



TENNESSEE AQUARIUM GREEN PRACTICES

Tending to more than 10,000 animals, hundreds of species of plants and hundreds of thousands of guests each year is a resource-intensive business, but the Tennessee Aquarium's commitment to the environment inspires us to reduce our carbon footprint more every year.

Through our Go Green Initiative, our conservation efforts extend to every part of our organization. In 2009, staff within each department met to identify ways in which existing green practices could be expanded to have even more impact. Hundreds of new initiatives were identified and implemented to lower energy costs, produce less waste and protect the environment. Every person who works at the Tennessee Aquarium is a member of our Green Team, and sustainability and environmental stewardship are individual as well as institutional core values.



LET THE LIGHT SHINE

Soon after opening River Journey in 1992, we began methodically replacing almost every original light fixture or lamp with more energy efficient and easier-to-maintain options as they became available. Most of the facility and exhibit lighting areas are controlled by a lighting control system. Within selected small exhibits, back-up spaces and office spaces, motion detector switches have been installed so that when no one is using a space, lights are not turned on. Timers have been installed in other areas to minimize usage when the Aquarium is closed. Similar attention was paid to lighting and energy use when Ocean Journey opened in 2005.



IT'S HOT TO BE COOL

New equipment selections to heat, cool, filter and pump air, water and fuel to our buildings and exhibits are based on their energy ratings, correct sizing for the job and process control. When practical, variable frequency drives, which help minimize energy output, are used on existing equipment motors that are not cost effective to replace. Programmable thermostats also help supplement building automation systems.

When equipment does need replacing, priority is placed on reaping energy benefits. For example, massive chillers in River Journey produce chilled water for cooling the building and controlling temperatures in the exhibits. In 2011 these 19-year-old units will be replaced with more energy efficient alternatives. Although this is a major capital expense, the energy savings alone will pay for the new chiller units in less than five years.

Thanks to initiatives like these, we are proud that the Aquarium's kilowatt usage per square foot has gone down since we opened in 1992.





WATER, WATER EVERYWHERE

Whenever possible, we re-filter and reuse water in our exhibits. In Ocean Journey we reclaim 16,000 gallons of water per week. Life support systems are constantly monitored, and most back washes that occur during the filtering process are based on need rather than an arbitrary time schedule, which results in reducing water use. We have installed waterless or low-flow urinals in two restrooms; more will be added in 2011.





GREEN PURCHASING

We strive to use only environmentally friendly products for building and exhibit maintenance, remodeling and new construction. This means environmentally friendly cleaning supplies, flooring choices, construction wood and no- or low-VOC paints and solvents wherever possible. Much of what is removed in a remodeling effort is recycled so that little construction waste is produced.

We also make green choices when we purchase office supplies or print any documents for internal or external use. Our office printers are programmed to automatically print on both sides of our copy paper, which is made of 100% post consumer content certified by the Forestry Stewardship Council (FSC). When selecting printing companies for brochures, stationery and other marketing pieces that cannot be effectively distributed as electronic documents, we look for those who have FSC chain of custody certification.

Food and beverage trays and cups are made of recycled, unbleached, chlorine-free paper. Popcorn bags are made of FSC certified natural fiber and are manufactured using energy-saving techniques. Greenware products are also used on the River Gorge Explorer. Our contracts with caterers for evening events prohibit the use of Styrofoam™ products, and we request the use of greenware plates and cups whenever possible. Even the flip charts provided for our meeting rentals are made of recycled paper, and the markers are environmentally friendly.



TENNESSEE AQUARIUM PROGRAMS

We practice and we teach this way of life. Our Education Department has developed over 24 different programs for school children that specifically address sustainability issues. We deliver those programs to 15,000 children at the Aquarium and an additional 20,000 via educational outreach annually.

This fall, interested staff attended as many as six different 'Go Green University' classes, each taking a higher-level look at sustainability. The classes included presentations by experts on water, air, food production, recycling, climate change and biodiversity.

The Aquarium is a sponsor of and leader in Tennessee River Rescue. For 19 years hundreds of local volunteers have cleaned up designated Tennessee River sites within three counties. Happily, this effort, which also includes educating the public about protecting our precious freshwater resource, is making an impact. Each year the amount of trash collected goes down while the territory to be covered by the clean-up goes up.

For 15 years every April the Aquarium has celebrated Earth Day and sponsored Party for the Planet the past three years. More than 12 environmental organizations set up interactive displays to encourage families to be good environmental stewards, spreading the word to over 10,000 visitors about the benefits of living sustainably.

Every spring and fall, in connection with River Rescue and Earth Day, children, aged five to 12, participate in a Walk the Talk program on the riverfront. Led by an Aquarium educator, these kids learn about recycling and the importance of keeping the environment healthy while participating in a clean-up effort.

In partnership with Coca-Cola and Ace Hardware, the Aquarium has held workshops to convert 60-gallon soft drink syrup bins into rain barrels. Rain barrels not only conserve water but also help prevent run-off that can ultimately pollute rivers and streams. We have distributed scores of these rain barrels to local schools and interested homeowners. This program will be expanded in 2011.





RECYCLING

We recycle paper, cardboard, glass, #1-#7 plastics, batteries, aluminum, empty aerosol cans, loose metal jar lids and steel bottle caps, electronics, wood pallets, shredded documents, toner cartridges, old carpeting, old staff uniforms, old brochures and used ticket stubs. We take metal to a salvage yard. We responsibly dispose of lamps with mercury content, light fixture ballasts, used oils, antifreeze and oil and gas filter cartridges.



NO MORE IDLING

Thousands of our visitors come in groups and arrive by school bus or motor coach. In past years, hundreds of buses would idle for more than 30 minutes while waiting for passengers to re-board. Today, thanks to a partnership with the United Motor Coach Association, signage will encourage drivers to limit idling to no more than five minutes, which improves air quality and helps reduce greenhouse gas emissions.





TENNESSEE GREEN HOSPITALITY CERTIFICATION

The Tennessee Aquarium is proud to be one of the first major tourist attractions in the state to achieve this designation. This certification requires the completion of an application and a third-party, on-site audit. The audit considers all aspects of our business, from heating and cooling our building to green policies implemented in our food and beverage operation. Certification requires that we provide a plan for continued environmental improvement. It is awarded on a point system and must be renewed with another audit every two years to remain in force.





TENNESSEE AQUARIUM CONSERVATION INSTITUTE

The Tennessee Aquarium Conservation Institute primarily focuses on our conservation mission outside our walls. With its many partners, TNACI has successfully reintroduced tens of thousands of imperiled fish, turtles, snails and mollusks to the Southeast and has restored declining habitats. Among its accomplishments are:

Restoring over 90,000 lake sturgeon to Tennessee rivers

Reintroducing over 150,000 snails and mollusks to rivers in
Alabama, Georgia, and Tennessee

Breeding and returning over 9,000 threatened Barrens topminnows
to native habitats that have been restored

Restoring habitat in Colvard Spring in Georgia, home to
the rare coldwater darter

Genetic research on imperiled fishes to help identify
Southeastern biodiversity hotspots

Field work to monitor aquatic community health in both
pristine and degraded habitats



**The Tennessee Aquarium
envisions a world that values
all aquatic environments.**

TennesseeAquarium.com