



Boulder Creek Watershed Initiative (BCWI) is a non-profit 501(c)(3) organization dedicated to informing the community about water resources and issues that affect the health of the Boulder Creek Watershed.

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Dear Friends of BCWI,

The year 2004 has been a good one for the Boulder Creek Watershed Initiative. This is our seventh year as a 501(c)(3) organization. The Board of Directors would like to extend a special thanks to our treasurer, Sheila Murphy, for her diligence in navigating through the rules and regulations of state and federal tax codes. Sheila worked hard to make BCWI a tax exempt non-profit organization, and she has continued to provide high accounting standards to maintain our good standing. Non-profit status allows BCWI to continue its programs through the generous support of community sponsorship such as the Wild Oats Wooden Nickel Program and the prestigious *Our World Award* (see article below).

We have also embarked on our seventh year of the Boulder Creek Watershed Forum series, free lectures held each month at the Boulder Public Library. Our July Forum will be the 74th program in the series (see article on page 3). In addition to the over 4000 members of the community that have attended the forums, countless others have seen the edited versions broadcast on Channel 8. Thank you all for your years of support and participation in this vibrant dialogue on watershed related issues.

At the state and national level, members of the board of Directors and other BCWI volunteers are participating in the National Watershed Health Project Visioning/Benchmarking Process. The goal of this activity is to promote our growth as an organization committed to being a vital source of information and opportunities for involvement in addressing our local watershed issues. For BCWI to reach these goals we need your ideas and support. So get involved. Let us know what you think of our programs and what you consider to be critical water resource concerns, but more importantly join us as an active partner in our community based outreach activities. Have a great and water wise summer.

Our World Award goes to BCWI

The *Our World Award*, the premier environmental award in the Boulder community, was recently awarded to BCWI in the Non-profit Category! The *Our World Award* is given by the Preserve Planet Earth Committee of the Boulder Rotary Club, Roche Colorado Corporation, and the Boulder Energy Conservation Center.



The award is given once a year to individuals and organizations who provide a significant contribution to preservation and awareness of the environment. Award winners are selected based on a variety of criteria including, leadership in the development of environmental programs, raising awareness of and identifying solutions for environmental issues, and area of the environment affected by the individual or organization. In addition to the recognition, BCWI was presented with a trophy and a \$1000 cash award. Other recipients of the *Our World Award* included:

Nick and Helen Forster, E-TOWN, Individual Category

Boulder Community Hospital, Business Category

Congratulations to all, and thank you for your efforts!

Colorado Watershed Protection Fund

This fund protects lands and waterways that form Colorado's watersheds. The state's streams, wetlands, mountains and forests serve many needs including water supply, agriculture, wildlife and recreation. You can support a grant program created to fund stream restoration projects and to assist locally based watershed groups in watershed protection efforts. Your contribution will make a difference.

Colorado Water Conservation Board
1313 Sherman Street
Denver, Colorado 80203
Tel: 303-866-3441
Brian.hyde@state.co.us www.coloradowater.org

Boulder Creek Watershed Forum Report: *Science in Public Policy*

The theme for the 2004 series of public talks in the BCWI Forum Series is *Science in Public Policy*. Brief highlights from recent forums follow.

Impact of on-site wastewater disposal systems on water quality. Bob Siegrist, Colorado School of Mines, Kip Bossong, U.S. Geological Survey, Chuck Stout, Boulder County Health Department, and Vija Handley, Eldorado Springs resident. JANUARY 27.

Eldorado Springs is a small community, located south of Boulder on South Boulder Creek. The town faced a ballot issue to install a water treatment plant in November 2003. The ballot issue failed, but the question of water treatment has remained.

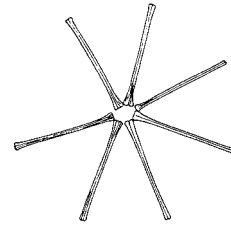
Robert Siegrist, Colorado School of Mines, provided an overview on the science and engineering of decentralized waste water systems, and why such systems provide a viable alternative to the proposed domestic wastewater treatment plant in Eldorado Springs. Domestic wastewater has inherent risks due to its microbial and chemical constituents, and wastewater requires some method of treatment. The ultimate goal of the treatment of wastewater is no infectious disease results and there is no unacceptable change in ecosystem attributes.

In the Rocky Mountain region, there has been significant development during the past decade, much of which is occurring in suburban fringe, rural and mountain settings. In these areas, wastewater can be treated by decentralized, or onsite wastewater treatment systems (OWS). In Colorado, onsite systems serve about 25% of the state's population. There is a clear and recognized need for continued, if not expanded, use of OWS as a component of wastewater system infrastructure in Colorado, not only to protect public health and the environment, but also to enable beneficial reuse of water.

Vija Handley, Eldorado Springs resident, reported that the community is moving toward an alternate solution to wastewater issues. Community members are considering the STEP/STEG system as a good fit for the multiple challenges posed by the terrain of Eldorado Springs.

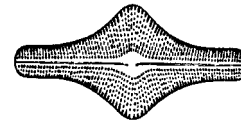
In this system, initial collection of wastewater flows into several underground tanks, each tank serving a cluster of houses. This part of the system is aerobic and sized for maximum sludge breakdown. According to the manufacturer, tanks need emptying no more often than once every ten years. The liquid effluent requires further treatment and would be pumped, or gravity fed, through

3" diameter lines to a one acre site east of town. There, a large tank, a recirculating sand filter, and a leach field would finish the process. With the exception of a small control shed, all components would be underground. Maintenance is reported to be simple and un-intrusive. The community is considering this system as a desirable option because it 1) could be accommodated within the difficult terrain, 2) is quiet, unobtrusive, and odorless, and 3) is less expensive than some options.



Fish communities in the Boulder Creek Watershed, John Woodling, University of Colorado. FEBRUARY 24.

John Woodling discussed sexual disruption of fishes in Boulder Creek downstream of the City of Boulder. Woodling has monitored fish populations in Boulder Creek for the last several years, along with Dr. Dave Norris, Dr. Tammy Maldonado, Elena Lopez and other colleagues. Their results have led them to ask the question "Where have all the boys (fishes, that is) gone?" Woodling has found that fishes below wastewater treatment plants often show sexual disruption, including hermaphroditism.

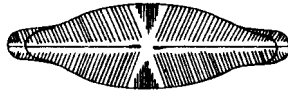


Rocky Mountain Futures - The collective impact of human use on mountain environments. Jill Baron, U.S. Geological Survey. MARCH 23.

Jill Baron discussed two kinds of disturbance to Rocky Mountain ecosystems: direct assaults to landscapes, such as mining, and calculated or accidental activity that results in alteration of natural processes. Both types of disturbance have resulted in unexpected repercussions to ecosystems, as well as to human society. If our decisions continue the way they have in the past, the accumulation of many local decisions culminates in a region transformed. Small acts of restoration here and protection there, however, can add up to a regional patchwork of natural processes amid a human landscape. A future that includes these options holds promise. Communities, agencies, and organizations need to look forward and decide what they want the Rocky Mountain landscape to

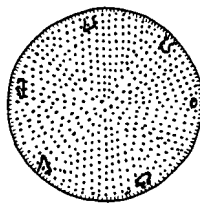
look like in 50-100 years, and then take the difficult and necessary steps to act.

Rocky Mountain Futures, an ecological perspective by Jill Baron is available for \$32.50 at the Boulder Bookstore and The Tattered Cover, or directly from the publisher at www.islandpress.com.



Air quality along the Front Range and beyond – Influence of natural and human factors. Michael Hannigan, University of Colorado. APRIL 27.

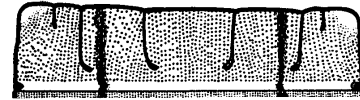
Michael Hannigan presented graphic evidence of air quality trends in the Front Range. While air quality is reported to have improved over the past two decades, the issue of air quality is complex, and pollutants affect air visibility and human health differentially. While visibility is related to the amount of airborne particulate matter with a diameter less than 2.5 µm (PM 2.5), health concerns are related ozone concentrations, in addition to PM2.5. Automobiles contribute the largest porportion of PM2.5. Ozone is not directly emitted from a source, it is formed in the atmosphere when several other pollutants combine. Ozone precursors include nitric oxides, primarily from motor vehicles, and volatile organic compounds (VOCs), which come from a multitude of sources. Air quality experts recommend controlling VOCs emissions (e.g., lowering the volatility of gasoline) as the most effective way to keep ozone levels from exceeding air standards. Nevertheless, increases in population, with associated increase in traffic and power production pose significant challenges to further improvement in air quality.



Fire at the urban interface - Impact on water quality and resource management. Mike Tombolato, Cherryvale Fire Department, Ben Alexander, City of Fort Collins, Rocky Wiley Denver Water Board, and Lara Duran, US Forest Service. MAY 25.

The panel discussion featured many aspects of wildfire at the urban interface. Mike Tombolato discussed the National Fire Plan, which has the objectives of life

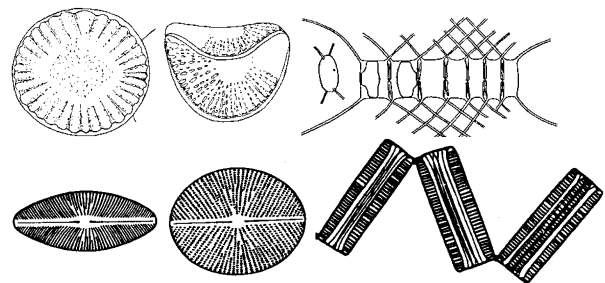
safety, property protection, and natural resource conservation. These objectives can be in conflict with one another, that is, between protecting natural resources and homes. Lara Duren focused on the condition of national forests and management of fuel load. Rocky Wiley discussed how wildfires affect quality of drinking water, and what it is being done to mitigate impacts by the Denver Water Board. Ben Alexander presented potential water quality impacts from fires, which can include increased sediment, nutrients, and metals.



Rediscovering and restoring the North American Prairie. Stephen Jones, co-author of the *Peterson Field Guide to the North American Prairie*. JUNE 22.

Steve Jones presented an overview of the status of the prairie, including profiles of prairie preserves from Colorado to Illinois and from Manitoba to Texas. The prairie holds a mythic place in North America's history and sense of itself. During a period of less than 100 years, most of this magnificent ecosystem was destroyed. Only recently have many people come to appreciate the unique ecology of the prairie. While researching their new prairie guidebook, Steve Jones and Ruth Carol Cushman encountered a growing wave of interest in preserving and restoring native grasslands. They also became acquainted with dozens of magical places, such as Alberta's Writing on Stone Provincial Park, Nebraska's Niobrara Valley Preserve, Kansas's Konza Prairie, and Colorado's Comanche National Grassland.

Steve generously donated a portion of the profit from book sales at the Forum to BCWI. The *Peterson Field Guide to the North American Prairie* is available at the Boulder Bookstore.



Upcoming Boulder Creek Watershed Forums: *Science in Public Policy*

JULY 27, Amy Struthers, City of Boulder. *Water recreational activities and drinking water quality*

AUGUST 24, Paul Danish, Boulder County Commissioner. *Growth and development in Boulder County – The role of water resources*

SEPTEMBER 28, William McKee, Colorado Department of Public Health and Environment and Junko Munakata Marr, Colorado School of Mines. *Boulder Creek is an impaired stream - Sources of microbial contamination through the urban corridor*

OCTOBER 26, Jim Benedict, Center for Mountain Archeology. *This land of shining mountains – The archeology of the Indian Peaks Wilderness*

NOVEMBER – No Forum Scheduled

DECEMBER – No Forum Scheduled

The BCWI Forum schedule is posted at:

www.basin.org/BCWI

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

Watershed Connections

What are issues of concern in Lefthand Creek Watershed? Check out the website for the Lefthand Watershed Oversight Group:
<http://www.lwog.homestead.com/LWOGhome.html>

Boulder Creek Cleanup

Since 1997, BCWI has cleaned a section of Boulder Creek a few times a year, contributing over 700 hours of volunteer hours to improve the creek and riparian habitat. The positive impact of the volunteer clean up has been enormous. When the program began, we pulled out car parts, shopping carts, and assorted furniture, enough discarded stuff to fill a dumpster. Now, we fill only two to four garbage bags and we keep bottles, newspaper, and plastic bags out of the creek, for all creatures to enjoy the habitat.

Join us in your work clothes, ready for fun. Bring friends and family, all ages are welcome. Meet at Scott Carpenter Park:

Saturday, October 2nd at 10:00 AM

Focus on the Schools

Over the past three years, Jeff Oliver's 4th and 5th grade class at University Hill has been cleaning up Skunk Creek by Basemar Center in Boulder. Inspired by a drinking water science fair project, a group of students suggested the class investigate a local water resource. Skunk Creek is just a short walk away from school and the students go at least once a month to monitor for water quality and aquatic insects. They test for dissolved oxygen, pH, temperature and nutrients. Cleaning up the creek is a big part of their monthly visits. Cans, bottles, paper and other trashy items are always found. "The students have come to realize the effects that people have on local waters," says Jeff Oliver. When people do things like pick up trash, pet waste and properly maintain their vehicles, they can reduce the amount of pollutants that get into our streams.

Want to help keep our local waters clean? If your class or community group is interested in being a part of a StreamTeam, contact the WASH Education Program at 303-413-7365. It's fun and a great way to help keep our waters clean.



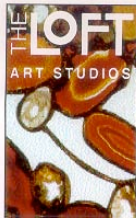
Remember: Keep it clean, 'cause we're all downstream!

The Boulder Creek Watershed Initiative extends a "thank you!" to local businesses for their generous donation delicious food and beverages to our forums in 2003:

**Moe's Broadway Bagels (on Arapahoe)
Breadworks - pastries
Caffe Solé - coffee**

A Warm Thank-you!

to Mary Barron for design of our great new logo, shown on the front of the newsletter.



Mary Barron
Contemporary Glass
3980 Broadway
Suite 203
Boulder, Co 80304
Studio: 303-402-0330
Home: 303-440-0988
marybdesign@yahoo.com

BCWI Volunteer Opportunities

- Video editor for forums
- Contributing writer for newsletter
- Organizer (refreshments, postcards, advertising) for forums
- Volunteer Coordinator for creek cleanups
- Creative website modification

For more information, contact Eric August at (303) 527-0191.

Contributing to BCWI

For the past seven years, BCWI has brought engaging speakers from academic institutions, government agencies and the local community to exchange science and ideas through the Watershed Forum Series. These efforts have been accomplished largely through in kind donations and volunteer time. We need your help to continue and expand the series and programs of BCWI with your tax-deductible donation.

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

My level of support is (check one):



_____ \$ 500 & up Belted Kingfisher *Ceryle alcyon*



_____ \$ 100 - 499 Greenback Cutthroat Trout *Oncorhynchus clarki stomias*



_____ \$ 50 - 99 Tiger Salamander *Ambystoma tigrinum*



_____ \$ 20 - 49 Green Darner *Anax junius*



_____ \$ 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!



PO Box 18
Boulder, CO 80306
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The Boulder Creek Watershed Forum

Amy Struthers, City of Boulder.

**Topic: Source Water Protection, Recreational Activities, and
Drinking Water Quality**

**7 PM (doors open at 6:30), Tuesday, July 27, 2004
Boulder Public Library Auditorium, 1000 Canyon Boulevard**

Free to the public
Refreshments provided by Moe's Broadway Bagels

For more information call Eric August (303) 527-0191 or Sheila Murphy (303) 541-3023

*Sponsored by: Boulder Creek Watershed Initiative, U.S. Geological Survey,
City of Boulder, and Boulder Public Library*