



New York Water Environment Association

Clarkson University Chapter

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Spring Semester 2002

Clarkson Students Win Presentation Awards at the NYWEA Conference in New York City

The 74th Annual New York Water Environment Association (NYWEA) conference was held February 4-6 in New York City. The theme of this year's conference was "Sustainable Management of Water." This conference provides students the opportunity to meet and discuss environmental issues with a broad spectrum of professionals, including engineers, regulators, municipal officials, scientists, administrators, and operators. While the majority of the presentations are given by professionals, at the University Research forum students get the opportunity to present

their research. A new dimension added to the University Research forum this year was a student paper competition with prizes going to the best three presenters. Students were evaluated based on the abstracts they submitted along with how well they presented their research at the conference. This year four Clarkson students presented at the conference – three students presented at the University Forum while the fourth presented during one of the professional forums.

The three student presenters all won prizes for the presentations they gave at the University Forum. First place was awarded to Cory McDowell, a second-year

Masters Student in Environmental Engineering, who presented results from his research on the migration of petroleum pools following an ethanol spill. Second place was a tie between Jason Hime and Alicia Crandall of Clarkson University and Donna Hope, a PhD student in civil and environmental engineering

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Cory McDowell receives his 1st place award.

“Bench”marks of progress for the Clarkson environmental movement: NYWEA and the Clarkson Garden Project”

As a continuation of last semester's effort to design and construct benches for the Clarkson Garden Project, members of NYWEA used the revenue from the recycling project to buy materials for constructing the benches. On March 29th, four NYWEA members spent six hours constructing the molds for the concrete bench ends. It required a lot of teamwork to get the quality resulted in the molds, as well as the mixing of concrete on April

12th.

The concrete used was made from a special “recipe” using waste products as aggregates in the concrete. Remaining shredded PVC from machining processes and post-use sandblasting sand were substituted into the concrete as coarse and fine aggregates, respectively. These substitutes not only provided the adequate components of the concrete, but they allowed byproducts of industrial processes to not



Lindsay greases the bench mold.

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Clarkson Students Win Presentation Awards at the NYWEA Conference in New York City

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at Rensselaer Polytechnic Institute. Jason Hime, a civil engineering senior, and Alicia Crandall, a bio-molecular science junior, presented their research on stimulating the biodegradation of trichloroethylene (TCE) contaminated soil. Student winners received cash prizes and were recognized during the NYWEA's awards luncheon on Wednesday February 6.

Anahita Ahmadi, a PhD student of the Civil & Environmental Engineering/Environmental Manufacturing Management Program, was the fourth student representing Clarkson. Anahita, also a member of the NYWEA sustain-

ability task force, presented research on the implementation and evaluation of sustainable practices in water quality management during a morning session and spoke about getting sustainability started within NYWEA during one of the afternoon sessions.

The NYWEA student chapter at Clarkson University is a very active organization that holds general meetings during the semester every three weeks. Current special projects include the bottle recycling program in the academic buildings, the adopt-a-school program with the Potsdam middle school and a

project to make notepads from recycled office paper. For more information contact the Chapter President Angela Link at linkan@clarkson.edu or the Chapter Advisor Dr. Grimberg at Grimberg@clarkson.edu.

- Angela Link & Anahita Ahmadi

Jason Hime and Alicia Crandall accepting their 2nd place award for their presentation in the student paper forum.



“Bench’marks of progress for the Clarkson environmental movement: NYWEA and the Clarkson Garden Project” cont.

Below is the Clarkson Garden Projects Logo



"Heaven is under our feet as well as over our heads"
- Henry David Thoreau

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end up in yet another landfill.

Green practices such as the one just described are new ways of thinking that need to be considered on a much greater and frequent level. Part of NYWEA's purpose as being one of the few environmental groups on campus is to raise awareness on environmental issues across the board and not just water issues. NYWEA invites you to participate in projects such as these to help raise awareness on not only environmental issues but also students helping students on Clarkson's campus. Be sure to take a walk behind Moore

House and utilize the new benches made for you!

-Lindsay Wilkins, Bench project coordinator



Mark, Angie, and Lindsay mix the concrete and pour it into the bench molds.





Employment Opportunities From Our Sponsors

CO-OP PROGRAM

The Stearns & Wheler Companies work to develop environmental solutions - solutions that contain a high sensitivity to the environment and to economic realities. With over 250 employees company-wide, the Stearns & Wheler Companies is a diversified, client-focused organization that continues to advance and provide service to clients throughout the Northeast and Mid-Atlantic regions.

The Stearns & Wheler Companies include three fully integrated companies: Stearns & Wheler, LLC/ PLLC; S&W Services, Inc.; and S&W Redevelopment of North America, LLC, each contributing to the wide range of services we provide.

Our principal areas of practice include:

- Water
- Wastewater
- Solid Waste
- Hazardous Waste
- Hydrogeology
- Wetlands and Ecosystems
- Water Quality
- Air Quality
- Industrial
- Petroleum/Chemical Services

Co-op Students assist our engineering staff in the following areas:

- Conduct Field Investigations
- Gather and Compile Data
- Perform Engineering Studies
- Make Comparative Engineering and Economic Evaluations
- Design Calculations
- Develop Facilities Layouts
- Assist with Project Management Activities
- Assist with CADD Drawings
- Conduct Cost Estimates
- Assist with Field Surveys and Inspection of Construction.

**Your
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HERE!**

If interested please email inquiries to grimberg@clarkson.edu



Recycling On Campus

The next time you walk up to a trash can with an aluminum can or a plastic or glass bottle, keep this fact in mind: it takes approximately 80 YEARS to degrade an aluminum can and it takes ONE MILLION YEARS to degrade a glass bottle! Now think about the benefits experienced by recycling these same items. Did you know that recycling

ONE aluminum can saves enough energy to run either a television set or a computer for three hours? Here's another fact for you, recycling FIVE plastic bottles makes enough fiberfill to stuff a ski jacket! Recycling ONE glass bottle provides enough energy to run a 100-watt light bulb for four hours.

It is with these

facts in mind that I write this article in order to generate campus awareness of the recycling program being run by the New York Water Environment Association (NYWEA). This program was started in the fall of '99 due to the poor perception of recycling on campus. We started out with three bins and now are up to seven bins. These bins can

be found in the CAMP atrium, the ERC, the Concrete Café in the Science Center, 1st floor of Snell Hall, and by the vending machines in Rowley. This year we are trying something different with our bins in the ERC and the Science Center. We have placed two bins in each of these locations; one is for redeem-
(Continued on page 7)

Adopt-A-School



President Angela Link teaches a pH experiment using red cabbage as a pH indicator

NYWEA students including: Anahita Ahmadi, Brendan Williamson, Angela Link, Jessica Murphy, Jason Hime, Mike Parker, Chris Parsell, and Frank Gross participated in the Adopt-A-School program held at Potsdam High School in early March of this year. For those who aren't familiar with this program, Adopt-A-School entails working with a local high school and forming an activity to help the students learn more about an aspect

of NYWEA. This year, our group went to the Potsdam High School and worked with Dave Sipher's Natural Resource class and his AP Environmental Science class.

The activity done this year was different than previous years. We decided to split the class into groups and run three experiments simultaneously. The first experiment entailed checking the pH of a liquid using cabbage juice. The color of

the juice changed depending on the acidity of the liquid (pink or red for acid and blue or purple for base). This activity illustrated how pH is very important in wastewater and must be controlled before it is released into the environment.

The second experiment was a density experiment where three liquids (water, oil, and syrup) were layered on top of one another. Different items were dropped into the layers to
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York Oil Site Trip

On February 25th a small group of students ventured out to Moira, NY to visit the York Oil Company site, which is currently listed as being on the Final National Priorities List. The site originally was used in waste oil recycling. The recycled oil was used in the area for control of dust on

unpaved roads or was sold as No. 2 fuel oil. In 1979 a state department of transportation road crew discovered a contamination problem. It was found that during heavy rains the water/oil would overflow onto the surrounding lands. Contamination of PCBs, VOCs, metals, and phenols occurred

within the soil, ground water and surface waters of the area.

Two Records of Decision were issued by the Environmental Protection Agency calling for excavation of the first six inches of soil and sediments, resulting in 30,000 cubic yards of contami-

nated waste to be placed in an on-site landfill. Some of the excavated material was dredged from a wetland on the western portion of the site; therefore restoration of the wetland with clean fill and revegetation was done in this area once excavation was completed.

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Employment Opportunities From Our Sponsors

CIVIL/ENVIRONMENTAL ENGINEER

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- Solid Waste
- Hazardous Waste
- Hydrogeology
- Wetlands and Ecosystems
- Water Quality
- Air Quality
- Industrial
- Petroleum/Chemical Services
- Construction Management.

We are looking for a highly motivated team player with minimum requirements including a B.S. or M.S. degree in civil/environmental engineering. Individual will complete assignments under the direction of a project manager and will be responsible for tasks during the study, design, construction, and startup phases of general civil and environmental engineering projects, waterworks projects, or industrial compliance. Candidate must have excellent written and oral communication skills.

New employees assist our engineering staff in the following areas:

- | | |
|---|---|
| • Conduct Field Investigations | • Develop Facilities Layouts |
| • Gather and Compile Data | • Assist with Project Management Activities |
| • Perform Engineering Studies | • Assist with CADD Drawings |
| • Make Comparative Engineering and Economic Evaluations | • Conduct Cost Estimates |
| • Design Calculations | • Assist with Field Surveys and Inspection of Construction. |

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Clarkson Graduate Speaks at NYWEA Meeting

On March 5th, former Clarkson Graduate and 2nd Vice President of the Clarkson Alumni Association, Peter Radosta gave a presentation to students about the New York Water Environment Association (NYWEA) and how students can benefit from and contribute to this organization. Mr. Radosta also discussed his local projects of interest, in particular ultraviolet (UV) disinfection for municipal facility effluent. Mr. Radosta discussed

how UV disinfection has a positive environmental impact on receiving waters, reducing the needs for conventional disinfection methods, particularly chlorine disinfection. Many students were on hand to listen to this presentation and ask questions. It was great to hear from a former Clarkson Graduate and a NYWEA leader on different aspects of Environmental Engineering facing future graduates. Pete Radosta graduated

from Clarkson in 1988 with a Bachelors degree in Civil and Environmental Engineering and later went on to obtain a MBA in 1994 at Syracuse University. He is a licensed professional engineer in New York State and is currently the Presiding Officer of the Central New York Chapter of the NYWEA and is a member of the Program Committee. He is Vice President of Operations at Koester Associates, Inc., a manufacturers'

representative for drinking water and wastewater process equipment.

- Mike Gangone

Adopt-A-School

(Continued from page 4)
test their densities (for example, a grape, or pieces of plastic). The basis of this experiment was that settling of particles based on their densities is one important method of particles separation from wastewater.

The third experiment consisted of an ion-exchange lab using Gatorade. The goal was to teach the students a method of removing waste from wastewater in industry. In the

classroom, each group of students removed the color out of Gatorade by using an anionic resin to show that ion exchange really does work! The color in the Gatorade was meant to represent the contaminate that needed to be removed.

There were questions prepared for the students as part of each lab, and at the end of class we discussed the results and got quite a bit of positive feedback. We're looking for-

ward to holding another activity next year. Thank you to all that participated!

- Anahita Ahmadi



Vice-President Anahita Ahmadi and Brendan Williamson remove the color from gatorade.



York Oil Site Trip

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Drawdown wells were installed to collect the contaminant plume and the oil during the excavation process. Once the excavated material was placed in the landfill and the landfill was capped these wells were used to collect ground water

and treat it for any residual contamination in the on-site treatment facility. After treatment the water meets New York State pollutant discharge and elimination system requirements and is discharged into the surrounding woodlands. The estimated capital cost of this

remediation was \$6,500,000. This was a great opportunity to see a National Priorities List site and to see a recent Clarkson graduate hard at work.

- Jessica Murphy



Clarkson University Chapter

NYWEA Student Chapter is an organization for students pursuing a career in the environmental field. Meetings take place once a month in Cheel Barben Rooms. Meetings include information about future projects, guest speakers, and occasionally refreshments. Local chapter dues are \$5 and state dues are \$25. Joining NYWEA is a great way to meet other students in the environmental field, and professionals already in the field.

INTERESTED IN JOINING NYWEA??

EMAIL LINDSAY WILKINS AT
WILKINLR@CLARKSON.EDU TO BE PLACED ON CLARKSON'S
NYWEA EMAIL LIST & NOW VISIT US ON THE WEB AT
www.clarkson.edu/~nywea

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More Adopt-A-School Pictures

Jessica Murphy conducts an experiment on density.



Recycling On Campus

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able containers while the other is for non-redeemables. Both redeemable and non-redeemable containers may be placed in the locations with only one bin present. Due to the fact that members of NYWEA must go through the trash in order to separate the redeemable containers from the non-redeemables we are asking for the cooperation of everyone on campus to please not throw your garbage, paper or food into these bins. In order to alleviate any concerns that may arise amongst the student body, NYWEA is not keeping the money made from the redeemable containers. We have chosen instead to give

that money back to the campus. The maple saplings decorating the courtyard between Cheel and CAMP were purchased with the money made the first year of the program and the money made last year will be donated to the Clarkson Garden Project in order to build benches for students to sit on. So you can see that the profits made from our recycling program are not being kept for our personal benefit, they are being given back to you in order to make our campus a better place for everyone. Please help us to prove that in a society where we throw away enough aluminum every three months to rebuild our entire commercial air fleet that there are some people

who care enough to try to make a difference. Together we can show everyone that Clarkson students care about the future of our environment and intend to do something about it!

- Angela Link



One of the many recycling bins NYWEA maintains on campus