



ENCOURAGING
Environmental
EXCELLENCE

Encouraging Environmental Excellence Achievement Level Recognition

June 14, 2016

The Ohio EPA Encouraging Environmental Excellence Program targets those who reduce waste, improve efficiency and work to continuously improve as an environmental steward. The program has a three-level approach to provide recognition to Ohio businesses and other organizations completing environmentally beneficial activities. Higher levels of recognition are for those who exceed regulatory requirements or commit to future environmental stewardship efforts. The Achievement Level recognizes any applicants completing environmentally beneficial activities. Any business, trade association, professional organization or local government in Ohio may apply. Achievement Level participants must have demonstrated significant progress in one of the following main criteria: Impact to the Environment (Toxics and/or Waste Reduction); and/or Resource Conservation. Achievement Level participants must also demonstrate some level of progress in at least six additional environmental stewardship criteria and indicate they are in compliance with environmental laws and regulations.

Ohio EPA is recognizing the following organization that successfully met the criteria for the Achievement Level of the Encouraging Environmental Excellence Program. Below is a summary of their efforts.

Mercy Health (Youngstown): Mercy Health Youngstown (MHY) is a hospital system comprising St. Elizabeth Youngstown Hospital, St. Joseph Warren Hospital, and St Elizabeth Boardman Hospital.

In 2009, Mercy Health Youngstown's leadership decided to expand their organization's servant ministry mission by working to understand the environmental impact their services have on the surrounding community. Upon review, an opportunity was identified to become better stewards of the environment by reducing the organization's ecological footprint. They started their journey in 2010 towards embracing and practicing systems, processes and metrics that will drive continuous improvement towards achieving environmental sustainability. Sustainability has become a core component of the culture and a key factor in all decision making for Mercy Health.

Mercy Health Youngstown focused on educating the Clinical Team regarding proper waste segregation at the bed side. This resulted in all 3 sites being below 10% regulated medical waste as a percentage of total waste in 2015. This is an industry leading footprint that also drives down costs. They also significantly reduced hazardous waste disposal by recycling all fluorescent lights, batteries and "black box" pharmaceuticals.

They plan to continue these efforts by improving sustainable practices in both kitchen and Operating Room areas. The Operating Room area generates 20% of their total waste stream and they are now focused on improving sustainable practices in this area. They are working with a third party vendor in the kitchen area that will assist in ensuring that the best post-consumer materials are used, as well as offering innovative approaches to recycling food waste that may include a composting methodology.

Energy savings have substantially increased and Mercy Health Youngstown continues to improve every aspect of energy conservation in new construction and existing infrastructure. They continue to benchmark their *Energy Star* Ratings through the *Healthier Hospital Initiative* and reduce greenhouse gasses through reductions in the use of electricity and gas. These efforts have led to a 5% reduction in energy use over the past 6 years.

Summa Health System (Akron): Summa Health System is an Akron-based hospital system with over 30 locations and 9,500 staff members in the Akron/Canton area. Over the past 20 years, Summa has launched and expanded a variety of sustainability programs designed to increase energy efficiency and decrease waste. This effort involves all departments and constantly reviews current practices to identify ways to reduce waste and extend the useful life of resources and equipment. Summa Health System has conducted numerous studies tracking the use of energy and resources throughout the system to continuously improve its environmental stewardship efforts.

One result of this effort is increased recycling. An initial target to recycle 900 tons of paper and cardboard was exceeded by recycling 911.04 tons in 2013. This is a great improvement compared to the less than 75 tons recycled in 2001. In 2013, Summa Health System made more than \$100,000 in recycling revenue system-wide. In 2014, their continued efforts resulted in more than 1,281 tons of materials being recycled.

New light fixtures and lighting controls at one parking deck resulted in a reduction of 4 kilowatt hours that decreased energy usage 49.7 percent from 2012. Another location completed a water consumption review in 2013 that discovered water loss and leakage in the campus's cooling system. Subsequent repairs led to a 16 percent reduction in water consumption. This location also received an *Energy Star* certification for their energy conservation measures during an official assessment.

Summa Health System also reduced the amount of regulated medical waste generated. Regulated medical waste volume was more than 1.3 million pounds per year. Between 2011 and 2013, the organization reduced regulated medical waste to approximately 600,000 pounds per year, representing savings of over \$174,000. The recycling of surgical wraps reached 18.65 tons annually.

TriHealth Bethesda North Hospital (Cincinnati): TriHealth Bethesda North Hospital's environmental stewardship efforts are coordinated by their Green Committee. They have worked to develop a Sustainability Strategic Plan with their leadership's input, engaged the community and their employees on the topic of environmental stewardship, and have established a budget to help implement projects and perform outreach in the community. Bethesda North has an Environmental Commitment Statement that identifies goals on waste management, energy conservation, water conservation, chemical use reduction, and the dedication to use locally grown foods. The hospital includes sustainability goals in its strategic plan that has the support of its upper management. TriHealth Bethesda North Hospital works very closely with TriHealth Good Samaritan Hospital (both in Cincinnati) to coordinate their efforts, share ideas and build on each facility's successes.

Outreach efforts are coordinated with TriHealth Good Samaritan Hospital and include working with the local non-profits including: *Taking Root* to plant trees and perform Earth Day clean-ups; and *Green Umbrella* that focuses on local sustainability issues. TriHealth Bethesda North has partnered with the *Greater Cincinnati Green Business Council* and local park system to complete environmental stewardship activities. Information and successes are shared with employees through an internal sustainability

webpage. The webpage also provides information on supplies and furniture available for other departments to use so that new materials may not need to be purchased.

TriHealth Bethesda North has a mature recycling program and their hospital system was awarded the *Hamilton County Recycling at Work Program of the Year Award*. TriHealth Bethesda North has provided medical supplies, metal furniture and medical equipment to other institutions for reuse. They also have a program to recycle blue surgical wrap. The hospital recycled over 267 tons of material during their last annual reporting period. Their medical equipment reprocessing program that allows equipment to be reused results in over \$300,000 in annual savings.

TriHealth Bethesda North has a robust mercury reduction program and has been recognized by *Practice Green Health* for virtually eliminating mercury at the hospital. They have also received the *Making Medicine Mercury Free* award.

TriHealth Good Samaritan Hospital (Cincinnati): TriHealth Good Samaritan Hospital's environmental stewardship efforts are similar in structure to TriHealth Bethesda North's and are coordinated by their Green Committee. They too have worked to develop a Sustainability Strategic Plan with their leadership's input, engaged the community and their employees on the topic of environmental stewardship, and have established a budget to help implement projects and perform outreach in the community. TriHealth Good Samaritan also has an Environmental Commitment Statement that identifies goals on waste management, energy conservation, water conservation, chemical use reduction, and the dedication to use locally grown foods. They also have sustainability goals in their strategic plan that has the support of their upper management.

Outreach activities are coordinated with TriHealth Bethesda North Hospital and include working with the local non-profits including: *Taking Root* to plant trees and perform Earth Day clean-ups, and *Green Umbrella* that focuses on local sustainability issues. The hospital has also partnered with the *Greater Cincinnati Green Business Council* and local park system to complete environmental stewardship activities. Information and successes are shared with employees through an internal sustainability webpage. The webpage also provides information on supplies and furniture available for other departments to use so that new materials may not need to be purchased. Recycling education stations and information about TriHealth Good Samaritan's environmental stewardship efforts have been installed in the cafeteria to educate and encourage others to consider sustainability. They also host a farmer's market during the summer to support locally grown foods.

TriHealth Good Samaritan has a mature recycling program and their hospital system was awarded the *Hamilton County Recycling at Work Program of the Year Award*. TriHealth Good Samaritan has provided medical supplies, metal furniture, medical equipment to other institutions for reuse through the *Supplies Over Seas* program. Their last annual recycling report indicated the hospital recycled over 273 tons of material.

As with TriHealth Bethesda North Hospital, TriHealth Good Samaritan Hospital has been recognized by *Practice Green Health* for virtually eliminating mercury and has received the *Making Medicine Mercury Free* award.

Marymount Hospital (Garfield Heights): Marymount Hospital is a Cleveland Clinic hospital located in Garfield Heights. Their sustainability program was established in 2008 where the hospital made a

Sustainability Pledge and Charter to promote a healthier footprint in the community by integrating sustainable practices and creating a healthier environment for its patients, visitors, and employees. It has focused on improving indoor quality, conserving water and energy, reducing chemical use, improving waste reduction and recycling, and developing better green processes. Hospital employees have also committed to an energy reduction pledge. Marymount's activities extend to its buildings as well. The hospital has created a new building of 45,000 square feet and renovated 29,000 of space in 2012 that received LEED Gold Certification.

Addressing indoor air quality through environmentally preferable purchasing has reduced the hospital's environmental impact. The hospital eliminated over 100 printers, copiers, scanners, and faxes and replaced them with Multi-Functional Devices (MFDs) eliminating air emissions from the extra devices, saving energy, reducing use of toner and colored ink, and reducing paper usage. Marymount has also replaced toxic cleaning chemicals with Green Seal Certified products and is using a steam cleaner to clean certain areas instead of cleaning chemicals. Flooring has been updated to sheet goods that don't emit toxic fumes. "No VOC" paint is now required and over 300 gallons was used in 2015. The hospital purchasing specifications also require that furniture does not contain PVCs.

Many water and energy conservation practices have been implemented at the hospital. The hospital has installed water miser flush toilets in multiple locations to reduce water flow by .25 gallons/flush. A Micro-Fiber Mop System was implemented in 2010 to prevent cross contamination between hospital rooms, reduce water usage, and reduce exposure to disinfectants. Water usage for floor cleaning has been reduced by 50% for a reduction of thousands of gallons of water. In 2015, dampers and controls on air handlers were repaired or replaced to create more efficient use of air handlers and 15 steam traps were replaced on boilers to decrease use of natural gas. The hospital "re-lamped" in 2014 and 2015, replacing thousands of fluorescent bulbs with LEDs throughout the hospital and Ambulatory Surgery Center resulting in annual savings of over \$50,000. The hospital operating rooms have also been updated to LED lighting. In 2015, 58 motion sensors were installed in the Ambulatory Surgery Center resulting in \$1,250 of annual savings. Personal computer power management software on desktops and laptops has reduced total power consumption and the associated emissions from power generation.

In 2015, Marymount achieved between a 28-35% solid recycling rate. The hospital recycles plastic, metal, and commingled recyclables (91 tons); construction and demolitions debris; computers and electronic wastes (0.57 tons); fluorescent lamps (0.37 tons); and paper (95.11 tons). The hospital has instituted new recycling programs for orange bag recycling including Styrofoam and rigid plastics (e.g., plastic tableware), and Mylar (e.g., potato chip bags). Recycling of purple bag waste (e.g., pre-surgical incision waste) has resulted in a total cost savings of \$101,325 and 40.5 tons recycled. The hospital donates used furniture and supplies to charity. Nutrition Services has implemented a composting program and has diverted 17.4 tons from landfill. Reprocessing of surgical instruments, including endotracheal tubes, trocars, ligatures, blood pressure cuffs, scalpels, burrs, bits, blades, and arthroscopic shavers/burs. The reprocessing program has resulted in an annual savings of \$44,239 and 9,286 pounds diverted from landfill.

In 2011, Marymount established a policy to virtually eliminate mercury, including a mercury free purchasing policy. The policy emphasized recycling fluorescent lamps, using rechargeable batteries in patient care units, and completing a hospital inventory of all potential areas with mercury so that they will be replaced with mercury free alternatives.

Marymount has worked to educate staff and the community about environmental stewardship that includes presentations and other outreach activities. The hospital developed an educational campaign "I am Sustainable..." that is used throughout the hospital. It has also partnered with the local primary school to recycle children's books.

Mount Carmel St. Ann's (Westerville): Mount Carmel St. Ann's is committed to employee and patient wellness initiatives that include a focus on providing healthier food. The hospital has achieved a recycling rate near 30% and has reduced regulated medical waste to less than 5% of its prior volume with use of an on-site autoclave.

St. Ann's Hospital is actively engaged in the *Mount Carmel Green Team* – which is a hospital system-wide group promoting environmental sustainability and pollution prevention. The team drives several environmental stewardship initiatives that helped the Mount Carmel hospital system and Mount Carmel St. Ann's Hospital be recognized by the Ohio Hospital Association (OHA) and other organizations for their environmental stewardship efforts. They recently received the *Energy Cup Award* for being an *Energy Star Hospital*; OHA's 2013 *John Chapman Award* – which is the highest level of environmental recognition provided by OHA; and the 2015 *Green Leader Award* from the Mid-Ohio Regional Planning Commission.

In addition to the sustainability efforts coordinated by the *Mount Carmel Green Team*, the Mount Carmel hospital system has increased recycling rates and improved employee involvement in individual sustainability initiatives. In 2012, when Mount Carmel St. Ann's started the *Project Grace* expansion, 658 tons (1.3 million pounds of construction waste) was sent to be recycled and avoided the landfill. In addition, about 40 tons of paper is recycled annually.

Mount Carmel St. Ann's Hospital has participated in several community initiatives including the annual pharmaceutical take back program and Earth Day celebrations. They participated in a pharmaceutical waste collection program diverting waste from improper disposal. They have also collaborated with the Columbus Zoo in the "*My Actions*" challenge to raise environmental awareness among their employees and recognizing an individual's personal sustainable actions.

For more information about the Encouraging Environmental Excellence Program and the three levels of recognition, visit www.epa.ohio.gov/ohioE3.aspx or call (800) 329-7518.