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Natural News

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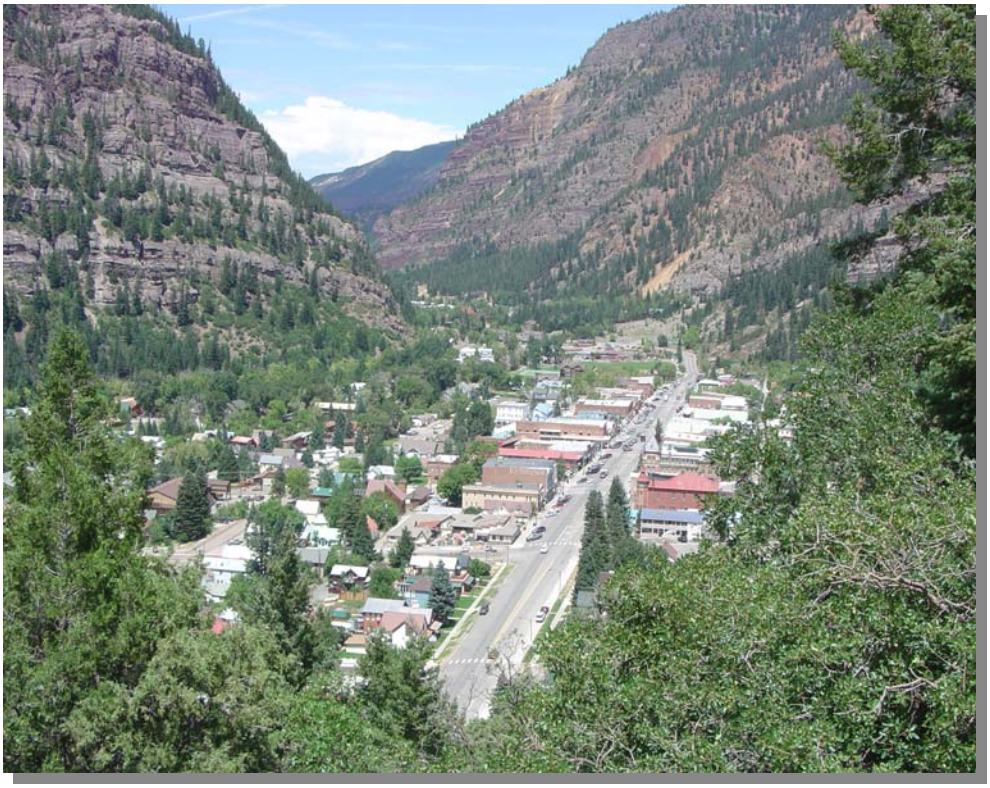
In this Issue:



Downtown Ouray, Colorado

~ Photo by Daniel Heffernan, EPA Region 8

The EPA Region 8 Office will be moving during January of 2007. The address for the new office will be:

1595 Wynkoop Street
Denver, CO 80202-1129

Phone numbers will remain the same.

Brownfields in the Headwaters

~Daniel Heffernan, EPA Region 8

In many ways Ouray County, Colorado epitomizes the Rocky Mountain backcountry. A scenic backdrop of jagged peaks and dramatic wildflowers makes the area a recreational mecca. Hundreds of historic mining structures, relics of the gold and silver boom days, serve as an additional draw for visitors. However, the area's rich mining history left behind a scarred landscape, spotted with literally thousands of idle mine claims. For most, little is known about the potential hazards and environmental impacts that they represent.

In an effort to improve environmental quality and facilitate land conservation efforts Ouray County is using a $200,000 EPA Brownfields Assessment Grant to study the impacts of mining on the Canyon Creek watershed. A major goal going into

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the Assessment was determining the extent to which the watershed's mine claims are contributing to water quality problems in Canyon Creek and the Uncompahgre River.

Concerns about potential future development within the sensitive watershed served as an additional reason for conducting the Assessment. Ouray County Commissioner Don Batchelder explains: "Because you have a huge demand for growth, and you're getting a lot of second homes, people are looking at these areas to possibly build that they would not if they were living there year round." Set high in otherwise pristine basins with no existing infrastructure and limited road access, the development of these homes, often called "backcountry sprawl," can be extremely demanding on local infrastructure and can compromise environmental quality and public access. By helping determine mine claim ownership, location and condition, the assessment will inform locally driven conservation efforts.

In a phased approach, and with regular input from local citizens, a unique set of partners including Ouray County, the Trust for Land Restoration and the Trust for Public Land teamed up to assess approximately 2,200 acres of the watershed. Completed in 2006, Phase I yielded valuable information regarding the location, ownership and physical condition of 231 mining claims. This information was then used to prioritize sites for further investigation, potential cleanup and public acquisition. This ranking process revealed that 160 of the 232 identified claims are ostensibly free of mining contamination, pose little or no risk and thus do not require further investigation.

As a result of Phase I, various public entities and land trusts are moving forward with the acquisition of privately held claims where environmental concerns had previously proven an insurmountable roadblock.

"From my point of view one of the really great things about the Brownfields Program is that it's allowing us to do work in a rural area where there aren't the traditional suite of economic drivers that would otherwise help do this assessment, otherwise help bring in cleanup dollars."

Patrick Willits
Executive Director
Trust for Land Restoration

Hiker in the Canyon Creek watershed near Ouray

~Photo by Daniel Heffernan

The US Forest Service has already acquired 5 claims totaling about 56 acres and a land trust is in negotiations to acquire an additional 90 acres to be preserved as backcountry open space. The transfer of more claims to public ownership is in the works.

Currently underway, Phase II of the project focuses on sampling the soil and water of high-priority sites where environmental cleanup is most likely necessary. Voluntary cleanup efforts are envisioned that will result in improved water quality and increased land conservation.

The Canyon Creek Brownfields Assessment is creating opportunities for the community to enhance and protect the natural assets of the backcountry. Armed with better information about the physical and environmental condition of hundreds of claims, local officials, land trusts and private and federal landowners are now able to sit down together and discuss opportunities for land cleanup, acquisition and exchange, conservation easements and reuse. EPA's Brownfields Program has been filling a valuable niche in our nation's environmental protection system since 1995. Brownfields grants have helped assess and cleanup thousands of blighted sites – places that communities have identified as critical to achieving local environmental and economic goals. For more information about the program and grants, visit**:** **http://www.epa.gov/brownfields** or contact Daniel Heffernan at heffernan.daniel@epa.gov or (303) 312-7074.

Getting People to *Do* the Right Thing: Community-Based Social Marketing

~ Marcella Hutchinson, EPA Region 8

Most of us are very familiar with information-intensive campaigns, otherwise known as outreach and education. We've done research and developed messages to tell folks why their desired action to improve the environment is also in their best economic interest, or good for their health, or good for the fish, or just good in and of itself. We've created fact sheets and brochures, staffed booths, and made presentations. All of this gets information out there, and we hope that our target audiences will change both their attitudes and their behaviors. But does it really work?

Research suggests that the answer is no, at least in getting to behavior change, which is what we really want. So what does work? Enter Community-Based Social Marketing.

The underlying assumption of traditional outreach and education has been that changing attitudes and beliefs alone or promoting economic self-interest alone will change behavior. We've all been taught that and everyone has done it. It makes sense intuitively, but years of research have shown that while they may change attitudes, information-intensive campaigns alone don't often get to the behavior change we want to see.

Community-Based Social Marketing is a big change in concept and focus over the more traditional information-intensive campaigns. Social marketing campaigns are focused on getting the desired behavior change first, which will in turn change the attitude. Community-Based Social Marketing is all about promoting (and engaging community members in adopting) sustainable behaviors. In his book *Fostering Sustainable Behavior,* Douglas McKenzie-Mohr, author and Environmental Psychologist, explains a very pragmatic approach to promoting sustainable behavior. Community-Based Social Marketing starts with identifying the behavior you want to promote. Adapted from the book and the introductory training, the key steps from there are:

Uncovering Barriers and Benefits

Identify the behaviors you want people to do. Then analyze what prevents people from doing it, and what the perceived benefits are. This step requires research, and is often skipped even though it's critical.

Tools of Behavior Change

***Commitment*: From Good Intentions to Action**

People are more likely to take action if they make a commitment. A private commitment is better than none, a written commitment is better than a private one, and a public commitment is best of all! Public commitments promote social diffusion — because some folks are visibly doing something, others are more likely to follow suit.

***Prompts*: Remembering to Act Sustainably**

Remind people to do the new behavior - preferably where and when the behavior is needed. Note: This is not the same as a slogan. "Wipe your feet" printed on the doormat is a prompt. "We all live downstream" is a slogan. They have different applications.

***Norms*: Building Community Support**

Ah, conformity. Put it to good use by creating a social norm – an expected behavior that everyone is visibly doing. An example would be putting the recycling bin out. If the neighbors recycle, I should, too!

***Communication*: Creating Effective Messages**

Craft your message with the audience in mind. Keep in mind that research has shown that people respond positively to positive messages. A negative message may spark the behavior you're trying to discourage. Fear-based messages need to be coupled with something the individual can effectively do about it. Without that, fear-based messages tend to shut people down, not motivate them!

Be sure the source of the message is credible. Remember that person-to-person is still the way most people get the information they trust. Mass media is not necessarily the most effective way to get social messages out there! And don't forget to provide feedback to your community on how they're doing.

***Incentives*: Enhancing Motivation to Act**

Reward positive behavior to reinforce it and be sure to tie the reward closely to the behavior. It works well with kids, why not adults?

***Removing External Barriers*:**

Remember the Barriers and Benefits? If your community is not doing that new behavior, find out what the barriers are and find ways to address them. This will help get to the behavior you want, and it

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may be more cost-effective than endless brochures, mailings, and bill-stuffers. External barriers can include adding barriers to make the undesirable behavior less attractive. Consider London's surcharge on cars coming into the city center.

***Design and Evaluation*:**
Once you've identified the behavior you want, the barriers to that behavior, and the tools you want to use, pilot test ideas and evaluate them. Then change the design as needed. Ensure your approach is effective before you go all-out. The book in its entirety and a host of information, reports, and studies related to Community Based Social Marketing can all be found on-line at: http://www.cbsm.com/.

You'll need to register, but it's free and well worth it. For more information contact Marcella Hutchinson at hutchinson.marcella@epa.gov.

Can We Really Share Water Quality Data?
~ Barb Horn, Colorado Division of Wildlife

The Colorado Water Quality Monitoring Council (CWQMC) has been trying to share water quality data or collaborate in on-the-ground monitoring for 20 years. That effort has finally evolved into the design and implementation of the Colorado Data Sharing Network (CDSN). The CDSN is funded into the spring of 2008 by non-point source funds as the mechanism for legacy and future non-point source projects to import their data into EPA National STORET. This will help the Colorado Department of Public Health and Environment stay in compliance with non-point source funding. However, the project is much more.

Data Swap through the Colorado Data Sharing Network

The CWQMC had a broader vision of what is needed and took advantage of this funding opportunity to design and implement a statewide water-quality database that has three primary components. We expect the CDSN to increase data sharing of on-the-ground monitoring which will lead to more effective and efficient watershed planning, restoration and protection of water quality.

The first CDSN project component is the statewide water-quality database itself. Water-quality data includes physical, chemical and biological data from rivers, lakes, reservoirs and ground water. The system employs user documentation, storage and retrieval tools developed by EPA Region 8, and will function as a statewide STORET database. This database will include all National Modern Colorado STORET data, new STORET data and many other sources of data that currently are not available. The output functions include summary statistics and simple graphics.

The process to populate the database includes a list of minimum data elements, a set of standardized import templates and various levels of security. Data can move onto National STORET or not, based on the user's desire. The target audiences for this database are:

a) Data generators that need a simple data management system because the data is not currently really managed;

b) Data generators that would like to share their data but do not have a mechanism to do so;

c) c) Entities that need to provide their data to National STORET; and

d) Users of water quality information

The second CDSN project component is the web-based map directory. The ArchIMS map and tools we are using were developed in EPA Region 10 and modified for Colorado. This map will serve as an online directory of who is gathering data, where, when, how, why and contact information. If the data is not in the database, information on where the data can be found will be provided. The target audience for this

component is anyone generating water quality (as defined above) information in Colorado.

The final CDSN project component includes local watershed, place-based meta-data (why caps?) Swaps. The target audiences for these Swaps are any entities involved in watershed management, data generators, users and managers from that basin The meta-data, priorities and concerns are shared locally via these Swap gatherings and statewide via the CWQMC. We organize and host a local watershed exchange of who is doing what, where, when, why and how among data generators.

This fall, the CDSN project kicked off with our first series of four local watershed Swaps and system trainings in the upper Colorado Basin. In total about 40 participants engaged in local Swaps and training sessions in the towns of Craig, Frisco, Glenwood Springs and Grand Junction. The results of these will be posted in December on the CWQMC's website. For the next two years we will be hosting approximately 20 local watershed Swaps, each followed by DSN system training in the:

South Platte and Front Range Tributary Basins – March/April 2007

San Juan, Dolores and Gunnison Basins – November 2007

Arkansas and Rio Grande Basins – March/April 2008

The membership of the CDSN and CWQMC is diverse. Participants include federal, state and local, public and private, profit and non profit entities. Everyone involved has the need for comprehensive and quality watershed data in order to do their job, regardless of their mission or origin. None of us could develop and maintain the CDSN alone and yet many of us do reinvent this effort on a smaller scale. The CDSN does provide the opportunity to save money and labor costs. The project allows those entities that were spending funds on developing group databases to allocate those funds to other tasks.

If you would like to learn more about this exciting project, get in our contact database, or find out when we will be in your watershed, please visit: www.coloradowatershed.org/CWQMC or contact Barb Horn at barb.horn@state.co.us.

Kathy Hernandez of EPA Region 8 Receives Award

"Excellence in Riparian Management" Awards for 2006

~ Jennifer Patterson, Past President, Colorado Riparian Association

The Colorado Riparian Association (CRA) annually awards "Excellence in Riparian Management" to recognize individuals for their activism in protecting our riparian zones.

Kathryn Hernandez of the U.S. Environmental Protection Agency (EPA) was nominated because of her leadership of the Lefthand Creek watershed abandoned mine restoration work conducted over the past few years. Kathy led a team including representatives from other EPA programs (Superfund, Brownfields, Emergency Response), the U.S. Forest Service, the Colorado Department of Public Health and Environment, the Boulder County Open Space and Mountain Parks Program, two private landowners, and a community stakeholder group, the Lefthand Watershed Oversight Group.

The restoration work in the Lefthand Creek watershed, which is located in northwestern Boulder County, is focused on the removal and reduction of sources of metal contamination to the three creeks in the watershed: the Little James Creek, James Creek, and Lefthand Creek. Lefthand Creek is the main water supply for about 15,000 residents of northern and eastern Boulder County. This work has been recognized by the EPA as the premiere case study in the EPA Office of Solid Waste and Emergency Response and in the Office of Water Program Integration National

Reference Manual, 2006. Kathy and the team were also honored with a national EPA “Cross-Program Land Revitalization Team Award” for 2006.

Jay Thompson of the Bureau of Land Management (BLM) was nominated because of his continual commitment to Colorado riparian zones not only at work but also through volunteering. Jay is the Colorado Riparian Cadre Coordinator and BLM Colorado State Office Riparian Program Manager. Jay has been teaching the Properly Functioning Conditions (PFC) workshops for seven years. PFC is a methodology for assessing the physical functioning of riparian and wetland areas. As the state office riparian program manager, he serves as the link between field offices and Washington DC. He is responsible for budget management and technical advice, while being the ally for the guys in the field. Additionally, he has donated at least seven years of service to CRA. Jay served as president in 2000-2001 and was newsletter editor for 2.5 years. He has just been appointed treasurer for the organization because he still has more “volunteering” in him.

For more information on the CRA go to:
http://coloradoriparian.org/

Funding Opportunities

Region 8 Wetlands Program Development Grants Request for Proposals (RFP) will soon be announced at: http://www.epa.gov/region08

Five-Star Restoration Matching Grants Program
The Five-Star Restoration Program provides modest 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. In 2006, 39 projects across the country out of 126 applications received grants of an average $13,000.

Go to: http://www.nfwf.org/programs/5star-rfp.cfm for more information.

Conferences and Training

Stream Restoration Short Courses
Registration for the 2007 Stream Restoration short courses at Utah State University is now open. Part one "Stream Restoration Principles" will be taught July 16-20, 2007. Part two,"Geomorphology and Sediment Transport in Channel Design" will be August 20-24, 2007. For registration information visit:
http://www.uwrl.usu.edu/streamrestoration/

Strengthening the Roles of Land Trusts and Local Governments in Protecting and Restoring Wetlands and Riparian Areas
This workshop will be held June 3 - 5, 2007 in Park City, Utah, and targets technical and semi-technical staff of land trusts, local governments, state agencies, and federal agencies. For more information go to:
http://www.aswm.org/calendar/lt&lg/lt&lg2.htm

Publications and Web Resources

Integrating Water and Waste Programs to Restore Watersheds
EPA Region 8 developed a manual for watershed cleanup to help regional water and waste program managers collaborate in wastershed cleanup projects. This manual is based on several regional success stories. The report was published in 2006 and is EPA-540-R-05-013. Free copies are available at the NSCEP at 1-800-490-9198 or http://www.epa.gov/ncipihom

Riparian Buffers
The report, "Riparian Buffer Width, Vegetative Cover, and Nitrogen Removal Effectiveness: A Review of Current Science and Regulations", provides a synthesis of existing scientific literature on the effectiveness of riparian buffers to improve water quality through their inherent ability to process and remove excess anthropogenic nitrogen from surface and ground waters. Go to:
http://www.epa.gov/ada/download/reports/600R05118/600R05118.pdf

WaterSense
Looking to expand the water efficiency market, the Environmental Protection Agency has issued its first set of specifications to certify professionals in this field. Under the agency's WaterSense program, the specifications identify technical standards for certifying landscape irrigation professionals. Certification programs that meet the EPA's standards are eligible for the WaterSense label.
For more information go to:
WaterSense:
http://www.epa.gov/watersense

Certification Programs for Irrigation Professionals:
http://www.epa.gov/watersense/partners/specs/cert.htm

Partnership Agreements:
http://www.epa.gov/watersense/partners/join

New On-line Watershed Course for Broadcast Meteorologists
Watersheds: Connecting Weather to the Environment
A new on-line course, Watersheds: Connecting Weather to the Environment, provides a unique opportunity to learn more about watersheds. The course is a primer on how weather events relate to the health of a watershed, and how the public can take simple actions to protect watershed health. The on-line curriculum, while intended for meteorologists, is also highly useful for land use managers, teachers, community leaders, and others interested in learning more about watersheds. It contains a collection of graphics that make it easy for meteorologists and others to explain watersheds visually. The course is now available at:
http://www.meted.ucar.edu/broadcastmet/watershed/

Protecting Drinking Water Sources
EPA recently released a manual titled "Update and Enhance Your Local Source Water Protection Assessments." It can be accessed at:
http://cfpub.epa.gov/safewater/sourcewater/

Ground Water Rule
EPA signed a final groundwater regulation on October 11, 2006. This regulation applies to more than 147,000 public water systems that use ground water for their drinking water supplies and addresses exposure to fecal contamination. The regulation includes requirements for sanitary surveys of ground water systems.

The risk-targeting strategy incorporated in the rule provides for:

- Regular sanitary surveys of public water systems to look for significant deficiencies in key operational areas;

- Triggered source-water monitoring when a system that does not sufficiently disinfect drinking water identifies a positive sample during its regular monitoring to comply with existing rules; and

- Implementation of corrective actions by ground water systems with a significant deficiency or evidence of source water fecal contamination compliance monitoring for systems that are sufficiently treating drinking water to ensure effective removal of pathogens. A ground water system is subject to triggered source-water monitoring if its treatment methods don't already remove 99.99 percent of viruses. Systems must begin to comply with the new requirements by Dec. 1, 2009. For information on the Ground Water Rule go to:
http://epa.gov/safewater/disinfection/gwr/

USDA and EPA Sign Water Quality Credit Trading Agreement
On Oct. 13, 2006, the USDA and EPA signed a partnership agreement to establish and promote water quality credit trading markets through cooperative conservation. Water quality credit trading uses a market-based approach that offers incentives to farmers and ranchers who implement conservation practices that improve water quality. While reducing pollution, they can earn credits they can trade with industrial or municipal facilities that are required by the Clean Water Act and other laws to reduce the amounts of pollution in wastewater.
For more information on the market based approach and the NRCS strategic plan:
http://www.nrcs.usda.gov/about/strategicplan/
To see the Water Quality Trading Agreement and find more information about water quality trading:
http://www.epa.gov/waterqualitytrading

Tool for Valuing Green Infrastructure
Click on the calculator and play with it! Great learning tool, and can actually help point planners/ builders/architects/homeowners, etc., in the right direction. Calculates both hydrologic and financial benefits. From the Center for Neighborhood Technology in Chicago. Click on the calculator and play with it.
http://greenvalues.cnt.org/green-infrastructure

Children and Nature Network
Richard Louv, author of “Last Child in the Woods”, recently founded this network. Visit:
www.cnaturenet.org to learn more.

EPA Report Shows Benefits of Smart Growth
This Is Smart Growth features 40 localities around the country and shows how communities can use smart growth techniques that improve the quality of development. Free copies are available from the EPA NSCEP 800-490-9198 or via e-mail at
ncepimal@one.net

Ask for publication number 231-K-06-002.
For an electronic copy of the report, go to the Smart Growth Network website http://www.smartgrowth.org.

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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.

Conserve our natural resources, please share your copy with a friend or recycle.

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