Walking the Land, Testing the Waters: McCall Outdoor Science School Hosts Second Year of Residential Programs

by Greg Fizzell

Efforts to develop Idaho’s first public, year-round residential science school continued this fall as 115 5th-6th grade students, 9 teachers, and 16 parents from Kooskia, Kamiah, Elk City, Moscow, and Lewiston each spent one week on the University of Idaho’s (UI) McCall Field Campus. The McCall Outdoor Science School (MOSS) is a collaborative effort between PCEI, the Idaho State Department of Parks and Recreation, and the UI Colleges of Education and Natural Resources. The long-term goal of the science school is to host weeklong residencies that become a regular part of Idaho schools’ science programs. Curriculum and associated activities are based on best educational practices and current state and national science education standards.

After arriving on campus, students are divided into 5-9 member teams that work together for one week to scientifically characterize five distinct ecosystem types found immediately adjacent to the field campus in Ponderosa State Park. Field and laboratory instruction is lead by UI faculty, graduate students, and education staff from PCEI. Students collect data on local atmospheric conditions, terrestrial ecosystem characteristics including soils and vegetative cover, and hydrology protocols focused on lake and stream water quality and biology. Students learn to describe this data as the Earth’s “vital signs”. As the week progresses, student teams work with their instructors to synthesize and analyze the data they’ve collected, compare it to data collected elsewhere in Idaho and the world, and make inferences regarding the implications of their findings.

MOSS envisions a sustainable society whereby a well-informed citizenry makes decisions based on their willingness and ability to investigate effectively, think critically, and work collaboratively while seeking solutions to complex natural resource and environmental issues. Teaching our young people about the biological, physical, and social systems in

(see MOSS, cont on page 5)
East Mountain View Restoration Project: Swervin' Streambanks

by Greg Kutsko

Last July, Paradise Creek was confined to a straight channel through a vacant lot owned by the City of Moscow, north of the intersection of Mountain View Road and White Avenue. In August, this site underwent a major restoration. From late July to early September PCEI staff and volunteers were busy transforming this heavily degraded site into a new healthy riparian area.

The overall goal of this project was to transform a channelized and confined reach of Paradise Creek into a more complex stream corridor. The main restoration objectives include: reinstate-ment of a "natural" channel plan geometry of three meander bends through the existing channel alignment, creation of a functional floodplain, creation of two wetland areas, and reestablishment of native riparian vegetation along the channel banks and in the floodplain to create a riparian corridor.

Benefits of this project include:

* improved habitat of the area for aquatic and terrestrial species
* improved water quality, increased passive recreation and educational opportunities
* enhanced aesthetic values.

By restoring the floodplain and active channel, this work will provide some improvement with respect to local flood storage and down-stream flow attenuation.

Adding meanders to the channel will improve aquatic habitat conditions by introducing non-uniform channel geometry to this channelized reach of Paradise Creek. Revetments along the banks of the channel bends will increase the stability of the banks while providing increased wildlife opportunities. Several different types of labor intensive bank stabilization methods were used, including "soft" bioengineering treatments such as Root Wads, Log Cribs, BioLogs and Soil Wraps. Revegetation of the entire site with native trees, shrubs, wetland plants, and grasses will ultimately play an important role in realizing the desired benefits listed above.

We hope you'll stop by the site across from the Latah County Fairgrounds, north of the intersection of Mountain View Rd. and White Ave. If you have any questions or comments about this project, please contact the Watersheds Program at 882-1444 or cronin@pcei.org

Quilt raffle benefits PCEI Education program

This beautiful quilt has been donated to the Palouse-Clearwater Environmental Institute to support the PCEI Education Program. We are raffling the quilt between September and December, 2002 at many public locations around the Palouse. We will draw the winning name at this year's Holiday Thank You Party, Wednesday, December 4. Raffle tickets are $1 each or 6 for $5. You can get your raffle tickets by contacting one of the PCEI Board Members or the PCEI office at 882-1444.
SCHOOLCHILDREN RESTORE CAMAS TO HOG HEAVEN!

The skies were blue and the sun was bright the afternoon of October 9th in Moscow. The weather cooperated perfectly for PCEI’s Camas planting with 3rd graders from Lapwai Elementary School and 4th, 5th and 6th graders from Renaissance Charter School at a restored wetland site on private land in Moscow for an impromptu picnic. After a bite to eat, Gwen Carter, Director of Nez Perce Water Resources (above left) took over the show and the students eagerly listened to her speak of the cultural and ecological significance of Camas. With great enthusiasm, the students from both schools split up into planting teams, each with a tukas, the tool traditionally used by Native Americans to dig Camas (above right and right). When it was time to board the buses and return to school the students had something to be very proud of; altogether they planted 350 Camas bulbs! Also present that day was a journalist from Horizon Air Magazine. (Photos Tom Lamar and Amanda Cronin).
Second Annual Watershed Festival

by Johanna Kalmus

One hundred and eighty local fourth graders, eleven teachers, ten parents and community volunteers, four local water resource professionals, and ten PCEI employees started off the first day in October this year learning, playing, digging, planting, exploring and painting in the sun at the Second Annual Paradise Creek Watershed Festival. A brisk morning with small canopy tents and straw bales to designate each station, created the fall festival atmosphere.

The festival was sponsored by Idaho Project WET and coordinated by PCEI’s education program. It took place at PCEI’s new restoration site along Paradise Creek, at Mountainview Road and White Ave (see article on page 2).

Lena Whitmore and Russell Elementary Schools fourth graders spent their morning rotating through five 30-minute stations at the festival. Students were divided into groups: the Cattails, Minks, Damselflies, Daces and Salamanders (each name was chosen to represent one of the many plants and animals that live in and around Paradise Creek).

The Macroinvertebrate Monitoring station was led by John Pfiefer, from EcoAnalysts, Inc. There, students learned about bioassessment, using macroinvertebrates as an indicator of water quality. The fourth graders scooped water samples and insects from the creek using buckets and nets. They carefully picked insects out and identified them using microscopes.

Mark Cook and Mike Dimmick, both from City of Moscow Public Works, led the students at Moscow Cities Water Cycle station. Using models and photos, Mark and Mike demonstrated the source and final destination of Moscow’s drinking water. Students learned about the two aquifers and brainstormed ways to conserve water in people’s homes.

The Palouse Wildlife Station took more of an active approach. Eric Carpenter (who led the station in the morning) and Tiffany Cooper (taught the afternoon) spent part of the time at their station playing Oh Deer! where students learned about the dynamics of biological populations. Students also got to look at animal pelts and bones while learning about the animals that depend on Paradise Creek for survival.

Students’ creative side came out while they worked on murals about the water cycle, led by Michelle Hazen and Polly Fulford. Students painted colorful murals on boards and on the sides of PCEI’s tool trailer.

Finally, students got to dig holes and plant hundreds of native trees and shrubs after learning about reasons to restore Paradise Creek and the importance of planting native plants in the riparian area. Amanda Cronin and Greg Kutsko, from PCEI watershed program, led the group in the planting.

PCEI would like to thank the fourth grade students for helping to plant and all the people who donated their time, energy and/or equipment, which helped to make the Second Annual Water Festival a great success. Also, many thanks to Wheatberries for providing the delicious food, Porta-go for a free porta-potty, and JoAnne’s Fabrics for various craft donations.
Former trio AmeriCorps member, and current PCEI volunteer, Michelle Hazen, talks with fourth graders as they paint pictures of the water cycle on PCEI’s tool trailer. Photo: Tom Lamar

Moscow Public Works Director, Mark Cook explains Moscow’s water system and conservation techniques to students. Photo: Tom Lamar

Spending time outdoors learning about ecosystem science and interacting with their peers outside the traditional classroom environment was a hit with students on campus in September and October.

“I think the hands-on experience is good for learning science,” said Jade Nuxoll, 10, from the Moscow Charter School. “You actually get to be there instead of looking at pictures.”

“I wish my school was more like this one.” - Kamiah 5th grader

Program support for MOSS comes from grants and in-kind support from the UI Clara Bleak Endowment for Innovations in Environmental Education, PCEI donors, UI Institute for Mathematics, Interactive Technology, and Science (IMITS), Communities Creating Connections, Inc. (Kooskia), the Idaho State Department of Parks and Recreation, the Snowden Wildlife Sanctuary (McCall), the U.S. Forest Service Payette National Forest and McCall Smokejumper Base, and the UI Colleges of Natural Resources and Education. Recently acquired grant funding from the Christensen Fund will help support up to 10 weeks of science programming in 2003.

For more information, please contact Greg Fizzell - MOSS Program Coordinator at 882-1444 or fizzell@pcei.org

Check out our web site: www.pcei.org
By Dianne French

Have you ever wondered where the water from your faucet actually originates and where it goes once it disappears down the drain? Could you get through the day without your morning shower or coffee? Is it okay to hose down the driveway with drinking water? How should we plan for future demands on our water supply? Should communities limit growth based on availability of natural resources? What is a reasonable use of the ancient, pristine, natural water that lies deep within the Grande Ronde aquifer below the Palouse?

If any of these questions intrigue you, mark your calendars for two interesting evenings in November. **Tuesday, November 19 and Thursday, November 21 from 7:00 to 9:00 p.m. will be The Groundwater Forum for the Palouse Basin.** This informative event is worth the attention of all residents of the Palouse as it will discuss how water enters and leaves our groundwater basin and how to protect this precious resource.

Presentations for the first evening will surround the science of our aquifer system. Speakers will include Larry Kirkland, Executive Secretary of the Palouse Basin Aquifer Committee (PBAC). Speakers will present facts about our local aquifer system as well as alternatives for future supplemental water supplies. Moscow’s three-dimensional aquifer model will be on display and operating.

The second evening will inform residents and business owners about ways to stretch the use of this ancient resource. Speakers will include Tim Eaton, owner of Prairie Bloom Nursery, to discuss intelligent landscapes that work in our climate with little water; Dianne French, Chairperson of Moscow’s Commission on Health/Environment and co-founder of the Palouse Water Conservation Network, to discuss indoor water conservation ideas for home and business; and Mark Cook, Moscow Public Works Director, to discuss water pricing and issues relating to municipal water supplies. After these presentations, there will be a panel discussion with questions from the audience.

Each evening will include delicious refreshments provided by the Moscow Food Co-op, educational literature for participants, displays and the model aquifer. There will be question and answer sessions. Moscow will also be celebrating our new status as a Groundwater Guardian Community.

As water levels within our main aquifer, the Grande Ronde, continue to decline and population levels continue to increase, our community must decide what it will do to stabilize water levels and ensure a lasting water supply for the region. As Ben Franklin said in 1733, “When the well is dry, we learn the worth of water.”

The Groundwater Forum is co-sponsored by the Moscow Food Co-op, the Palouse-Clearwater Environmental Institute, the Palouse Water Conservation Network, and the City of Moscow.

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**Water Conservation Network Forms**

On July 29th the Palouse Water Conservation Network (PWCN) first met and set as its mission “to promote community awareness, education and action to preserve our underground water resources.”

In its first two months of operation, PWCN established a web site (www.pwcn.org) and achieved membership in the international Groundwater Guardian Program.

PWCN currently meets the first and third Mondays of each month, 7:00pm, in room 2B of the Latah County Courthouse (enter door on north side). Please attend a meeting and help us preserve our groundwater for future generations. Contact: Bill or Dianne French - pwcn@moscow.com or call 883-3937(W), 882-0203(H).
New Idaho TRIO AmeriCorps Members Join PCEI’s Education Team

by Greg Fizzell

PCEI’s education program welcomes TRIO AmeriCorps Members Johanna Kalmus and Tiffany Cooper to our team. Both Tiffany and Johanna (“Tif and Jo”) bring a wealth of outdoor/ environmental education experience to the greater Palouse-Clearwater community.

Johanna grew up in Albuquerque, New Mexico before attending Whitman College in Walla Walla, WA where she earned a BA in Studio Art. Since receiving her degree, Jo has worked in the San Juan Islands teaching Environmental Education, lead backpacking expeditions for high school students in the Northeast, and worked on wilderness restoration projects in the desert of Southern California. Her interests include art, and “playing outside” which she describes as hiking, backpacking, rock climbing, skiing, and sea kayaking.

Tiffany recently moved here from beautiful upstate New York... “don’t laugh” she pleads! Tif was born and raised with the U.S. Army as a family member resulting in many moves to interesting places from Germany to Tennessee. She graduated with a BS in Geoscience from Middle Tennessee State University (MTSU) in 1998 and later with a MS in Environmental Education and Outdoor Recreation from the State University of New York (SUNY), Cortland. Since then, she has been teaching kids and adults about the natural world. She loves to be outside and to inspire people, big and small, to do great things for the Earth! She describes this year as “my year to give back”. As an AmeriCorps member she hopes to have a positive effect on all the students she teaches and the greater Moscow community.

Henry says:

Our new office dog, Henry (left, in chair, waiting for his next assignment), has heard that the following items are needed at PCEI. Let us (or Henry) know if you can help:

- binoculars
- a paper shredder
- glass babyfood jars
- a laminating machine
- donated vehicles (car or truck)
- macintosh computers (G3 or G4)
- a bigger office (ideally, our own building)

Become a Member of PCEI!

☐ Yes I want to support the Palouse-Clearwater Environmental Institute
☐ Yes I want to renew my membership

Name ________________________________
Address ________________________________
City ________________________________
State ________________________________
Zip __________________________________
Phone ________________________________
Email ________________________________

☐ Please contact me about volunteering
☐ Please keep my membership anonymous
☐ $25 Basic Membership
☐ $60 Palouse Protector
☐ $120 Friends of the Palouse-Clearwater
☐ $12 Limited income/Student
☐ Additional gift of $__________

Please direct my gift to the following program:

☐ Environmental Education
☐ Community Garden
☐ Watersheds
☐ VanPool/Transportation

Endowment gift of $______________

Mail to: PCEI PO Box 8596 Moscow, ID 83843
Calendar of Events:

**November 9, Saturday, 6-9pm** United Vision for Idaho Special Dinner in Moscow. "to celebrate the many diverse acts of courage we call the progressive movement of Idaho". $20 donation suggested. For more information or to pay by credit card call 882-0492 or 208-331-7028.

**November 19 and 21, Tuesday and Thursday, 7-9pm**: Groundwater Forum. Tuesday night will focus on the science of our aquifer system. Thursday will feature a panel lending local residents hints on how to conserve that water resource. Cosponsored by the City of Moscow, PCEI, the Moscow Food Co-op, and the Palouse Water Conservation Network. For more information, contact PCEI at 882-1444 or www.pcei.org.

**November 22, Friday, 6:30-10:00pm**, Washington Environmental Council Environmental Heroes Awards. Bell Harbor Conference Center, Seattle. $100/person or $1000/table. For more information contact WEC at 206-622-8103.

**December 4, Wednesday, 5:30-8pm**, PCEI Holiday Thank You Party and Quilt drawing! Current members will receive invitations. For more information contact PCEI at 882-1444.

Over the past several weeks community volunteers and school groups have worked diligently to plant 2000 Red Osier Dogwood and Willow shrubs along the South Fork of the Coeur d'Alene River in North Idaho's Silver Valley near the town of Kellogg. PCEI organized these plantings as part of a project sponsored by the Idaho Department of Environmental Quality. Photo: Amanda Cronin.