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**DAEE News**

**Upcoming Member Event**

**Upcoming DAEE Member Events**

August Tour Event- info coming soon!
Look for an e-mail as the date gets confirmed.
We will e-mail the registration link to 2016 members.

**Member Event Recap**

A visit to Auburn Heights Preserve and Mill site:
Delaware Association for Environmental Education and the Delaware Chapter of the American Water Resources Association visit Yorklyn, Delaware.

By Jennifer E. Bowman

On the sunny afternoon of May 20th, members of the Delaware Association for Environmental Education (DAEE) and the Delaware Chapter of the American Water Resources Association (DEAWRA) gathered in Yorklyn, Delaware for a special tour of Delaware State Parks Auburn Heights Preserve and the restoration site of the old Auburn Mill. The visit included a tour of Auburn Heights, the Marshall family home, a preview of the Marshall Steam Museum adjacent to the house, and a closer look at the former Marshall Brothers Paper Mill and National Vulcanized Fibre Corporation (NVF) restoration site near the mansion. The event was open to members of DAEE and the Delaware Chapter of AWRA.
The tour began at the huge restoration project site, once the location of the thriving Auburn Mill, which was previously owned by the Marshall family. The mill property is located down the hill from the Marshall house, in a floodplain of the Red Clay Creek, which runs adjacent to the mill. While the mill was originally built for paper production in 1889, it became a very successful vulcanized fiber product business. Vulcanized paper, which is paper treated with zinc chloride and then shaped in molds to make hard materials such as helmets, was a precursor to plastics in the early 20th Century.

The mill was eventually sold to the National Vulcanized Fibre Corporation, which operated the mill until 2008, when the company went under, and the property came under the care of the State. Environmental Scientists from the Delaware Department of Natural Resources and Environmental Control explained that environmental and historic research of the mill property by the State revealed soil contamination and negative environmental impacts connected to decades of specific materials used and disposed of for the vulcanized fibre products. Since the mill was built on a floodplain, regular flooding events also caused challenges for the mill property over time, and their environmental and economic impact on the local watershed.

Due to the soil contamination, we learned that the mill site has to be thoroughly cleaned and renovated to return the property, natural landscape, and floodplain to a safe and healthy state. This volume of work required collaboration and funds from multiple sources. A partnership between the State, federal, and private groups was created in an effort to remove contaminated soils and derelict mill buildings, and then restore the property to a healthy space for the Yorklyn mill town community. Once the clean-up is complete, green park spaces will be developed for recreation, a historic building will be cleaned and renovated for community education, and new buildings will be constructed for potential housing and shopping to revitalize the space for current and future generations. For more detailed information about this restoration project of the Auburn Mills site, visit: www.yorklyn.org

Our tour then moved to the Auburn Heights Preserve, which includes the Marshall Family home and Steam Museum. Tom and Ruth Marshall generously donated Auburn Heights to the State of Delaware in 2008. The Auburn Heights Preserve and Marshall Steam Museum are now operated by the Delaware Division of Parks and Recreation, and Friends of Auburn Heights Preserve group.

Through the excellent guidance of our interpretive guide, Emily Mosher, we took a stroll through time as we toured the beautiful Victorian-era catalogue house, which was built in 1897 by Elizabeth and Israel Marshall, a Quaker family, originally from Pennsylvania. The house is full of lovely and original antique furnishings, and each room has a story to tell with exquisite details of architecture and design, functionality, decoration, and charming and humorous family stories and legacies to share. The Auburn Heights mansion was home to three generations of the Marshall family, and though the house is no longer a residence, it still has a warm and welcoming air about it. While modern updates and conveniences were made to the house to adapt with the changing times and family needs, the historic beauty and integrity of the house remains unaltered throughout its century of use.

We then took a tour of the Marshall Steam Museum, guided by Laura Lee, Park Superintendent at Auburn Heights. The Museum is a large and beautiful garage next to the house and rose garden. The Steam Museum houses the largest collection of steam operated cars in the world, and also includes model train layout, and an upcoming exhibit about the Marshal family history and their extensive involvement in the steam car era of automotive technology.

We learned about T. Clarence Marshall’s sincere love of steam powered vehicles, and his dedication to the Stanley Motor Carriage Company that kick started his steam car collection in the 1920s, which also inspired his son, Tom Marshall to learn about, maintain and collect steam cars. The Steam Museum includes a variety of fascinating and beautifully maintained steam operated vehicles that are incredible works of engineering and ingenuity. We also explored educational displays about how steam engines work, a model railroad, and a small-scale steam railway that visitors can ride on during special steam day events at the Preserve. While the steam car
and rail collection are now managed by the Friends of Auburn Heights group, Tom Marshall still works on the steam cars in the collection each week, and loves to share his knowledge with visitors and volunteers.

The tour of the Steam Museum and garden was followed by light refreshments on the porch of the mansion. DAEE and DEAWRA sincerely appreciate the time that Emily and Laura took to give such thoughtful and informative tours of the Auburn Heights Preserve! We had a great time, learned a lot, and hope this inspires more visitors and DAEE members to check out this great State Parks site!

Delaware State Parks offers scheduled educational programs of the Auburn Heights Preserve house and grounds, field trips, venue rental for special events, and unique volunteer opportunities for anyone seeking more involvement with the Preserve. Information about the Preserve and programs can be found online at: www.destateparks.com

### Environmental Programs

**Project Learning Tree**  
**Summer Reading List**  
https://www.plt.org/summer-reading-list

**Delaware Nature Society Programs**  
DNS provides high-quality, professionally taught and exciting programming for all age ranges and for novices and professionals. Get outdoors and discover! [http://tinyurl.com/8h904n](http://tinyurl.com/8h904n).

**Upcoming Events from the Brandywine Zoo**  
The Brandywine Zoo offers a variety of educational programming for all ages. For more information, please visit [BrandywineZoo.org](http://BrandywineZoo.org) to see our online calendar or register for a program.

**Delaware Museum of Natural History Events**  
The Delaware Museum of Natural History's mission is to excite and inform people about the natural world through exploration and discovery. Visit [www.delmnh.org/events/](http://www.delmnh.org/events/) for an online calendar and more information.

- Night at the Museum & Star Party- July 16, 7:30 pm
- $2 Tuesdays- August 2, 9:30 am- 4:30 pm

**Bombay Hook Events**  
Visit [www.fws.gov/refuge/Bombay_Hook/Events.html](http://www.fws.gov/refuge/Bombay_Hook/Events.html) for the latest events.

- Shorebird Identification Workshop- July 31

**Mt. Cuba Center Classes & Programs**  
[www.mtcubacenter.org/calendar](http://www.mtcubacenter.org/calendar)

**State Park Programs**  
Visit [www.destateparks.com](http://www.destateparks.com) for a complete listing of events.

- Become a Delaware Outdoor Family [http://www.destateparks.com/dof/](http://www.destateparks.com/dof/)

**Center for the Inland Bays**  
Visit [www.inlandbays.org/events/](http://www.inlandbays.org/events/) for upcoming events.

### Curricula & Professional Development

**TOTE(Teachers on the Estuary): Delaware Bay Discovery**  
July 13-15, 2016
Join the Delaware National Estuarine Research Reserve and explore the Delaware Bay!

Workshop participants will:

* Explore coastal habitats and conduct field investigations
* Interact with local scientists and experienced coastal educators
* Ge the tools to bring national data into your classroom
* Receive classroom activities aligned to NGSS

What is a TOTE you ask? It is a research and field-based teacher training initiative of the National Estuarine Research Reserve System (NERRS). The goal of these workshops is to improve teachers' and students' understanding of the environment using local examples and to provide resources and experience to support the incorporation of estuary and watershed topics into classroom teaching. The course is also designed to promote stewardship of watersheds and estuaries. a teacher workshop experience which includes lessons from the National Estuarine Research Reserve’s Estuaries 101 Curriculum in which students become more "oceans literate" by increasing their knowledge of coastal and estuarine science and their awareness of how coasts and
oceans affect their daily lives.

The workshop is FREE; however a $50 deposit is required for all participants to hold your spot. The deposit will be returned to participants at the end of the training.

For more information and any additional questions please contact me either by email at Margaret.Pletta@state.de.us or by phone at 302-739-6377. Don’t hesitate, register today space is limited!

**Earth Science Week Toolkit**
Earth Science week is October 9-15, 2016.

**Order your Toolkit today!** To order, visit [http://www.earthsciweek.org/materials](http://www.earthsciweek.org/materials)
The Toolkit includes:

* 12-month school-year activity calendar, suitable for hanging
* New Earth Science Week poster, including a learning activity
* NASA DVD and material on Earth observation, energy, and more
* National Park Service posters on geologic and air resources
* Ecology DVD and more from Howard Hughes Medical Institute
* UNAVCO ruler on Earth's shape, gravity, and rotation
* Mining, exploration, and reclamation resources from SME
* Material on energy science from Student Energy
* AmericaView Memory Game poster (Earth Observation Day)
* Exploring Earth and Space coloring book by AGU
* Geologic timescale bookmark from AIPG
* Dinosaur worksheet from the Bureau of Land Management
* Esri flyer on Topography and Our National Heritage
* Geologic Map Day poster with geologic mapping activity
* Brochures, bookmarks, fact sheets, postcards, and more

**Delaware Audubon Society**
Do you know an Elementary School Teacher looking for some great environmental education materials from the experts at National Audubon Society? Delaware Audubon will provide the Audubon Adventures standards-based science content, lessons, and hands-on exercises about birds, wildlife, and their habitats FREE OF CHARGE to any Delaware Teacher. Please share this with any Grade 3-5 teacher you know in case they may be interested.

More information is available at: [http://www.delawreaudubon.org/education/index.html](http://www.delawreaudubon.org/education/index.html)

**National Geographic Online Courses**
Outdoor and Environmental Education

National Geographic Education has delivered teacher professional development programs for over 25 years to prepare leaders in education and in support of our dual missions to inspire people to care about the planet and to prepare teachers to inspire their students. Now, we are growing our presence in online learning opportunities for educators, mentors and coaches, departments heads, and anyone, anywhere. [http://tinyurl.com/qfxnceg](http://tinyurl.com/qfxnceg)

**Cornell Lab of Ornithology Investigating Evidence Lesson Plans**
This free curriculum includes a Teacher’s Guide, accompanying Resource and Journal pages, and rich online resources that will support you in using citizen-science projects and outdoor explorations that generate authentic scientific questions. You’ll lead your students in making observations, crafting and testing hypotheses, collecting and graphing data, drawing meaningful conclusions, and sharing their work. [http://www.birdsleuth.org/investigation/](http://www.birdsleuth.org/investigation/)

**Save the Date: American Water Resources Association Annual Conference**
September 15-16, 2016
Chesapeake Bay Trust Mini-Grants
Deadline August 5
The Chesapeake Bay Trust Mini Grant Program was established to provide accessible funds to schools, organizations, and agencies for pre-K-12 Environmental Education to educate students about their local watersheds and how they can become environmental stewards and make a difference in watershed health. To accomplish this goal the program supports meaningful outdoor learning experiences around a watershed issue investigation including field trips, fieldwork, student-led action projects and schoolyard habitat projects as well as building teacher capacity to implement environmental education including professional development trainings and programs to advance environmental literacy in the Chesapeake Bay region. Up to $5,000 can be awarded. Apply by August 5, 2016 Apply Online Here

Environmental Leadership Fellowship
Applications for the 2016 Environmental Leadership Fellowship programs are being accepted on a rolling basis. This program offers intensive leadership and skills training, national networking opportunities, and time for personal and professional reflection. http://elpnet.org/

Milkweed Seeds for Restoration
Monarch Watch is offering free milkweed seeds through funding provided by Monsanto. These are available for large-scale restoration projects through spring and fall 2016. monarchwatch.org/

National Parks Foundation Artist in Residence
First State National Historic Park
The National Parks Arts Foundation (NPAF) in association with First State National Historical Park of the National Park Service now offers a Residency in Northern Delaware, close to many of the historic colonial sights of Delaware, but in a pastoral forest setting that inspired the Wyeth family. www.nationalparksfoundation.org
Interesting Websites to Visit

Free Webinars from Cornell Lab of Ornithology: http://www.birdsleuth.org/free-webinars/

A Teacher's Guide to Delaware’s State Parks: http://tinyurl.com/ohwtfmy

Population Education: www.populationeducation.org

Sustainability in the Schools Simulation Game: http://www.sustainablyallianceaz.org/

Nature Works Everywhere: https://natureworkseverywhere.org

Successful STEM Education Resources: www.successfulstemeducation.org/resources

Project Localize: lexiconofsustainability.com/project-localize/

Job/Volunteer Announcements

Interpretive Naturalist
New Jersey Audubon
http://www.conservationjobboard.com

Classroom Field Teacher
University of Main 4-H Camp
Deadline: August 13
https://naaee.org/eepro/jobs/lakeside-classroom-field-teacher

Mount Cuba Center
Various Employment Opportunities
Instructors
Seasonal Grounds Maintenance
www.mtcubacenter.org/employment/

MAEOE Jobs Page
http://maeo.org/jobs-new/

Delaware Green Jobs
http://delaware.greenjobs.net/

Stroud Water Research Center
Internships
http://www.stroudcenter.org/jobs/internships_entomology.shtm

Sponsorship Coordinator
The Land Conservancy for Southern Chester County
tlcforscc.org/employment/

NAEE NEWS

The North American Association for Environmental Education (NAEE) has embarked on an exciting venture and we would like to ask for your assistance. NAEE is developing a sixth set of guidelines as part of the National Project for Excellence in Environmental Education. Download and Review the draft. Then complete the Response Form.
promotes environmental and outdoor education to facilitate positive community impact on the conservation and sustainability of Delaware's Resources.

Visit DAEE at http://daeeonline.org