



EEAC Members See Geothermal Green Energy in Action at General Theological Seminary

by Joy Garland

On March 18, EEAC members were taken on a tour, organized by EEAC Program Chair Barry Weinbrom, of the geothermal renovation project at the General Theological Seminary located on 9th Avenue and West 21st Street in Manhattan. Geologist John W. Rhyner led the way through the landmark Chelsea Square campus founded in 1817, the work of Charles Coolidge Haight, a 19th century architect. The beauty of the buildings and grounds, with their massive American Elm trees, took us back to another more peaceful and leisurely era.

At the Episcopal Church General Convention "green" legislation was introduced that urges churches to reduce energy use through conservation and increased efficiency and to replace fossil fuels with energy from renewable sources.

The seminary building, almost two centuries old, is in the process of drilling wells deep into the Earth's crust to take advantage of the energy trapped there. Both heating and cooling can be provided without burning fossil fuels or emitting carbon into the atmosphere.

The system will provide 850 tons of heating and cooling to 260,000 square feet of buildings. Upon completion, it will be the single largest geothermal well field in the New York City area, if not in the northeastern United States.

The Seminary estimates the new system will reduce its annual carbon emissions by more than 1400 tons of carbon without the need for on-site fuel combustion. Roof-level cooling towers and window air conditioners will be permanently eliminated. Simple payback to recoup the upfront costs for the campus-wide installation program was initially calculated within nine years; thereafter, the Seminary would realize significant net savings in its operating budget. However, because of unexpected community concerns over the noise and vibration of drilling



and higher costs due to the complexity of the operation plus the need to hire additional consultants to work with regulatory agencies, recuperation of initial costs was recalculated to take nineteen years.

Because the Seminary attracts students from all parts of the country and from overseas, it is well-positioned to serve as a teaching model that will educate and influence future church leaders about achieving cost-effective environmentally sensitive energy systems that help reduce dependence on fossil fuels and combat global warming.

EEAC members were given a seven-page, illustrated booklet detailing the renovation project, with photos of the buildings, drawings of the interior well sites, and a detailed explanation of the drilling procedures and equipment. For more information or a copy of the booklet, contact John Rhyner, Senior Project Manager, P.W. Grosser Consulting, 631-589-6353, or Dennis Frawley, Redevelopment Project Manager, General Theological Seminary, 212-243-5150, ext. 254.

EEAC NEWS.....

Steering Committee Meetings

EEAC Steering Committee members meet on the 3rd Wednesday of every month (except August). Upcoming EEAC Steering Committee meetings are June 17, July 15, and September 16.

Steering Committee meetings are usually held at New York University, Pless Building, 32 Washington Square Park East and Washington Place in the 5th floor Conference Room. Steering Committee meetings are open to anyone interested in learning about environmental education in New York City and sharing information about special programs and projects.

Meetings are also occasionally held at New York City sites associated with our members. Please be sure to contact an EEAC Steering Committee member or visit the EEAC website at www.eeac-nyc.org to confirm meeting location and schedule.

Newsletter Deadlines

If you would like to submit an article for the newsletter, please email it as a Microsoft Word attachment to lmiller296@aol.com. The newsletter deadlines are the first Monday in April, July, October and January. We would love your ideas!

Newsletter Committee & Contributors

Meg Domroese
Kim Estes-Fradis
Michelle Fufaro
Joy Garland
Jane Jackson
Regina McCarthy
Lenore Miller, Newsletter Editor
Betsy Ukeritis
Jill Weiss



The Environmental Education Advisory Council (EEAC) would like to acknowledge the support of the New York City Department of Environmental Protection (DEP) for helping to produce the EEAC newsletter. Visit the DEP website at www.nyc.gov/dep, email educationoffice@dep.nyc.gov or call (718) 595-3506 for information about DEP's education resources for students and teachers.

ENVIRONMENTAL EDUCATION ADVISORY COUNCIL

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This newsletter is a publication of the Environmental Education Advisory Council (EEAC), a voluntary organization of educators, classroom teachers, administrators and other professionals in active support of quality environmental education.

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*Affiliations for identification purposes only.

GET CONNECTED!

If you are a member of EEAC and want to be part of information sharing and on-line discussion on the EEAC listserv, contact:

cfranken@nyc.rr.com

Message from the Chair

Welcome to the EEAC Newsletter!

I hope you have been enjoying your electronic copies. This version reduces EEAC's ecological footprint, and is convenient to store, but is also a great savings to our organization – as first class postage went up another two cents since May 11!

Remember, the newsletter is a benefit of membership. Please refrain from forwarding our newsletter to distribution lists. Instead, refer non-members to our website – where they may view our calendar, newsletter cover stories and membership information. Invite friends to attend our programs and join EEAC!

Over eight years ago, our organization formed a strategic plan. We have taken some steps to meet membership, programming and communication goals, but we are not there yet! In an effort to move closer to these goals, we will be engaging in a little market research. Take a moment to think about the next ten years of the organization and share your thoughts. You will receive a survey with sections covering member benefits, programs, communications and networking. This will be available chiefly through the web, but we will also make a limited number of paper versions available. When you receive the web link or the paper survey, be sure to fill it out right away. We'll share an overview of the results later in the year.

A special thanks to active member Judith Hutton for managing the survey effort.

For more personal news, I plan to begin my PhD work in Environmental Studies with Antioch University New England next month. I was prepared to balance my EEAC Chair duties and my studies, but an unforeseen change in my teaching schedule will make this impossible in the near future.

So, beginning at the May 2009 Steering Committee meeting, I will be going on hiatus from EEAC and Vice Chair/ Chair of Programs Barry Weinbrom will step in as Interim Chair through September 2009. Please direct inquiries to info@eeac-nyc.org. All Executive Committee members will get a copy.

I have very much enjoyed my work with EEAC and I hope to work with you all again very soon! Have a great summer!

Best, Jill Weiss



Kim Estes-Fradis Honored at Cooper Union

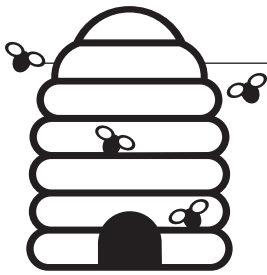
by Steven Lawitts, Acting Commissioner, New York City DEP

For 36 years the Fund for the City of New York has been honoring outstanding civil servants whose performance and commitment to the public exceed all expectations. This year, Kim Estes-Fradis, DEP Deputy Director of Education and Outreach and long-term EEAC member, was recognized by the Mayor at a ceremony where she received the Sloan Public Service Award on March 12th at Cooper Union.

Kim has been with DEP since 1988, joining the agency as its first Director of Education. After the severe droughts of that year, she originally communicated to students the need for water conservation. Since then, she has used her creativity and her passion to create a curriculum that encompasses all of the issues

affecting New York City's water supply. Her programs and initiatives have spread awareness of DEP's vital role along the 100-mile watershed, from the Catskills to New York City. Kim has also taught teachers and ensured that their students will become informed stewards of New York City's water infrastructure. In her current role, Kim's work involves developing and managing many of DEP's public outreach initiatives including museum exhibits, grassroots marketing efforts and publications, as well as continuing her important work with schools both in-city and in the watershed.

EEAC is proud of Kim, our long-time member, for earning this well-deserved recognition!



Make Earth Day Everyday

Michelle Fufaro

The New Buzz in NYC

One of the newest trends in “going green” in New York City is urban beekeeping. I recently attended a class called Basic Urban Beekeeping, hosted by the NYC Beekeepers Association, a relatively new group that educates and supports new and experienced urban beekeepers. This course made me realize how important these little pollinators truly are in our urban environment. Below is a list of facts and human and ecological benefits of keeping bee hives in your backyard or rooftop:

- Bees are the most important pollinators in the US.
- Beekeeping yields beneficial products such as bee pollen, honey, royal jelly, and wax.
- One colony of honeybees can produce from 30-150 pounds of honey in a season.
- Local honey contains some pollen from local plants when the bees obtain nectar. When consumed, this honey can help reduce allergic reactions to pollen.
- Harvesting your own honey should be a cruelty-free practice. Vegans abstain from eating honey due to the inhumane nature by which it is commercially? extracted. (not clear)
- Beekeeping is a unique teaching tool that can give urban students an opportunity to learn about pollination, food production, life cycles and to give them the chance to explore the natural world.
- Honeybee populations are declining because of Colony Collapse Disorder, a mysterious disappearance of bee colonies. Urban beekeeping is a way help to revive the populations.

Currently, however, beekeeping is illegal in NYC. According to New York City Health Code under Section 161.01, the possession, keeping, harboring and selling of “wild animals”, including “all venomous insects” is prohibited. Honeybees are considered venomous insects. However, many New Yorkers are working to change this law. If this is a concern of yours, please sign the petition to legalize beekeeping or register for the Basic Urban Beekeeping course at the NYC Beekeepers Association’s website, <http://www.nyc-bees.org/index.html>.

Read the article ***Come Hither, Bumblebee and Pollinate*** by Anne Raver in the NY Times, 4/29/09, for another way to assist important pollinators by planting native plants in your gardens.

For more detailed information about pollinators see:

<http://www.nappc.org/pollinatorEn.html>



Be a Bee Watcher!

Learn More about NYC’s Native Bees

The Great Pollinator Project aims to raise public awareness of the importance of native bees and their habitats in New York City and to promote home gardening and park management practices that benefit our over 225 species of native bees. Among other things, the project is enlisting the services of New Yorkers, turning them into bee watchers. We need your help! Visit the website for more information and to find out how to get involved: www.greatpollinatorproject.org

The project is a collaboration of the Center for Biodiversity and Conservation at the American Museum of Natural History and the New York City Department of Parks and Recreation’s Greenbelt Native Plant Center and is partially funded by the New York City Environmental Fund.



A New Age Dawning?

by Joy Garland

2009 brings a new year, a new president, and a new awareness that our planet and we and our planet are in deep trouble. We are experiencing not only the financial crisis, but an ecological crisis, which seems to be taking a back seat to the markets although they are surely interrelated. People are asking, “How did we get into this mess and, more importantly, how do we get out of it?”

Now that we are awakening to the hard reality that if we humans keep on exploiting the non-renewable resources (and overexploiting the renewable ones as well!) of the one planet that favors life as we know it, we will bequeath to those who come after us a despoiled Earth whose inability to support life breeds war over the very resources that support life – water, food, air, and energy. We do have a choice – to change our unsustainable ways of living in favor of a more environmentally sensitive one.

We need to seek out the visionaries who can connect these problems and put us on the path to solving them both. Dr. Thomas Berry, a historian of cultures, is such a person. Dr. Berry’s book *The Dream of the Earth*, published by the Sierra Club in 1998, explores Economics as a justice issue and describes our way into the future. We must break our addiction to the ideas that bigger is better, that an unsustainable lifestyle can continue indefinitely and that there is no need to consider the effects of environmental degradation. He insists that if we are to overcome the addiction described above and continue to evolve in a forward direction, there will be some pain during withdrawal. A direct experience of the wonder and mystique of the natural world can hasten our desire to both heal and preserve it.

In *The Universe Story*, also by Dr. Berry, written with Dr. Brian Swimme, the authors call for an awakened consciousness of our utter dependence on the Earth and the need for our global community to recognize our relatedness to both the living and non-living relatives which evolved from an unbroken chain of events, which rose out of that mysterious moment called the Big Bang and proceeded at breakneck speed into the future.

In trying to make sense of the natural forces that both threatened and sustained them, our early human ancestors lived in intimate communion with the Earth, developing rituals, stories and art that reflected their level of awareness and their desire to influence natural occurrences, and gave reverence to Mother Earth.

One of the truly earth-shaking realities of our time is that we humans have achieved such technical capabilities over the years, that it is now within our power to jeopardize the biological diversity of flora and fauna which took nature billions of years to achieve. We threaten our own existence through war, ignorance and greed. We are at a crossroads and what we do or don’t do within the next 10 years may well take us to the point of no return. Fear can be a great motivator, but it can also generate paralysis or a sense that there is nothing an individual or even one nation can do to prevent calamity.

Fortunately this need not be the case. Every crisis brings danger, but often, once awareness of the crisis sinks in, the needed energy can be gathered to change course. With the present financial downturn, the whole world is becoming more aware of how we are interconnected, and how out-of-control consumption patterns and short-term need to maximize profits in our use of non-renewable resources are affecting present and future generations who experience severe poverty and a threatened existence.

Thomas Berry believes that we can be on the cusp of a new age, which he calls the Ecologic or Ecozoic Era. The world crisis we are encountering may cause a change in how we humans will relate to the Earth, other people and other forms of life in the present and future. Berry believes that a period of mutually enhancing Human-Earth relationship is being established. There is a growing awareness that the Earth is not just a resource for humans with its value to be measured only in gross national products. In 1982 the United Nations General Assembly passed the World Charter for Nature, which, like the Declaration of Human Rights, sets a sound ethical standard on which individuals and governments can build a sustainable world. Industry and Commerce are presently vying to see who can be the “greenest”. There are new initiatives, green jobs and alternative energy entrepreneurs. We have a new president, a new administration and a new chance to right the wrongs of the past. To achieve this, we need a new consciousness that will inspire us to take the necessary and sometimes painful steps to a new relationship to the planet, our fellow humans, and the larger Earth community. We can take heart that our generation can begin to write the next chapter of Earth’s story.

(Thomas Berry is a Catholic priest of the Passionist Order with a doctorate in cultural anthropology. He resides in North Carolina and is 94 years old.)

Note: This article was adapted from an essay originally published in the Cove newsletter.

New York Recycles School Challenge 2009-2010

Sponsored by NYSDEC

What is the New York Recycles Challenge?

The New York Recycles Challenge is sponsored by the New York State Department of Environmental Conservation (DEC) to recognize those schools that are working towards responsible solid waste management by developing programs for waste reduction, reuse, recycling, composting and/or purchasing recycled products and packaging.

Who Can Participate?

All public and private elementary, middle (junior high) and high schools that comply with their local recycling laws or are in compliance by February 1, 2010 can participate. If you are not sure about your local recycling law, contact your local recycling coordinator. To find your local recycling coordinator, visit www.dec.ny.gov/chemical/8511.html.

Eligible Schools Must:

- ★ have a recycling program in place or propose to create one as part of the New York Recycles Challenge.
- ★ submit a complete application form in the required format.
- ★ agree to allow a summary of their accomplishments to be published.

Submissions should include photos, a description of your educational program and any other appropriate materials to show your program's accomplishments.

What are the Criteria for Evaluation?

Schools will be judged on:

- ★ the amount of waste diversion achieved.
- ★ level of student/staff participation.
- ★ effectiveness of the program.
- ★ innovation and/or partnerships.

What Will Schools Receive if They Participate?

All schools meeting participation requirements will receive a "Certificate of Appreciation" from the DEC. The first 200 schools to respond with a reasonable submission will receive a free copy of Young Discoverers "Garbage & Recycling" (elementary school) or "The End of Nature" by Bill McKibben (middle and high school.)

One elementary school, one middle school and one high school will be selected from among the submissions for special recognition and awarded

- ★ a compost bin
- ★ educational materials and videos about waste reduction, reuse, recycling, composting and buying recycled
- ★ AND a visit by DEC Commissioner Grannis.

Challenge Application Submissions:

Submit either a paper or an electronic copy of the application and any supporting information. Electronic copies must be in Word, WordPerfect or PDF, submitted on CD-ROM or via e-mail. All paper copies must be two-sided.

Application Time Line:

April 22, 2009	Challenge Applications sent out to schools.
May and June 2009	Schools design/improve their recycling programs.
Sept. 2009 – Feb. 1, 2010	Schools collect data on their recycling programs.
March 1, 2010	Challenge Application Forms must be submitted to DEC.
March 2 - April 1, 2010	Challenge Applications reviewed by DEC.
April 22, 2010	Winners are announced.

Mail completed applications to: NYSDEC, New York Recycles Challenge, 625 Broadway, Albany, NY 12233-7253
or email: dshmwrr@gw.dec.state.ny.us

EE Resources

Compiled by Betsy Ukeritis

Riffle Fish - An Evolving Webumentary

<http://www.rifflefish.com/>

Riffle Fish is an online evolving documentary that includes video clips about the insects, mollusks, fish and amphibians that live in the riffles of rivers and streams. Produced by Ravenswood Media, the Web site includes a growing database of interviews about the science of riffle ecology and the efforts to conserve their biodiversity.

An Audio Guide to Urban Birds: By Students, For Students

http://www.urbanbirdsounds.org/Site/Urban_Bird_Sounds_Project.html

Want to learn more about the birds in your community? This project can help! Written and narrated by high school students from Boston, Massachusetts, the Urban Bird Sounds Project features recordings and descriptions of birds, tips for remembering their songs and calls, and short quizzes to test your skills. To learn more, download audio and try the quizzes, visit the Web site. To order a free copy of the CD, email Regan Brooks at rb13@cornell.edu.

Brooklyn Revealed!

<http://www.brooklynrevealed.com/>

The New York Historical Society and Council Member David Yassky launched Brooklyn Revealed! an online tour of historic Brooklyn neighborhoods and streets (including explanations of the origins of more than 100 street names). History nerds unite! Yassky noted that the interactive site “will provide a venue through which we can engage our children in how Brooklyn has evolved and allow for the dynamic exchange of knowledge and ideas that helps define our great borough,” and it includes glimpses of important people who are a part of the borough’s history. Did you know that Atlantic Avenue was originally a private avenue leading to Ralph Patchen’s farm on the East River?



Asian Longhorned Beetle



Photo by Alan Sawyer

August is Asian Longhorned Beetle (ALB) awareness month. This is an invasive insect that is killing our trees and we need your help. Please look for this serious pest from May to November and all year for the perfectly round ½” exit holes they make as they emerge on hardwood trees (such as Maple, Willow, Elm, etc). The ALB is about 1-1.5 inches long, shiny black with irregular white spots and 1-2 inch long black & white banded antennae.

Please Call 1-866-265-0301 if you locate any.



MEMBERSHIP APPLICATION 2009

☐ New Member

☐ Renewal

Name: _____

Address: _____

Apt. _____ Zip Code _____-____-

If Sustaining Organization, Name of Contact Person _____

Business Phone () _____

Home Phone () _____

Affiliation (for categories other than Sustaining Organization): _____

Title/Position: _____

Address (for categories other than Sustaining Organization): _____

E-mail address: _____

Mail completed form and check to:

Jay Holmes, Treasurer, EEAC, American Museum of Natural History, 79th Street and Central Park West, New York, N.Y. 10024

Date: _____

Please check the appropriate calendar year membership category:

☐ \$ 20 Regular ☐ \$ 50 Sustaining Organization

☐ \$200 Individual Life Membership

Please make checks payable to EEAC.

Thank you!

EEAC is a 501-(c)3 organization.

I would like to become involved in a committee.

Please provide me with information about the following committees:

☐ Communications ☐ Programs ☐ Membership

☐ TEEP (Teacher Environmental Education Preparation)



ENVIRONMENTAL EDUCATION ADVISORY COUNCIL

c/o Teresa Ippolito

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