and generally include churches, schools, factories, hospitals, daycare facilities, roadside stops, gas stations, commercial campgrounds, hotels, restaurants, and other businesses. Information and a case study about these types of systems are now available as part of the primer.

To purchase a print copy or download a free electronic copy of the primer, visit www.groundwater.org. This primer is made possible with funding from the U.S. Environmental Protection Agency Office of Groundwater and Drinking Water and the Public Entity Risk Institute. For more information, visit:

www.groundwater.org/pe/pathogens/pathogen.html

Funding Opportunities

EPA CARE Grants

EPA announces the availability of around \$3 million in cooperative agreement funding through 2008 Community Action for a Renewed Environment (CARE) request for proposals. The application deadline is March 17, 2008.

EPA is soliciting proposals from eligible entities to receive financial assistance through the CARE program. This grant program helps communities form collaborative partnerships, develop a comprehensive understanding of the many sources of risk from toxics and environmental pollutants, set priorities, and identify and carry out projects to reduce risks through collaborative action at the local level. EPA will award two types of cooperative agreements (Level I and Level II) under this solicitation as part of the CARE grant program. The RFP is available on-line as a PDF file at: www.epa.gov/air/grants/08-02.pdf, RFP # EPA-OAR-IO-08-02 For additional information, visit www.epa.gov/CARE/.

The CARE program will conduct two national information sessions for cooperative agreement applicants via national Internet seminars, or Webcasts, in February 2008.

February 11, 2008 11:00 a.m. - 12:30 p.m. eastern time

February 27, 2008 10:00 a.m. - Noon eastern time

For more information about the upcoming Webcasts, visit

www.epa.gov/CARE/agreements.htm#apply

Five Star Restoration Challenge Grants

The Five Star Program provides financial assistance on a competitive basis to support community-based wetland, riparian and coastal habitat restoration projects that build diverse partnerships and foster local natural resource stewardship through education, outreach and training activities

The deadline for applications is **February 15, 2008**. For more information, visit www.nfwf.org/fivestar

Conferences and Training

The Ninth Annual National River Rally, May 2-5, 2008, Huron Ohio

The River Rally is a unique learning and training opportunity for professional and volunteer river and watershed leaders. Go to: www.rivernetwork.org

17th Annual Rocky Mountain Land Use Institute Conference

March 6-7, 2008, University of Denver, Sturm College of Law. The conference theme is "Sustaining the Next 100 Million." For information, visit www.law.du.edu/rmlui/

FLOW 2008: Interdisciplinary Solutions to Instream Flow Problems

October 7-9, 2008, San Antonio, TX. Sponsored by the Instream Flow Council. For more information, visit www.instreamflowcouncil.org/

WEFTEC.08 Conference

October 18-22, 2008, Chicago, IL. The 81st Annual Water Environment Federation Technical Exhibition and Conference. For more information, visit www.weftec.org

Publications and Web Resources

EPA's Watershed Academy Webcasts

EPA's Watershed Academy is pleased to sponsor free Webcast seminars for local watershed organizations, municipal leaders, and others. During the Webcasts, trainees simultaneously log on to the Web and/or participate by phone conference lines in live training conducted by expert instructors. EPA plans to conduct monthly Webcast seminars. Please note that there are a limited number of toll-free phone lines available, so please register early to guarantee your spot! For those that are not able to register, a streaming audio version of the training will be made available after each live seminar for the public to listen to and view (see links to previous Webcasts below).

www.epa.gov/watershedwebcasts/

The next webcast is: "Wastewater Utilities Using Sustainable Watershed Approaches."

This Webcast will provide a brief introduction to EPA's Sustainable Infrastructure Initiative and will highlight the work of two utilities to use sustainable watershed management approaches.

Since the last issue of Natural News, the following Webcasts took place and are available to download:

1. Assessing Wetlands Loss/Conditions and Restoration, September 26, 2007
2. Water, Energy, and Climate Change, Oct. 3, 2007
Watershed Financing -- Moving Beyond Grants, Oct. 17, 2007

3. Smart Growth and Green Infrastructure, Nov. 28, 2007

4. The Wastewater Information System Tools (TWIST) for Managing Decentralized Systems, Jan. 16, 2008

EPA Reports on Clean Water Infrastructure Needs

A new report from the EPA estimates \$202.5 billion is the nationwide capital investment needed to control wastewater pollution for up to a 20-year period. Delivered to Congress last week, the 2004 Clean Watersheds Needs Survey summarizes the results of the agency's 14th national survey on the needs of publicly owned wastewater treatment works. The estimate includes \$134.4 billion for wastewater treatment and collection systems, \$54.8 billion for combined sewer overflow corrections, and \$9.0 billion for stormwater management.

The report provides information to help the nation make informed decisions about pollution control needs necessary to meet the environmental and human health objectives of the Clean Water Act. Wastewater treatment utilities pay for infrastructure using revenue from rates charged to customers and may finance large projects using loans or bonds. State and federal funding programs, such as EPA's Clean Water State Revolving Fund program, are also available to help communities meet their wastewater pollution control needs. The needs in this survey represent a \$16.1 billion (8.6%) increase (in constant 2004 dollars) over the 2000 report. The increase in overall national needs is due to a combination of population growth, more protective water quality standards, and aging infrastructure. More information on the needs survey: <http://www.epa.gov/cwns/>

"Green Infrastructure" Plan to Benefit Communities and the Environment

EPA, with state and national partners, released a comprehensive plan to reduce runoff and increase environmental and economic benefits for communities. The strategy will help reduce stormwater runoff and sewer overflows by promoting "green infrastructure" approaches, such as green roofs, trees and tree boxes, rain gardens, and porous pavements. Green infrastructure techniques, technologies, and practices reduce the amount of water and pollutants that run off a site. These tools have many other benefits, including cost savings, improved air quality, urban heat island reductions, energy savings, water conservation, and urban habitat creation.

The document, "Managing Wet Weather with Green Infrastructure Action Strategy 2008," outlines ways to bring green infrastructure technologies and approaches

into mainstream use for runoff and sewer overflow management.

It represents a key set of actions that EPA and its partners are taking to reduce projected impacts of climate change. The plan includes 7 major implementation areas: Research, Outreach and Communication, Tools, Clean Water Act Regulatory Support, Economic Viability and Funding, Demonstrations and Recognition, and Partnerships and Promotion. It was developed by EPA, American Rivers, the Association of State and Interstate Water Pollution Control Administrators, the National Association of Clean Water Agencies, the Natural Resources Defense Council, and the Low Impact Development Center. More information on green infrastructure:

www.epa.gov/npdes/greeninfrastructure/general

Stormwater Webcast Series

EPA's webcast series for municipal stormwater professionals will resumed on February 6, 2008. This year will feature five webcasts on a variety of topics, including BMP Performance, Stormwater Retrofits, Finding and Fixing Illicit Discharges, and MS4 Program Performance. As in past years, this year's line up will feature speakers who are national experts and each webcast will build upon the array of information covered in past webcasts. To see the new schedule (and to access recorded versions of past webcasts), please visit:

www.epa.gov/npdes/training

It does not require a majority to prevail, but rather, an irate tireless minority keen to set brush fires in people's minds."

~ Samuel Adams



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Natural News

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If you have an article concerning ecosystem protection, community based environmental protection, or watersheds; we would like to hear from you!

We need your help in updating our mailing list in order to keep Natural News coming to you! Please contact John DiPentino at (303) 312-6594 or dipentino.john@epa.gov, or write to him at the return address below.

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