

Environmental Engineering Alumni Newsletter

Issue 1

www.geocities.com/cpsloenvealumni/ March 2006

Reunion 2006 Ben Monroe '03

CONTENTS

Reunion 2006	1
Back to School	2
Giving Back	3
Reunion 2005	4
ENVE Alumni Chapter?!	5
SENVE Update	5
Do you See a Career Change in <u>your</u> Future?	6
Weddings	8
Engagements	9
Calendar of Events	10

Who's ready for some more fun? That's right, it's almost that time again. Time to catch up with those you spent the best years of your life with. Yep, its time for the 2006 Annual Cal Poly ENVE Alumni Reunion. For those of you who attended last year's or the year before, you know this is an event not to be missed. This year promises to be more of the same. Mark your calendars; the reunion is set for this **June 3rd**.

Kicking off this year's event will be the ever-anticipated BBQ on Saturday. This year's BBQ will include good wholesome fun such as volleyball, a balloon toss (bring your rain gear), a three-legged race, and of course...a lot of good company. If you can't make it to the BBQ during the day, people will be congregating downtown for a meal followed by an informal tour of San Luis Obispo's wonderful beverage establishments. This promises to be a night of fun and laughs. And if you are curious to hear what has happened to Cal Poly since your departure, make sure not to miss the Sunday brunch that will feature brief presentations of the latest and greatest by SENVE and the CE/ENVE Department.

So, save the date, book a hotel, and do whatever you need to do to bring yourself down to the ENVE 2006 Reunion. We look forward to seeing you there. Y'all come back now, y'hear!

Back to School Interviewed by Lauren Wild '05

What motivates someone to go back to school? According to Bethany Warren '03, she wants to become a college professor and to challenge herself so she is studying to receive her Ph.D. Forcing her brother to call her doctor is just a perk. She is going to UC Riverside (UCR) though she was also accepted to many other programs. She picked it based on its atmosphere, cutting edge facilities and the interest of the professors in her as a possible student.

The initial core classes of the UCR program emphasized chemical engineering which made them quite challenging. The small class sizes of the elective classes and having professors that she knew created an atmosphere contributing to discussions that has helped her better understand the main ideas of her dissertation. Her dissertation is in the area of air quality. After touring the different labs at UCR, she was given background material on the various studies she could choose from for her dissertation. Here are her responses to the questions we asked about being in a Ph.D. program:

What is your dissertation about? Secondary organic aerosols (SOA). More easily understood, the haze you see against the hills if you are in the Bay Area or the LA area. While it is traditionally called photochemical smog, it has been shown that a high percentage of the "smog" is actually particles that form from chemical reactions that happen in the atmosphere. I study the reaction rates and chemical processes to the formation of the particles in our environmental chamber. Even more specifically, I study the effects of water, varying humidity, salt seeds, and temperature on the formation of SOA.

How does the program differ from undergraduate work? Cal Poly's learn by doing philosophy prepared me for the bulk of my labor-intensive lab work. I was already prepared to work with most of the analyzers that we use and learning the operation and maintenance procedures came easily from my background. The theoretical aspect of research took some getting used to as well as writing from a research perspective. The main differences are the lack of class work and the bulk of lab work. I have taken all the classes I need to and still have two and half years of research left.

Did you feel prepared when you first entered the program? No, it was very daunting to enter a program that emphasized different aspects of engineering from my undergrad education. It took some time, but I got the hang of everything my first year and was able to pass the qualifying exam.

What happens if you don't get the "right" answer? In classes, it's the same thing as in undergrad, you get points marked off. In research, you never really know if you have the right or wrong answer. You are the first one to do the research and look at this aspect of the science. All you can do is take your data and previous knowledge and explain the results best you can. All your ideas get passed by your advisor, advising committee, any other professors you can think of, outside collaborators, then your papers are peer reviewed and if no one can find anything at fault with the scientific process, your answer appears to be correct. That is until new research comes out to disprove your theory or find fault. Not getting the "right" answers is the only way to get the "right" answer.

What do you enjoy most/least about the Ph.D. process? I enjoy the atmosphere the most, you get to think, experiment with what you want, argue your ideas, it's always a challenge. I also consider it part of my job here to be a role model to young students from kindergarteners to undergraduates. I get to give tours to all age groups, participate in student projects, and do things like being a science fair judge. On that same note, you never know if you're right, you can spend tons of time on one idea and have it never pan out. I like being able to look in the back of a book for an answer, but you don't get that luxury here.

Beth says she spends nearly 50 hours a week all year round in the lab. The whole Ph.D. process typically takes about 4 to 5 years. When she is finished she would like to apply for a professor position at Cal Poly San Luis Obispo. If that doesn't work she would like to go to Spain or Switzerland for a postdoctoral position until a position opens up at Cal Poly.

Giving Back Ben Monroe '03

Amidst their busy schedules past and present ENVE students are still finding the time to give something to the communities that are less fortunate. One way this happens is through organizations such as Engineers Without Borders (EWB); a non-profit humanitarian organization established to partner with developing communities worldwide in order to improve their quality of life. In 2003, Dan Garbely (CE/ENVE M.S. 2002) discovered EWB and soon learned there was no West Coast Chapter. So he began one. It has now blossomed from the original west coast chapter to include several sub-chapters throughout the west coast, including a Cal Poly student chapter. Garbely has since found himself busy coordinating projects, preparing fundraiser meals, and presenting as the keynote speaker at the EWB National Convention.

In March of 2005, Garbely joined two other engineers and two Cal Poly EWB students on a trip to the Mae Nam Khun (MNK) village in Thailand. The intent of the first mission was to obtain background information and perform a water assessment for the village. The project team sampled the water supply for physical, chemical, and bacteriological constituents. The results of this testing indicated that fecal coliform was present in the drinking water supply. Because of the large volume of water required for the entire village, and associated large treatment system, the team decided to focus primarily on providing clean water to the MNK school house, as an example of what can be done for the rest of the village and to reduce illness in village children.

Having identified a health problem and gathering sufficient information to proceed with the development of a solution, the team returned to California. Taking into consideration the project location, and the various site limitations such as lack of reliable power, the treatment system proposed had to work without many of the luxuries an engineer in California would normally have. A team of nine students consulted with industry members of EWB and performed their own research to develop a water treatment system that included coarse filtration for removal of large solids and debris followed by a slow sand filter for removal of pathogens and fine particulate matter.

In December of 2006, eight students from the Cal Poly EWB chapter returned to Thailand, blue prints in hand; ready to build a slow sand filter to provide 1800 gallons per day to the village schoolhouse. With some help from the villagers, construction of the sand filtration system only took nine days. The Cal Poly EWB chapter eventually had to leave, but left many friends and clean water for the children of the village. Students are already hard at work planning the next trip to evaluate the effectiveness of the filters and discuss additional installations for the rest of the village.



Cal Poly students in Mae Nam Khun in December 2005

The Cal Poly EWB chapter would like to thank the MNK project sponsors: Gregg Drilling & Testing, Unocal, Wallace Group, and Boyle Engineering, and their many friends and family for their generous support. Also, if you want to join EWB-Cal Poly and support the cause to help improve the quality of life through sustainable engineering projects, please contact EWB-Cal Poly through their website at ewb.calpoly.edu. Mentoring, leading workshops, and providing technical support are ways professionals can become involved.

Reunion 2005 Wendy Martin '03

The second annual ENVE reunion was fun for all! We enjoyed a beautiful day in the sun and had a tasty BBQ at Cuesta Park. Our physics skills were put to the test in the water balloon toss and Trisha Coffey '03, Travis, Sandy Scott '03 & '01, and Daniel tied for the championship. We followed the toss up with tight matches in sand volleyball. After our fun in the sun we met up after dinner at Mother's for some dancing and reminiscing. Thanks to everyone who made it to the reunion and wished they could have!



REUNION 2005 ATTENDEES Alumni

Brian Aunger '93, Sandy Scott '01 & '03, Rob Kaessner '02, Trisha Coffey '03, Evan Larson '03, Wendy Martin '03, Jason Waudby '03, and Karyn (Hagenah) Steckling '04



REUNION 2005 ATTENDEES

ENVE Students

Amanda Schmidt '05
Lauren Wild '05
Michael Borger
Andrea Ramirez

ENVE Professors

Dr. Hal Cota
Dr. Yarrow Nelson



ENVE Alumni Chapter?! Wendy Martin '03

It's official; we're trying to become a Special Interest Chapter of the Cal Poly Alumni Association (CPAA). The idea has been tossed around since the time of planning the first ENVE reunion in 2004 and I've been looking into it since then. There are some requirements to becoming an official chapter and of course there is time and energy involved in making it happen. However, there are significant benefits resulting from becoming official that will be well worth all the hard work.

Status Update

Preliminary chapter by-laws are being reviewed by the CPAA. Our goal is to have the by-laws go before the Board for approval in June 2006.

Chapter Benefits include:

- Broader ability to contact ENVE alumni
- CPAA home page would have a link to the chapter web site
- Alumni Office would provide marketing of the site via e-mail and direct mail
- Easier to advertise events
- Organized ENVE alumni presence for CE/ENVE Department
- More networking opportunities

Proposed Officers

President

Wendy Martin '03 M.S. & B.S.

Vice President

Sandy Scott '03 M.S. & '01 B.S.

Secretary

Lauren Wild '05 M.S. & B.S.

Treasurer

Amanda Schmidt '05 M.S. & B.S.

Co-Event Director

Evan Larson '03 M.S. & B.S.

Co-Event Director

Jason Waudby '03 M.S. & B.S.

Committees need more ENVE Alumni members

- *Finance/Fundraising* - Raise funds and oversee the distribution of scholarships and monetary gifts.

- *Communications/Information* - Responsible for maintaining membership roster and website and for producing newsletters.
- *Nominating Committee/Membership* - Plan and implement methods of recruitment.
- *Special Events/Future Development/Annual Meetings* - Help plan reunion and other events.

Do you like what you see?

Are you interested in helping us with future newsletters, reunions, the website, or reaching out to ENVE alumni?

If you have ideas for future newsletters or want to help with them, please email Lauren Wild '05 at lwild@gmail.com.

If you want to help in general, please email Wendy Martin '03 at wendyenne@yahoo.com.

Society of Environmental Engineers (SENVE) Update

Kirk Waltz, SENVE Outreach Coordinator

In 2006, the Society of Environmental Engineers looks to increase their reputation as a very reliable source for influential people in the environmental engineering world. So far this school year we have had many speakers from independent firms to state organizations speak at our meetings: RMC, Tetra Tech, the Regional Water Quality Control Board, and the Naval Facilities Engineering Command. For community outreach, we participated in National Make a Difference Day and also assisted the Surfrider Foundation with a beach clean up. Within our own club we competed in an impromptu wastewater filter design competition to promote our participation and formidable standing in the Water Treatment from Your Kitchen and Beyond Competition to be held at the University of the Pacific on April 8, 2006.

Where did most of our alumni end up after graduation and where are they now? The chart on the right shows the companies that most of our graduates work at according to the Cal Poly Career Services Graduation Status Reports and our database.
 * Out of results from 32 Graduate Status Reports done for Cal Poly Career Services from the years 2000-2004
 ** Out of results from 76 newsletter recipients

Top 5 Companies	
Graduate Status Report Data*	Current Database Data**
1. MWH (4)	1. MWH (11)
2. Black & Veatch (2)	2. RWQCB (7)
2. Cal Trans (2)	3. Navy (6)
2. Carollo (2)	4. Ch2MHill (5)
2. URS (2)	5. Black & Veatch (4)

Do you see a Career Change in your Future? Compiled by Wendy Martin '03

ENVE Alumni who changed jobs in the last few years are offering up their advice to those of you looking to take the plunge. The following four ENVE Alumni were interviewed for this article. Michelle J. (Jesiolowski) White '00 started working for Western Placer Waste Management Authority in July of 2004 as an Environmental Resource Specialist. Brian Waite '01 started working for CH2MHill in August 2005. Andrea Resch Gardiner '00 started working for ERM in January of 2006 as a Staff Engineer. Wendy Martin '03 started working for the Los Angeles County Sanitation Districts in February of 2005 as a Project Engineer.

We all know that people change jobs for a variety of reasons. The alumni interviewed changed jobs for reasons including unstable work environments, stress, not achieving adequate work experience, negative office atmosphere, work hours, quality of life, and moving to a more affordable area. If you feel like you're riding in a sinking ship on a turbulent sea then it just might be time to jump ship. Once you decide it's time for a change, you've got to figure out what you're looking for in a new job. Michelle was working in hazardous waste, but for her job search she looked for something closer to home and in the solid waste industry. For

Andrea's previous job, she was hired for a program that wasn't ready to start when she started. For her new job search, Andrea wanted to work for a company that had established programs they were hiring for and also could provide the opportunity to work on different types of projects. Brian and Wendy looked for similar qualities including the type of work, salary, location, benefits, work schedule, and treatment of employees.

After getting some experience in the real world, what really matters is redefined. The alumni interviewed were especially interested in benefits. Specific benefits researched included vacation time, sick time, alternate work schedules, type of health insurance, and retirement. In addition, the type of work, office morale, potential supervisors, and age of potential co-workers played a part in the job search.

When these alumni were graduating they used the Internet, ENVE club contacts, and the CE/ENVE career fair to find their jobs. The job search resources utilized changed when searching for their current positions. These alumni used newspapers, friends, Monster.com, recruiters, company websites, personal contacts, and contacts from previous employers, graduate school, and professional societies. The alumni recommend utilizing all possible resources and being persistent. Once the alumni received the job offers, not all tried to

negotiate. Michelle and Wendy switched to working for government agencies that are restricted in what they can offer and there wasn't really any room for negotiation. Michelle did negotiate when she got her first job out of school, and she received a larger salary, moving expenses, and a starting bonus. She recommends the book The Aladdin Factor, which opened her mind to the possibilities and opportunities available just by asking. Brian was able to negotiate his salary and also a signing bonus. Andrea negotiated for moving expenses.

After all the hard work of finding new jobs, the alumni are definitely appreciating their new jobs. Michelle appreciates the role she plays in the public by helping all types of people understand solid waste. She also appreciates the shorter commute, her co-workers, and she just loves what she does now. Brian appreciates gaining quality experience in a less stressful environment. Wendy appreciates the size of her office, the more relaxed environment, and especially the benefits, with the 9/80 schedule being the icing on the cake. Andrea appreciates the diversity of her work and being able to do new things.

Before you go running off, trying to find greener pastures, make sure you've been at your current job long enough. Our general consensus is that you should stay at a job for at least one year. Even though a few of us wanted to leave after six months we stuck it out. It takes a full year to really get the feel for a new place and a new job. Two years may even be more acceptable as a minimum. Time gives you a chance to figure out what you want to do, learn, and get to know people. Working for companies for less than one year may look unappealing to future employers because they may think you'd jump from the job they'd give you to another job. The exception may be if you were working on short projects during the short employment.

We do have some final recommendations for alumni in their job searches. Michelle recommends setting clear goals using the SMART method (Specific, Measurable, Actionable, Realistic, and Time-Oriented). She also recommends writing

down your goals and the book All About Goals by Jack Addington. In this book, Addington discusses a Harvard class in the late 50's where 3% of them wrote down their goals. The graduates of this same class were polled 20 years later and the 3% was worth more than the other 97% put together. Brian recommends being selective and not being afraid to ask for a salary at the high end of the typical range because engineers are a commodity these days. Wendy recommends using your connections to talk informally with people at companies you're interested in so you will have a better idea of the quality of life aspects. Andrea recommends trying to line up a few jobs and not taking the first job offered to you. She was willing to move around, which she thinks was beneficial.

There is a lot of opportunity out there. Good luck!

Higher Education in a New Location

While some of us stayed at Cal Poly for our higher education, others are getting their advanced degrees all over the country.

Seema Shah '01
M.S., Colorado State University

Laura Furrey '03
J.S., Vermont Law School

Bethany Warren '03
Ph. D., University of California, Riverside

Megan Patterson '05
M.S., University of Massachusetts

Nick Cilic '05
M.S., University of California, Berkeley

If we missed you, email Wendy Martin '03 at wendyvenve@yahoo.com and let us know.

Weddings



2005

Michelle (Jesiolowski) White '00



June 2005

Trisha Coffey '03



September 2005

Andrea Resch Gardiner '01



September 2004

Kristy (Kellas) Edblad '03



August 2004

Helen Lu '02



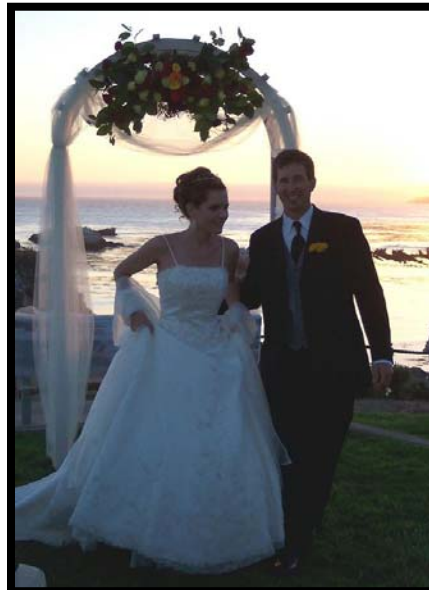
July 2004

Lynne (Maloney) Tseng '03



July 2004

Karyn (Hagenah) Steckling '04



August 2003

Evan Larson '03



2003

Kirsten (Godbout) Plonka '01

Engagements

2005 - Eric Rowney '01



November 2005 - Brian Waite '01



January 2006 - Sandy Scott '03 & '01



October 2005 - Keith Corcoran '05



June 2005
Dan Garbely '02 & Jennifer Schieberl '03



February 2005 - Napoleon Biagtan '03
& Meryll Gonzalez '04

Calendar of Events

2006 Annual Cal Poly ENVE Alumni Reunion

Day	Event	Start Time
Saturday	BBQ	11:00 am
Saturday	Dinner and Drinks	6:00 pm
Sunday	Brunch/Presentations	11:00 am

We are still in the planning stages so locations are to be announced. If you want to help with the planning, email Evan Larson '03 at sloevan@yahoo.com or Jason Waudby '03 at jgwaudby@yahoo.com.

A special thanks to everyone who contributed this newsletter, especially those who wrote articles (Ben Monroe '03, Lauren Wild '05 and Wendy Martin '03) and those who were interviewed for this newsletter.

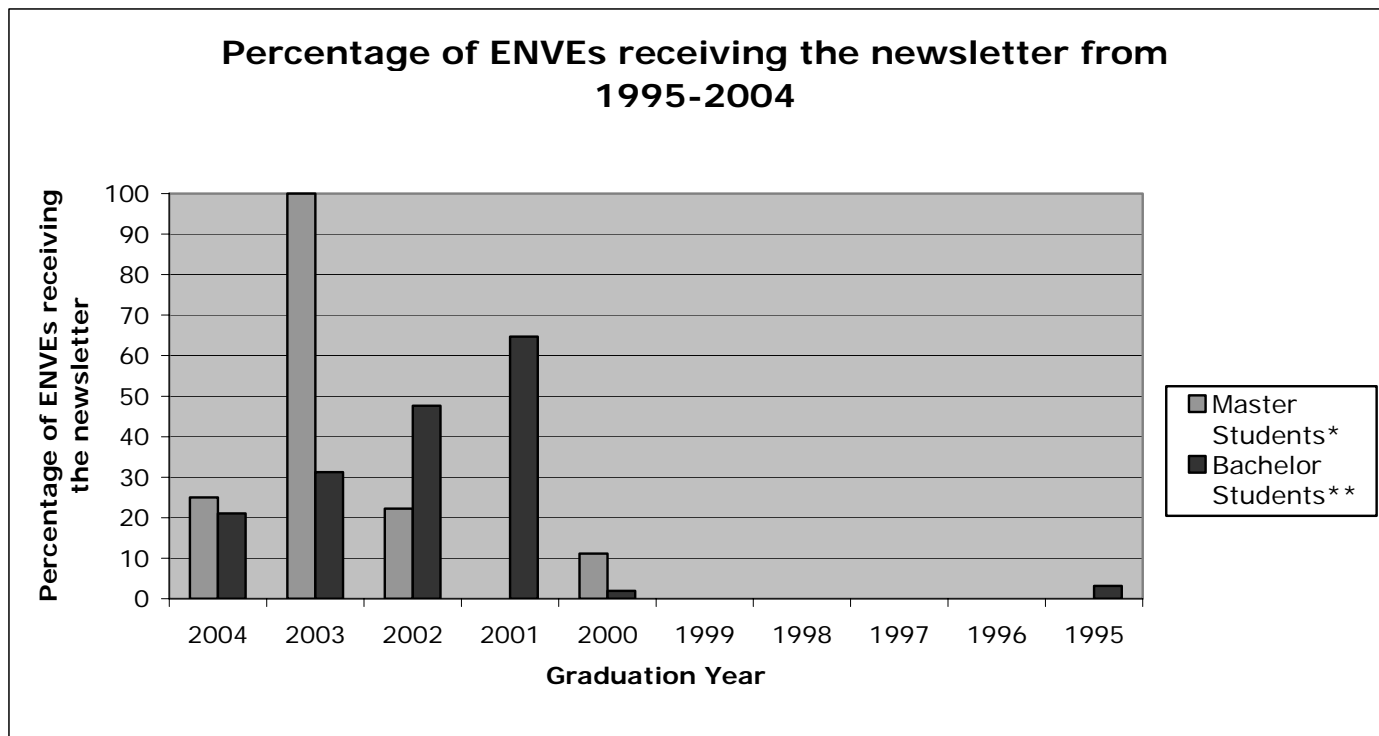
Email Correction? Want to be added/taken off our list? Contact Lauren Wild at lwild@gmail.com

Big News? Want to help out? Contact Wendy Martin at wendyenv@yahoo.com

We encourage you to email us pictures.

Don't forget to check out our website at www.geocities.com/cpsloenvealumni/ for updates in between newsletters.

Feel free to forward this to any ENVEs you think may have not received it. Help us get our percentages up. Good job 2003 MS students!



* Numbers obtained from Cal Poly SLO Institutional Planning & Analysis Office's Cal Poly Fact Book 1999-2000 and reflect Civil and Environmental Engineering MS students along with 4+1 students.

**Numbers obtained from Cal Poly SLO Institutional Planning & Analysis Office's Cal Poly Fact Book 1999-2000 and reflect those Environmental Engineering students who graduated with a BS and not those in the 4+1 program.