



Educational outreach is an essential part of Luminant's environmental commitment. Furthering the awareness of students and their teachers about energy and the environment creates tremendous value for all involved. It provides essential environmental research for Luminant's own programs and across the industry, enhances teaching skills, helps students and their teachers understand the connection between energy and the Earth, and nurtures future careers in the sciences.

### Advancing Sound Science



*The Luminant Environmental Research Program funds graduate students' independent research.*

- More than forty years later, the program remains unlike any other – funded by the company but designed for graduate students to conduct research independently.
- To ensure objectivity in both researching and reporting findings, an autonomous steering committee of leading scientists, educators and advisers guides the program. Independent from Luminant, this uncompensated group approves research topics, awards fellowships and supports students and professors in publishing the results.
- Luminant has provided over \$4 million in funding for the completion of 100 independent, published student theses and dissertations on the company's environmental footprint.
- This research has not only influenced Luminant's environmental policies and practices but has also provided a technical resource for regulatory agencies and helped establish industry-wide best practices.
- The centerpiece of Luminant's educational and research partnerships is the Luminant Environmental Research Program, with its research center at the Big Brown lignite coal mine and generating plant. Luminant began this program in 1971 to study the little-known effects on the environment of mining lignite and using it to generate electricity.



The Luminant Environmental Research Program was honored with the 2009 Director's Award for advancing the science of reclamation from the U.S. Department of the Interior's Office of Surface Mining. The Director's Award is among the highest honors in the coal-mining industry, and Luminant has received it an unprecedented five times.



## Sending Teachers to Summer School

- Each summer, Luminant sponsors popular teacher-education programs in partnership with the University of Texas at Arlington, Stephen F. Austin State University and the Texas Mining and Reclamation Association. These workshops help teachers understand the inextricable link between the energy needs of humans and the environment.
- Elementary through high school teachers meet with representatives of regulatory agencies, the energy industry and environmental organizations to gain information in an unbiased climate.
- The workshops include field trips to Luminant facilities where teachers experience hands-on activities, including tours of power plants, mines and reclaimed areas.



*Teachers learn about soils at Big Brown.*

## Furthering Environmental Awareness

- Luminant's Big Brown environmental team hosts Freestone County fifth-graders every year for Environmental Awareness Day. In 2012, Luminant and five partnering agencies – the Texas Parks and Wildlife Department, Texas Forest Service, Freestone County AgriLife Extension and Natural Resources Conservation Service – led students in hands-on seminars to enhance their knowledge of wildlife, soil identification and land reclamation and inspire them to practice environmental conservation at home and consider careers in the sciences.
- Luminant also sponsors the Freestone County Soil and Water Conservation District's land-judging contest for area high school students. For 15 years, the Big Brown environmental team has played an integral role in helping organize, judge and teach students about soils so they can evaluate the best use of the land.



*Land-judging contests and environmental seminars spur students' interest in science.*

## Partnering Beyond the Classroom

- Glen Rose ISD environmental science classes, in partnership with Luminant, have monitored the water quality of the Paluxy River watershed since 2002. With the river as their classroom, the students regularly measure the water's physical and chemical parameters. They provide the data to the Texas Stream Team, which makes information about the natural resources of Texas widely available.



*Glen Rose ISD students monitor water quality and restore bird habitat.*



- Thanks to donations from Luminant and other partners, Glen Rose students are also restoring 120 acres of habitat for the bobwhite quail and eastern bluebird at Squaw Creek Park, located at Luminant's Squaw Creek Reservoir, which provides cooling water for its Comanche Peak nuclear plant. This long-term conservation program teaches students about environmental science as well as how to obtain educational grants and work on community projects.
- Luminant was named a recipient of the Texas State Board of Education's Employers for Education Excellence Award for 2012 for its employees' support of Texas public schools, specifically the Glen Rose ISD.