



Director's Update: Looking Forward to 2007!!!

By Paul Hempel, Executive Director of the Boulder Creek Watershed Initiative

Greetings Members and Friends of BCWI!

Dedicated to informing the community about water resource issues that affect the health of the Boulder Creek Watershed.

BCWI is a 501(c)3 non-profit.

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Over the past year, the Boulder Creek Watershed Initiative (BCWI) continued our efforts towards becoming a prominent player in the issues affecting the Boulder Creek Watershed. BCWI produced six Watershed Forums at the Boulder Public Library to bring our Forum total over the past ten years to 93! Six more Forums are scheduled for the upcoming year (see page 3). BCWI continued our history of organizing Creek Clean-ups involving local volunteers, totaling four in '06, and we produced a concert featuring local musicians at the Boulder Theatre. We were awarded a \$5,000 grant from the Colorado Watershed Protection Fund (see page 4) to design a Community Stewardship Plan for the Boulder Creek Watershed. Meanwhile, two other grants are pending. One is to develop volunteer Stream Teams to carry out the Stewardship Plan and the other is to unite local stakeholders to develop a Watershed Plan for the entire Boulder Creek Watershed.

For 2007, BCWI plans to build upon the above activities in an effort to become further involved in protecting Boulder Creek. Our Watershed Forum series kicks off January 23rd. Also this year, BCWI plans to partner with the City of Boulder and the University of Colorado in a collaborative Creek Clean-up, bringing together numerous volunteers throughout the watershed to clean up the creek in multiple locations. The event will include a huge volunteer appreciation picnic! Plus Stream Teams will be organized in selected locations to monitor and enhance portions of Boulder Creek. Additional volunteers will be trained so that BCWI can assist another local organization, Wildland Restoration Volunteers, in the removal of Eurasian watermilfoil. We also plan to partner with Boulder Creek Events for this year's Boulder Creek Festival by hosting our second annual concert at the Boulder Theatre as a kick-off event and through a bicycle tour of Boulder Creek during the festival.

Of course, BCWI will continue to strengthen our organization so we can better carry out these activities. We are looking to expand both our Board of Directors and our membership base. We plan to reach out and collaborate with local businesses to support our community-based programs. We will continue writing grants to help fund our initiatives. We hope to expand our web page and become more visible in the community by becoming a regular at the Boulder Farmers Market and festivals.

We are looking for volunteers to get involved in all of these important and fun projects! So please contact us if you are interested!

Please enjoy reading the articles in our current newsletter and feel free to join us at any of our upcoming events. See you around the watershed!

Past Forums: Drought and Contamination



On 26 September 2006, Robert de Haas, Manager of the Pine Brook Water District spoke on “Planning for Drought: Local Water Storage Projects”. He described the decision process and results from the recently completed 100 acre-foot Pine Brook Reservoir, located approximately two miles west of Boulder. The project was conceived, funded, and completed through a local citizen’s initiative as a means to access their surface water rights when stream flow is available, and to store the water for the community’s long-term water security.

Although the community’s water security challenges were known for years if not decades, the 2002 drought along the Colorado Front Range galvanized interest in action. With a referendum mandate and solid technical support, the reservoir was approved in principle, designed, approved in practice, and started in a remarkably short time. Outreach and communication were included throughout the construction, such as by a webcam, a film from which concluded the presentation. The presentation illustrated decision-making for addressing water resource challenges locally.

On 24 October, 2006, Kathy De Jong from the Colorado School of Mines and Mark Williams from Boulder County’s Health Department spoke on “Emerging Groundwater Contaminants: Role of Decentralized Wastewater Treatment”. Most development, both residential and commercial, in rural areas of the USA, including much of the Boulder Creek Watershed, relies on decentralized onsite treatment and disposal for wastewater management. Examples are houses’ septic tanks and small treatment facilities on commercial and industrial sites. Many of these same areas also rely on groundwater wells for water supply. The consequence is increasing concern about “emerging contaminants”—such as pharmaceuticals and personal care products—entering the groundwater supply.

The presentations detailed the methods of and results from investigations into the occurrence and fate of contaminants of concern. Solutions were also discussed along challenges, such as monitoring and retrofitting old and illegal septic tanks. Improved monitoring and using fewer products with contaminants were possibilities.



Next Forums: The 2007 BCWI Season

Mining History and Environmental Reclamation in Boulder County
 Jim Cowart, Walsh Environmental
 Tom Hendricks, Calais Resources

Tuesday 23 January 2007, 7-8 pm
Boulder Public Library
Main Branch, Auditorium
1000 Canyon Blvd, 303-441-3100

Tom, who has mined in Boulder County for over 30 years, will discuss Boulder County's mining history, emphasizing the Caribou gold/silver district west of Nederland. Jim, a Professional Engineer for over 30 years, will discuss environmental reclamation, emphasizing the Burlington Mine outside Jamestown, where cleanup efforts received the 2005 Mined Land Reclamation Board award from the Colorado Department of Minerals and Geology.



A winterized Boulder Creek.

Breaking the Ice:

Kicking off the International Polar Year
 Mark McCaffrey, University of Colorado
 E. James Dixon, Inst. of Arctic & Alpine Research
 Ted Scambos, National Snow & Ice Data Center

Tuesday 27 February 2007, 7-8 pm
Same location as the January forum (at left).

The upcoming International Polar Year runs from March 2007 to March 2009. Researchers in Boulder are at the forefront of polar science and education about observed changes and impacts. This forum features a panel covering an overview of the upcoming and past International Polar Years, discussion of changes in Antarctic ice shelves, and a glimpse at the rare archeological materials being discovered as glaciers around the world melt. To learn about the many International Polar Year events that will be held in Boulder, visit <http://cires.colorado.edu/education/k12>

Future Boulder Creek Watershed forums:
27 March, 24 April, 25 September, 23 October
 with topics to be determined.

To find out the topics in advance, please join the BCWI email list by sending a request to bcwi@bcn.boulder.co.us or visit <http://www.BASIN.org/news> For additional information on BCWI forums, contact Sheila Murphy at 303-541-3023.

The Boulder Creek Watershed Forum series is sponsored by:

- Boulder Creek Watershed Initiative
- United States Geological Survey
- City of Boulder
- Boulder Public Library
- Moe's Broadway Bagels
<http://moesbroadwaybagel.com>
- Breadworks <http://breadworks.net>
- Caffè Solé <http://www.caffesole.com>

Missed a Boulder Creek Watershed Forum?

Videotapes of all forums are available at the Boulder Public Library and can be checked out for home viewing.

Forums are also televised on Channel 8:
Wednesday 3 PM
Saturday 10:30 AM and 7:30 PM
Sunday 7:30 PM

Checkoff for Colorado's Water: BCWI to Implement CWPF grant!

BCWI is poised to implement a 2005 grant award from the The Colorado Watershed Protection Fund (CWPF). BCWI received \$5,000 to design a community stewardship plan for the Boulder Creek watershed. BCWI will investigate alternatives conducted through this planning grant, in how to best engage local citizens in hands-on activities that help protect, and in some cases restore the watershed.

CWPF provides everyone with a simple way to contribute to local watershed protection efforts. Donating to the Fund is easy: check the box for the Colorado Watershed Protection Fund on your state income tax return and donate a portion of your refund. You help local watershed groups restore and conserve the rivers, lakes, and lands in our own backyards.

The money raised by CWPF is awarded through a competitive grant program administered by the Colorado Water Conservation Board in cooperation with the Colorado Water Quality Control Commission and the Colorado Watershed Assembly. Since it started in 2002, the Fund has supported watershed groups around the state for water quality monitoring, stream restoration, community outreach, and other projects to improve watershed health.

When you check the CWPF box on your state income tax return, you make an important contribution to protecting one of our most fragile and important resources: our water. The Fund helps ensure that our water remains clean and available. We need YOU to checkoff for Colorado's water.

For details, see <http://www.coloradowater.org> or call the Colorado Watershed Assembly at 970-872-2433. For the Colorado Checkoff program, visit <http://www.checkoffcolorado.com>



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Lefthand Watershed Oversight Group

By Geneva Mixon, Executive Director, LWOG

The Lefthand Creek watershed north of Boulder, Colorado drains approximately 220 km² over an area ranging in elevation from 1,400 m on the eastern Colorado Plains to 4,200 m at the Continental Divide. The watershed overlies geologic formations forming the northern tip of the Colorado Mineral Belt. Past hardrock mining and milling activities have left behind a rich history, as well as water quality impacts from acid mine drainage.

As recommended by the Lefthand Watershed Task Force, a new stakeholder group, the Lefthand Watershed Oversight Group (LWOG), was formed to develop a watershed plan to direct future efforts at cleaning up mine wastes. In the summer of 2003, LWOG's first funding was awarded: \$25,000 through Colorado's Nonpoint Source Council.

Several studies and cleanup activities are underway throughout the Lefthand Creek

watershed, some of which are:

- A voluntary cleanup was completed at Burlington Mine, Jamestown. Honeywell Corporation spent approximately \$1.5 million to prevent water from contacting the waste rock at the Burlington Mine.
- The United States Forest Service partnered with the Environmental Protection Agency to clean two sites near Jamestown, Colorado.
- A Colorado Watershed Association grant was awarded to develop and implement state Nonpoint Source Pollution management programs and to maximize the focus of such programs for Lefthand Creek watershed..
- LWOG submitted a grant proposal to remediate and restore the Porphyry Mountain waste rock pile located near Jamestown.
- A One Cleanup Program pilot grant of \$38,000 was awarded to the Captain Jack Mill/Lefthand Creek cleanup efforts.

For details, see <http://www.lwog.org>



Geneva Mixon with LWOG's display at BCWI's September 2006 forum.



Denver EPA gets a Green Roof

Drought-resistant plants on top help to reduce stormwater runoff

Photo and press release from GreenGrid <http://www.greengridroofs.com>

Denver is working hard to become environmentally responsible. So it is not surprising that Denver's new 232,000-square-foot U.S. Environmental Protection Agency building will be one of the Greenest facilities in Denver—and the country.

Constructed with an eye toward resource and energy efficiency, the building aims to earn Gold certification under the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) Rating System. Environmentally and energy preferable building products and materials were used throughout as were photovoltaic arrays and wind turbines to generate electricity. And on the top of the building—a Green roof.

“The architects and developers wanted a Green roof for several reasons,” says Sandra McCullough, with Weston Solutions, Inc. that installed the roof. “One of the main reasons is

that Denver has strict stormwater runoff guidelines, and a Green roof helps reduce runoff considerably.”

The Green roof installed uses low-growing vegetation such as sedum, grasses, and other hearty, drought-resistant plants installed in four or five inches of growth media (soil). However, they had to choose between a built-in-place system (where soil is placed right on the roof and plants are put in, as in a traditional garden) or a modular system.

With a modular system, vegetation and growth media are preplanted in modules made of 60 percent recycled plastic. The modules, which come in varying sizes, are then placed on the existing roof, one after another. In addition, because the modules can be pre-grown at the nursery, they can be delivered to the jobsite when needed. This also allows the plants an opportunity to grow out in their installed state.

Research Focus: Water Affairs

By Michael H. Glantz

Water is life. It is, and always has been, a central preoccupation of people worldwide since the earliest beginnings of human societies. We know a great deal about water issues: where it is, when it comes, and even from where it comes. Most of the time, however, although we know much about water resources in a given region, there is much that is not known. Some societies manage to flourish, while others struggle from year to year, just to subsist on available or accessible water supplies.

To bring these notions and actions to the people who need it most, the Center for Capacity Building (CCB) at the National Center for Atmospheric Research (NCAR) in Boulder partnered with the United Nations' World Meteorological Organization (WMO) to hold a prototype workshop on the notion of "Water Affairs" from 4-8 December 2006 at the Water Resources University in Hanoi, Vietnam. Hydrologists were invited from a dozen countries across east, south, and southeast Asia.

Water Affairs refers to the need to bring together everyone with an interest in water, irrespective of their disciplines, applications, or location.

The aspects covered are:

- Water science.
- Water impacts.
- Water policy and law.
- Water politics.
- Water economics.
- Water ethics and equity.

Within the education and training through the workshop, the focus was on sharing knowledge as well as discussing climate-society-environment interactions from a water perspective. Key elements were embedding hydrological science in a societal setting and educating educators and training trainers in a wide range of areas about the hidden, as well as obvious, connections among water, atmospheric processes, and human activities.

The Center for Capacity Building has applied these approaches to other "Affairs" areas including Climate Affairs, El Niño Affairs, Coastal-Urban Affairs, Island Affairs, and Desert Affairs. See the websites:

Water <http://www.ccb.ucar.edu/waf>

Climate <http://www.ccb.ucar.edu/cxa>

Islands <http://www.islandvulnerability.org/affairs.html>

Desert <http://www.ccb.ucar.edu/desert/index.html>

El Niño <http://www.ccb.ucar.edu/enos>



São Miguel, the Azores: Challenges and opportunities for Water, Climate, and Island Affairs.

Corporate and individual sponsors welcome!

YES! I will make a (tax-deductible) contribution to the Boulder Creek Watershed Initiative!



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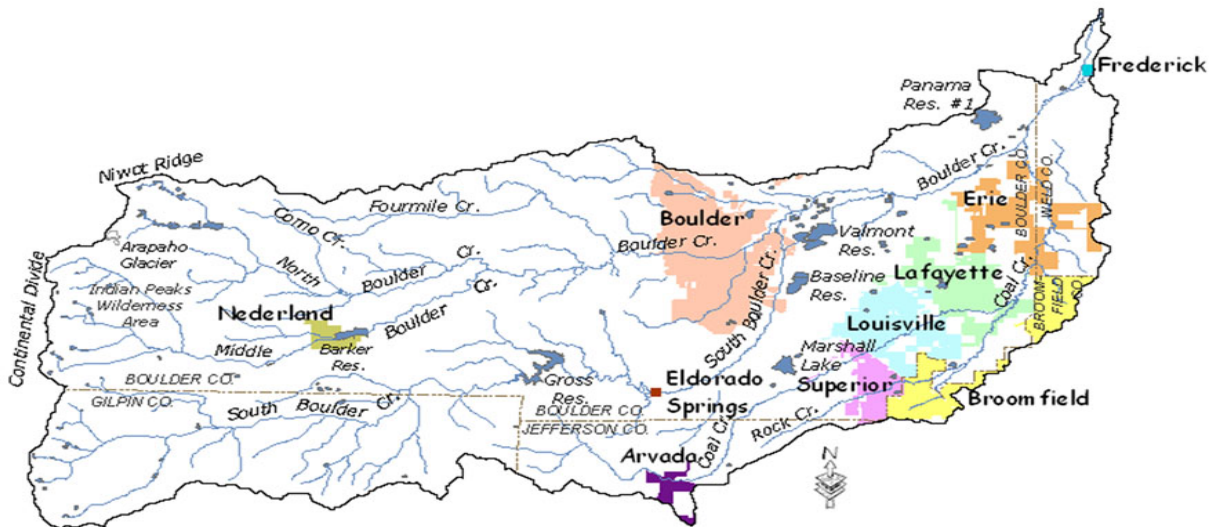
_____ \$ 0 - 19 Golden Stonefly *Hesperoperla pacifica*

Enclosed is my check for \$_____. The entire watershed thanks you.

BCWI also needs volunteers! Tasks include video editing, creek cleanup, and outreach events. To get involved, let us know your interests and how to reach you!



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www.BASIN.org/BCWI



Boulder Creek Watershed