EARTH CONSERVANCY NEWS

VOLUME VI ISSUE 3 Winter 2001

EC Using Education to Tackle Environmental Problems

New AMD Educational Program Now Available Free to Local Educators

Today, education entails a lot more than just teaching basic subjects such as English and math. Students also need to know what's going on in the world around them and how various issues affect them.

With that in mind, EC has developed several educational initiatives that focus on the special environmental problems of the Wyoming Valley and make it easy for area educators to incorporate pertinent environmental issues into their curriculum.

These new initiatives combine typical educational tools – videos, brochures, lectures – with hands-on learning experiences that get students and their teachers out into the field to see first-hand things like acid mine drainage, land reclamation, reforestation, watershed restoration and economic development.

EC's most recent environmental education effort focuses on the region's acid mine drainage problem.

Using an environmental education grant from the PA Department of Environmental Protection's Growing Greener Program, EC produced a 35-minute educational video in conjunction with WVIA, the local Public Broadcasting Service affiliate, and biologist Dr. Ken Klemow.

A full-color, in-depth brochure on AMD was also developed that can be used independently or in conjunction with the video. This brochure was funded through an Eastern PA Coalition for Abandoned Mine Reclamation (EPCAMR) AMD Regional Watershed Support Initiative grant.

EC will supply these brochures and videos *free of charge* to interested schools/groups and then follow up with a tour of EC's constructed wetlands in Hanover Township. EC's wetlands are successfully treating acid mine drainage in the Nanticoke Creek Watershed and are frequently toured by local students. College students have also used these two facilities to conduct course research and lab work.

In addition to working with individual schools/ groups, EC is also partnering with the Wyoming Valley Sanitary Authority, The Luzerne Intermediate Unit, and The Citizens Voice Newspapers in Education Program to develop a curriculum on water quality issues that can be used in regional middle- and high schools.

However, AMD is not EC's only focus. Throughout the year, EC personnel address various groups on land reclamation, illegal dumping, reforestation, land use planning, and community development initiatives. EC offers project site tours, on-site presentations, tree plantings, litter clean-ups and will work with groups to tailor a program to their needs.

Anyone interested in taking advantage of these programs should call Amy Gruzesky at 823-3445.

Phase I Wetland Site to be Expanded __

Project Expected to Increase the Complex's Efficiency

EC's Phase I constructed wetland has been treating abandoned mine drainage adjacent to Espy Run since 1996. The 0.3-acre system uses a natural oxidation process to remove iron and other contaminants from the water, resulting in cleaner water being released into the Nanticoke Creek watershed.

For the past several years, the complex has also been used by local college students as an outdoor lab for water sampling and plant and animal life study, and is a frequent stop on EC-run educational tours for community groups and local school children.

Now, thanks to a \$41,600 grant from the Department of the Interior's Office of Surface Mining, EC will be enlarging this site to increase its iron-removing efficiency, enabling the system to operate at a much greater capacity.

EC has partnered on this project with Wilkes University, which is contributing approximately \$16,000 of in-kind services to the project, while EC will provide \$10,000 in funding.

The Phase I site was primarily funded through a grant from the U.S. Environmental Protection Agency.

Athletic Fields To Be Ready for Play Next Year.

The grass is growing on the athletic fields at EC's new recreational facility in Hanover Township, adjacent to State Route 29, and a fence has been erected around the fields' perimeter. The recently constructed fields should be ready for play by next fall, when the grass has matured and an access road to the site are in place.

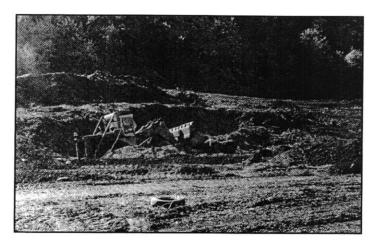
The fields are only one part of a new 63-acre recreational site being developed by Earth Conservancy. Phase I, which entails approximately eight acres, will offer two multipurpose athletic fields, a basketball court, parking area and walking trail.

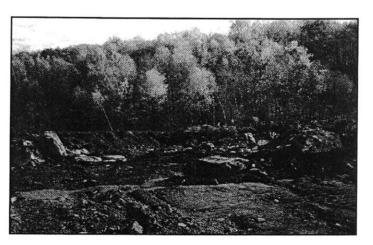
Preliminary reclamation has begun on Phase II, which will offer a regulation-size baseball field, two basketball courts, parking, and an extended walking trail. Rough grading of the baseball fields and parking area is now underway and should be complete by the end of this year.

The project's third phase, will add two Little League/ softball fields, two tennis courts, another multi-purpose athletic field, and a community building.

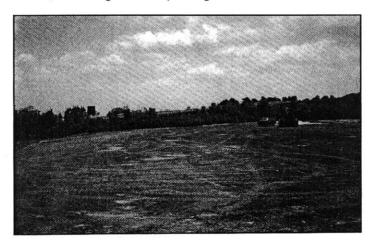
In preparation for the opening of the fields, EC has begun discussions with the PA Dept. of Conservation and Natural Resources, Luzerne County, and the municipalities and school districts within the immediate surrounding area of the site to discuss the future maintenance and operational responsibilities for this facility.

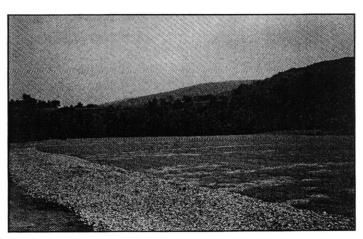
EC's intent is to donate this recreational facility and other completed Open Space projects to entities that are both able and willing to assume responsibility for these projects and ensure their long-term intended use.





These photos show the progression of reclamation and development of the first phase of Earth Conservancy's Recreational Fields project. The top two photos show reclamation in progress, which included the removal of numerous large boulders and leveling the site. In the lower left photo, the field area has been leveled and graded. And in the lower right photo, grass has been planted and the perimeter of the field outlined in gravel. Located in Hanover Township, adjacent to State Route 29, this community recreational area will offer regulation-size athletic fields, basketball and tennis courts, a walking trail and parking.





EC Ready to Begin Work on Mocanaqua Loop.

The PA Department of Conservation and Natural Resources has awarded EC a \$100,000 PA Recreational Trails grant for construction of the Mocanaqua Loop trail in Conyngham Twp.

This 6-mile, looping trail constitutes the first third of EC's larger Escarpment Trail, which will connect Mocanaqua and Nanticoke via Penobscot Mountain's ridegetop. The trail begins in Mocanaqua, near the Susquehanna River, travels three miles along the mountain to the ridgetop, and then loops back to the beginning point via a set of secondary trails.

When formally developed, The Loop will be a natural, rugged trail that will be available for low-impact, non-motorized uses, such as walking, hiking, mountain biking, birdwatching, etc. Overlooks will provide users with safe areas to enjoy the panoramic views of the Susquehanna River and the valley below. Signage will delineate the trail's route, as well as provide interesting facts about the area's

history, topography and natural environment.

EC publicly presented plans for this trail at the September Conyngham Twp. supervisors' meeting and will encourage continued community involvement throughout its development to ensure that this recreational trail best meets the region's needs and desires.

"Right now, we're working on a Request for Proposals for the design of this project," said EC President Mike Dziak. "Once a design consultant is selected and begins working on this project, we will hold public meetings to gather input from residents so that this trail reflects the community's needs.

Future plans for The Loop include completion of the Escarpment Trail and a possible connection to the Susquehanna Warrior Trail on the opposite side of the Susquehanna River.

Local Rock Climbers Take Care of Natural Area.

Located just outside of Mocanaqua, set back a few hundred feet from the road, is a place called The Wall. It's not a memorial or remnant of some significant building from days gone by, nor does it resemble a wall in the typical sense. This wall is made of rocks, BIG rocks.

For some, this area has become an ideal place to practice and perfect their ability in the growing sport of rock climbing. Very often, these enthusiasts can be seen climbing The Wall, making their way to the top using the smallest holes and slightest protrusions in the rocks for footing and balance, with a specialized rope attached to anchors in the rock wall and a safety harness worn around the climber's waist in the event they slip and fall.

A local group of climbers has become the unofficial steward of The Wall and its surrounding land, working in conjunction with Earth Conservancy to ensure the site's well being and the future recreational use of this area.

The group performs volunteer litter clean-ups, maintains a small parking area, and has helped EC maintain signage in the area about land ownership, maintenance, and permitted uses.

Other rock climbing areas exist on EC lands and EC is considering ways to incorporate these areas into its proposed open space projects to ensure as many recreational opportunities as possible in the Wyoming Valley.

EARTH CONSERVANCY NEWS

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Inquiries and comments may be addressed to Amy Gruzesky, editor, at the preceding address, or by calling 570-823-3445.

Earth Conservancy is a private, non-profit, 501 (c)(3) corporation.

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Earth Conservancy, a non-profit organization committed to the revitalization of 16,300 acres of former coal company-owned land, will plan for its most productive use and manage that land for the next 20 years.

Over 10,000 acres of Earth Conservancy land will be committed for open spaces and recreational purposes.

Working cooperatively with local, state and federal agencies, governments, educational institutions, and local residents, Earth Conservancy will return these abandoned lands into productive assets for the communities in which they lie.

Reclamation, conservation, responsible development and recycling will be employed for this purpose.

Innovative environmental technologies will be used to improve the quality of the land and water. Knowledge will be shared with students, learning institutions, and interested community groups.

Earth Conservancy's actions will improve local tax bases, help create new and better jobs, and develop and apply new environmental technologies.

EC is a private, non-profit, 501(c)(3) organization. Officers of the corporation are: Mark Dingman, Chairman; Rhea Simms, Vice Chairman; Susan Shoval, Secretary; John McCarthy, Jr., Treasurer; Michael Dziak, President and CEO. Other board members are: Margaret Bakker, Stephen Barrouk, Dr. Christopher Breiseth, Joseph Hillan, A. Peter Kanjorski, Gary Lamont, James Manley, Robert Mericle, Fr. Thomas O'Hara, Edward Schechter, and Harold C. Snowdon, Jr.

Board meetings are open to the public and usually held the first Thursday of each month at 8 a.m. at Earth Conservancy's offices, 101 S. Main St., Ashley.

* Check the Times Leader and Citizens Voice newspapers for notices of upcoming meetings/ scheduling changes, or EC's website at www.earthconservancy.org. Go to the EC Info link.

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2000 Annual Report To The Community

The year 2000 was a busy one for Earth Conservancy, as well as an enterprising one. The staff and board tackled new projects in recreational development and environmental education, while continuing to make strides in land and water reclamation and economic development projects.

To date, EC and its partners have reclaimed 700 acres of minescarred land and are in the process of reclaiming an additional 100 acres. At the same time, EC is also involved in watershed restoration projects within two major Wyoming Valley watersheds, the Newport and Nanticoke Creek watersheds.

Recreational space has been identified as a need in our region and over the past year EC has responded, beginning several projects contained within the Lower Wyoming Valley Open Space Master Plan, including a 63-acre community recreational area, a hiking/biking trail, and a heritage park.

And, in keeping with our mission to share knowledge with students, learning institutions, and interested community groups, EC created major educational tools aimed at teaching our youth about the special environmental problems faced by Northeastern Pennsylvania.

None of these projects could have happened were it not for the cooperation of local, state, federal and national entities, as well as the many committed individuals who supported EC through their collaboration on these projects.

As we begin 2001, we would like to take an opportunity to formally thank EC's Board of Directors, supporters, volunteers, staff, and all of the organizations/ entities which provide funding, partnership, and/or professional expertise to EC. Following is Earth Conservancy's *Annual Report to the Community* for 2000.

ACCOMPLISHMENTS

Land Reclamation

- > Secured a \$750,000 state Growing Greener grant to aid EC's efforts to reclaim the Huber, Preston and Sugar Notch Bank areas in Hanover Township and began design activities associated with reclamation. The total project area consists of four land parcels that can be reclaimed independently in a phased approach.
- > Reclaimed the 10-acres comprising the first phase of the community recreational area in Hanover Township, adjacent to State Route 29, which will offer athletic fields and basketball courts, parking, a walking trail and other amenities. EC also completed design and permitting activities and began construction of the second phase of the recreational area in Hanover Township adjacent to State Route 29. (For pictures and a more detailed story, see page 2 of newsletter.)
- > Partnered with the PA Department of Environmental Protection's (DEP) Bureau of Abandoned Mine Reclamation (BAMR) to reclaim an abandoned waterfilled strip pit on approximately 17 acres of EC land in Hanover Township, resulting in the removal of a safety hazard. An entrance to this parcel was also constructed, which can be used for future residential development.

- > Partnered with DEP's BAMR to complete the design for approximately 60 acres on EC land known as the former North American Mining Site in Newport Township, off of the Kirmar Parkway. Reclamation of this site is underway.
- > Negotiated with private companies to begin reclamation of the Bliss Bank area in Newport Township, the Concrete City silt area in Hanover Township, and additional parts of the Huber Bank area in Hanover Township.
- > Performed an analysis of the Franklin Bank in Hanover Township and provided the results to potential commercial partners to determine their interest in reclaiming the site by processing the usable material for fuel.
- > Partnered with the PA Department of Conservation and Natural Resources' (DCNR) Bureau of Forestry to plant approximately 110,000 seedlings on reclaimed EC land in Newport Township.
- > Secured a permit to harvest topsoil from a parcel of EC land in the City of Nanticoke for use on EC land reclamation projects.

ACCOMPLISHMENTS

Water Reclamation

- > Partnered with the U.S. Geological Survey (USGS) and Wilkes University to assess the water quality of the Newport and Nanticoke Creek Watersheds and determine the amount of water flow being lost to the underground mine pool. Funding for this project was provided through DEP's Non-point Source Pollution Control Grant Program and USGS.
- > Received a commitment from the U.S. Army Corps of Engineers, in cooperation with DEP's BAMR, to fund an engineering plan to restore the Nanticoke Creek Watershed, which could result in a \$7.5 million ecological restoration project.
- > Secured a \$41,600 grant from the U.S. Department of the Interior Office of Surface Mining's Appalachian Clean Streams Initiative Grant Program to make operational improvements at EC's Espy Run Mine Drainage Treatment Wetland Site. (See story on page 1 of newsletter.)
- > Secured a \$6,600 grant, with matching funds from USGS, to assess precious metal and trace element chemistry and concentrations for the 12 largest mine water discharges in the eastern and middle anthracite coal fields.

LAND USE PLANNING/ECONOMIC DEVELOPMENT_

- > Partnered with Luzerne County to secure a \$60,000 grant from the U.S. Economic Development Administration to develop a long-range land use plan for over 1,000 acres of EC and County land adjacent to the proposed Exit 46 to Route 115 Connector Highway on the eastern side of Interstate 81 in Wilkes-Barre and Plains townships. EC's involvement in this project facilitated the approval of an additional \$11.8 million for the proposed Exit 46 to Route 115 Connector Highway, which brings the total amount of committed funds to \$13.8 million. Proposals to begin the engineering and environmental assessment work have been solicited from various engineering firms by PennDOT.
- > Donated 50 acres of land to area municipalities.

The Mixed-Use Plan

This plan proposes a creative integration of industrial, commercial, residential and recreational development, as well as green spaces, in a 2,000-acre area along the State Route 29 corridor in Hanover and Newport townships and the City of Nanticoke. The plan's main objective is to foster economic development and improve the region's quality of life by developing land in ways that create a

- vibrant living environment where residences, workplaces, and recreational spaces are close to one another, thereby decreasing commute times and providing added convenience.
- > Worked with prospective industrial, commercial, and residential developers toward implementation of EC's Mixed-Use Plan surrounding the State Route 29 corridor in Hanover and Newport townships and the City of Nanticoke.
- ➤ The Hanover Crossings Business Park is a significant regional development that evolved from EC's Mixed-Use Plan. This 441-acre high-end business park will target knowledge-based firms that offer family-sustaining wages. Development of the first 63-acre phase was completed in 2000 and the park's first building, a 160,000 square foot facility, was constructed on a 30-acre lot.
- ➤ Worked with Legg Mason Real Estate Services to integrate the Mixed Use Plan with regional knowledge-based initiatives, such as the Great Valley Technology Alliance. EC and Legg Mason are also reviewing the plan's non-employment components and amenities, such as retail and entertainment possibilities, investigating potential capital sources, and

working with residential and commercial developers. EC will also work to initiate partnerships with regional economic development organizations and develop a marketing strategy for this plan.

Transportation

> Donated funding for additional engineering/design work for the new alignment and extension of the Route 29/Luzerne County Community College Connector (LCCC) Highway to Roberts Road. This new transportation system will ease traffic congestion along Middle Road and increase the safety and efficiency of existing roadways, while also creating better access to LCCC and to land for reclamation and development.

Several years ago, EC initiated the conceptual design for a Sans Souci/LCCC Connector Highway linking the Sans Souci Parkway to Middle Road, near Prospect Street in Nanticoke and adding a new exit to Route 29 to access LCCC. In 1998, this new highway was funded for \$23.6 million and included in the State Transportation Commission's 12-year plan. EC's Mixed-Use Plan recommended changes in alignment and the termination point for this highway mentioned above.

RECREATIONAL AMENITIES

The Ashley Planes

The Ashley Planes are a series of three steep, inclined planes located in Ashley, Hanover Township and Fairview Township that were used to transport anthracite over Wilkes-Barre Mountain to White Haven, where it was then moved to larger markets.

Listed on the National Register of Historic Places, the Planes were built in 1848 and remained in operation for over 100 years. EC is developing the Ashley Planes Heritage Park, which will encompass the entire 500-acre Ashley Planes rail area. A key component of EC's Lower Wyoming Valley Open Space Master Plan, this park will take advantage of the unique natural features on this site, transforming the old railroad beds into hiking and biking trails that will link to EC's proposed Penobscot Ridge Trail and the Delaware and Lehigh National Heritage Corridor's trail system. Interpretive signage will provide information on the rich mining history, on-site historic artifacts, and the environmental resources of the area, and a cultural/environmental center will provide other complementary amenities.

- ➤ Developed a Conceptual Master Plan for the Ashley Planes Heritage Park. This master plan is the first step in creating a detailed design and engineering plan for this 500-acre historical site that EC will transform into a recreational area that combines hiking and biking trails with interpretive historic interpretation, displays and an environmental/cultural center. Luzerne County contributed \$10,000 toward the development of this Conceptual Master Plan.
- > Obtained a \$70,000 Rails-to-Trails Grant from DCNR for the detailed engineering and design specifications for heritage and recreational amenities envisioned for the park. Once the detailed engineering and design plan is completed, EC can proceed to the construction phase, using the \$1 million grant received from the PA Department of Transportation's (PennDOT) Transportation Enhancement Act (TEA-21) program grant.

Luzerne County Recreational Area

Proposed in EC's Open Space Plan, this community recreation area will eventually encompass 63 acres of what was once mine-scarred land and will offer regulation-size athletic fields, basketball and tennis courts, parking areas, a walking trail, and a community center. Funding for this facility was provided by EC, Luzerne County, and the U.S. Department of Agriculture's Natural Resources Conservation Services.

- ➤ Completed construction of two, regulation-size soccer fields, a parking area adjacent to these soccer fields and a basketball court. Grass was planted on the fields in Spring, 2000 and EC expects the soccer fields to be ready for use by Fall, 2001.
- > Began construction of a regulation-size baseball field, two basketball courts, and associated parking as a second phase of the project.

Trails

- Received a \$100,000 Recreational Trails grant from DCNR for construction of the Mocanaqua Loop Trail, which makes up the first third of EC's proposed 9-mile Escarpment Trail. The Mocanaqua Loop is a "looping" trail that will take users three miles up the mountain to scenic, ridgetop overlooks, and then back to the trail's starting point via a system of secondary trails, that can also be used to provide variety for frequent users or those with limited time/physical capabilities. The entire trail area is about 6 miles. EC expects to complete this trail in 2001. (See detailed story on page 3 of newsletter.)
- > Obtained \$34,000 in funding for fiscal year 2001 through PennDOT's Transportation Improvement Program (TIP) for the Escarpment Trail, a 9-mile trail that extends along the ridgetop of Penobscot Mountain's northern reach from Mocanaqua to Nanticoke.
- > Awarded \$50,000 in TIP funding for fiscal year 2002 from PennDOT for the Penobscot Ridge Mountain Biking Area. This money will be used to develop a mountain biking and hiking area in Newport Township on reclaimed EC land south of Wanamie.

Earth Conservancy publishes its **Annual Report to the Community** in the first quarter of each year.

Copies are distributed to all recipients of EC's newsletter, **Earth Conservancy News**, and are available at EC's offices at 101 South Main Street, Ashley.

This report is also available online on EC's website: www.earthconservancy.org.
Click on the EC info link and then the Annual Report link.

COMMUNITY OUTREACH ____

Composting

EC operates a Yard and Leaf Waste Composting facility on Kirmar Parkway, in Newport Township that accepts yard waste from Luzerne County municipalities and residents free of charge. The material produced at this facility is used on reclamation projects, as well as for community projects.

- > Managed and funded the continuing operation of EC's composting facility, which processes approximately 7,500 tons of material annually.
- > Testified before the state Senate Environmental Resources and Energy Committee about the costs associated with the operation of a composting facility, the use of biodegradable bags in storing and transporting compostable material, and the lack of grants available to private compost facilities for operational costs.
- > Donated compost material to local municipalities and community service groups for various community beautification projects.

Environmental Education

- > Worked with WVIA, the local PBS affiliate, and Dr. Ken Klemow, a local biologist, to produce a 35-minute educational video on acid mine drainage, its effects on local watersheds, and EC's efforts to remediate this problem. This video was distributed free of charge to local school districts and interested educators. Funding for its-production was provided through Pennsylvania's Growing Greener Program, along with in-kind contributions from EC, WVIA, and Dr. Klemow. (See story on page 1 of newsletter.)
- > A full-color informational brochure on acid mine drainage and treatment methods was created through a

- grant from the Eastern Pennsylvania Coalition for Abandoned Mine Reclamation's (EPCAMR) Regional Watershed Support Initiative (RWSI). This brochure is also available free of charge to interested educators, community groups, and individuals.
- ➤ EC personnel visited numerous schools and community groups to give presentations on land reclamation and revitalization, watershed reclamation and restoration, acid mine drainage, illegal dumping, responsible land use and development, and recreational initiatives.
- > Conducted site tours of EC projects, including reclamation sites, the Yard and Leaf Waste Composting Facility, and the Phase I and Phase II Constructed Wetland sites.

Volunteer Activities

- > Worked with over 600 local school students, teachers and parents to plant 4,000 seedlings on reclaimed land.
- > Worked with several community groups and college students to conduct litter clean-ups at project sites, including the Phase II Constructed Wetland Complex along Dundee Road in Hanover Township. PennDOT supplied safety vests, gloves, and garbage bags for these clean-ups.

Community Gardens

> Set aside 1.5 acres of EC-owned farmland for use as a Community Gardens project. Interested individuals were given a plot of land to use for personal vegetable and flower gardening. About 20 people participated in this project, which took place from May through November.

HISTORICAL PRESERVATION -

The Huber Breaker

- > Facilitated the Huber Breaker Anthracite Museum and Park Feasibility Study to determine if the historic Huber Breaker can be preserved and re-used as a tourist attraction. This study, completed in August, outlines a variety of preservation options.
- > Assisting the re-organized Huber Breaker Preservation Society in its efforts to begin implementing the proposals contained in this study.

Records Preservation

> Applied to the Pennsylvania Historical Museum Commission for a grant to archive Blue Coal records, maps, and drawings. If funding is received, this archiving project would ensure the preservation of significant historical documents and records, providing a glimpse into one of the largest and most successful coal companies in the U.S.