



Maryland Green Registry MEMBER

The Maryland Green Registry promotes and recognizes sustainable practices at organizations of all types and sizes. Members agree to share at least five environmental practices and one measurable result while striving to continually improve their environmental performance.

National Aquarium



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www.aqua.org

Non-Profit

Member since January 2011

Management and Leadership

Environmental Policy Statement

Through transforming experiences, the National Aquarium inspires people to enjoy, respect and protect the aquatic world.

Environmental Team

The Aquarium has an Internal Conservation Committee (ICC), a team that meets monthly to discuss and implement ways to incorporate green practices within the Aquarium's everyday activities and operations. The committee is comprised of Aquarium employees from various departments of the institution including: Biological Programs, Development, Accounting, Facilities, Custodial, Marketing, Education, Visitor Services, Exhibits & Design, and Communications. Selected individuals of these departments perform leadership roles in seven subcommittees of the ICC: Recycling, Programs, Communications, Internal Practices, Contract Services, Investigations, and Staff Awareness. These subcommittees are supported by members of Aquarium staff who are responsible for carrying out goals that shape a superior focus.

The objectives of the ICC are to identify and implement best practices that match the conservation mission of the Aquarium; actively promote, recognize and celebrate conservation-minded activities among staff; and be the communication hub/conduit for in-house conservation actions.

Annual Environmental Goals

At the end of each calendar year, the ICC and its subcommittee leaders meet to evaluate the preceding year accomplishments in addition to developing new focuses for the upcoming year.

During this gathering the ICC develops a document with a maximum of five focuses and an action plan to implement them. Each focus is evaluated by its conservation goal, departmental support needed, timeline, and budget. The document is then submitted for approved to the Institute Management Counsel (IMC), an internal working group. Once approved the idea is broken down into smaller achievable goals and objectives to be implemented by the ICC subcommittees.

Environmentally Preferable Procurement

The ICC subcommittees Contract Services and Internal Practices work to decrease the impact of our business practices on the environment including activities with facility improvements/renovations, fleet coordination, and our vendor/contractors.

The committees work with Aquarium staff to develop, coordinate, and update Best Management Practices. They stay on top of trends and work closely with the Investigations ICC subcommittee to research and facilitate implementation of new practices. Their goal is to ensure that every internal practice is reviewed and a thoughtful/green choice is made including partnerships with our most prominent partners: Classic Catering People, Sodexo, and Aramark.

More specifically, these committees have ensured recycling occurs at all Catered Events with our partnered food vendors, confirms the coffee our food vendors sell is fair trade, organic, and bird friendly, reassesses items sold at the gift shop (where they come from, what they are made of, etc.), and monitors progress of replacing cleaning products with environmental friendly options.

Environmental Restoration or Community Environmental Projects

The National Aquarium promotes conservation through research and action projects designed to restore, protect, and manage critical species or ecosystems.

Under leadership of the Conservation Department and a core group of volunteers, the Aquarium Conservation Team (ACT!), the Aquarium provides hands-on opportunities for volunteers to restore habitats and increase environmental awareness in Bay Communities through the Chesapeake Bay Initiative. The goal of this action-based program is to foster awareness, inspire leadership, and promote stewardship of aquatic habitats.

Since its establishment in 1999 more than 212 acres of wetland forests, marshes, sand dunes, and riparian buffers have been restored with the assistance of 16,911 volunteer. Volunteers include individuals from various environmental groups, school students, scout groups and community volunteers. These volunteers have dedicated more than 100,000 hours to the Chesapeake Bay Initiative by removing over 1 million pieces of marine debris and planting more than 1.8 million native plants creating vital habitat promoting a healthy diverse ecosystem. The Conservation Department continues to provide restoration opportunities to both the Aquarium Staff and community volunteers.

The most current restoration projects are listed on the Aquarium's website (aqua.org) in an effort to reach out and recruit individuals/environmental groups to participate.

Waste



Solid Waste/Material Use Reduction and Reuse

All departments at the Aquarium work to find ways of reusing materials they no longer have a need for. Below are three examples of how the Aquarium reused items already in existence extending their usefulness while keeping them out of a landfill.

Bleachers in the dolphin show amphitheater needed replacing in 2006 and the Aquarium's facility team researched and found a manufacturer that was able to build the new bleachers from 100% recycled plastic materials. The old wooden bleachers were repurposed by turning them into shipping pallets.

In 2008, the Aquarium replaced and repaired outdoor sections of the Pier creating a bulk waste of pavers. The pavers in turn were used by a local Eagle Scout (son of an Aquarium employee) who used them in a project to create an interpretive nature trail. The pavers were also used for a walkway along the B&A bike trail. The trail included a native plant flower box.

In 2009, the Facilities Department replaced the carpeting throughout the institution and the Aquarium was left with 3200 square yards of old carpeting.

The carpet was recycled through Mannington Commercial's "Closing the Loop", a carpet and tile recycling program. Through "LOOP", Mannington diverts waste by utilizing recycled carpet tile material for their commercial flooring products.

Also in 2009, the Aquarium worked with the company Green Guru to repurpose 35 worn-out Aquarium staff wetsuits into 575 usable beverage cozies that were sold in the Aquarium Gift Shop for purchase. This material reuse kept 92 lbs of neoprene out of the landfill.

Since 2014, all vinyl marketing banners are repurposed into bags and other accessories by the company Rareform. These are then sold in our gift shop and all proceeds support further internal conservation initiatives.

Damaged or outdated uniforms are repurposed into rags and used by our facilities and animal care staff. Others are made into enrichment items for our animals.

No single use plastic water bottles are sold in the Aquarium. Instead, drinking fountains with special water bottle fillers were installed and track the number of single use bottles kept out of a landfill.

No plastic straws, lids, or bags are used in the cafes or gift shops.



Recycling

The Aquarium is involved in several recycling programs with various community partners to decrease the amount of items that end up in the landfill. These partnerships include:

- *Waste Management. Since 2008 the Aquarium and its offsite warehouse recycled 436.88 tons of plastic, glass, aluminum, cardboard and paper.*
- *TerraCycle. The Aquarium works with TerraCycle and their Energy Bar Wrapper Brigade and drink pouch brigade. Wrappers and pouches are collected Aquarium wide by employees and volunteers to be reused for sellable items including bags, pouches, notepads, and pencil cases.*
- *The Aquarium works with A Better Way Computer Recycling, a local company, to collect larger unwanted electronic equipment (computers, TVs, printers, VCRs, etc). No electronic equipment processed there enters a landfill. The primary goal is placing back into service as much equipment as feasible through repair and restoring of useable equipment and dismantling of obsolete equipment for parts.*

- *Battery Solutions Inc. This battery recycling and disposal company takes old batteries and recycles them, keeping materials such as lead, nickel, cadmium, and mercury out of landfills. The Aquarium has recycled 2,275 lbs. of batteries with Battery Solutions Inc. since 2011.*
- *GreenDisk. Since 2012, 1,855 pounds of technotrash was sent to GreenDisk to be recycled. Together with GreenDisk, the Aquarium recycles CDs, DVDs, floppy disks, cords, handheld devices and other pieces of technological garbage.*
- *Recycling Fundraiser is a technotrash recycling program that accepts limited, small electric devices including cell phones, digital cameras, MP3 players, and laptops to prevent them from ending up in a landfill where they can be toxic to the environment. Recycling Fundraiser pays an organization for each item collected. Most items received can be reused and therefore refurbished for sale within the United States. The remaining items (about 20%) are de-manufactured at their facility in the state of Texas. The Conservation Department leads this fundraising effort and has collected more than 340 unused electronic items raising more than \$1,000. Funds received support the Chesapeake Bay Initiative.*

Composting

All food waste in the Aquariums cafes and animal food prep areas is composted with our partner EnviRelations. The Aquarium purchased a Somat pulping machine to maximize food waste collection and now purchases only plant-based and compostable or biodegradable flatware, cups, and napkins. Nearly 267,000 lbs of waste has been composted since 2010.

Hazardous Waste/Toxic Use Reduction

As an aquarium, the reduction or elimination of toxic substances in our facility is a priority. We choose safe, non-toxic, or less-toxic alternatives whenever possible. As an example, under the lead of the Facilities Department, all fluorescent bulbs and other bulbs containing mercury are shipped to US Lamp and Ballast for recycling.

Energy

Energy Efficiency

In 2008, the Aquarium worked with an outside company to evaluate its energy usage. Kovax, Whitney & Associates, Inc. located in Baltimore, Maryland

performed the energy conservation report as a foundation to assist the Aquarium in finding areas to reduce their energy consumption. Lighting was reviewed for compliance with IES recommendations and standards. Lighting and HVAC systems were reviewed for compliance with ASHRAE standard 90.1.

Once complete, the Aquarium was able to move forward in 2009 to develop a plan to introduce new practices and replace energy consuming devices with more efficient equipment.

The Facilities Department at the Aquarium has made a number of simple changes that go a long way to saving energy and natural resources.

- Upgrades to the indoor lighting system, wherever possible, in many non-public areas to use occupancy sensor controls. Occupancy sensors reduce lighting energy use by turning lights off soon after the last occupant has left the area.*
- All bathrooms now have automatic toilets and sink faucets (previously powered by alkaline batteries) that run on valves generating their own electricity. These faucets, made by Toto, are equipped with a hydro-powered turbine that charges the power supply during usage, eliminating the need for battery replacement.*
- All of our higher horsepower pumps now have variable frequency drives added. In some cases electric usage was reduced by half.*
- Approximately 90% of non-exhibit indoor spaces are now lit with LED bulbs. Additionally, LED panels have been added to the back lighting of our graphic panels in our exhibits.*
- The Aquarium's much recognized landmark blue wave located on the exterior of the building was replaced in 2010 with LED lights. The replacement of the aging "wave" neon will save on its energy consumption by 70%.*



Renewable Energy

- A 4.3 megawatt solar array, built by Constellation Energy for the National Aquarium, came online in 2015. The facility was designed to meet 40% of the Aquarium's energy needs.*

Transportation

Employee Commute

The Aquarium is devoted to encouraging full time employees to reduce their carbon footprint by offering incentives to employees who participate in the Green Commuter Program. To be a Green Commuter, employees must incorporate green traveling practices while traveling to and from work. These include carpooling, walking/biking, and mass transit. Each month by lottery, one carpooler, one walker/biker, and two mass transit riders receive \$50 for choosing to be a Green Commuter. Currently, 30% of fulltime employees participate in the program.

To further promote the Green Commuter Program the Aquarium supports Baltimore City's Rideshare Program. Rideshare is a free program that pairs commuters with similar travel routes and schedules.

Fleet Vehicles

Via a fleet lease agreement with Allstate, all fuel usage is recorded and tracked for analysis of potential usage savings.

Water

Water Conservation

In the last 10 years, water consumption is down nearly 20%, even as the Aquarium has expanded.

-The Aquarium is equipped with low flow toilets. Their function provides the best choice when striving to be environmentally responsible and effective in saving water costs.

-All public area faucets are on motion sensing timers.

-State of the art life support systems are utilized, meaning all large exhibit tanks never need to be emptied and refilled.

-A 40,000 gallon cistern captures rainwater. The waterfront park is exclusively watered from this cistern. Additionally, the excess water produced by legally required fire equipment testing is diverted to the cistern.

Storm water Management and Site Design

In 2006, the Aquarium installed a green roof on the top of the 4-D Immersion Theater. The roof's perimeter is approximately 120.40 feet. It's about 4 inches deep and filled with native plants. The green roof helps to naturally cool the building, reducing energy consumption, and has a better life span than standard hard-surface roofs. The roof is also a great benefit to the city because the plants help reduce storm water runoff.

A cistern is used to collect rainwater from the roof that is then used for the waterfront park. The park is planted only with native plants, meaning they require less watering, and are ideal for our area.

Other

Earth Hour: *Earth Hour is an international call for action on climate change by turning the lights out collectively for one hour. The Aquarium has participated since 2008. The ICC coordinates institution wide participation and works with departments including Communication and Media relations to promote community participation.*

Office Supply & Book Swap: *To conserve resources, Aquarium employees gather all unused office supplies in one place then swap items they don't need for ones they can use. Reusing items already in existence extends their usefulness and keeps them out of landfills while saving the Aquarium money! Excess items that remain for a long period are donated to various charitable organizations.*

Conservation Messaging for Visitors: *A "Thoughtful Choices" theme and mark was created to guide brief text, and a set of signage topics was produced and posted for initial testing in the Aquarium Café. Visitor surveying revealed that 1/3 of those interviewed recalled and understood the signage mark. Outcomes, modifications, and additions (i.e. composting, rehab waste/recycling/compost stations) to this effort will guided a final café signage project that was completed in 2010.*

Paid Conservation Day: *Each Aquarium employee is given 8 hours (full-time) or 4 hours (part-time) of paid leave every year to participate in a conservation activity or event. To date 107 days, equaling 807 hours, have been taken.*

Green Hero Award: *Each year an award is given to an Aquarium staff member that practices conservation in a small or big way in their daily lives.*

Community Supported Agriculture (CSA): Since 2009 we have worked with One Straw Farm to bring Community Supported Agriculture access to Aquarium employees and volunteers. Shares are delivered weekly (in season) for staff to pick up their local, organic, and seasonal produce. In the most recent season, 20 staff have participated.

Profile Updated April 2016



Help build a greener, more sustainable Maryland through voluntary practices that reduce environmental impacts and save money.

Learn more at green.maryland.gov

