



Environmental Stewardship Initiative Overview

Don Burke

NC Department of Environmental Quality



Environmental Assistance and Customer Service Division

Non-Regulatory - Pollution Prevention Assistance



Encourage Efficiency, Support Recycling, Promote Economic Growth and Navigate Permitting



Helping Businesses, Manufacturers and Industry

- Navigate regulatory and permitting challenges.
- Use resources responsibly and move towards a more circular economy.
- Achieve and be recognized for environmental excellence.
- Implement pollution prevention and sustainability strategies.
- Grow local economies and create jobs.
- Understand how to address environmental problems.



Environmental Stewardship Initiative (ESI)



PEER-TO-PEER PROMOTION OF ENVIRONMENTAL EXCELLENCE

- DEQ **recognition** and leadership program
- **Free** and **voluntary**
- Promotes and encourages **outstanding environmental performance**
- Support going beyond compliance by **conserving** natural resources and resulting in **economic benefits**
- Grown from 28 members in 2002 (1 Steward and 27 Partners) to 55 members at 158 sites, 12 Rising Stewards, 30 Stewards



Member Benefits and Services



- Steward Forum w/ DEQ Secretary
- Networking opportunities
 - Annual member conference
 - Topic-based facility led on-site events
 - Peer mentorship
- No-cost training/EMS audits

- Recognition awards/marketing
- Dedicated coach/DEQ point-of-contact
- Personalized on-site assistance
 - Waste reduction
 - Water conservation
 - Energy assessments
- Member listserv/electronic newsletter



Host	Topic
Grifols Therapeutics LLC	Biodiversity and Wildlife Habitat
Two Rivers Utilities	Environmental Goals & Sustainability Benefits
Domtar, Plymouth	Landfill Reduction and By-product Reuse
Smithfield Foods – Wilson	Water Reduction
Sierra Nevada Brewing	“Bigger than Beer” Sustainability Initiatives

Recordings/slides of virtual offerings available on ESI website

ESI Benchmarking Series



Member Newsletter

Steward Renewals:



[John Deere Turf Care](#), located in Fuquay-Varina (Wake County), joined the ESI in 2009 as a Partner, became a Rising Steward in 2010, and a Steward in 2011.



[GKN Driveline Sanford](#), located in Sanford (Lee County), joined the ESI as a Rising Steward in 2004 and became a Steward in 2005.

[Grifols Therapeutics LLC](#), located in Clayton (Johnston County), joined the ESI as a Partner in 2006, became a Rising Steward in 2013, and became a Steward in 2017. Grifols Therapeutics LLC was also recognized as the 2022 ESI Steward of the Year.



NCDEQ Secretary Biser cutting the first slice of the ESI 20th Anniversary cake.



During lunch on Day 2, an ESI Member and Project Awards Ceremony, featuring NCDEQ Secretary Elizabeth S. Biser, included the following recognitions:



MCSW Garden and ESI FE at Compost Central

ESI staff performed an on-site ISO 14001 Functionally Equivalent (FE) Environmental Management System (EMS) audit at Rising Steward [Mecklenburg County Solid Waste Operations](#) (MCSW) on November 02, 2022.

This was the 5th follow-up since the yearly visits began in 2017. ESI has helped [MCSW](#) convert from the 2004 to the 2015 version of 14001, streamline their EMS, and avoid third-party certification costs through the FE audits. This ESI membership benefit has helped MCSW maintain an EMS while adjusting operations to respond to increased demand for their services especially since the 2020 pandemic.



ESI staff observed many areas, including the MCSW garden at their Compost Central facility. MCSW staff have repurposed customers' waste materials including fertilizer and garden art and used compost generated on site to support the garden throughout the year. Other initiatives in the works include working with local community groups to collect and repurpose books and childrens bicycles.

Celebrating Member Successes



- Thomas Built Buses – High Point, an ESI Steward since joining the program in 2011, was visited by Vice President Kamala Harris, EPA Administrator Michael Regan, and N.C. Governor Roy Cooper on April 19, 2021, as part of the Biden Administration's infrastructure plan rollout.
- A facility tour included the bus floor assembly area, automated vehicle guidance system, electric vehicle charging station and electric vehicles fleet. Thomas Built Buses had recently rolled out the new SAF-T- Liner EC2 electric school bus. Both Vice President Harris and Governor Cooper touted the electric buses as models for clean energy advancement. For more, check out this [article](#).
- The Board of Education in Maryland's Montgomery County voted unanimously on Feb. 23, 2021 to approve a 16-year, \$169 million contract to lease 326 buses that could result in the county replacing its entire 1,422-bus fleet over the next two decades. The deal represents the largest municipal government order of any kind for buses and promotes clean energy use.



A SAF-T- Liner EC2 electric school bus, manufactured by Thomas Built Buses.



DAIMLER

- Daimler Trucks North America (DTNA), an ESI member since 2010, has four facilities in the program that have all achieved Steward membership by 2017. The company announced that the first J.B. Hunt Intermodal delivery using the eCascadia, an all-electric Class 8 truck that pulled out of the Southgate terminal in August 2020, barely making a sound.
- With zero tailpipe emissions, the eCascadia is an environmentally friendly vehicle that can greatly reduce a fleet's carbon footprint. On a full charge, the series-produced eCascadia is expected to have a driving range of up to 250 miles, making it ideal for local and regional distribution and drayage. The all-electric tractor has a 525-horsepower engine and can recharge as much as 80 percent in just 90 minutes.
- Charging stations have been installed at the Los Angeles terminal, and drivers are being trained to operate the vehicle. The eCascadia vehicle that J.B. Hunt uses is part of the Freightliner Customer Experience Fleet, an initiative to provide DTNA customers with first-hand experience implementing electric vehicles within their operations.



DTNA incorporating J.B. Hunt's all-electric Freightliner eCascadia to its fleet.



EATON

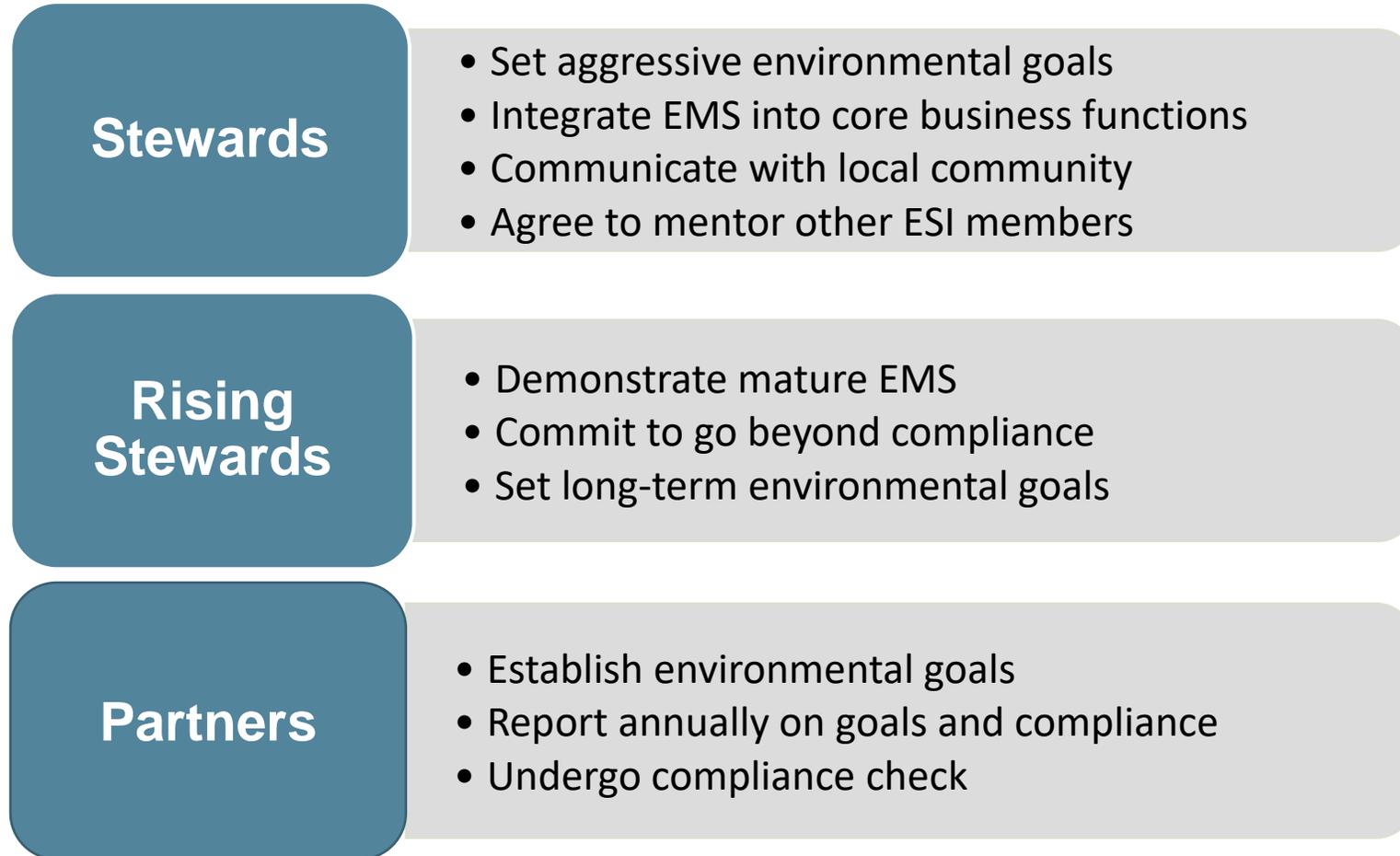
Powering Business Worldwide

- Eaton – Arden, an ESI Steward member since 2019, was presented the Clean Air Excellence Award in November 2020 by the Western North Carolina Regional Air Quality Agency (WNCRAQA). The award gives special recognition to local businesses and organizations that have gone above and beyond air quality rules and regulations to implement voluntary, innovative programs that reduce air pollution in Western North Carolina.
- Eaton – Arden is a manufacturer of power management products such as low-voltage switchgear, medium-voltage drives, automatic transfer switches, and power factor correctors. To support the plant objective to reduce greenhouse gas emissions and energy consumption, 52,000 of the 134,000-square feet of roofing was replaced in 2019. Additional insulation was added to the roof in accordance with manufacturer's recommendations to achieve R30 insulation value and reduce energy loss from the facility. In addition, two of the roof-mounted HVAC units using R-22 refrigerant were replaced with more efficient Energy Star units, using the more environmentally friendly R-410A refrigerant.
- Projected annual decreases in greenhouse gas (carbon dioxide) emissions for the projects:
 - 517,903 pounds of carbon dioxide for roofing upgrade and
 - 26,610 pounds of carbon dioxide for HVAC upgrade.
- The facility's projected cost-savings for the roofing project when completed is \$17,239 each year. HVAC energy use and associated costs are expected to decrease by 6 percent.

ESI Members



ESI Membership Levels



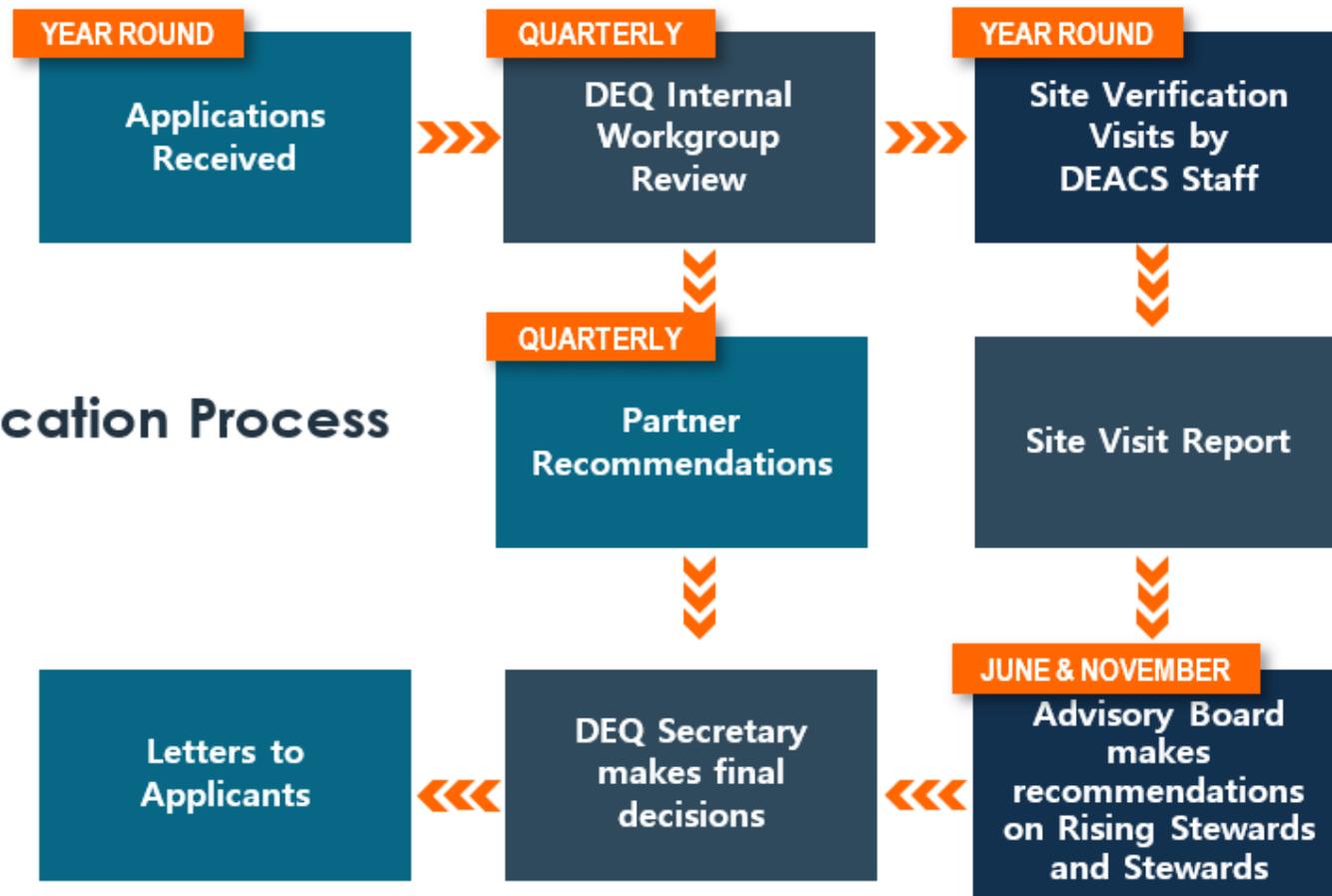
*Membership requirements are added as you move up the hierarchy; e.g., Stewards must also meet the member requirements at the Partner and Rising Steward levels.

ESI Membership

Requirements:

- Commitment to compliance
- Not under environmental criminal indictment or conviction
- Organization data
- DEQ Permit Info
- EMS Information
- Environmental Goals (2)
- Report annually – after 1 yr. in program
- Apply Online!

ESI Application Process



ESI application process flow



ESI Member Goals

Goals Include:

- Reductions in Energy Usage, Water Usage/Wastewater Volume, Air Pollution and Waste Streams (Solids, Hazardous, etc.).
- GHG Reductions
- ISO 14001 EMS
- ZWTL
- Habitat/Wildlife Improvements
- Pollution Prevention (P2) Strategies

SMART GOALS

Specific

Measurable

Achievable/Attainable

Realistic

Time-Based

ESI Member Results

Data used to tailor assistance and educational opportunities

Members not required to report cost savings so impact much larger

ESI MEMBERS' 20-YEAR REDUCTIONS AND SAVINGS

WATER REDUCTIONS



Water Use reduced more than

15 MILLION GALLONS

Wastewater reduced more than

7.4 MILLION GALLONS

ENERGY REDUCTIONS



More than **87 MILLION BTUS**

WASTE REDUCTIONS



Landfill Waste reduced more than

32.6 THOUSAND TONS

Hazardous Waste reduced more than

3.9 THOUSAND TONS

AIR EMISSION REDUCTIONS



GHG: more than **208 THOUSAND METRIC TONS CO₂e**

Air Emissions: **9.5 THOUSAND TONS**

COST SAVINGS



More than

\$102,791,600



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