The National Association of Environmental Professionals

NAEP National E-News July – August 2013

President's Letter to Members

In today's world, the e-mail distractions and urgencies come earlier and earlier in the day. It seems there is no time for the non-priority things, like keeping up with current trends in the field. But familiarity with the non-priority things is needed for future projects and to recognize future opportunities.

NAEP can actually help with this. NAEP webinars and committees offer a scheduled break from the day where the important business of training and networking with other professionals can take place. Scheduling the time to attend a webinar or a committee call once or twice a month can put you together with other professionals who are working on the same problems. Going further, submitting an abstract for the 2014 annual meeting, or registering for the conference (remember the Monday training sessions!), is an investment in your future.

Speaking of professional development, what are you doing with that growing stack of journals? To really make an investment in personal enrichment, take the time to read one article from *Environmental Practice* (EP) today. Over the course of a year or two, this diverse journal currently produced by Jim Montgomery and Dan Carroll of our editorial office at DePaul University in cooperation with Cambridge University Press, covers a variety of environmental disciplines, including the one you are likely engaged in.

In the first issues of 2013, EP engaged topics such as the importance of words at the science-policy boundary, time for completion of EISs, the need for more effective NEPA practice, green energy, sustainability criteria, and visual impacts. Five years earlier, the 2008 issues covered some of the same topics, such as the length of time for EIS completion, but also addressed sustainability, cumulative effects, working with people and collaborative problem-solving, environmental justice, eco-regional planning, adaptive management, ISO 14001, and cumulative effects.

Twenty years earlier, in 1994, the journal, then called *The Environmental Professional,* also focused on NEPA topics such as the appropriate analyses in policy and programmatic documents, bounding analyses in NEPA, Agenda 21, and the proposal to create a National Institute for the Environment to address the need for better science in environmental decision making.

As you can see, readers of NAEP's professional journals are familiar with topics long before they are urgent. I am struck by the relevance of the twenty-year-old articles to today's debates. Readers of the journal over time are conversant in a wide range of environmental topics, and broaden their knowledge of the environmental profession.

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Editor's Note: In the interest of providing an open forum to all sides of the climate change discussion, NAEP published an article in the September 2012 issue of the E-NEWS that resulted in a large amount of email to the editor. I invited several people to submit their own articles at that time. This is the first of several to come. The links in this article are active, and provide the referenced information that will allow the reader to study further.

The following is a link to the transcripts of the testifying scientists and the Senate Briefing on the Latest Climate Science – U.S. Senate Committee on environment and Public Works.

http://www.epw.senate.gov/public/index.cfm?FuseAction=Hearings.Hearing&Hearing_id=cf67a715-fca1-8682-f7dd-13242e8035d1

Dr. Astrid Caldas was born and raised in Rio de Janeiro, Brazil, where she was a Professor for 10 years before moving to the United States in 1996. After a successful academic career at the University of Maryland at College Park, she staged a change that brought her to the arena of climate change, conservation, and sustainability initiatives. Astrid was a Climate Change and Wildlife Science Fellow at Defenders of Wildlife, and as of September is an AAAS Science & Technology Fellow at the USAID Bureau of Food Security. She was Vice President of the Green Building Institute Board of Directors, and currently serves as a Member-at-Large and Chair of the Education Committee of the Mid-Atlantic Region Environmental Professionals (MAREP), a chapter of NAEP. She blogs about climate and sustainability on the Huffington Post Green, and tweets climate news under the handle @climategeek.

Climate Science and the Endless Debate

By Dr. Astrid Caldas

A Senate briefing to the Committee on Commerce, Science and Transportation on the latest climate science organized by Senator Barbara Boxer (D – Cal) took place on February 13, 2013. The panel had three climate scientists present to present the latest trends and scientific evidence related to the growing impacts associated with climate change.

The distinguished scientists participating in the briefing are listed below:

- Dr. Donald J. Wuebbles, Professor of Atmospheric Science, University of Illinois
- Dr. J. Marshall Shepherd, President of the American Meteorological Society and Director for Program in Atmospheric Sciences, University of Georgia
- Dr. James J. McCarthy, Professor of Biological Oceanography, Harvard University

After a question and answer session with Senator Boxer and others present, conclusions of the briefing were:

(1) The signature of climate change is uncontested: steady increases in ocean temperature, loss of sea ice, and sea level rise are occurring even as we speak; and

(2) The rate of these changes can only be explained by human-induced increases in greenhouse gases.

The 2013 National Climate Assessment further reinforced some the evidence mentioned at that briefing:

1. Average temperatures are 1.5ºF warmer since 1895, with 80% of that increase taking place since 1980.
2. Precipitation has increased since 1900, with increases particularly in heavy downpours.
3. Winter storms have increased slightly in frequency and intensity.
4. There has been an increase in the overall strength and in the number of strong hurricanes in the Atlantic Basin. There is less of a distinct pattern in the Pacific.
5. Better records of sea level rise show 1-4 ft rise as the most widely accepted range; the entire range of plausible increases is .66 feet to 6.6 feet by 2100. The US Northeast will see higher rises than other areas.

These changes will affect water and food availability, energy decisions, the design of critical infrastructure, and critical ecosystem services and resources. They will impact the 53% of the US population that lives in coastal counties, a figure that is expected to grow to 63% by 2020. The impact on island nations and many low areas around the globe will be catastrophic. So, why

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are there people who still question the effects of climate change, or are apparently still unaware of its effects?

Why Is It So Hard For People To "Get" Climate Science?

What struck me the most about the above mentioned briefing was the fact that Senator Boxer herself was not even remotely aware of the most basic developments related to climate science and change. It was apparent that she was unaware of the rate of sea level rise that is already occurring. I am not even getting into the whole debate about the role of man-made carbon emissions – at least not right now – but anyone can see that something is amiss with climate and the related weather patterns as a consequence. It should also be apparent that we really need to do something about it before the country (and the insurance industry) goes bankrupt due to disaster after disaster.

The field of climate change is a particularly difficult one in which to communicate with the public because of the associated uncertainty (an inherent characteristic of most science) and the complexity and scale of the issues. A lot of misunderstandings about climate science stems from the scientific method itself. Science is almost never certain – it mostly deals with probable causes and certain relationships, some stronger than others.

In the case of climate, however, there is no uncertainty that it is getting warmer. There is a rather large amount of uncertainty related to the actual warming we will see, since it largely depends on what people do in the coming years. For instance, earlier in 2012, several scientists and policy analysts stepped up to state that the goal of limiting warming to 2°C was no longer feasible. Then in December 2012 another study said that, optimistically, 2°C could still be reached if greenhouse gas emissions are not reduced before 2020, but at high costs and risk.

Why the discrepancy? Because a lot of climate science is based on models, which, in turn, are based on sets of data. Depending on the model, the data, and the variables used, different outcomes may be possible. Not surprisingly, that has become one of the main reasons on which climate change deniers base their skepticism. How can we know what models are right?

Enter ensemble models to the rescue. For a long time, scientists have learned to rely on not only one model, but in whole groups of thousands, millions of models. By using a large number of models, with different variables and values for such variables, scientists come up with a large number of predictions. Those are pooled for the most common results, and tested against the probability of said results being due to chance. So, when we talk about a prediction related to climate, it is most definitely not based on one (maybe wrong or suspicious) model. Still, those who deny that climate change is happening choose to challenge climate models and predictions with various theories.

Not a Natural Cycle

It is an undeniable truth that the weather has changed substantially in the past (see excellent graph at http://www.scotese.com/climate.htm). Many studies have shown it, showing also that when it got warmer in the past, the levels of CO2 were higher and correlated with the respective warming. So, just like now, an increase in CO2 is strongly correlated with temperature rises in the past, throughout paleoclimate records.

In the past, higher levels of CO2 occurred for various reasons, one of the most commonly cited being volcanic eruptions. But in our current time there is a significant human component added, and volcanic activity is low – a study has indeed clarified the relationship between volcanic and human activity and current warming. In addition, the speed at which warming is occurring is such that was never recorded from the past, natural-induced, warming events.

Another study just released in August 2013 states that the rate of change over the next century will be at least 10 times quicker than any climate shift in the past 65 million years. One of the authors states: "We know from past changes that ecosystems have responded to a few degrees of global temperature change over thousands of years. But the unprecedented trajectory that we're on now is forcing that change to occur over decades. That's orders of magnitude faster, and we're already seeing that some species are challenged by that rate of change."

That rate of change cannot be explained by any natural sources.

A significant help in the explanation of the role of anthropogenic carbon in current climate change came from James Hansen. He is arguably one of the most famous names in climate science, and one of the first to warn the U.S. government about the potential dire consequences of global warming. He also recently quit his federal government position to better spread the word about the dangers of ignoring climate change.

In July 2012, a study where he used real facts and statis-

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tics (not models) to connect extreme weather events to climate change was welcomed as a more believable way for people to actually understand what is happening with our world. He completed the study to counter all the talk about predictions and how uncertain they are. In his report, Jensen confirmed that current patterns can not be attributed to anything else other than human activity. The report findings refute the argument that the current warming is due to a natural cycle. Hansen stated in his Washington Post op-ed that "this is not a climate model or a prediction but actual observations of weather events and temperatures that have happened."

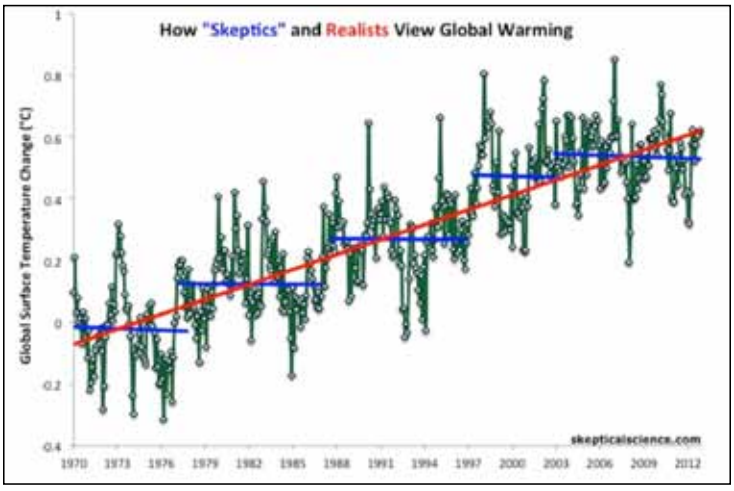
An opinion piece by climate scientist Michael Mann (of "hockey stick" fame) on Hansen's study stated that "Over the past decade, records for daily maximum high temperatures in the U.S. have been broken at twice the rate we would expect from chance alone. Think of this as rolling double sixes twice as often as you'd expect -- something you would readily notice in a high stakes game of dice. Thus far this year, that ratio is close to 10 to 1. That's double sixes coming up ten times as often as you expect." Don't you think the dice are loaded?

Indicators of human fingerprint on climate.
Source: http://www.skepticalscience.com/How-we-know-were-causing-global-warming-in-single-graphic.html

In fact, many studies that separate human CO2 emission from natural sources have showed that only when the human component is included does the current correlation with warming exist. Terry Root's excellent study shows with actual records that observed changes in plants and animal traits are more closely associated with temperatures when anthropogenic forces are included.

But no matter: the people who do not agree with 97% of the climate scientists all over the world keep trying to come up with "new" explanations for the current warming trend. Just three months ago a "new" study came out stating that CFCs and cosmic rays, not carbon dioxide, are responsible for global warming. It was immediately refuted by several scientists, based on previous studies and findings. The "new" study was a weak attempt to bring back an argument that had long been dismissed and proven wrong.

We are also not in a cooling trend. Many skeptics would like us to believe this and try to prove it mostly using "cherry-picked" data, i.e., a sub-section of data that specifically shows a decreasing trend. A brilliant graph ("The Escalator") on the website Skeptical Science depicts this in a very clear way, where one can clearly see that every "cooling trend" occurs at a higher temperature as time goes by, and that the underlying warming trend is obvious:



Source: http://www.skepticalscience.com/graphics.php?g=47

In addition, a 2010 study including 10 key indicators of climate warming in the long term showed that every one of them is moving in the direction expected of a warming globe (not a cooling one) (see figure on next page).

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Source: http://www.skepticalscience.com/global-cooling.htm

What's at Stake?

With climate change denial comes the risk of underestimation, and underestimation can lead us to be underprepared for the various expected effects of climate change. When you are talking about issues with large risks, like climate change, this is not a smart strategy, to say the least. There are various examples of climate change-related predictions and estimates that have been (sometimes grossly) underestimated. Here are a few examples modified from Think Progress:

- A Norwegian expert in 2005 stated that the Arctic sea ice retreat at the time was larger than predicted by any IPCC models. The retreat has accelerated in the past two years.
- Penn State climatologist Richard Alley in March 2006 said that the ice sheets appeared to be shrinking 100 years ahead of schedule.
- Greenland and Antarctica have already lost significant mass, when the IPCC predicted no significant loss by 2100.
- The temperature rise of 0.33°C from 1990 to 2005 was close to the top range of IPCC climate model predictions. In other words, the range the IPCC estimated least likely to occur.
- Average sea-level rise from 1993 and 2006 was 3.3 mm/yr., higher than predicted by IPCC models. In fact, sea level is rising at an average of one inch per decade, and a new study tells us that the emissions already in the atmosphere have us committed to an even higher rise rate in the long term.
- Expansion of the subtropics is happening faster than projections from models.
- Since 2000, carbon dioxide emissions have grown much faster than predicted, with 2010 having the highest emissions increase ever.

Why is it so hard to have a consensus?

As is well stated in this blog post climate science is not a house of cards that if one card (or fact) falls, the whole thing collapses. Rather, it is more like a jigsaw puzzle, where some pieces may be missing, and some may be in the wrong place, but one can still see the big picture. Why is it then, that so many people cannot see the jigsaw picture?

There are various reasons why one doesn't "believe" in global warming, and there are different types of climate change denial (check http://bigthink.com/ideas/42261 for a great overview).

There are those who follow a common human tendency to interpret the facts in a manner that agrees with their social (or political) group, in an unconscious behavior that leads to acceptance in that group. A study stating that media coverage and information from politicians and advocacy groups are among the most prominent drivers of the public perception of climate change seems to largely support this rationale. The Yale Project on Climate Change Communication also found a political basis for people's attitudes toward climate change.

But then, there are those who consciously choose to not believe, purposefully "creating doubt about climate change, lobbying and campaigning against efforts to reduce the risk or even just to adapt to its effect." Somehow I don't see people in this group changing their rhetoric, and unfortunately, they are among the primary drivers of climate change perception for many.

There will always be conflicting opinions on many issues, especially those that have the potential to affect our way of living. But when a vast majority of specialists around the world agree on something, I would argue that they probably have a good scientific basis for agreement. Fortunately, there is an ever growing consensus about the issue, and a just released new tool lets you see the growth of the global warming consensus over time.

Climate Change Science Keeps Coming Up Strong

The year 2012 was a year especially marked by some great advances in climate science, with many studies published that either pointed to or confirmed that the climate is, indeed, changing, and that human-based emissions are mostly responsible for

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that. Even more important, several studies showed that many predictions made by the IPCC in its 4th assessment in 2007 are actually on the conservative side (please refer to "underestimation" above), with events such as sea level rise and loss of arctic sea ice occurring at a much faster pace than originally projected.

Original cartoon by John Cook,
http://www.skepticalscience.com/graphics.php?g=70

The year 2012 saw several studies confirming the rapid loss of arctic sea ice, stating that it is happening faster than predicted, and wondering about a tipping point:

(1) NASA Finds Thickest Parts of Arctic Ice Cap Melting Faster

(2) Arctic spring snow pack disappearing faster than anticipated even by climate change models

(3) Arctic sea ice may have passed crucial tipping point

The studies on Arctic sea ice are especially important because they all stress the positive feedback created when less ice (white) surface exists, being replaced by dark surfaces. White surfaces reflect more of the sun, creating less heat, while dark surfaces absorb more solar heat. This increases surface heat and in turn contributes to even more melting of sea ice. That effect is thought to be behind the fast melting being observed.

The disappearance of Arctic ice becomes even more of a concern when we think that Arctic sea ice was recently listed as one of the tipping elements in the Earth's climate system. The authors list Arctic sea ice and other ice sheets together with other systems (such as the Amazon rainforest), that when changed past a certain point can alter the state of the Earth's climate system. The researchers highlight the importance of early warning systems to determine when those elements are reaching that dangerous point of no return. In addition, the effects on ecosystems and wildlife can be devastating, as a new study suggests.

The year ended with more exciting new studies related to climate. Their findings were also related to the much-maligned "uncertainty" of climate projections and the IPCC: The first study analyzed the five available global land and ocean temperature series and sea level rise for the past few decades and compared them with the projections in the third and fourth assessment reports of the IPCC.

They found that, while current warming trends of 0.16°C per decade is close to the IPCC's projections, sea level is rising 60% faster than predicted by the IPCC. This is extremely significant, especially in light of the fact that many scientists have commented on how the IPCC estimates are actually not alarmist, on the contrary – they tend to be too conservative.

The second study found that the fingerprint of current atmospheric temperature changes mainly reflects human influences on climate. This is significant because it is the first study to actually show that the current pattern of temperatures (cooling in the stratosphere and warming in the troposphere) is only consistent with an increase of human-produced CO2, not with natural fluctuations like the ones that happened in the past. This result agrees with the statement in the fourth IPCC assessment that the current warming is very likely due to human activities.

The third study narrowed estimates for past climate sensitivity, after identifying the main reason why there was such a wide range of values. Mainly, the study found that researchers were using different definitions. After correcting for different definitions, the authors found that the "likely range of climate sensitivity consistently has been of the order of 2.2°C to 4.8°C per doubling of CO2, which closely agrees with the IPCC estimates".

So... What to Do?

In spite of all the existing evidence, the climate change mitigation machine is mostly stalled, the climate debate continues, and to make matters even worse some climate effects are

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apparently coming much stronger and/or faster than previously predicted. Still it seems nothing will be done to adapt to those changes soon enough, while policy makers and the public at large continue to debate if global warming is really man-made, or if measures to reduce greenhouse gases will stall the economy. While that debate goes on, the tab to fix the outcomes of climate change keeps getting higher.

We can all see the changes, and we must do something. As we have been seeing more and more often, adaptation to climate change is a must in order to reduce risks and possible loss of life and property. There is no need for doom-and-gloom scenarios if we only prepare. In the end, this is not about what people think of carbon-reducing measures or lifestyle changes. It is not about the accuracy of climate models. This is about the real facts, real risks, and how we deal with them.

The take-home message here is simple: climate change is real, it is happening now, and downplaying it is not going to make it go away. If we keep underestimating its consequences, or worse, denying it completely, we aren't conveying the real risks to the public and policy makers, and we will continue to see inaction to address climate change. We wouldn't let our house go uninsured, would we? That's what climate adaptation amounts to: insurance. And we are smart enough to know we need it.

*Author's note: This article is based on **previous blog posts** and new materials. All images reproduced with permission.*

*Editor's Note: In May I was contacted by Mr. Josh Jensen to determine whether NAEP E-News would be interested in a series of articles with a running title of **Navigating the Regulatory Environment.** The series of articles were envisioned to spotlight current planning or restoration-based issues written by planners, biologists, landscape architects, and/or water resource engineers. The articles could feature project-specific issues, or general topics. I jumped at the chance to have a second irregular series of articles. Here is the first.*

Dr. Barbara Bundy is an archaeologist and cultural resources specialist at Anchor QEA, LLC, with more than 16 years of experience preparing cultural resources surveys, peer-reviewed articles, National Register of Historic Places nominations, and NEPA documentation. Dr. Bundy specializes in managing Section 106 compliance on large projects with complex regulatory and technical issues. She has drafted Memoranda of Agreements and Programmatic Agreements, and has extensive experience consulting with state and federal agencies and tribes.

Navigating the Requirements of Section 106

By Barbara Bundy, PhD, RPA
Cultural Resource Specialist
Anchor QEA, LLC

Ask a group of environmental professionals "Who loves working with Section 106 of the National Historic Preservation Act?" and very few hands will be raised. Section 106 compliance has a level of technical detail and built-in uncertainty that can cause anxiety. But a basic understanding of the requirements can increase your comfort level and effectiveness in navigating through the Section 106 process.

Know the Basics

Section 106 is part of the National Historic Preservation Act of 1966. It requires federal agencies to "take into account the effects of their undertakings on historic properties." More detail, including definitions, is provided in 16 pages of regulations at 36 CFR 800. If you work with cultural resources at all, you should read the entirety of the regulations.

Bottle from an historic-era archaeological site

Get the Right Agencies Involved

If Section 106 applies, there is at least one federal agency involved. Before thinking about fieldwork, learn the specifics of the regulatory context. Which federal agencies are involved? What is their standard process? For example, a cell tower project in a right-of-way of an interstate should comply with the both

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the Federal Communication Commission's Section 106 Programmatic Agreement and the Federal Highway Administration's policies.

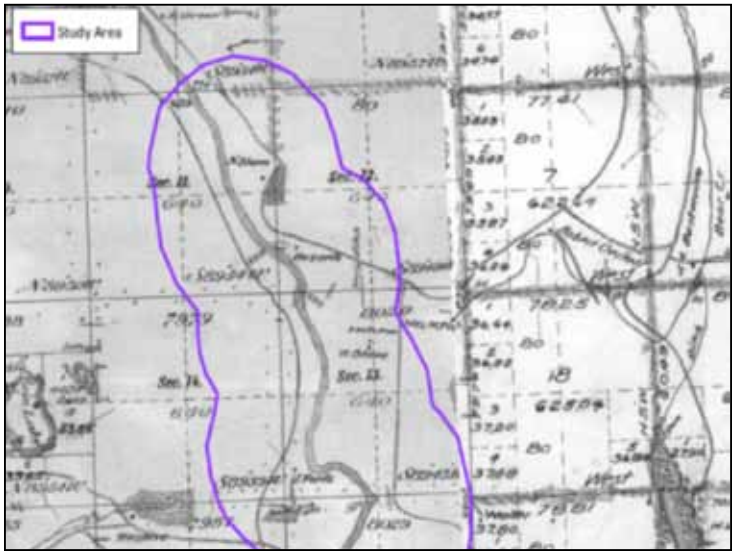
Keep Moving Forward

The Section 106 process has six basic steps, and it's important to make sure that your activities are geared towards fulfilling them. It's equally important to make sure you consult with a qualified archaeologist or architectural historian as you start the process.

First, determine if you have an undertaking that might affect historic properties (historic properties can be structures, sites, or cultural places). For some projects, like replacing decking on a modern dock with no ground disturbance and no changes to the general setting, the answer might be "no."

Second, plan for consultation. Federal agencies must consult with the Advisory Council on Historic Preservation, the State Historic Preservation Officer (SHPO), tribes, and the public. In practice, the Council rarely gets involved in projects, and public review is usually done under the National Environmental Policy Act (NEPA). Consultation with SHPO and tribes should be planned carefully, and generally earlier is better.

Third, determine the area of potential effects (APE). The APE should include the entire vertical and horizontal area that could be directly or indirectly affected. For example, for a roadway realignment, the APE might include:



1890s General Land Office Cadastral Survey Maps

Eroding pre-contact archaeological site

- The footprint of ground disturbance including locations of grading, cut-and-fill, staging, guardrails, signage, culverts, materials borrow, detention ponds, and off-site mitigation
- Haul routes where noise and vibration from increased truck traffic could affect historic structures
- The landscape surrounding the new alignment, where the setting of historic structures might change

Some agencies have a standard rule of thumb for defining the APE for indirect effects, such as "one tax parcel from the area of ground disturbance on all sides in urban areas."

Fourth, inventory historic properties within the APE and evaluate them by applying the National Register of Historic Places guidelines.

In casual language, "historic property" usually refers to an historic building. But in Section 106, an historic property is "any prehistoric or historic site, district, building, structure, or object…eligible for inclusion in the National Register." This can be an archaeological site, a group of historic buildings, a Traditional Cultural Place, a bridge, a cairn, the location of an historic event like a treaty-signing, or any number of other things. These are "potential historic properties" and if they are determined eligible, they are "historic properties."

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Fifth, evaluate whether the project will affect any historic properties. Whether or not an historic property is adversely affected depends on why the property is eligible. For example, imagine two historic barns. One is eligible because of its unique construction, and the other because it's part of an historic vernacular agricultural landscape. Putting a new highway within view probably wouldn't be an adverse effect to the first barn because it doesn't change the engineering that makes it significant, but would to the second because it alters the landscape that makes it significant.

Sixth, resolve adverse effects, usually through an agreement document: a Memorandum of Agreement or a project-specific Programmatic Agreement. Developing agreements in a way that avoids unintended consequences is a specialty—make sure you have a team member with experience. The document will describe mitigation for the adverse effects. There are no standard guidelines for mitigation measures or costs; these can be anything the signatories agree to. Common mitigation measures include archaeological excavation, specialized documentation of historic structures, and interpretive materials.

Archaeological excavation

Coordinate Reviews

It's important to sync the Section 106 process with NEPA (or other environmental laws). For example, most agencies require that the Section 106 process be completed with either a determination of "no adverse effect," or a signed agreement document to mitigate adverse effects, prior to finalizing NEPA documentation.

It's also important to synchronize alternative selection, design, and cultural resources surveys. For example, if you have a light-rail project with three alternative alignments, cultural resources inventory at the draft NEPA document stage should include targeted testing in areas that are not common to all alignments, to determine how the impacts to historic properties might differ between the alternatives. After a preferred alternative has been selected and the design has advanced, a second survey should inventory the entire APE for the preferred alternative. The results of that inventory, as well as a description of mitigation and the signed agreement document, go in the final NEPA document.

Plan for Uncertainty

The Section 106 process involves negotiation at multiple stages in the process. Although technically tribes and SHPOs don't have a "veto" through Section 106, as a practical matter it's usually necessary to come to agreement. That introduces some uncertainty to schedule and budget. It's important to think in advance about the various potential trajectories. What if the survey finds a deeply-buried archaeological site? What if the SHPO maintains that downtown is a previously undocumented historic district? What if the tribes report a Traditional Cultural Property? Recognizing and planning for uncertainty is one of the best ways to reduce Section 106 anxiety.

National Association of Environmental Professionals Names Winner of the 2013 Jim Roberts Scholarship


Janaki K. Khatri

The National Association of Environmental Professionals (NAEP) has selected Ms. Janaki K. Khatri as winner of the 2013 Jim Roberts Scholarship. In 2013, Ms. Khatri, an undergraduate student from New Jersey, attended Rosemont College in Pennsylvania, where she was working toward her Bachelors of Science degree in the double major Biology and Economics.

Announced in April 2013 at the NAEP Annual Conference in Los Angeles, California, the $1,000 scholarship was awarded in recognition of Ms. Khatri's scholastic achievement, her strong essay, her ethical character (as demonstrated by the references that were provided in support of her), and her drive and efforts to make a positive change in her local environment.

NAEP received applications from several students, and all of the students exhibited many of the qualities that embodied Jim Roberts' personal commitment to the environmental profession. However, it was statements from the references for Ms. Khatri, such as those listed below, that set her apart from the other scholarship applicants:

- "Ms. Khatri has uncommon potential due to a rare combination of traits— analytical skill, idealism, humility, and intellectual independence. "
- "She has demonstrated a commitment to ethics and environmental causes through thought and action."

Congratulations Janaki on this accomplishment!

NAEP is pleased to once again be able to offer the Jim Roberts Scholarship in 2014 to a deserving student who is enrolled in an environmental program of any accredited university or college in the United States, its territories, or Canada. The scholarship application and submittal requirements and deadlines are listed on the NAEP website at the links below:

http://www.naep.org/jim-roberts-scholarship-fund

http://www.naep.org/assets/naeprobertsscholarshipapplication-2014-final.doc

About Jim Roberts and the Jim Roberts Scholarship

Jim Roberts was an environmental professional who committed a tremendous amount of time to NAEP and its members. He always stated that you have to participate in the profession in order to benefit the most from it. He wrote countless articles and encouraged members to engage in discussions on environmental topics including environmental ethics. He felt that ethics was important, considering the work that environmental professionals perform and the many factors and players on both sides of an issue that could sway a science- based decision. He also felt that adherence to the NAEP Code of Ethics and Standards of Practice for Environmental Professionals was paramount for environmental professionals. In 2003, Jim Roberts was named a Fellow of NAEP for his lifetime of contributions to the organization. Jim passed away in November, 2007. To memorialize his contributions to NAEP and the environmental profession in general, NAEP developed the Jim Roberts Memorial Scholarship.

Thank you to Outgoing Board Members

There are times while serving on the Board of Directors of NAEP that you recognize people who are making a difference. During my tenure on the Executive Committee and especially during my Presidency I was fortunate to have both of our recent graduates of the Board of Directors present to help the Association grow and prosper.

This year's graduating class consists of two of our preeminent members: Ron Lamb and Gary Kelman. NAEP has been extremely fortunate to have both of these men helping to run the Association. Even though they have recently departed the Board of Directors, each of them is still heavily involved in the functioning of NAEP.

As you will discover from their bios below, both Ron and Gary have been important long term members of NAEP. Gary has been a large part of NAEP for a very long time. He has served in many capacities on the Board and has been one of the few who actually decided that being President of NAEP was something he wanted to do again. He has guided the Academy of Board Certified Environmental Professionals into a very active program that is providing professionals with the recognition we all believe is important to our collective future.

Ron Lamb is heavily involved in the NAEP Environmental Policy Committee as one of the Co-chairs of the NEPA Practice Group. In his role, he is helping to provide NAEP with considerable credibility in the NEPA arena of the Environmental Professions. He is using his skills to coalesce the NEPA expertise in NAEP's membership into a strong force for change in this policy that is important to the country.

The NAEP is fortunate to have had these men serve us as Directors during their tenure on the Board.

As you read their short biographies, you need to realize these are only snapshots of the person. Both Ron and Gary are my friends. Both men have contributed much more to NAEP than was requested. Both of them have left their mark on NAEP and we are the better for their service. I will miss them at our quarterly meetings, but they both will impact our future for some time to come. NAEP became more important due to efforts that they both have contributed.

Thank you both.

Paul Looney
NAEP Immediate Past President

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Ron Lamb is a NEPA Specialist for Headquarters, U.S. Marine Corps (HQMC) in Washington, D.C. Ron reviews the adequacy of Marine Corps Environmental Impact Statements (EIS), advises Interdisciplinary Project Teams (IPTs) on NEPA issues, serves on HQMC Environmental Impact Review Boards (EIRBs), implements NEPA business process improvements, delivers NEPA training, and represents the Marine Corps to the Council on Environmental Quality (CEQ), other Department of Defense services, and other Federal agencies. He was also a primary author on the recent revision to the USMC NEPA Manual (www.marines.mil/unit/mcasmiramar/ems/Documents/NEPA/USMC NEPA Manual.pdf). Prior to coming to HQMC in January 2010, he was a Vice President and NEPA Program Manager for HDR|e2M.

His education includes an M.S. in Environmental Science from Johns Hopkins University, an M.A. in Political Science/International Economics and B.A. in Political Science from the University of Nebraska. Ron received his CEP in Environmental Planning in 2005. He recently submitted his Capstone Paper to Duke University, Environmental Leadership Program, for his Certificate in NEPA. Ron is completing his second term on the Board of Directors. Ron has frequently presented papers at the NAEP Annual Conference, and also coordinates the NAEP National Desk newsletter.

Ron was the Project Manager for the U.S. General Services Administration (GSA) "NEPA Call-In" technical inquiry and

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Outgoing Board Members

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information "clearinghouse" that received the NAEP Presidential award for NEPA Excellence in 1998. Ron also received an NAEP Presidential Leadership Award in 2009.

"I encourage everyone to get involved with a professional society, such as NAEP or your local NAEP chapter. There is no better way to network and stay at the forefront of your profession. For me, NAEP has been invaluable in my career growth, and a great way to learn from the leading NEPA professionals."

Gary Kelman

CAFO Program Manager
Maryland Department of the Environment
Baltimore, MD
Phone: 410-537-4423
E-mail Address: gkelman@mde.state.md.us

Gary F. Kelman has been an environmental professional for over 35 years. His practice has specialized in water and wastewater issues, project management, technical presentations and regulation of industries and public works. After graduating with a degree in Life Sciences from Philadelphia University, Gary was admitted to the University of Maryland Civil Engineering Graduate Program, earning his MS in Environmental Engineering. Working for a small consulting firm in Bethesda, Maryland, he developed environmental assessments, impact statements, operated water quality laboratory analytical equipment and performed environmental sampling. Next, Gary joined the Maryland Department of the Environment (MDE), where his career started with water quality modeling for municipal NPDES discharge permits, design of water quality field studies, development of industrial NPDES discharge permits and the management of Maryland's pretreatment program. Recognized as a leader by upper management at MDE, Gary was elevated to Director of Permitting and Customer Service by Maryland's Environmental Secretary. This position put him in charge of MDE's Environmental Permits Service Center, Pollution Prevention Program and Small Business Assistance Center. It also included Department-wide oversight of MDE's enforcement, compliance and permitting programs. A need existed at MDE for development of a program to regulate nutrient discharges from animal feeding operations. As he does with all of his projects, Gary brought his enthusiasm to this new assignment and now manages MDE's Animal Feeding Operations (AFO) program, elevating it to the premier program of its kind in the Mid-Atlantic/Chesapeake Bay region and earning respect from the regulated community, USDA, the Maryland Department of Agriculture, farm lending institutions and other agencies. During his career, Gary received many honors and awards including MDE's Employee of the Year in 2010 (out of over 1000 employees) and being named an NAEP Fellow in 2010, one of only 7 in the organization's 37 year history.

Gary first heard of NAEP while a consultant in 1978 and initially joined the Maryland Chapter. He quickly moved up the ranks of the Chapter to become its President. As President he expanded the Chapter to include Virginia, Maryland and Delaware as NAEP's Chesapeake Chapter. During this time Gary started attending NAEP National Board meetings in Washington, DC as the Maryland/Chesapeake Chapter representative, and was asked to run for the National Board. While on the NAEP Board, he participated in several committees including the permanent conference committee. Gary was involved with several NAEP conferences and volunteered his wife, Wendy, to coordinate conference logistics for a couple of them. He rose up the NAEP ladder to be Secretary, Vice-President and President, serving one term in the 1990's and two terms from 2004 through 2006. Gary felt that there should be a formal agreement between NAEP and its chapters that outlined the responsibilities of each. This idea was developed into the chapter affiliation agreement. Gary drafted and managed the first round of these documents. Over the years he got to know Jim Roberts very well and, after Jim passed away in 2007, he participated on a committee to initiate the Jim Roberts Memorial Scholarship Fund. Now he is its Chair. Currently, Gary is in his third term as President of the Academy of Board Certified Environmental Professionals (ABCEP).

Gary has long said that the best way to get the most from an organization is by participating in its activities. Paying dues and expecting benefits and services does not maximize the organization's value to an individual. He has developed long-lasting friendships and professional relationships through his involvement with NAEP. Information is just a phone call or e-mail away since he can tap into the resources of the environmental professionals he has met over the years. If you want to discuss NAEP, or ABCEP for that matter, Gary can be contacted at 410-537-4423 or gkelman@mde.state.md.us. He currently works for the Maryland Department of the Environment in Baltimore, Maryland and volunteers on weekends at the Newseum in Washington, DC.

President's Letter

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NAEP's bimonthly e-newsletter, shepherded by Paul Looney, also contains educational content, with reports on professional practice issues and events. Note the recent seven-part series of NEPA practice articles by Owen Schmidt. The newsletter also includes chapter reports, committee reports, and profiles of people involved in NAEP.

The biweekly *National Desk,* with articles selected by Ron Lamb, provides substantial and critical public policy content from Environment and Energy Publishing to keep us informed on what is happening in the DC-based think tanks and public policy community.

As a non-profit organization under Section 501(c)(3) of the Internal Revenue Code, NAEP has an educational mission. Some of the ways that it fulfills that mission are through an annual training conference, webinars, professional committees, and publications. Take advantage of some or all of these offerings to get a professional edge.

Harold Draper

Harold Draper
NAEP President

Advertising Opportunities in the NAEP Newsletter

The NAEP Newsletter is offering a limited amount of advertising space in the publication. Advertisements will be limited to two pages per issue for 2013 and once that space is filled per issue there will be no other advertisements accepted. Advertisers will have the opportunity to purchase space in all remaining issues of 2012 so that they can be assured of space in each issue. This is a great opportunity to both support NAEP and gain access to a potential readership of over 6,500.


The National Association of Environmental Professionals

NAEP National E-News March–April 2012

President's Letter to Members

"Welcome Back My Friends, To the Show That Never Ends..."

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Ads can be purchased in either quarter or half page sizes and is priced at a very affordable price that starts at $375 per ad for a quarter page ad when 6 ads are purchased. The purchasing of ads in advance allows the advertiser to reduce their costs and allow you to make sure your ad space is reserved.

For more information on adverting opportunities or to reserve your space please contact Tim Bower at 856-283-7816 or by email at naep@naep.org.

Editor's Note: For those who attended the 2010 Conference in Atlanta, you will remember one of our keynote speakers, Mr. Garrett Graves had to reduce his message and cut short his conference visit because he was dealing with a developing situation in Louisiana. An incident that had started on April 20, 2010 and would continue until capped on July 15, 2010 demanded his immediate attention. The Macondo well was not officially plugged until September 19, 2010. The blowout and uncontrolled release resulted in a spill of 4.9 million barrels (210 million gallons) of crude oil being spilled into the Gulf of Mexico. The E-News covered several articles dealing with the surface cleanup in some of the affected states in the months to follow. I became aware of the oceanographic studies being performed, but was never able to get an article of the results of those studies until now. I used my Penn State Grad credentials to talk with Dr. Charles Fischer and hoped I could get something. He is still neck deep (or deeper) in the research. Luckily for me I was able to get a copyright release from the Penn State Alumni newsletter to republish this article. I am still very interested in getting more first-hand research results, but for now, this is a good article of what one researcher has found in the years since.

Biologist Investigates Lasting Ecological Impacts of Deepwater Horizon Oil Spill

At the bottom of the Gulf of Mexico, in the vicinity of the Macondo well, Charles Fisher discovered previously unseen impacts on coral communities.

Reprinted from Research/Penn State magazine

The photo to the left, taken as part of a major research project led by Penn State Professor of Biology Charles Fisher, shows a reef formed by the coral species Lophelia pertusa at 450m below the surface of the Gulf of Mexico with an orange brisingid starfish in the foreground and a school of fish overhead.

Image: Image courtesy of Lophelia II 2010 Expedition, NOAA OER BOEM

By Sara LaJeunesse

Billions of dollars.

That's what's at stake for BP as a result of the damage caused to ecosystems in the Gulf of Mexico from the Deepwater Horizon oil spill.

News of that spill — which began on April 20, 2010, with an explosion onboard the Deepwater Horizon drilling rig that killed 11 people and injured 17 — dominated the media for weeks. Millions watched with a feeling of helplessness as the rig sank and over the next 86 days over 200 million gallons of oil spewed out of the Macondo well and into the ocean.

Five months after the spill was capped, the federal government estimated the marine animal death toll at 6,104 birds, 609 sea turtles, and 100 mammals, including dolphins. But what

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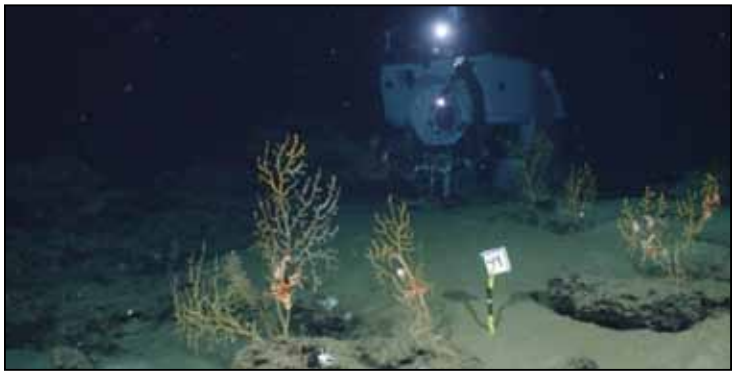

Figure 1. The Deep Submergence Vehicle Alvin is shown working at the coral site found to be impacted by the oil spill from the Macondo well in the Gulf of Mexico.

Image: Courtesy of Charles Fisher, Penn State and Timothy Shank, WHOI

of the deep-water corals that provide habitat and reproductive grounds for numerous species of fish, shrimp, and crabs?

According to Charles Fisher, professor of biology at Penn State, these corals and the organisms they support are important components of a healthy deep sea and open-ocean ecosystem. That's why both BP and the government are closely collaborating with him on his investigation of the disaster's impact.

"It's a new experience for me to conduct research that could have such a dramatic financial impact and also to have so many people involved in everything we do," says Fisher. "You have to be very careful to document all the details and be very sure that you're right with your interpretations. We're always careful, but every little comment we make could be misinterpreted, so we're being extra conservative with this data set."

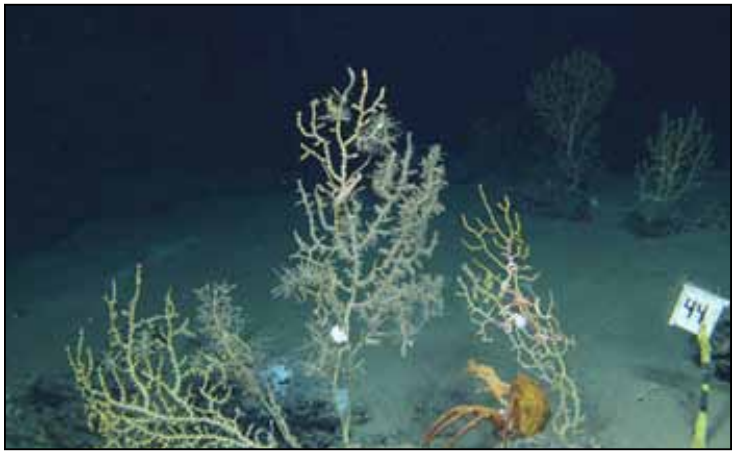

Figure 2. Several colonies of the coral Paramuricea biscaya from the impacted coral community as they appeared in November 2012. Portions of the coral in the center are covered with small predators called hydroids. A commercially fished deep-sea red crab (Chaceon quinquedens) is resting under another coral that has an ophiuroid brittle star living in its branches.

Image: Courtesy of the Gulf of Mexico Research Consortium ECOGIG Project and the Schmidt Ocean Institute

Calling on a World Expert

It was the middle of May, about a month after the oil spill began. With classes over, Fisher was looking forward to spending a little extra time on his farm, located 25 miles east of State College. But that was before the calls started to come in from federal agencies.

Over a period of about a week, Fisher was contacted independently by program officers from the National Science Foundation (NSF), the National Oceanic and Atmospheric Administration (NOAA), and the Bureau of Ocean Energy Management (BOEM). All had financially supported Fisher's research in the Gulf in the past, and all were now calling on him to help assess the impact and damage of the oil spill to the deep-sea ecosystems he knows so well.

Figure 3. The sea fan Paramuricea sp. with the symbiotic brittle star Asteroschema sp. This apparently healthy coral was observed during the first leg of the October 2010 cruise at approximately 360 meters depth and over 450 kilometers away from the site of the Deepwater Horizon.

Image: Lophelia II 2010, NOAA OER, and BOEMRE, copyright WHOI

Fisher "was selected as an expert based on his extensive and unique experience working on the ecology of the cold seep and deep-sea coral communities in deep-sea, hard-bottom habitats in the Gulf of Mexico," says Robert Ricker, southwest region branch chief of NOAA's Office of Response and Restoration. "He is a recognized leader in his field, and we pick leaders."

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Fisher agreed to help. After all, he already was leading another big research program that had overlapping goals — to locate, describe, and study deep-water coral communities throughout the Gulf of Mexico that could potentially be impacted by energy company activities.

For nearly three decades, Fisher has been studying the physiology and the ecology of the communities of animals that inhabit cold seeps — areas of the ocean floor where methane and other hydrocarbon-rich fluid seeps out — and hydrothermal vents -- underwater fissures in the Earth's surface that emit geothermally heated water rich in reduced chemicals — in the deep sea. Marine invertebrates such as clams and tubeworms live in these dark places, surviving the lack of sunlight by forming symbiotic associations with bacteria. The bacteria use the reduced chemical compounds contained in the water as an energy source and, in turn, supply nutrition to their animal hosts.

Fisher has visited these deep places in submarines some 120 times. "When you're down there, you feel like you're on another planet because the landscape is like nothing you'll see on the surface of the Earth," he says. "You're oftentimes in a place where nobody has been before, so you have in the back of your mind that you may see something that nobody has ever seen. Every once in a while you do."

Among his accomplishments are the discovery of ice worms living on methane-rich ice at the bottom of the Gulf of Mexico and the unraveling of the complex physiological ecology of giant hydrocarbon-seep tubeworms, among the longest-lived animals on Earth. The bizarre two-meter-long tubeworms use their buried roots to suck up toxic hydrogen sulfide that lies deep in the sediments of the seafloor. They then pass the hydrogen sulfide to symbiotic bacteria living inside their bodies. These bacteria, in turn, oxidize the sulfide and provide nutrition back to the worms. The end product is sulfuric acid, which the tubeworms pump back into the sediments, where yet other bacteria use methane to remake the sulfide and supply it back to the worms.

Whenever possible, he works with Jim Brooks, president and CEO of TDI Brooks International, a company that specializes in conducting offshore surface geochemical exploration for petroleum producers.

"Jim's group discovered seep communities in the Gulf of Mexico in the 1980s when he was on the faculty at Texas A&M University," says Fisher. "I've been involved in multiple projects with him over the years. In addition to his expertise in oil geochemistry and prospecting, his company can handle all the administration, travel, budgets, and reporting, and I get to just concentrate on the science."

So in October 2010, with TDI Brooks International managing the expedition, Fisher and his colleagues set out for the Gulf of Mexico on board the NOAA ship, the Ronald H. Brown.

Discovering Damaged Corals

For nearly a month, the team revisited deep-sea coral sites all over the northern Gulf of Mexico that they had discovered the year before during a previous project. Each time they stopped, they used Jason II -- a remotely operated vehicle (ROV) or submersible designed for scientific investigation of the deep ocean and seafloor -- to sample and study corals and associated animals.

"We revisited all of the sites for which we had good baseline data," says Fisher. "We were all quite pleased to find that there was no obvious damage to the deep-water coral communities at any of these sites."

Although they had covered a four hundred-mile span east to west and a depth range from 1,300 feet to almost 6,500 feet, Fisher and his colleagues had observed only a couple of coral sites close by the Macondo well. So, on the last dive of the expedition they decided to check out a very promising area they had identified about seven miles southwest of the well and 45 miles from shore.

The research vessel coasted to a stop with nothing but the occasional seabird in flight to break the monotony of the view. Six hours into the ROV's dive, Fisher was working in the ship's laboratory, glancing up every now and then at the 36-inch screen through which video was streaming from the vehicle's camera, now positioned 4,500 feet below the ocean's surface. As the ROV moved across the seabed, the camera recorded scenes of mud, mud, and more mud, he remembers. Then, all of a sudden, a coral popped into view, and another and another. But something was wrong. The animals were not brightly colored as they are supposed to be.

Fisher recalls jumping up and sprinting across the deck of the ship to the control van. "Stop!" he warned. "Don't touch anything!"

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Figure 4. An impacted coral with attached brittle starfish. Although the orange tips on some branches of the coral are the color of living tissue, it is unlikely that any living tissue remains on this animal.
Image: Lophelia II 2010, NOAA OER, and BOEMRE, copyright WHOI.

The ROV pilots were about to take a sample, but he asked them instead to zoom in with the camera. What he saw were corals covered in dark gunk and dripping snot. "When a coral is physically insulted, it reacts by exuding mucus," he explains. "It's a normal stress reaction. It helps to clear the surface if there's something irritating or sticking on it." To avoid stressing the animals further, the team decided to minimize sampling.

"Normally we would take little pieces of lots of different corals for genetic identification and population genetic studies," Fisher says, "but we decided to back off on that and try to do our sampling around the edges, taking only samples of corals that we didn't recognize. We also collected one of the impacted corals so we could take a closer look at the gunk and what was underneath and determine whether the coral branch was dead or alive."

By the end of the cruise, the team had visited 14 sites, all but one of which were at distances greater than nine miles from the Macondo well. Only corals at that last site, just under seven miles southwest of the well, had clearly been impacted.

As the researchers headed home with their samples, they began to discuss future expeditions. They knew that impact to at least some corals could be readily identified visually and, since the organisms are attached to rocks and don't swim or float away when impacted, they provide a record of past events. Their next steps would be to discover the full extent of the oil spill's reach with regard to corals, and to determine the animals' ultimate fate. Would they live or would they die?

Learn how Fisher's colleague Iliana Baums is investigating the use of molecular tools to detect signs of stress in corals before they become ill.

Figure 5. An impacted coral with an attached brittle starfish and anemone. Living tissue, including coral polyps, can be seen here as olive colored, with bare patches revealing skeleton and attached brown flocculent material.
Image: Lophelia II 2010, NOAA OER, and BOEMRE, copyright WHOI

The Impact

On five subsequent cruises over the next two years, Fisher and his team have explored for additional sites and revisited the established ones to check the corals' statuses. They have carefully monitored about 50 of the corals that they first discovered in November 2011. Those that were not too heavily impacted seem to be recovering.

"When I say recover," notes Fisher, "I don't mean that tissue died and the coral got better. I mean they were covered with slime, but they never died. These corals still do not look as healthy as corals at other sites, and we may have to monitor them for several years before we will know their ultimate fate."

The corals that were heavily impacted, on the other hand, are largely not recovering. "We are seeing absolute proof of total death of parts of them," says Fisher. Since corals are colonial, branching animals, parts of them can die while other parts remain alive.

Specifically, at the first damaged site they witnessed — the last site of the October cruise — the researchers have discovered that 86 percent of the coral colonies show signs of damage, with 46 percent exhibiting impact to more than half the colony, and 23 percent displaying more than 90 percent damage.

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At each site visited, the researchers deployed markers and set up permanent monitoring stations with a goal of returning to them again and again to monitor both natural processes and, potentially, long-term effects.

"At that depth and at those temperatures in the deep sea, life passes at a slow pace," notes Fisher. "These are animals that often live 500 years. They live slow; they die slow. We'll have to monitor the sites for a decade before we'll have very much confidence we know the full extent of the impact."

Figure 6. Close-up of an impacted coral and attached brittle star. A small amount of apparently living tissue on some branches is orange. Most of the skeleton is bare or covered by brown flocculent material. The brittle starfish is a normal symbiont of this type of coral, however the bleached white color is not normal. Image: Lophelia II 2010, NOAA OER, and BOEMRE, copyright WHOI

What's Next?

The team's second cruise, which took place in December 2010 and made use of the Alvin deep-diving submarine, included Helen White, a geochemist from Haverford College. White used state-of-the art oil fingerprinting technology and determined that the brown muck on the corals did, indeed, include oil from the Macondo well.

Fisher's research to date has demonstrated that the Deepwater Horizon oil spill killed some corals. As a result, BP is going to have to pay. But how much and to whom?

"People have asked me how much a dolphin is worth, and there is no clear-cut answer," says Timothy Zink, spokesperson for NOAA, the organization that oversees natural resource damage assessments performed by researchers like Fisher, tabulates the check for the parties responsible, and formulates and carries out a plan for restoring the ecosystem.

"The public needs to be compensated for its losses, and not just for the resource itself, but for the human use of the resource — such as recreational fishing, bird watching, and going to the beach — as well," said Zink. "The final price that BP will pay will be based on the full cost of restoring the environment back to what it was on the day the oil spill happened."

Unfortunately for deep-water corals, the full effects of the spill may not be felt for many years, too late for any near-term settlement to fully cover them.

"I believe everyone involved would like to settle as soon as we can," says Fisher. "However, the full extent of damage to deep-sea ecosystems may not manifest itself until after a settlement is reached. If corals all over the deep gulf start dying, and we thought only those very close to the Macondo well would die, then we have to reassess the situation." In that case, Zink says, the investigation could be reopened.

BP has already paid over $20 billion to cover some of the damages from the spill, and in a November 2012 settlement with the Justice Department, agreed to pay $4 billion in criminal fines. The company has also committed hundreds of millions to research into understanding the effects of oil spills on ecosystems and preventing future disasters.

Despite the trouble the oil spill caused for deep-sea ecosystems, Fisher says he's not against deep-water drilling for oil. "As much as I love the ocean, there are a lot of resources in the ocean, and as long as I drive a car, it would be pretty hypocritical of me to say that we shouldn't obtain those resources for human use," he notes. "I'm conflicted in the way I feel about it, but I don't think this means we should stop accessing oil in the marine environment.

"I think, in general, oil companies try pretty damn hard to be responsible." Fisher adds. "It's in their best interest to be responsible. This has cost BP billions of dollars; they don't want it to happen again. In a way, this oil spill has been a beneficial wake-up call in that it tells us that the unthinkable can happen. I think a result of it will be better oversight by oil companies and the federal government."

Charles R. Fisher is professor of biology, cfisher@psu.edu.

National Association of Environmental Professionals

WEDNESDAY, OCTOBER 2, 2013 WEBINAR ANNOUNCEMENT

The National Association of Environmental Professionals (NAEP) would like to invite you to attend an educational webinar on "Health Impact Assessment in the Environmental Process." With particular attention to transportation projects, this webinar will address the growing national movement for better integration of the results of Health Impact Assessments (HIAs) into the environmental documents prepared pursuant to both the National Environmental Policy Act and documents prepared to meet comparable requirements in State-adopted environmental statutes and regulations.

This is arguably one of the most dynamic periods in our nation's history with respect to transportation planning because of the need to replace aging infrastructure, provide reliable and effective options for alternative modes of transportation, and reduce per capita greenhouse gas emissions. Agencies and other stakeholders involved in the review of environmental documents, particularly those prepared for the consideration of transportation projects are raising important questions related to both health benefits and risks associated with construction, operation, and maintenance of transportation projects. HIAs provide a means to respond to those critical risk/benefit questions.

Please join us for a review of the traditional statutes and regulations related to health risk assessment; a review of the major steps in conducting HIA, particularly assessing risks and benefits and developing recommendation to promote positive health effects or to minimize adverse health effects; and lessons learned from the United Kingdom experience.

The NAEP Education Committee has assembled the following panel of speakers:

- Scott Dwyer, PhD, DABT, *Practice Leader, Risk Analysis & Toxicology, Kleinfelder*
- Andrew Burroni, PhD, *Principal Consultant - Environmental Planning & Development, Group Leader: Health Impact Assessment, RPS Group, United Kingdom*
- Cathy Baldwin, PhD, *Independent Social and Health Impact Assessment Consultant (UK), Post Doctoral Associate in Anthropology, University of Oxford, and Research Fellow, World Resources Institute (USA).*
- Karyn M. Warsow, MS, MPH, DrPH(c), *Johns Hopkins Bloomberg School of Public Health, Department of Health Policy Founder and Principal, Transportation Public Health Link*

The NAEP Education Committee wishes to express our appreciation to the Transportation Public Health Link (TPH Link) for its assistance in developing this Webinar. For more information about the TPH Link visit **www.transpotohealthlink.com**

Go to www.naep.org to register for this exciting Webinar!

Date and Time:	**Wednesday, October 2, 2013, at 10:00 a.m. ET. (9am CT, 8am MT, 7 am PT)**
Duration:	**Event will last 90 minutes**
Location:	**Wherever it is convenient for you**
Questions:	**Please contact Tim Bower at 856-283-7816 or email him at naep@naep.org**
Registration Fees:	**NAEP Members: $79.00** **NAEP Affiliate Chapter Members(Non-NAEP Members): $107.00** **Non-Members (NAEP or Affiliated Chapters): $119.00 (Save $40.00)** **Consider joining to receive the member rate for this and future events** **Full-time students: $39.00**

For more information, please contact Tim Bower at (856) 283-7816 or email at naep@naep.org

National Association of Environmental Professionals
P.O. Box 460, Collingswood, New Jersey 08108 • Phone: (856) 283-7816 • Fax: (856) 210-1619

The **deadline for abstract submission is October 15,** so don't put it off any longer. The conference will have four main tracks with the various topics listed in the Call for Papers woven through the main tracks. Check out the various track descriptions to determine where your abstract fits best.

Prepare your abstract for a single oral presentation, a panel or a poster submitted now. If your abstract is selected you not only have the opportunity to present your work, ideas, and/or project, but you also get a reduced registration rate. Use our online abstract form to submit your idea. If you have an idea for a panel of 3-4 people, submit your abstract as a panel, or a single oral for just yourself, or a poster presentation – an option which has become very popular. If you have any questions concerning the abstract submission process please contact Bruce Hasbrouck or call 813-261-5136.

Registration is now open and available, both online or a downloadable form. Early registration rates are active, so make your plans, submit your requests as needed, and plan on joining us for a great conference at a great location.

We have 3 training classes that will be offered on Monday, prior to the opening of the conference Monday evening. The classes are:

Best Practice Principals for EA's

Coastal Landscape Visualization

Threatened and Endangered Species

There are many booth, tabletop, and various sponsorships available to choose from to expose your company and product to over 400 Environmental Professional from around the country and overseas! Our rate for exhibits has been drastically reduced, so reserve your spot today (check the layout map to see which locations are available). Use our online form to sign up for an exhibit space or a sponsorship.

NAEP has a block of rooms reserved at a group rate, including a limited number for government employees. The link to make your hotel reservation can be found on the Conference website.

Join us for a fun evening at the famous Salvador Dali Museum in St. Petersburg. This will be a private event open to NAEP conference attendees only.

Please contact Donna Carter if you have general questions about the conference.

The Latest News in NAEP Conference Planning

By Carol Snead and Jennifer Lundberg with Dennis Peters

One of the backbones of NAEP is its annual conference where practitioners of all things environmental get together to share information and network. People who are new to the profession and those who have been around the block find great value in the professional development gained at these conferences. **The Permanent Conference Committee is responsible for working with local and/or state chapters to find conference locations and sponsors.** Planning starts 2-3 years before each conference with a chapter requesting to host the conference and the PCC making its recommendation to the NAEP Board. Once the Board approves the location, the fun really begins!

The 2014 Annual Conference is set for April 7-10 in St. Petersburg, Florida, and is sure to be fun and informative. Florida AEP is our host for the 2014 conference. In addition to staying at the beautiful Hilton Bayfront, conference attendees will enjoy the President's Dinner at the Salvador Dali Museum. There will be three training opportunities led by top environmental professionals and, of course, the full schedule of sessions and speakers. If you haven't submitted your paper for consideration, there is still time!

From one sunny coast to another: the PCC is excited to announce that the **2015 Annual Conference will be held in Honolulu, Hawai'i,** and hosted by the Hawaii AEP. Honolulu is located on the island of O'ahu, appropriately nicknamed "The Gathering Place". While the theme and tracks are still under development, the Hawaii AEP hopes to put a spotlight on Department of Defense environmental cleanup and regulatory programs in the Pacific region, as well as encourage international involvement. Hawaii also offers a very active alternative energy development market and transportation infrastructure challenges that can be integrated with the usual conference track offerings. Known as a place for both business and pleasure, Honolulu is the ultimate location to combine professional education with an attractive family friendly destination. You can expect to really expand your horizons through attendance at the 2015 conference!

Where are we heading in 2016 and beyond? We are looking for ideas! **Talk to your local chapter about hosting a conference.** There are numerous benefits to host chapters, including profit sharing and bringing a unique networking and educational experience to your professional community.

For more information regarding the process of nominating and selecting your chapter to host a future conference, please contact Carol Snead (Carol.Snead@hdrinc.com), Jennifer Lundberg (jlundberg@parametrix.com), or an NAEP Board Member (www.naep.org). We want to hear from you!

NAEP Needs "You" to Serve as an Elected At-large Board Member

NAEP is a voluntary association headed by a Board of Directors. The Board is composed of 12 at-large elected members from the environmental field, four ex-officio members, and one chapter representative for each 150 NAEP members in the Chapter. All serve without compensation. Each year prior to the annual conference, 4 at-large Board Members are elected to serve a three-year term of office. For more information the requirements and expectations of an elected at-large Board Member please review the Self Nomination Form that is attached to the link below. The deadline for submission is November 15, 2013.

For full details and the submission for go to www.naep.org

California Association of Environmental Professionals Chapter Report

The California Association of Environmental Professionals (www.AEP.org) has an Executive Board and nine local chapters. Since its formation in 1974, AEP has grown to over 1,750 members: planners, environmental scientists, biologists, lawyers, noise specialists, transportation planners, paralegals, archeologists, geologists, engineers, visual analysts, and other professionals in numerous disciplines. There are nine regional AEP chapters covering the following regions: Channel Islands, Los Angeles County, Inland Empire, San Diego, Superior California, Central, Orange County, Monterey Bay Area, and San Francisco Bay.

Arizona Association of Environmental Professionals Chapter Report

"The Arizona Chapter of the National Association of Environmental Professionals is a statewide organization that provides an opportunity for technical and regulatory information exchange, forum for environmental speakers, and endless networking opportunities."

The Arizona Association of Environmental Professionals completed At-Large Board elections this summer and is pleased to announce Jennie Curé, Beth Defend, and Dr. Kristin Gade have joined President Dr. Patricia Mariella, Vice President Michael Dawson, Secretary Karl Rains, and Treasurer Dorothy Hallock. The Chapter has nearly 70 members representing a broad range of environmental disciplines including environmental planners and scientists, biologists, archaeologists, air quality specialists, hazardous materials, landscape architects, engineers, and academia.

Monthly Membership Meetings

AZAEP hosts monthly membership meetings rotating between Scottsdale and Tucson on the 4th Tuesday of the month. Our most recent guest speaker topics included:

- "Energy Conservation in Construction and Design for Buildings, Landscapes, and Communities: Is Energy Efficiency an Environmental Resource?"
- "Implementation of the Arizona Depart of Transportation Tribal Consultation Policy
- "Local Management of Private Land Resources"
- "Reclamation of Agricultural fields using Native grass crop production in the Lower San Pedro Watershed"

Workshop

We were pleased this year to partner with the Arizona Riparian Council in holding a workshop to teach Rapid Stream Riparian Assessment (RSRA) which was developed by the University of New Mexico and the Wild Utah Project. The workshop

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AZAEP

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focused on the management and restoration of southwestern riparian habitats. The participants led by Dr. Peter Stacey, University of New Mexico, Albuquerque and Allison Jones, Wild Utah Project, Salt Lake City spent 3 days in June on the Verde River in central Arizona.

Scholarship Program

AZAEP has continued with our student scholarship program. In 2013 we awarded three $1,000 scholarships to students majoring in environmental sciences at the University of Arizona and Northern Arizona University. Our 2014 scholarship program will kick-off this fall.

For more information please contact:
Arizona Association of Environmental Professionals
P.O. Box 69
Tucson, AZ 85702
Email: azaep@azaep.org
www.azaep.org

Florida Association of Environmental Professionals Chapter Report

The Florida Association of Environmental Professionals (www.FAEP-FL.org) is comprised of the FAEP and eight local chapters. The local chapters enable the FAEP to remain active throughout the state of Florida, addressing issues that are of State, regional and local interests. The FAEP provides numerous monthly networking and educational sessions throughout the state offered by the eight FAEP local chapters. To see a list of upcoming events, please visit the FAEP website and the local chapter links – www.faep-fl.org.

If you have any questions about the FAEP, please contact FAEP President Kristin Bennett at 772-781-3414 or Kristin.Bennett@tetratech.com.

The Florida Association of Environmental Professionals

2013 Annual Conference

Hosted by the Central Florida Association of Environmental Professionals

September 11-13, 2013

Doubletree Hotel at the entrance to Universal Studios, Orlando, Florida

The Central Florida chapter of the Florida Association of Environmental Professionals is honored to host the 2013 Annual Conference in Orlando, **September 11-13, 2013.** The Conference will include keynote speakers, technical sessions, a poster session, an expo and networking socials. This conference provides an excellent opportunity for professionals and students working in a wide range of environmental specializations to come together and present recent projects, lessons learned and new techniques and/or ideas. This year's conference will focus on three tracks: Contamination/Remediation, Biological/Ecological and Environmental Permitting and Policy.

To support the conference several of the local chapters sponsored the conference, providing that chapter with a complimentary registration which the chapters used as an incentive for a membership drive during July and August. You could join or renew your for another year and be entered to win a Free Registration for the 2013 FAEP Conference.

Chapter Events

The FAEP local chapters hosted a series of events and social networking opportunities during the summer. Below is a summary of each chapter's events.

Central Chapter

July 25 Luncheon at Dubsdread Golf Course with guest speaker Mr. Ned Bowman, Executive Director, Florida Petroleum Marketers and Convenience Store Association, Inc., discussing the Changes to the Florida Petroleum Program.

August 15 Networking Social at Eden Bar at the Enzian Theatre 5:30-7:30

Northeast Chapter

July 11 Luncheon at the NE Florida Safety Council with guest speaker Jeff Close, recently appointed NEFAEP President, providing a 2013 legislative update.

August 16 Networking social at River City Brewing Company, 5:30-7:30.

August 29 Networking social at the World of Beer (9700 Deer Lake Court, Jacksonville, FL), 5:30-7:30

South Chapter

July 24 Luncheon meeting with guest speaker Paul Fitzgerald, Managing Director Pinnacle Group International, discussing **Risk Management in Scientific Diving and Field Operations**

August 14 Luncheon with guest speaker Brandon Howard, Fishery Biologist, NMFS, discussing **Essential Fish Habitat and Endangered Species Consultation with National Marine Fisheries Service.**

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Tallahassee Chapter

July 10 Networking Social

August 14 Luncheon with guest speaker John McGuire, Project Manager, Westervelt Ecological Services discussing **Land Management on Mitigation Properties: A presentation and discussion on the unique challenges and opportunities in managing mitigation banks and consolidated mitigation areas from an expert in natural systems management.**

Additional speaker Jana Mott, Apalachiola Restoration Specialist with The Nature Conservancy will be speaking about **Isolated Wetland Restoration in the Panhandle Area**

Tampa Bay

July 24 Luncheon meeting with guest speaker Kelli Levy discussing the **Pinellas County Fertilizer Ordinance**

August 1 Networking Social

August 21 Luncheon with guest speaker Monte Bell, President of NexLube discussing the new facility at the Port of Tampa.

August 27 Bowling Fundraiser benefitting the student chapter, TBAEP@USF. from 6pm to 9pm at Dunedin Lanes, 405 Patricia Ave, Dunedin, FL 34698. Sponsored by: TetraTech, Envirotrac, Aerotek, H.S.A., Streamline Environmental, Tech USA, GWTT and Zebra Environmental.

TBAEP at USF (STUDENT CHAPTER)

August 29 4-6, Opportunity for Member Involvement Week of Welcome (WoW) Tabling. Bulls Go Green - Student Environment Association & TBAEP@USF. Where: Behind the Marshall Center at the Bull Bush Details: Sign up to help us spread the work about how awesome TBAEP is! Simply sign up by emailing tbaep.usf@gmail.com Show up to the event, and help us draw in new members by chatting with guests and passing out stuff.

August 21 TBAEP Professional Chapter Luncheon at Brio at International Mall

Treasure Coast

July 24: Networking and technical presentation by Dr. Ed Proffitt, Associate Professor at FAU Harbor Branch, discussing **"Large-scale Oyster Restoration in the St. Lucie River Estuary."**

August 28 Networking Event & Dart Tournament. All proceeds from the Dart Tournament will be donated to the Loggerhead Marine Life Center (LMC) in Juno Beach. Prizes to winning teams include free FAEP memberships and a behind the scenes tour of the LMC.

2 ½ day Hydric Soil Specialized Training for Wetland Specialists 60% off its regular cost! TCC-FAEP has an opportunity to have the renowned Wade Hurt (Soil Scientist at the Soil and Water Science Department at the University of Florida, former National Leader for Hydric Soils) offer his 2&1/2 day short course here in Palm Beach County. If you haven't taken his course, ask someone who has, and they will likely tell you it is a challenging and eye opening class! This class is typically offer in Gainesville for $600. By the time you factor in travel and lodging expenses you are looking at a $900 expense. TCC-FAEP is happy to announce that we can offer this training, here in Jonathan Dickinson State Park for $350 per attendee. Space will be very limited with a maximum of 12 attendees for better hands on training and registration will first be open to TCC-FAEP members, then to all FAEP members only. This training would be offered in the Fall 2013. At this time, TCC-FAEP is evaluating the need or interest for this course by our members.

Illinois Association of Environmental Professionals Chapter Report

President: Robert Sliwinski, Vice President Greg Merritt, Treasurer: Christopher B. Burke, Past President: Nathan Quaglia, Board Members at Large: NAEP Rep: Ron Deverman (NAEP Past-President), Dr. James Montgomery, Patrick VerHalen, Dawn Consentino, and Liz Pelloso

Newsletter Editor: Eric Sikora, Executive Administrator: Debra Hatchett, Website: www.iaepnetwork.org

Membership Update

IAEP currently has 125 members of which are 87 general, 9 national, 11 student and 18 are corporate.

May Events:

May was a busy month for IAEP with three events.

IAEP Webinar

On May 10, 2013 IAEP hosted its first very own produced webinar entitled - A GIS Tutorial: Locating Dataset and Layers. This at your desk GIS tutorial focused on locating agency data and layers. Senior GIS specialist David Walters from Christopher B. Burke Engineering, Ltd. presented information and links to various agencies and GIS style websites to locate data. Mr. Walters also provided information regarding how to access to data sets, whether a simple email, phone call to the agency will be satisfactory or filling application form is required. IAEP plans on presenting more webinars.

NAEP Webinar

On May 15, 2013, IAEP hosted three event locations for the NAEP webinar entitled 2012 NEPA Legal and Regulatory Update. A total of 20 IAEP members combined attended the webinar at HNTB's office in Chicago, Christopher Burke Engineering in Rosemont and at WBK in St. Charles, IL. The 1.5 hour webinar provided insights to NEPA related cases against the federal government and their outcomes. There were approximately 600 attendees nationwide.

USACE Wetlands Regulatory Update

On May 23, 2013, Ms. Lees Beal Chief of the Regulatory Branch of the U.S. Army corps of Engineers proved IAEP members a wetlands regulatory update at Café Zalute in Rosemont, IL. This time the presentation was held in the Retro Lounge and many attendees were happy with the accommodations. The Chicago District is moving to a new space by July 7 and will be settle in by July 11. USACE will send out a eblast regarding application submitted in June. Although the District is up to 90% digital correspondence, applications will still be required to be in hard copy. Ms. Beal described the intricacies of Tribal coordination and plans on presenting to IAEP early in 2014 about it.

Social Networking

IAEP has set up LinkedIn and Facebook pages for additional places to make announcements about upcoming seminars. Please join our social networks!

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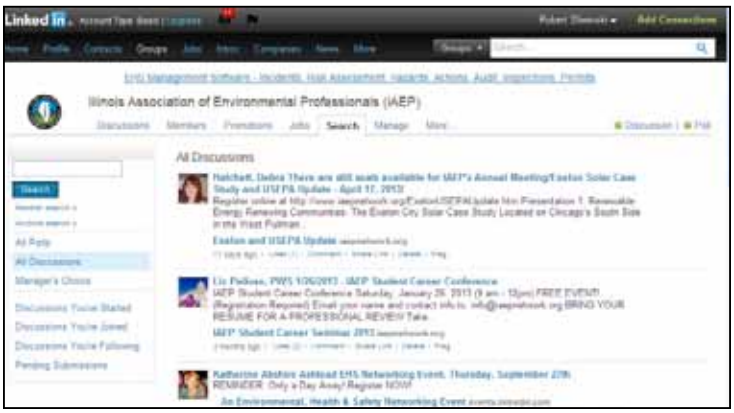

IAEP

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IAEP Student Research Grant Award Winners

Congratulations to Lauren Umek of Northwestern University for placing first in the 2013 IAEP Student Research Grant Award program. Lauren will receive $1,000 towards equipment

and travel expenses for her student research project entitled: Impacts of Restoration on Below Ground Processes in Chicagoland Prairies.

Second Place goes to Abigail Hawley, also from Northwestern University. Abigail received $500 to help cover her student research equipment expenses for her project entitled IdealGas Biodigesters. Well done!

June Events: IAEP O'Hare Sustainability Tour

On June 26, 2013, IAEP members were treated to a presentation and tour of the O'Hare modernization program and

Sustainability program. Thirteen IAEP members had the chance to see the runway upgrades and green roof at the FEDEX facility. Overall it was an excellent day and special thanks to Amy Malik and Cyle Cantrell from the Department of Aviation for a wonderful presentation and tour!

Texas Association of Environmental Professionals Chapter Report

TAEP (www.taep.org) sponsors monthly guest speaker luncheons, a yearly conference, monthly young professional networking events, sponsor seminars, and joint meetings with other related organizations. One of the guiding principles of TAEP when it was founded was the promotion and fostering of environmental education. Consequently, a large portion of TAEP's revenue is given back to the community in the form of scholarships and grants. TAEP provides scholarships to full-time students seeking both graduate and undergraduate degrees in environmentally related disciplines from Texas colleges and universities. TAEP also supports the Texas Envirothon (for high school students) and the Science and Engineering Fair of Houston (for middle and high school students).

For chapter information and event registration, please visit WWW.TAEP.ORG

ACADEMY OF BOARD CERTIFIED Environmental Professionals

ACADEMY OF BOARD CERTIFIED ENVIRONMENTAL PROFESSIONALS NAMES WINNER OF 2013 EMERGING ENVIRONMENTAL PROFESSIONAL ACHIEVEMENT AWARD

The Academy of Board Certified Environmental Professionals (ABCEP) has selected Ms. Heather Rickleff, Environmental Protection Specialist for the National Park Service (NPS), as winner of the ABCEP 2013 Emerging Environmental Professional Achievement Award. Ms. Rickleff, originally from Indianapolis, IN, graduated from North Central High School, Indiana University (BS), and Ball State University (MS). Announced in June 2013, the award recognizes environmental professionals for their leadership, professional involvement, commitment to foster environmental improvement, and actions to help make the world a better place for future generations.

As an Environmental Protection Specialist at Big Bend National Park, Texas, Ms. Rickleff's expertise includes environmental assessment, resource stewardship and science strategies, and environmental education. Ms. Rickleff is currently working on a partnership project for Big Bend National Park and Joshua Tree National Park.

Ms. Rickleff's leadership in the environmental field has been demonstrated through multiple roles where she developed and coordinated interdisciplinary teams, including National Park Council Chair for Environmental Compliance at Lassen Volcanic National Park. Her responsibilities and success at the NPS validates her expertise and competence in the environmental profession. She has unique, international experience in community agricultural and forestry management projects through Peace Corps Mauritania, West Africa (06'-09'). These achievements provide evidence of her professional involvement and commitment to environmental improvement.

According to Don Deis, ABCEP President, "Ms. Rickleff is a role model and most deserving of this award. She embodies the ideals of the Emerging Environmental Professional Achievement Award through her professional achievements, mentoring of peers, teaching adults and children, and overall efforts to help make the world a better place for future generations."

ABCEP received several nominations for this award and finalists included Mr. Michael K. Chanov II, of EA Engineering, Science, and Technology, Inc., Hunt Valley, Maryland, and Ms. Shanna Thompson, of Geosyntec Consultants, Atlanta, Georgia. Both are young professionals whose leadership, projects, and programs were recognized through award nominations submitted by the Society of Environmental Toxicology and Chemistry, Pensacola, Florida, and Accutest Laboratories, Orlando, Florida, respectively.

About ABCEP

ABCEP is a professional association dedicated to serving the environmental professional community. It is the lead organization certifying environmental professionals, maintaining exemplary standards of ethics and technical practice, and supporting individuals, our profession, and the public relying upon our services. Our primary mission is to confer the Certified Environmental Professional credential to meritorious environmental professionals. For more information, contact Andrea Bower, Executive Administrator, at office@abcep.org, or visit the website at www.abcep.org.

Call for papers for publication in the scholarly journal:

ENVIRONMENTAL PRACTICE

The journal of the National Association of Environmental Professionals

ECOLOGICAL ECONOMICS
vol. 16 no. 3 (September 2014)

Due to the economic drivers underlying resource use, economic knowledge is an essential component of sustainability. Indeed, economic studies have moved to the forefront of sustainable ecosystem management and recent research has focused on quantifying the monetary benefit of ecosystem services like pollination, water filtration, and carbon storage. This special issue (or dual issue) of Environmental Practice will deal with some of the recent work in the field of ecological economics.

We invite manuscripts that touch on an array of themes, but are especially interested in articles that deal with:

- valuing natural resources or ecosystems
- integrated ecologic-economic modeling
- using ecological economics to inform conservation
- case-studies where methods to replace GDP have been implemented at state and local levels
- application of ecological economics in the preparation of environmental assessments (EAs) and environmental impact statements (EISs)
- communicating ecological economics in the undergraduate curriculum
- communicating ecological economics by fostering sustainable behavior at different scales

We welcome a variety of perspectives and submissions from scholars, practitioners, and students.

Deadline for submittals is February 15, 2014 to dcarro17@depaul.edu

Sample issues of the journal can be found at:

http://journals.cambridge.org/action/ displayJournal?jid=ENP

Guidelines for publication can be found at:

http://journals.cambridge.org/action/ displayMoreInfo?jid=ENP&type=ifc

The editorial office of *Environmental Practice* is located at DePaul University.

For questions, please contact Dan Carroll, Managing Editor, at 773-325-2298, or by email at dcarro17@depaul.edu

NAEP CAMBRIDGE UNIVERSITY PRESS DEPAUL UNIVERSITY

American Public University

NAEP/APU Three-Part Webinar Series 2013

Join us for our second exciting year of interactive webcasts with industry experts sponsored by American Public University and the National Association of Environmental Professional (NAEP).

APU and NAEP are collaborating on this 3-part series focused on professional development for environmental professionals; helping you build the skills you need for success.

Below is a list of the topics of the 2013 webinars:

- Part 1: Top Skills Sought by Environmental Employers
- Part 2: The Importance of Communication Skills
- Part 3: Top 10 Time Management Tips

To register for these complimentary webinars click the link below:

http://www.studyatapu.com/NAEP-2013

The archive video of the past presentations can be found at http://www.apu.apus.edu/lp2/webcast/NAEP-2013/index.htm

Part 1: Top Skills Sought by Environmental Employers

Wednesday, April 17, 2013
12:00 p.m. - 1:15 p.m. ET

Our panel shared a complete report on the 2012-2013 National Environmental Employment Survey conducted by the Environmental Career Center.

- What employers are saying about their latest job projections
- Current job trends
- Top skills environmental employers are seeking
- What all this means for you as an environmental professional

Following the survey results, our panel of hiring managers and employers will discuss the data and relate it to their companies/organizations' expectations in terms of qualifications and skills of new hires. They will also discuss what they predict their hiring needs will be in the near future and share any general resources to help you build the skills you need to stand out in this competitive job market.

Speakers

- Carol Pollio, Program Director for Environmental Sciences, American Public University System
- John Esson, Director/Founder, Environmental Career Center
- Elizabeth Copley, Program Manager, Impact Assessment & Permitting Services

Part 2: The Importance of Communication Skills

Tuesday, July 30, 2013
12:00 p.m. - 1:15 p.m. ET

Following the survey results, our panel of hiring managers and employers discussed why communication, whether written or verbal, is the most important qualification you can develop for a position in the environmental field. Our top experts gave you their advice on best practices as well as how you can continue developing your communication style for more effective proposal writing, reports preparation, client and data presentation, and overall interactions within your professional community.

- Industry experts share their "stories from the field"

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NAEP/APU

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- Advice on improving your writing samples, data presentation, public speaking, and verbal interactions with peers and clients
- Tips on how to demonstrate your skills confidently and successfully
- Gain critical information and resources for professional development

Speakers

- Ron Deverman, Principal Environmental Planning Manager, HNTB; Former NAEP President
- Jim Montgomery, Editor-in-Chief, Associate Professor, DePaul University
- Robert P. Sliwinski, Senior Environmental Resources Specialist, Christopher B. Burke Engineering, Ltd.
- Kris W. Thoemke, Ph.D., CEP, APU Faculty Member and Upcoming Chairman of ABCEP's Credentials Review Board (CRB) and an Ex-Officio member of the ABCEP and National Association of Environmental Professionals (NAEP) Boards of Directors

Part 3: Top 10 Time Management Tips

Wednesday, November 20, 2013 • 12:00 p.m. - 1:15 p.m. ET

Our panel of industry experts will cover the top ten time management tips for environmental professionals to help you improve your productivity and success. Topics will include:

- How to manage your time
- Learn to prioritize projects
- Making a to-do list
- Proper planning
- Organizing Inbox and calendar
- Learn to say no courteously
- Effectively multitask by combining proper activities
- Other time-saving tips

Speakers

- Bill Plumpton, CEP, NAEP Board of Director, Chair of Chapters Committee; Environmental Planner, Gannett Fleming
- Kris W. Thoemke, Ph.D., CEP, APU Faculty Member and Upcoming Chairman of ABCEP's Credentials Review Board (CRB) and an Ex-Officio member of the ABCEP and National Association of Environmental Professionals (NAEP) Boards of Directors

2014 Annual Conference

Changing Tides & Shifting Sands

39th Annual NAEP Conference
April 7-10, 2014
St Petersburg, FL

Call for Papers

Papers and presentations are requested for individual speakers, panels, hot topic lunches, and poster displays in the following topical areas:

Air Quality
Archaeology/Cultural Resources
Botany
Brownfields
Climate Change
Ecosystem Restoration
Emerging Contaminants
Emerging Analytical and Sampling Methodologies
Energy
Environmental Education
Environmental Health and Safety
E-Permitting and other Online Tools
Floodplain Management
Global Product Stewardship
Habitat Management
Incident Response and Recovery
Landfill Reclamation
LEED/Green Buildings
Modeling/Visualization
Munitions and Explosives of Concern
Noise Impacts
Numeric Nutrient Criteria
Oil Spill Effects and Restoration
PD&E/NEPA
Professional Development
Public Involvement
Remediation
Sediments and Waterfront
Sustainability
Transportation
Upcoming/New Regulations
Visual Impact
Waste Water Treatment Innovations
Water Quality / Stormwater Management
Watershed Management
Wetlands
Wildlife

Please submit your abstract using our online form at www.naep.org, Annual Conferences, 2014. If you have questions, please contact Mr. Bruce Hasbrouck, CEP at bhasbrouck@fallerdavis.com or (813) 261-5136. The submission deadline is October 15, 2013.

Get your CEP — Save Thousands of Dollars

Certifying Environmental Professionals since 1979

The Academy of Board Certified Environmental Professionals (ABCEP) has just partnered with American Public University (APU) to allow up to 6 transfer credits to those who hold the Certified Environmental Professional (CEP) credential.. The value of these credits can substantially reduce the cost of a Masters of Science Degree in Environmental Policy and Management or can serve to offset elective credits in other Masters programs at APU.

To find out the details, go to http://www.apus.edu/TransferCredit/accepted/graduate/internal-policies/abc-env-prof.htm or visit the ABCEP website: www.abcep.org.

Some information on APU:

- It is the first, fully online university to receive the Sloan Consortium's (Sloan-C) Ralph E. Gomory Award for Quality Online Education (2009) and two-time recipient of the Sloan-C Effective Practice Award (2009-2010).
- APU has more than 150 degree and certificate programs as well as online courses to help with certifications and professional development in subjects ranging from Environmental Hazard Mitigation and Restoration (Grad Cert); Environmental Planning and Design (Grad Cert); Environmental Policy and Management (Capstone, MS); Environmental Risk Assessment (Grad Cert); Environmental Science with four concentrations (BS), Environmental Sustainability (Grad Cert); Environmental Technology (Undergrad Cert), Fish and Wildlife Management (Grad Cert, Undergrad Cert), Transportation & Logistics, Business Administration, Information Technology, and many others.
- APU's combined undergraduate tuition, fees and books are roughly 20% less than the average 4-year public university's in-state rates, helping to maximize your tuition assistance program. (The College Board, *Trends in College Pricing 2011,* October 2011.)
- APU will carefully evaluate prior learning, including eligible on-the-job learning, for the award of academic credit.

This gives you another excuse to apply for your CEP today.

Please Donate to the James Roberts Scholarship Fund

You may not have known him.

Yet you were certainly influenced by him.

Honor his legacy.

Donate to the James Roberts Scholarship Fund TODAY.

Jim Roberts travelled far and wide to espouse the worth of living an ethical life, including the way you performed your job. He lived the Code of Ethics and Standards of Practice for Environmental Professionals.

NAEP has developed the James Roberts Scholarship Fund to assist promising individuals while they are still in school. This is your opportunity to preserve and extend the legacy of Jim Roberts.

All donations are tax-deductible. Go to NAEP.org and click Scholarship Foundations to make your contribution. You can also donate when you renew your NAEP membership.

Thank you,
Gary F. Kelman, Chair

James Roberts Scholarship Committee
Mel Willis
John Perkins
Bruce Hasbrouck
Teri Hasbrouck

Become a Certified Environmental Professional (CEP)

OBTAIN THE RECOGNITION YOUR CAREER DESERVES:

- *Do you have an environmental certification? Good*
- *Does this environmental certification measure your experience and depth of knowledge, not just facts? Yes*
- *Does this environmental certification include an objective peer review of your abilities? Yes*
- *Is your environmental certification accredited by a third-party certifying body? Yes*
- *Then your environmental certification must be a CEP from The Academy of Board Certified Environmental Professionals (ABCEP).*

Certification is available in five areas:

- Assessment
- Documentation
- Operations
- Planning
- Research/Education

Beginning in 1979, experienced environmental professionals were able to become certified through a comprehensive peer review addressing years of experience, responsibility, and knowledge. Certifications are nationally-recognized and available for a wide range of eligible professionals including:

- Federal/state/local agency staff - Consultants - Researchers - Compliance managers
- Enforcement officials - Activists

Initially offered as a certification through the National Association of Environmental Professionals (NAEP), the Academy of Board Certified Environmental Professionals (ABCEP) established organizational independence in 1993. In 1999 ABCEP became a nonprofit organization. In 2005, the ABCEP achieved accreditation by the Council of Engineering and Scientific Specialty Boards (CESB – www.cesb.org)

The ABCEP CEP brings heightened confidence in the professional quality of documents, evaluations, and decisions. Certified individuals satisfy the professional requirements outlined by the USEPA, ASTM, and other regulatory agencies, providing assurance to employers and customers. For the individual, certification increases opportunities for promotions, marketability, and career advancement. Certified individuals maintain their knowledge, experience, and credentials through continuing education, teaching, mentoring, publishing papers, and complying with the Code of Ethics.

Become a CEP-IT: The ABCEP offers mentoring and a CEP-In Training (CEP-IT) designation to junior and mid-level professionals developing towards CEP eligibility. The CEP-IT increases individual and firm marketability, enhanced career opportunities, and enhanced networking opportunities.

More Information: Contact ABCEP at office@abcep.org; www.abcep.org; or 1.866.767.8073 Do you have an upcoming meeting and need a speaker? Speaker opportunities by CEPs about ABCEP are available in certain geographic locations.

Membership Benefits

Who We Are:

- We are a multidisciplinary, professional environmental association.
- We are dedicated to the promotion of ethical practices, technical competency and professional standards in the environmental fields.

What We Stand For:

- We stand for Integrity in the environmental professions.
- Our foundation is our Code of Ethics and Standards of Practice.
- As environmental professionals, we serve the public, our employers, and our clients with integrity, fairness and technical objectivity.

What We Do:

- We work for a diversity of employers, including government, industry, consulting, academia, and the private sector.
- We work in varied disciplines: air, water, noise, waste remediation, ecological resources, transportation, NEPA, sustainability, and education.

How You Benefit:

- Annual Conference brings together nation's top environmental professionals
- Timely research through our peer-reviewed journal, Environmental Practice
- Access to Best Practices through our national committees
- Professional networking opportunities and activities through state and regional chapters
- On-line career center tailored to the environmental professions
- Bi-monthly eNews featuring research findings, perspectives and chapter activities
- Bi-weekly National Desk newsletter featuring reporting from the publisher of GreenWire and ClimateWire
- Educational webinars on diverse topics such as new regulations and guidance, review of recent case law, and other emerging issues
- Member enjoy discounts on conference, regional and local programs, and members-only page on our website www.naep.org

How We Are Unique:

- Interdisciplinary environmental practitioners
- Strong professional conduct through our Code of Ethics
- Achievement recognition through our Environmental Excellence Awards

Affiliated Chapters:

- Alaska
- Arizona
- California
- Florida
- Georgia
- Hawaii
- Illinois
- Mid-America
- Mid-Atlantic
- North Carolina
- North Texas
- Northwest
- Rocky Mountain
- Texas

JOIN NAEP NOW!! To join NAEP and one of our affiliated chapter, go to www.naep.org