

2011

Governor's Environmental Stewardship Award Winners



EXCELLENCE IN AGRICULTURE AND FORESTRY

Tennessee Farmland Legacy Statewide

The Tennessee Farmland Legacy Partnership was formally launched in 2010 with a memorandum of agreement between 12 public agencies and organizations throughout the state. Although the formal partnership was signed in 2010, the Farmland Legacy group has continuously worked together since 2008 to share information, staff and resources; collect and disseminate information to stakeholders on the preservation of working farms; conduct and provide support for educational workshops and conferences on farmland preservation issues; and to serve as a central resource on technical and financial programs offered by private organizations and state and federal agencies. The Farmland Legacy Partnership serves as a sounding board and means of communication to coordinate the actions of a diverse group of agencies, organizations and interests. This has been accomplished through two statewide conferences, 26 regional and local workshops, and continues through website resources and ongoing planning of events and activities this year and beyond. More than 15,000 working acres of farmland – which included over 50 individual farmers in 28 counties – have been protected because of this partnership.



(l-r) Tim Phelps, Forestry Program Specialist, Department of Agriculture Division of Forestry; TDEC; Commissioner Robert Martineau; Emily Parish, Land Protection Manager, Land Trust for Tennessee; Dr. Tim Cross, Dean UT Agricultural Extension Service; Jane Howell Starnes, UT Research Associate, University of TN Institute of Agriculture; Department of Agriculture; Assistant Commissioner Joe Gaines; TDEC; Jennifer Watson; Caneta Hankins, Asst Director, Center for Historic Preservation - MTSU; Deputy Governor Claude Ramsey

EXCELLENCE IN AQUATIC RESOURCE PRESERVATION

City of Millersville and Goodlettsville: Stream Watch Committee Sumner County

This nine-member water quality committee was created to ensure the protection of Slaters and Mansker creeks in the cities of Millersville and Goodlettsville. Consisting entirely of volunteers, this non-profit committee has successfully cleaned the two streams through three separate events. Activities include removing over 5,000 pounds of metal, which was recycled and generated \$500 in revenue; and collecting more than 500 bags of household trash, which was removed from the creeks and banks along with many larger items that would not fit into trash bags such as broken bikes, an above-ground swimming pool and tires. The committee successfully pursued the prosecution of one illegal dumping case in the city of Millersville, along with aiding in the correction of two illicit connections to Slaters Creek.



back row (l-r) Jim Thomas, City Manager, City of Goodlettsville; Tim Ellis, Assistant City Manager, City of Goodlettsville; Dan Toole, Mayor, City of Millersville; Robert Mobley, City Manager, City of Millersville front row (l-r) TDEC Commissioner Robert Martineau, Jr.; Karen Smith, Stream Watch Co-Chair representing City of Millersville; Amy Murray, Stream Watch Co-Chair representing City of Goodlettsville; Deputy Governor Claude Ramsey

EXCELLENCE IN BUILDING GREEN

Volkswagen of North America Assembly Complex Hamilton County

Volkswagen of North America invested \$1 billion over the last three years to build a U.S. production facility in Chattanooga – their first in 20 years. The automobile manufacturing facility was built on a 1,350-acre Brownfields site and includes conventional steel framed buildings with concrete columns, steel floor and roof structures, metal wall panels and a single-ply membrane roof. The primary manufacturing operations include weld, paint and assembly. The facility will use rainwater harvesting in order to supplement 653,000 gallons of water per year used for greywater, reducing the overall water usage onsite. The facility also will incorporate the use of landfill gases from an existing local landfill site to generate electricity through a conversion process. A special roof was used throughout 1.8 million square feet of roof surface in an effort to minimize the heat island effect.

Skylights are used generously throughout the building to provide natural lighting, which reduces the energy demand from light fixtures. There are dedicated carpool and vanpool parking spaces in the main parking lot, as well as preferred parking for low-emitting and fuel-efficient vehicles. An extensive stormwater conveyance system consisting of bioswales, vegetative ditches and culverts culminating at a constructed sluice gate acts as the primary stormwater management system. A large portion of the acreage has been set aside for native or adapted plants, which do not require permanent irrigation. Specific species have been planted in the ditches and swales for filtration of suspended solids.



back row (l-r) Bob McCain, Vice President, Principal Division Manager, SSOE Group; Nate Czerniejewski, Sr. Associate, Sr. Project Manager, SSOE Group; Brian Spencer, Principal, Sr. Project Manager, SSOE Group; back row (l-r) TDEC Commissioner Robert Martineau, Jr.; Ronald Drumeller, Environmental Specialist, Plant Infrastructure, Volkswagen Group of America, Chattanooga Operations; Dieter Schleifer, Manager, Plant Infrastructure, Volkswagen Group of America, Chattanooga Operations; Deputy Governor Claude Ramsey

EXCELLENCE IN ENERGY LEADERSHIP

Solar Power at the Arts Center Cannon County

The Arts Center serves as a cultural center for Cannon County and the five surrounding counties, providing both art and education as a not-for-profit organization. A private investor, Good Earth Energy, leased the center's roof to prepare for a 29 kilowatt solar installation. After 15 years of operation, the system will be donated to the Arts Center. After the system has been in operation for 16 years, the Arts Center will obtain ownership of the solar array – benefiting directly from reduced energy bills. Good Earth funded an educational kiosk inside the Arts Center, featuring real-time output displayed on monitors for the viewing public. LightWave Solar installed the system and funded a time-lapse video of the installation to be played in the educational kiosk and through various electronic media. Also significant is the solar billboard, which is located on the roof and visible to the 13,000 people that pass the center daily. Additional programming for this cultural center is now possible, including discussion about renewable power, energy conservation and emissions generated through traditional fossil fuel consumption. Solar panels on the Arts Center present another piece of the puzzle - local energy production. Beginning this summer, the Farmers Market of Cannon County is relocating to the Arts Center facility. With an interest in local food production and the culinary arts, this particular audience traditionally has raised awareness about larger sustainability issues.



back row (l-r) Steve Johnson, Owner - Lightwave Solar Electric, LLC; Bruce Clarke, Owner - Good Earth Energy, LLC; Pete Vash - Project Engineer - Lightwave Solar Electric, LLC; front row (l-r) Greg Rogers, Board President - Arts Center of Cannon County; Fran Paris - Board Member - Arts Center of Cannon County; TDEC Commissioner Robert Martineau, Jr.; Donald Fann, Director - Arts Center of Cannon County; Neal Appelbaum - Board Vice President - Stones River Watershed Assoc.; Deputy Governor Claude Ramsey



EXCELLENCE IN GREEN SCHOOLS HIGHER EDUCATION

The University of Tennessee at Martin Recycles Weakley County

UTM Recycles is a rural-based recycling movement supported by the University of Tennessee at Martin and is the only comprehensive recycling program of its kind in the area. Along with providing support for recycling, the program provides education in the form of talks, disseminated literature and sponsored events. UTM Recycles is unique due to its location on the university campus and because it encourages the community and the school to use the program, free of charge. The program accepts an extensive array of products, including cardboard, paper, aluminum, scrap metal, glass, printer cartridges, plastics, books, clothes, shoes and electronics. Working with various community groups and organizations to set up and organize their sustainable efforts, the school expanded its educational programs to include service learning. Reporting over 1,100 volunteer hours last year from people of all ages at the facility, UTM recycled 40 ton of glass, 38 tons of scrap metal, 46 tons of plastic, 245 tons of cardboard, 63 tons of paper, 40 tons of compost and 10 tons of aluminum. This classroom experience also sparked more than 15 sustainable projects, bringing students and members of the community together.



(l-r) TDEC Commissioner Robert Martineau, Jr.; Jason Russell; Dennis Kosta; Angie MacKewn; Heidi Huse; Deputy Governor Claude Ramsey



EXCELLENCE IN GREEN SCHOOLS K-12

Stone Memorial High School Cumberland County

Stone Memorial High School opened the doors of its beautiful new school on 65 acres in rural Cumberland County in the fall of 2006. The school was recognized as a Tennessee Pollution Prevention Partnership Green School Partner in September 2007, with the successful launch of its mixed paper and cardboard recycling program. Each year, Stone Memorial's Ecology classes interact with their school and community by carrying out environmental projects on the campus and beyond. Through their research and initiatives, the Ecology students have garnered support of the school administration and raised awareness of environmental issues throughout the student body. This place-based approach to environmental education has been highly successful at Stone Memorial. The projects include expanding plastics collection and reducing energy usage at the school. This year, students identified significant issues to tackle including reducing plastics going to a landfill and reducing high utility bills. In addition to reducing energy costs, the school saved \$2,970 in landfill tipping fees. The plastics recycling program prevented 2,100 pounds of plastic from going to the landfill and generated \$294 for Cumberland County Recycling.



back row (l-r) Eric Brady; Charles Daugherty; TDEC Deputy Commissioner Brock Hill ; front row (l-r) TDEC Commissioner Robert Martineau, Jr.; Nan Evans Beesley; Annell Steen Fields; Linda Daugherty; Deputy Governor Claude Ramsey



EXCELLENCE IN ENVIRONMENTAL EDUCATION AND OUTREACH

Burgess Falls State Natural Area White County

Burgess Falls State Park and Natural Area is the first Tennessee State Park to offer a full month of on-site, Junior Ranger summer day camps. These day camps educate and involve the local youth in protecting and preserving natural resources. Burgess Falls has implemented a two-part environmental education program. The first involves a Girl Scout Planting/Service Day, which teaches participants about planting and maintaining native plants as well as the value of community service. The second part is a Junior Ranger day camp program, which educates local youth about parks, protecting natural resources, wildlife and the specific duties of park rangers and other park staff. The combined goal of these two programs is to encourage our young citizens and future leaders to respect and protect the natural resources in their community and the importance of being good stewards of their environment.



back row (l-r) State Park Ranger Jeremy Vaden; State Park Manager Bill Summers; State Park Regional Manager Steve Pardue; TDEC Deputy Commissioner Brock Hill front row (l-r) TDEC Commissioner Robert Martineau, Jr.; Crystal Summers Girl Scout Leader; Lisa Lynch State Park Staff; Deputy Governor Claude Ramsey



EXCELLENCE IN HAZARDOUS WASTE REDUCTION

ThyssenKrupp Elevator Manufacturing Hardeman County

ThyssenKrupp Elevator Manufacturing in Middleton, added a \$30 million state-of-the-art fabrication and powder coat paint line. This new addition resulted in an 81 percent reduction in hazardous waste, a 50 percent reduction in water usage and a 79 percent reduction in air emission volatile organic compounds. It also reduced the number of forklifts needed by operations, improved energy usage and improved safety at the facility.



back row (l-r) Brad Nemeth Director of Sustainability Americas; David Gibens Salvagnini Project Manager; Kevin Perkins Manufacturing Engineering Manager; front row (l-r) Bob Preston President of Manufacturing; Pat Ginn Senior Director Manufacturing; TDEC Commissioner Robert Martineau, Jr.; John Abdon Senior VP of Manufacturing; Deputy Governor Claude Ramsey

EXCELLENCE IN GREENWAYS AND TRAILS

Enterprise South Nature Park Hamilton County

Designed to provide an outdoor learning experience for children, Enterprise South Nature Park serves as a classroom for the environmental sciences. This 2,800-acre passive park, formerly the site of a federal munitions storage facility, now serves as a facility whose staff is committed to providing quality recreation opportunities in a natural setting. Visitors can take a brisk hike or a relaxing stroll along woodland paths that traverse various terrains and footbridges, while marveling at the beauty of nature, and breathtaking views from scenic overlooks – including a magical "hidden lake." The Enterprise South Nature Park features 5.3 miles of woodland walking and hiking trails, 10 miles of mountain bike trails, 6.9 miles of paved walking and bike roads, a seven-mile driving loop, a one-mile ADA-accessible woodland trail, three historical exhibits and four picnic areas.



(l-r) TDEC Commissioner Robert Martineau, Jr.; Hamilton County Parks and Recreation Director Ron Priddy; Deputy Governor Claude Ramsey

EXCELLENCE IN NATURAL HERITAGE CONSERVATION

100,000 Trees in Tennessee Statewide

Chris Clark sought to provide solutions to many environmental issues by enabling Tennessee residents to plant native trees across the state. These trees were planted in shopping malls, neighborhoods and corporate properties, in addition to municipalities, public schools and even state parks. Donating 100,000 native trees to Tennessee, Clark inspired these tree “adoptions” while educating citizens about the benefits of native trees across the state. Planting these trees benefited communities by addressing issues such as stormwater runoff, following two consecutive years of record flooding; increases in the carbon canopy; reduction of water levels in our region's aquifers, streams and lakes; persistent erosion of natural resources and wooded areas; sediment in fresh water supplies, caused by bank erosion and runoff; and an emerging concern about the loss of water worldwide.

Within five months of the program’s inception, 100,000 Trees in Tennessee penetrated the entire state with ambitious partnerships developed in 93 of the state’s counties. Should all of Clark’s adopted trees survive even after 20 years, they will have absorbed a combined 41 tons of carbon each year – almost equivalent to what a 350-acre forest would absorb annually.



(l-r)TDEC Commissioner Robert Martineau, Jr.; Chris Clark Owner/president SC&A Land Planning; Catherine Clark daughter; Deputy Governor Claude Ramsey



EXCELLENCE IN PARKS AND RECREATION

Mirimichi Shelby County

Mirimichi Golf Course owners Justin Timberlake and his family Lynn and Paul Harless, are committed to ensuring that the golf course sets a positive example for environmental stewardship in Tennessee. Proud of his Tennessee heritage, Timberlake is committed to supporting the state's environment and wildlife habitats, while encouraging other businesses, golf courses, recreation facilities and individuals to do the same. The family's multi-million dollar investment in Mirimichi demonstrates their strong commitment to Tennessee's environment. A focus on green, sustainable management has been a consistent priority, resulting in being named the first golf course in the U.S. to be certified by the Audubon International Classic Sanctuary program. It also serves as the premier course in all of North, South or Central America to be certified by the Golf Environment Organization, which the course received in 2010. Mirimichi is the only golf course in the world to achieve both of these prestigious designations.

Native grass areas, natural waste bunkers and enhanced water features reduce the manicured acreage on Mirimichi from more than 200 acres to under 90 acres – minimizing the need for fertilization and irrigation. State-of-the-art irrigation and underground drainage systems maximize the efficiency of water usage and reduce soil erosion, while re-circulating water throughout the course. Grassy buffer zones, wetlands areas and aquatic water plants all provide filtration to keep state waterways clean. Mirimichi is a golf destination that welcomes golfers, speaks to their spirit and brings players in harmony with nature. Deep-pit bunkers, elevated greens, seven pristine lakes and several waterfalls and creeks all provide more than 7,400 yards of championship-level, environmentally friendly golf.



back row (l-r) Cary E. Vaughn, Millington Area Chamber of Commerce President/CEO; Rich Peterson, Mirimichi Golf Course General Manager; Justin Lanford, Mirimichi ; Marty Reynolds, Mirimichi; Alex Orozco, Mirimichi; TDEC Deputy Commissioner Brock Hill front row (l-r)TDEC Commissioner Robert Martineau, Jr.; Sam Wright, Mirimichi; Deb Peterson Mirimichi Director of Sales & Marketing; Kristin Skinner, Mirimichi Marketing; Deputy Governor Claude Ramsey

EXCELLENCE IN POLLUTION PREVENTION

Doubletree Hotel Chattanooga Hamilton County

Chattanooga's Doubletree Hotel took on a 2 ½ year rebuild of its 35-year-old hotel. After spending more than \$28 million on the rebuild, the hotel now saves an estimated \$24,000 a year in lighting alone. Utility costs for the year – including gas, water, electrical and waste removal – totaled \$342,000 in 2009 and they were able to reduce that amount down to \$336,000 in 2010. What's notable about this reduction is the fact that the hotel actually rented 50,001 total hotel rooms in 2010, compared to 45,993 rooms in 2009. While renting 4,008 more rooms, the hotel still managed to bring down utility costs.

The hotel installed new energy efficient roofs and energy friendly air conditioning units in each guest room. In addition to ensuring the hotel was better insulated, other upgrades or efforts included recycle bins in all guest rooms; the installation of low-flow toilets and shower heads; energy efficient light bulbs; the use of double-paned and insulated windows; the installing of bathroom light fixtures that are controlled by motion sensors – among many other upgrades that will help in the overall “greening” of the hotel and reduce pollution.



back row (l-r) Bill Mish General Manager of Doubletree Hotel; Sandy Witzel; front row (l-r) TDEC Commissioner Robert Martineau, Jr.; Phil Barrow; Aman Patel; Deputy Governor



EXCELLENCE IN SOLID WASTE REDUCTION

Domtar Paper Company LLC/Kingsport Mill Sullivan County

Located in Kingsport, Domtar Paper Company has demonstrated its commitment to the environment with an innovative program designed to reduce its solid waste and landfill usage and to help local farmers cut operating expenses by the application of nutrient-rich wood ash. Approved by state regulation and supplied to applicants at no-cost, wood ash is a by-product of the paper-making process. Kingsport Mill turned the wood ash into a soil amendment, and in one year since its inception saved local farmers an estimated \$900,000. According to the First Tennessee Development District, an impressive 25 percent of recycling efforts in Sullivan County are those conducted by the Kingsport Mill. Helping 67 fields in a 35-mile radius of the mill, 9,000 acres have been enriched by 17,000 tons of wood ash that formerly would have been landfilled.



back row (l-r) John Elkins, Engineering Manager at Kingsport Mill; Chris Suresh, Utilities Manager; Anthony Robinson, Environmental Manager front row (l-r)TDEC Commissioner Robert Martineau, Jr.; Chelsey Holmes, Environmental Engineer, Solid Waste area; Charlie Floyd, Vice President/Mill Manager; Deputy Governor Claude Ramsey

EXCELLENCE IN SUSTAINABLE TRANSPORTATION SOLUTIONS

Neyland Stadium Improvements Knox County

The phase one renovation of Neyland Stadium at the University of Tennessee/Knoxville included the redesign of the Gate 21 entry plaza, streetscape improvements to Phil Fulmer Way and an amphitheater gathering space. The renovation and improvements to the stadium and its grounds embrace new green technologies, while accommodating everyday campus transit transfers and student life. The design incorporates innovative tree-planting technology, permeable pavement, durable furnishings and native plantings to help meet the university's program of developing sustainable sites within the campus.

Due to large amounts of paved surfaces, minimal green space and contaminants from vehicles and industries, stormwater runoff in urban areas has become a growing concern for municipalities across the country. To combat this issue, Neyland Stadium uses permeable pavers and large soil volume tree planters. The trees on site also help control another problem facing urban communities and their surrounding areas – invasive species. Only native, or non-invasive plant material was introduced at the stadium in an effort to demonstrate the beauty and vigor that these plants maintain throughout the seasons, as well as ensuring their presence stays only where it is wanted. Additionally, trees planted throughout the site serve as a cooling agent to mitigate the consequences of urban heat island effect.



back row (l-r) Edwin McDougale, President, Ross Bryan Associates; Brian Pittman, Designer, McCarty Holsaple McCarty; David Ashworth, Project Manager, Wilbur Smith Associates; Michael Cate, Architect, University of Tennessee Division of Facilities Planning front row (l-r) TDEC Commissioner Robert Martineau. Jr.: Stuart Butcher. Design

Greer Tidwell, Sr. Davidson County

Greer Tidwell, Sr. has applied his talents to improving our natural world throughout his 50-plus years as a Civil Engineer. From his first job at TVA in 1961 – to his work as Regional Administrator for EPA's Region IV in the 1980s – to the classroom at Vanderbilt University – and now as a sought-after consultant, Greer's accomplishments reflect a skill set, intelligence and personality that made it possible for him to really move the needle in both the public and private sectors.

Early in his career, Greer was instrumental in helping Tennessee develop a groundwater strategy for the western part of the state at the Department of Health. Then – still as a young engineer – he rose through the ranks at TVA to become Chief of their environmental assessment staff. After the U.S. EPA was created in 1971, Greer served as Chief of the Tennessee/Kentucky Liaison Office in Nashville, as the new federal agency was just getting established. After several years of effective public service, Greer founded a successful environmental engineering firm where he was chairman and CEO for 14 years. While he enjoyed the chance to work with people and communities to solve complex problems through his company, Greer received another opportunity to do the same at an even greater scope and scale when President Ronald Reagan asked him to serve as the Regional Administrator for EPA Region IV in Atlanta. In his four years as Regional Administrator, Greer was instrumental in formulating and implementing national policies and programs focused on critical environmental issues. Known for combining engineering acumen with a deeply personal and heartfelt concern for natural resources, he was able to bring people together and build trusting relationships – while handling some of the toughest issues of environmental protection. Whether he was dealing with a local official in Greene County or a seminal decision maker like Senator Howard Baker, Greer was an effective advocate for common sense and a cleaner environment. While serving as Regional Administrator, Greer was particularly involved in leading initiatives to protect wetlands and to help areas of the Southeast attain national ambient air quality standards. After Greer left EPA he went on to teach engineering at Vanderbilt University. While teaching students in the Civil Engineering Department voted him “Best Professor” – largely due to the practical experience he shared in the classroom.

Greer provided strategic direction and oversight in the restoration of the Copper Basin in extreme Southeast Tennessee. The remediation effort here is one of the great cleanup stories of the last 50 years and has made it possible for the Olympics and many recreational enthusiasts to get back on the Ocoee River. Second, he was on point with daily oversight to achieve the first-ever, on-time, under-budget radiological waste cleanup at the Department of Energy's Paducah, Kentucky site known as “Drum Mountain.” Third, his guidance on the groundwater cleanup beneath Miami International Airport required both his engineering expertise and his personal savvy. I suppose Greer's is a true Tennessee success story. He honed his skills and abilities helping us here in Tennessee, then he moved on to impact the entire region – now, he has now spent the last decade working on major environmental issues at the national and international levels – even hosting officials from foreign countries when they visit the United States to learn about our environmental experience. His professionalism, integrity, and outstanding leadership have been instrumental in creating significant environmental improvements at the local, state, regional and national level. There is no doubt – Greer Tidwell, Sr. has served the people



(l-r) TDEC Commissioner Robert Martineau, Jr.; Shari Stanley (daughter); Melanie Stanley (granddaughter); Brittainy Tidwell (granddaughter); Hunter Tidwell (grandson); Marian Tidwell (Daughter in law); Greer Tidwell, Jr. (son); Deputv Governor Claude