

June 1998

THE CATALYST

Slippery Rock Watershed Coalition Monthly Activities Update

Next meeting: **Thursday, 6/11/98, 7:00 PM, Quality Aggregates Inc., Boyers Quarry.** Prior meeting: 5/14/98, Rm. 105, SRU Vincent Science Hall. Attendees: S. Smith, J. Belgredan, F. Brenner, T. Danehy, M. Dunn, D. DeNicola .

SRWC JUNE MEETING TO BE HELD IN BOYERS, PA

Please note that the June meeting will be convened at the Boyers Quarry of Quality Aggregates Inc. The entrance to the limestone quarry is located on the Harrisville Road less than one mile west of its intersection with State Route 308 in Boyers, PA. A new restoration project in the vicinity of the quarry will be discussed. Bring your constructive ideas and prepare to "brain storm"!!! WEAR FIELD CLOTHES !

DR. FRED BRENNER RECEIVES LIFE-TIME ACHIEVEMENT AWARD

Dr. Fred Brenner (Grove City College) received the 1998 Pennsylvania Academy of Sciences Life-Time Achievement Award. Dr. Brenner has contributed tirelessly and selflessly to the advancement of natural sciences in Pennsylvania. As many are aware, Dr. Brenner and his students are currently involved in the on-going study of the Seaton Creek ecosystem within the headwaters of the Slippery Rock Watershed and in the development and study of passive technology at Jennings Environmental Education Center. Congratulations and keep up the good work!!!!

PRESENTATION AT KEYSTONE TALL TREE GIRL SCOUT COUNCIL

On Saturday, April 25, 1998, JoAnn Clark and Kitty and Darcy Peart, with assistance from Charles Cooper, displayed an abbreviated version of the poster presentation shown at the 1998 SRWC Symposium. Many of the Council delegates and leadership expressed interest in the activities. This was very rewarding. The SRWC Symposium attendees remember in addition to the photographic depiction of the activities, the video of the construction activities at Jennings which was caringly edited by JoAnn Clark and the computer showing the as-built CAD drawing prepared by the Girl Scouts. Congratulations!! The Keystone Tall Tree Girl Scout Council serves almost 8000 girls and over 2000 adult volunteers from a 12 county area of Pennsylvania.

PA GAME COMMISSION REVIEW FIELD WATER QUALITY TESTING

On April 21, 1998, Pat Anderson, Keith Harbaugh, Gerald Bish, Jim Dennischer, Shane Hopelander, and Dale Hockenberry from the PA Game Commission met at PA Gamelands No. 95 headquarters to review not only the procedures for measurement of pH in the field but also the significance of the measurement. Prior to actual field testing, six unidentified, clear solutions were tested to determine pH by each individual using pH paper, HACH and LaMOTTE Test Kits. After comparing the measurements, the solutions were identified: distilled water, club soda, vinegar, bicarbonate of soda, net alkaline mine water, and net acid mine water. After lunch, several sites in PA Gamelands No. 95 were visited including an unstudied site. After noting that the pH varied at the site, the applicability of various passive treatment systems was discussed. Margaret Dunn (Stream Restoration Inc.) has commented as to the numerous good questions and interest of all involved. Thanks to all!!!

GROVE CITY COLLEGE RESEARCH ACTIVITIES AT JENNINGS CONTINUE

Grove City College students Aaron Kaiser and Nate Abramson completed construction of research Project 10 at Jennings, a compost-limestone vertical flow tank, and commenced monitoring as part of their course credit work at the college. Grove City College students Kim Kosick, Corry Gardner, and Shaun Busler volunteered their time, with help from Girl Scouts, JoAnn and MaryJo Clark to complete construction of research Project 11, a "test bed wetland", which is nearly ready for startup. Grove City College student Charlene Wick is to intern at the Jennings research site this summer and will continue the experiment setup and monitoring with planned assistance from Charles Cooper (C D S Associates, Inc.), Girl Scouts JoAnn and MaryJo Clark and possibly others. More on these and other research efforts later!!!

1998 SRWC GET-TOGETHER

The 4/15/98 community Get-Together was a great success!! Approximately 45 people attended this picnic-style gathering.

The downstairs meeting hall at the Epiphany Catholic Church in Boyers, PA was the (!!) perfect place to have this event. Good conversation was stimulated by the informative posters describing the Coalition's activities and the attractively arranged "all-you-can-eat" buffet. Many of the participants brought their children who after dinner enjoyed meeting each other and playing outside on the lawn.

(Over)

Before leaving, Robin Theuer added to the event's success by drawing names for the donated gifts which were enthusiastically received by the following:

MaryJo Clark - family-sized cooler
Gloria DeMatteis - personal cooler
Dan Craig & Pat Isacco - hummingbird feeders

Over a dozen mugs were also distributed.

Special thanks to - - -

- Gloria and Mark DeMatteis and Kathy Harvey (Epiphany Catholic Church) for the warm hospitality
- Steve Smith and Janice Belgredan for being the perfect hosts
- Joe Aloe and Jeff Ankrom (Quality Aggregates Inc.) for the buffet
- Thompson's Market of Eau Claire, PA for the food preparation
- Dale Hockenberry (PA Game Commission) for donating the hummingbird feeders
- Felicia Petro (Allied News) for announcing the event
- Tim Danehy (Stream Restoration, Inc.) for his generous donation of time and talents in the flyer design and event organization.
- JoAnn and MaryJo Clark (Tall Tree Girl Scout Council, Inc.) and Charlie Cooper (C D S Associates, Inc.)
- Roger Bowman, Tim Gillen, Jim Plesakov, Tim VanDyke (PA DEP, Knox District Mining Office)
- Dr. Fred Brenner, Matt Montag, Kristine Dooley (Grove City College)
- Dr. Dean DeNicola (Slippery Rock University)
- Margaret Dunn (Stream Restoration Inc.)

1998 SRWC SYMPOSIUM

Thanks to everyone who made our third annual symposium on 4/17/98 such a **HUGE** success!! Even with the attendance of about 189 enthusiastic and energetic people, the event ran very smoothly and there have been many compliments!! The beautiful surroundings along with the warm welcome from the Jennings staff made this a perfect meeting place. Thanks to Cindy Shirley (Administrative Asst.) and Ray Markle and Gary Jenkins (Maintenance) for going the "extra mile"!

The SRWC is particularly grateful to our sponsors for providing the transportation and delicious and ample lunch and snacks.

- **Allegheny Minerals Corp.** (Darrell Lewis)
- **Quality Aggregates Inc.** (Joe Aloe and Jeff Ankrom)
- **RECMIX of PA** (Wayne Hursen)
- **Scrubgrass Generating Co.** (Todd Lawton)
- **Slippery Rock University** (Dr. Anne Griffiths and Dr. Dean DeNicola)
- **Amerikohl Mining, Inc.** (John Stilley)
- **Stream Restoration Inc.** (Tim Danehy, Margaret Dunn, Cass Malinski, Pam Esch, Lucy Blanchfield)

Our poster session received a lot of attention and interest!! A special thanks to

- **U.S. Geological Survey** (Juliana Bowman Brown)
- **Western PA Coalition for Abandoned Mine Reclamation** (Mark Killar and Bob Ventorini)
- **Tall Tree Girl Scout Council, Inc.** (JoAnn and MaryJo Clark, Darcy and Kitty Peart assisted by Charles Cooper of C D S Associates, Inc.)
- **Slippery Rock Watershed Coalition** (many of us)
- **PA Dept. of Environmental Protection, Knox District Mining Office** (Roger Bowman and Tim Gillen)
- **Grove City College** (Dr. Fred Brenner, Matt Montag, Kristine Dooley)

High School Environmental Education Program

A group of over 100 high school students from Lincoln (Ellwood City Area) and Slippery Rock High Schools participated in a special "hands on" program to study stream ecology and passive treatment technology. We were very fortunate to have an internationally-recognized expert, Dr. Robert Hedin (Hedin Environmental Inc.) to donate his time to explain passive treatment technology. JoAnn Albert, William Wasser, Wilbur Taylor, Laurel Garlicki (Jennings Environmental Education Center) as always, provided an excellent, interactive program where the students participated in a stream characterization, evaluating both the water quality and aquatic community. Several of the instructors stated that this was a very rewarding experience as the students were enthusiastic and well-informed. Thanks again to Rick Bartolomeo from Lincoln High School (Ellwood City Area) and Tony Consbrook from Slippery Rock High School for bringing their students.

1998 SRWC Appreciation Award

**ARMCO INC.
CHEM. LAB.**

Bob Prus and Ed Nowacki (ARMCO) accepted the award which was presented by **Bob Zick** (Chester Engineers). Our gratitude can not be adequately expressed to ARMCO for their support of SRU student interns working in the watershed. Thanks ... thanks ... thanks!!!

Oral Presentations

Many comments were received regarding the skills of Janice Belgredan as the moderator of the morning session. Thank you, Janice!!

Key Note Address

Again, a **BIG** thanks to Robert Dolence, Deputy Secretary PA DEP for his personable and poignant remarks that were well-received by not only the general audience but also the high school and college students.

Watershed Restoration

Mark Killar, WPCAMR, and Margaret H. Dunn, Stream Restoration, Inc., provided overviews of restoration activities in western PA and the Slippery Rock headwaters, respectively. Mark is very knowledgeable, having worked with numerous watershed organizations. The importance of student involvement was further acknowledged. The willingness of both Mark and Margaret is appreciated.

Girl Scout Activities

Girl Scouts Darcy Peart and MaryJo Clark (Keystone Tall Tree Girl Scout Council, Inc.) spoke to the “filled-to-capacity” crowd about their experiences with and interests in the “hands-on” development of passive treatment technology with Charles Cooper, PE (C D S Associates, Inc.) at the Jennings Environmental Education Center. Darcy and MaryJo were both poised and professional in their presentations. Their continued participation and enthusiasm is extremely gratifying!!

Slippery Rock University Presentations

Dr. Dean DeNicola, Dept. of Biology, provided a brief overview of SRU's contributions in the restoration activities. Since the Coalition's inception, SRU has participated in this team effort, including the student monitoring of the macroinvertebrate, streambed sediments, and water quality in the headwaters area of the main branch of Slippery Rock Creek. Dr. DeNicola has contributed numerous hours and is directly responsible for many of the Coalition's successes. Two students gave oral presentations, Joanna Conrad and John Burglund. Joanna, a student of Dr. Michael Stapleton, Geochemist, provided data on the limestone-only and the compost with limestone pilot-scale systems at Jennings Environmental Education Center, while John discussed the on-going monitoring of Slippery Rock Creek and early indications of improvement to the ecosystem. The data presented are vital in the evaluation of the long-term effectiveness of restoration efforts.

Grove City College Presentations

Dr. Fred Brenner (Dept. of Biology) spoke regarding the continuing monitoring by his students of the most degraded major tributary (Seaton Creek) in the Slippery Rock Creek headwaters. Kristine Dooley and Matt Montag then presented their findings regarding the water quality and aquatic life of Seaton Creek. This information is invaluable to document the potentially positive effects of the land reclamation in-progress and other scheduled projects on the aquatic life. Thanks to Kristine and Matt!!

Allegheny College Presentations

Leslie Hunter and Michael Houser, Environmental Science students, gave excerpts from their respective Senior Theses. Leslie Hunter's work was entitled “**Uptake of Iron and Manganese by Three Aquatic Macrophyte Species In a Wetland Mitigating Acid Mine Drainage**”, while Michael Houser's work was entitled “**Downstream Recovery of Macroinvertebrate Communities after Wetland Remediation of Acid Mine Drainage**”. Leslie and Michael have graciously provided copies of their papers to the Coalition, which have been added to our growing list of references. These papers are of professional quality!! While attending a national meeting on reclamation, Coalition participants received requests for copies of these papers from people outside the region!! Thanks, Leslie and Michael for all your hard work!

(Over)

Field Tour

The afternoon was spent in “show-and-tell”. Vans provided by Slippery Rock University transported attendees to the sites while participants in the SRWC, who had worked in the area for a number of years, identified and discussed abandoned mine sites, remine areas, and recent mining activities “en route”. General water quality of the area was also discussed during the trips. The PA DEP, District Mining Operations (Knox, PA), provided sets of “before, during and after” photos for sites included in the tour. Thanks to everyone who made this a memorable event!!!

Sunbeam Tipple

Highlighted during last year’s tour, a brief pause was made at this site in order to compare the pre-reclamation photos with the current site conditions. This site provides a strong visual example of successful reclamation.

Chernicky Landowner Reclamation

Hank Thomas (Knox District Mining Office) shared his in-depth knowledge regarding the site history and vividly described the degraded water quality and abandoned site conditions. With equipment operating in the background, Fred Johnson (Amerikohl Mining, Inc.) explained the “nuts-and-bolts” of the operation, including estimated project life, equipment used, manpower, and the incorporation of circulating, fluidized-bed coal ash from the Scrubgrass Generating Plant. This site was included in past year’s field tour prior to project commencement. Returning visitors were able to stand where last year they saw an abandoned pit !!!

Ferris Complex

This passive treatment complex was completed last fall, and . . . for the first time in about 100 years, the 200-gpm drainage from this site is no longer acid!! Roger Bowman (who developed the engineering plan), Tim Gillen, Jim Plesakov, and Tim VanDyke (Knox District Mining Office) were available to discuss the design and functioning of the vertical-flow systems and wetlands, which were constructed by Puryear Excavating and Kerry Coal Company.

SEE YOU NEXT YEAR!!!

For more information contact:

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