



Natural Resources Education Quarterly



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Mission:

Facilitate programs and services in environmental education for the people of the San Luis Valley

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ECEC Gets a Facelift

By Mike Blakeman, San Luis Valley Public Land Center

The SLV Environmental and Conservation Education Council, also known as ECEC (go ahead, say it to yourself, it kind of rolls off your tongue doesn't it?) is still alive and is even changing with the times. In this issue of the Natural Resources Education Quarterly, you will learn about our improved website and our new Facebook page. Additionally, you will read about our hugely successful teacher workshop series and our new feature, the Green Corner.

ECEC's basic mission is still the same: we want to connect SLV residents (especially kids) to the natural, cultural and agricultural resources of the Upper Rio Grande Basin, so that they have the knowledge and skills to be productive citizens and good stewards. The cool thing is that the processes used to connect kids to our backyard also use math, English, science, art, social studies, and even physical education. And, as many teachers know, the evidence continues to grow that using environmental themes to teach these subjects improves student achievement.

Even though our mission hasn't changed in nineteen years, we are always looking for new ideas for how we can help teachers incorporate conservation education into their lessons. To help gather those ideas, ECEC is planning a listening session with SLV teachers on May 7th from 4:00 to 6:00 p.m. at Calvillos in Alamosa. To sweeten the deal, we will cover your dinner following the listening session. If you are interested in helping ECEC help you while rubbing elbows with your peers from other schools and eating superb Mexican food, contact Judy Lopez at 589-3907, extension 117. Or email Melanie Rawlins at Melanie_Rawlins@nps.gov. Sign up quick as space is limited!

Lastly, don't forget to tap into ECEC's Wheels to the Field fund to help cover the cost of getting your students outside this spring. This funding is available to all SLV teachers for outdoor educational field trips in the Upper Rio Grande Basin (NM to the Creede area). Check out our website to learn more at www.slv-eccc.org.

Having trouble getting kids outside?
Worrying about changes in the coming years?

We're getting all Hot n' Spicy!

Help us help you!

Join ECEC for a listening session May 7th, 4pm-6pm at Calvillos's Restaurant in Alamosa.

Afterward, dinner's on us.

Space is limited so sign up quick with Judy Lopez at 589-3907 x117 or Melanie_Rawlins@nps.gov

Social Networking with ECEC—How It Can Benefit You

By Thomas Cleary, San Luis Valley R.O.C.K.



Facebook reports over 400 million active users, 50% of which log on to the site in any given day. Become a FAN of the ECEC facebook page and keep up to date on events, enter the 'discussion of the week', see images of kids at member sites, and, best of all, contribute to the page yourself!

If you are not on Facebook, you still can see and interact on the site by going to:

<http://www.facebook.com/pages/ECEC-Environmental-and-Conservation-Education-Council/279060064054?ref=ts#>

However, if you are already a Facebook user, find the new fan page, by clicking [here](#), or typing 'ECEC' into the Facebook search box and looking for our logo.

We are posting events and sending out invitations for gatherings, trainings, and meetings; become a fan to be notified of what's happening! These trainings and events are geared toward our mission to help educators feel more comfortable getting students outside.

The discussion tab is HOT with threads where you can add your opinions or start your own discussion topics! Having trouble coordinating schedules with colleagues to free up kids for

field trips? Struggling to convince administrators of the value of environmental education? Post questions like these in the discussion area and find out how others are working with similar issues.

There are image and video tabs with albums of member field sites, teacher trainings, and, of course, pictures of kids learning outdoors. ECEC encourages you to post photos and videos of educational adventures you have taken!

Becoming a fan of the ECEC Facebook page will keep you in the loop for events, provide a place to discuss and inspire yourself and others, share images of thriving students, and contribute to environmental literacy in the San Luis Valley, and beyond. Current Facebook members who become fans will receive status updates on their home page, and the occasional inbox messages or event notifications, so sign up with Facebook, and **BECOME A FAN OF THE ECEC FACEBOOK PAGE!**

The screenshot shows the Facebook page for the ECEC (Environmental and Conservation Education Council). The page header includes the Facebook logo and navigation links like Home, Profile, Find Friends, and Account. The main content area features the ECEC logo, a 'Write something...' text box, and a 'Just Fans' section with posts from members like 'SLV Regional Outdoor Center for Education' and 'ECEC: Environmental and Conservation Education Council Images of students playing and learning'. There are also advertisements for 'Build-A-Zoo' and 'Denver 1-Day Coupons' on the right side.

Bookmark this page!

By Melanie Rawlins, Great Sand Dunes National Park and Preserve

ECEC's website has been fully updated to reflect not only current contact information, but new features like:

- An archive of past newsletters, full of activities and useful articles.
- A weekly poll where you can vote on issues that ECEC addresses.
- Links to upcoming events

The screenshot shows the ECEC website interface. At the top, there's a navigation bar with the ECEC logo and a banner image of a mountain landscape. Below the banner, there are two main sections: "What's Happening" and "Newsletters". The "What's Happening" section has a link for "Grant applications now online!". The "Newsletters" section lists several past newsletters from 2004 to 2007. A green banner below these sections reads "Connecting Kids to Our Public Lands".

On the left side, there is a "Main Menu" with links to Home, Field Sites and Maps, Teacher Resources, Wheels to the Field, Newsletters, About Us, and Contact ECEC Members. Below the menu is a "Poll" section titled "I would take my kids outside, if only I had more..." with radio button options for "Equipment and materials", "Funds for transportation", "Administrative support", "Content knowledge", "Lesson plans", "Sites nearby", and "Nice weather". There are "Vote" and "Results" buttons.

The main content area features a "Welcome!" message and a "Wheels to the Field Grant Application" form. The form includes fields for "Teacher(s)", "School name", "Phone number(s)", "Destination of field trip", "Date of field trip", "Number of students", "Grade(s) level(s) of students", "Amount of funding sought", and a "Brief description of lesson (CO Content Standards emphasized)". A "send" button is at the bottom right of the form.

Below the form is a "San Luis Valley Public Land Center" section with text about the center and a "Open Locations" map. The map shows the San Luis Valley area with various locations marked.

Callout boxes with arrows point to the "Wheels to the Field Grant Application" form, the "Poll" section, and the "San Luis Valley Public Land Center" map.

- Online Wheels to the Field Grant Application
- Contacts and maps to local field trip sites

Green Corner

By Marianna Young, USDA Natural Resources Conservation Service



What exactly is recycling? And why do it? Well, what Wikipedia says about recycling is this: “Recycling involves processing used materials into new products to prevent waste of potentially useful materials, reduce the consumption of fresh raw materials, reduce energy usage, reduce air pollution and water pollution by reducing the need for ‘conventional’ waste disposal, and lower greenhouse gas emissions as compared to virgin production.”

Let’s break that long definition down into something more manageable. What is a potentially useful material? Take a can that originally contained green beans – if that steel can is taken to the recycling center instead of the landfill, it will be recycled into another steel can, or a bridge, or even an automobile—really! Steel is easily recyclable, and infinitely easier than digging up huge quantities of earth to get to the ore, and converting that to steel. Making steel from recycled cans uses 75% less energy than making steel from raw materials.

Next, how do we reduce the consumption of fresh raw materials? Paper will be our example here. Most paper starts out as trees, whether those trees

come from natural forests or from tree plantations. According to www.treefreepaper.com, as of 2001 about 90% of the world’s paper was manufactured from wood pulp. United States paper producers consume about one billion trees annually. That equates to about 12,430 square miles of forest. To put it into a local perspective: many of the center pivot sprinklers in the San Luis Valley are located on a quarter of a square mile of land, so four pivots are located on one square mile of land, otherwise known as a section. Multiply four by 12,430, and that’s how many center pivots worth of trees are cut annually to make paper. And that’s just in the United States! Reducing our consumption of wood for paper, and replacing it with recycling the paper we daily throw away, would save water and energy, reduce landfill space, and reduce air pollution.

According to www.recycling-revolution.com, each ton of recycled paper can save 17 trees, 380 gallons of oil, three cubic yards of landfill space, 4000 kilowatts of energy, and 7000 gallons of water. These numbers represent a 64% energy savings, a 58% water savings, and 60 pounds less of air pollution. So why would we NOT recycle our paper? Think about that the next time you put your old school reports, class assignments, and handouts in the trash – maybe recycling would be the better choice.

So now let’s go back to the definition that showed up way back in the first paragraph. We’ve now dealt with the topics of reducing energy and water consumption, and reducing the air pollution that accompanies energy production. But what does the term “‘conventional’ waste disposal mean, and is it necessarily bad?

‘Conventional’ waste disposal typically means a landfill. A landfill is what we have in Rio Grande County; as one drives west on Highway 160 toward Del Norte, just a few miles west of Monte Vista, is the sign for the county landfill, pointing south toward the foothills. The landfill is where our trash is disposed of – all of the non-recycled plastic, cardboard, compostable kitchen scraps, paper, food wrappers, soda cans, steel food cans, old toys, discarded cloth-

ing, and so much more. Throwing away those recyclables won't be helping us to save energy, or reduce water & air pollution.

The transportation costs of hauling all the generated waste out to the landfill, from various parts of the San Luis Valley, are also enormous. Many barrels of oil are burned by the big trash trucks that rumble down our county roads and neighborhood streets, picking up our trash. As the trucks burn that oil, they generate lots of air pollution. Just think – if each of us started recycling, or recycled more, we could help reduce the number of trips those trucks have to make to the landfill.

Next time I'll give you some information on setting up a recycling system at home or school. I recommend checking out the website <http://bingrant.org/home.htm>. This site describes a program that allows schools, communities & organizations to apply for a grant to help purchase recycling bins. The deadline for this year has already passed, but how about next year?!

Teacher Workshops for 2010

By Judy Lopez, San Luis Valley Conservation Districts

Are you looking for a great way to collaborate with teachers in a hands –on way that rejuvenates the spirit, builds your sense of team work, broaden your knowledge base and gives you classroom ready goodies? The Teachers Workshops are here! ECEC in collaboration with the Rio Grande Watershed Association of Conservation Districts and its group of great partners bring you the 2010 teacher workshop series. For the second year teachers there is the “From Watershed to Sustainability: Building a “Stream” of Consciousness” workshop from June 7-12,2010 and for the first time teacher there is “From Watershed to Cup – Following Water Through the Creekulum” June 14 – 18, 2010.

Both workshops are designed for K-12 educators, who are interested in getting kids outdoors and incorporating those themes into the Colorado Content Standards and there classroom whether rural or urban. Held on the beautiful Trinchera Ranch outside Fort Garland Colorado participating teacher receive five star accommodations (both food and lodging), the latest in outdoor, hands-on teaching, over \$400 in take home classroom ready goodies and 3 graduate credit hours from Adams State College all for a \$100.00 refundable dollar deposit!

This year's workshops are full, but please contact Judy Lopez at 719-589-3907 X 117, to reserve your spot for next year! Come join the learning Fun!



Teachers investigating macroinvertebrates in a stream. NPS Photo

Waking from Winter

By Nicole Langley, EarthNest Institute

As winter begins to loosen her grip on the San Luis Valley, we can feel the difference. Days grow longer, warmer. There's a special something in the air. Folks speak with relief about springtime and start to make plans for summer. Although we humans react with excitement as winter finally comes to an end, not all mammals share our rosy outlook.

For Colorado's black bear, the end of hibernation is a serious and vulnerable time. "Grumpy" might be an appropriate word to describe the animal's mood. Although we tend to think of hibernation as a long winter sleep, it is actually a change in the metabolism of an animal. With the onset of winter, as food supplies become scarce, hibernation is nature's way of conserving energy by slowing down an animal's metabolism. Body temperature drops, breathing slows down, and the animal goes into a state of inactivity and metabolic depression. This allows the bear to slow down its use of energy reserves that are stored in body fat.

A black bear's life, in the Valley's warmer weather, is most active during morning and evening twilight hours, but they can be very busy any time of day or night. When not eating or foraging, they like to rest in a day bed. This is usually in dense brush, in a depression in the rock or dirt, or next to a windfallen log. They are strong swimmers, good climbers, very agile, can run in bursts up to 35 miles per hour, and can run up and down hill very quickly. If you have an encounter, don't plan on outrunning the bear. About 90% of a bear's diet comes from nutritious plants and the remaining 10% comes from animals. Bears will eat berries, nuts, insects, carrion, grasses, and broad-leafed flowering plants. In late summer, when they are fattening up for winter hibernation, they may eat 20,000 calories per day and feed up to 20 hours per day.

In this region, female black bears enter their dens in late October and males in early November, as hibernation begins. Bears commonly den in excavated holes beneath shrubs or trees, in hollow logs, rotten trees, brush thickets, and rock caverns. In Colorado, the largest black bear populations are found in areas full of Gambel's oak (scrub oak) and aspen, near open areas of serviceberry and chokecherry bushes. Every bear determines and protects its home range. That home range



Although we think of them as mountain dwellers, black bears can be very comfortable in open grasslands. NPS Photo

may cover 10 to 250 square miles. Bears may leave the den when snow is still on the ground and many of them will move to lower elevations where the spring greenup has already begun. For female bears with newborn cubs this is an especially difficult time.

Female bears may have cubs at 3 or 4 years of age but most mother bears are about 5 years old. Males are capable of breeding at 3 years of age. They mate in early summer but development of fertilized eggs is delayed until hibernation time. If a pregnant female goes into hibernation in poor condition, her body will most likely reabsorb the fertilized egg rather than continue fetal development. After a 2-3 month gestation period, the mother bear produces one, two, or three tiny cubs, born in midwinter. The tiny cubs are toothless, blind and covered with very fine hair. Their mother's rich milk grows them from less than 1 pound at birth to 10-15 pounds when the family emerges from the den in mid-May. The mother bear is the only support for the young cubs, who learn by watching and mimicking her. What other adjective might you add to "grumpy" in describing her mood at the end of hibernation?

EE Contacts

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CSU Extension Service, 852-7381 eleanor.west@colostate.edu

Colorado Division of Wildlife, 970-375-6709, leighgillette@state.co.us

Alamosa, Baca, Monte Vista National Wildlife Refuges 589-4021

Calendar of Events

April 22, 2010: 40th Anniversary of Earth Day

For help taking kids to the outdoor classroom, call one of the educators above.

April 29, 2010: San Luis Valley 4th Grade Rendezvous, Ft. Garland, Co.

Contact Bev Selin at 719-655-2578.

June 7-11, 2010: Watershed to Sustainability—Teacher Workshop.

This conference offers the opportunity to share and use outdoor education in the classroom. Learn hand-on activities and receive 3 Adams State College credits. Call Judy Lopez 719-589-3907 X117.

June 12, 2010: Junior Ranger Day at Great Sand Dunes National Park

Great Sand Dunes invites kids and families to participate in Junior Ranger Day on Saturday, June 12th. Activities from 9am to 1pm. Go on a ranger program, collect prizes, and have fun! For more info, call 719-378-6399.

June 14-17, 2010: Watershed to Cup—Teacher Workshop.

This conference offers the opportunity to share and use outdoor education in the classroom. Learn hand-on activities and receive 3 Adams State College credits. Call Judy Lopez 719-589-3907 X117.

July 18, 2010: 4th Annual Water Festival by Rio Grande Watershed Association of Conservation Districts

This is a kids day designed to give students hands-on water experiences. For more information call Judy Lopez @ 589-3907 X117.