

Reclaiming More Than Riverbanks

In a corner of Appalachia, geotech engineer Barry Thacker leads an education crusade *By Debra K. Rubin*

Kyle Leinart, a civil engineering student at the University of Tennessee, Knoxville, is dreaming bigger these days. The sophomore from Anderson County, Tenn., a former coal-mine region where poverty is rampant and career options are few, is one of 32 local students who have realized the dream of college. It's all thanks to a project that geotechnical engineer Barry Thacker, president of Knoxville-based GeoEnvironmental Associates Inc., began 12 years ago to address water quality in the region.

Thacker's Coal Creek Watershed Foundation (CCWF) started out with a goal to improve the trout habitat where he liked to fish. It has since become a life-changer for Leinart, his peers and the local community. The non-profit group has awarded more than \$250,000 in college scholarships to date. Its real value has come in connecting students to the region's environment and their career potential.

Mine runoff and flooding have long bedeviled the Coal Creek area. The foundation has been instrumental in reversing ravages of 100-year floods, reclaiming abandoned mine property and improving rudimentary drinking-water supply systems. But addressing the deep-rooted poverty in Briceville was tougher. About 90% of its K-5 elementary school's 140 students are on free or reduced-cost lunches, only 40% graduate high school and less than 3% go to college, says Thacker.



EARN AND LEARN Students aid Thacker (front, right) in Coal Creek flood work. Scholarships require community service and mentoring.

Illicit production of drugs such as methamphetamine is often a leading career choice. "The sheriff told me that a Briceville child would be more likely to go to prison than college," says Thacker. "The kids were thought of as poor, dumb hicks."

Not anymore. Starting with its focus on the younger grades, the foundation has become a key academic partner. "CCWF has given hope to the children who otherwise couldn't dream big," says Leinart. "Each time it visits the school, the kids realize the impor-



“There’s nothing better than being involved with a community. We addressed problems.” —Barry Thacker, CCWF

tance and power they hold over their lives—because I definitely did.” The first scholarship recipient to choose an engineering major was Leinart, whom Thacker encouraged with a summer internship and the promise of full-time work after graduation. Other grads have chosen to pursue advanced business and medical degrees as well as career paths in, for example, mental-health therapy and the culinary arts.

“Barry’s firm was my first real job,” says the 20-year-old Leinart, who switched from computer science to engineering this year. His internship provided enough practice content to cover his first few civil-engineering courses. Leinart is amazed that his work “was actually filed in the firm’s reports. I thought it was just practice.” After he becomes the first family member to earn a college degree, he plans to earn a doctorate in computer science.

Kippie Leinart, Kyle’s mother and a custodian at the Briceville school, is relieved the scholarship will allow him to focus on his GPA without work as a distraction. “This has opened up so many doors, it’s incredible,” she says.

But scholarships come with some strings attached. Using the Coal Creek surroundings as another classroom, the foundation requires the winners to participate in its projects: research on the region’s mining history, tree restoration on reclaimed mine property and riverbank protection, among others. Younger students are pulled into the activities, too. Recipients must also

mentor lower grades and appear at Briceville Elementary’s Scholars Day, a much-anticipated annual event.

Thacker and his wife, Mary, are CCWF’s main benefactors, but mining firms and government entities such as the Tennessee Valley Authority also contribute, as do E&C firms and groups. “Barry did a great job of making engineering and education seem cool with the kids, and the payoff is

Medal in 2003. Engineering societies jointly award it for “outstanding extra-career services by engineers to humanity.” Even with his accolades, Thacker can be an industry gadfly, such as challenging a report by AECOM on the causes of a 2008 coal-ash spill at a TVA powerplant in Kingston, Tenn.

Thacker ventured into a new educational realm earlier this year by having his firm sponsor Briceville Elementary in Engineering Better Readers (EBR), a new venture of the Engineers’ Leadership Foundation, a not-for-profit group focused on honing engineers’ leadership skills.

The incentive-based program aims



NEXT-GEN ENGINEERS? Students boost reading with school’s foundation-run incentive effort.

showing,” says S. Craig Smith, a Hayward Baker project manager in Knoxville. He worked with Thacker on projects while at contractor Phillips & Jordan.

CCWF’s successes have raised its profile, and Thacker has been recognized by the industry and national media. Nominated by ASFE, the geotechnical engineers’ group, and the American Society of Civil Engineers, he was awarded the prestigious Hoover

to boost reading scores in low-performing schools by awarding prizes to students who read more books. Thacker’s firm donated \$3,000 toward the prizes and volunteered staffers and CCWF scholars as student mentors. While not linking results totally to EBR, “reading scores across the board were very, very up,” says teacher and program coordinator Michelle LaDue.

Kippie Leinart, once skeptical of CCWF’s motives, now thinks differently. “I tell other kids to stay with these people,” she says. Adds her son, “Barry balances his firm and voluntarily aids an entire community. He doesn’t even seem to mind the scale of it all. It just seems like his day job.” ■



“I learned enough with Barry in a short time to cover my first civil-engineering courses.” —Kyle Leinart, U. of Tennessee sophomore