



## President's Letter to Members

Remembrances and boundaries. These are two words that come to mind when I think about this past year. First, remembering all the positive accomplishments NAEP made this year; and second, taking a “no-boundaries” approach toward what NAEP can accomplish for our

general members, our Chapters and the profession. We do have a lot of positive accomplishments to reflect on for 2010: our successful annual conference in Atlanta, my keynote address at the California AEP conference, our visits and participation at Chapter events around the country, the resurgence of this e-Newsletter as a substantive and informative messenger for our members, the many high-profile activities of our national committees and working groups, and certainly the interesting dialogue we have been having with our Chapters as we journey forward with new affiliation agreements. These events among others highlight some of our best accomplishments. I will talk more about our successes in future newsletters.

The poet Mary Oliver in her recent book *Red Bird* expresses these thoughts, “There is a place where the town ends and the fields begin./ It's not marked but the feet know it,/ also the heart that is longing for refreshment/ and, equally, for repose.” This yearning to move beyond “our town” to the open fields; beyond the boundaries that we nest in; to be refreshed, in fact invigorated, beyond the place we are comfortable in, certainly is the spirit from which we on the Executive Committee have approached our work for the association this year. It is not a part of our sensibility to have walls around which conversations should occur. Our doorway is a doorway to openness that we continually strive to create with our members, and open a little more each day for all environmental professionals. It is through all of our dedication and commitment that we move forward together.

In this issue of e-News, we have so many interesting articles. Updates and aftermaths from the Gulf oil spill, a timely article on the pros and cons of fracking, our trip to the Phipps Conservatory in Pittsburgh this past summer, and updates and new news from CEQ, the 2011 annual conference, NAEP Chapters, Environmental Excellence awards committee and ABCEP. Under the insightful tutelage and leadership of Vice-President Paul Looney and our Executive Manager Tim Bower the e-Newsletter continues to grow in its maturity and content. We know you will enjoy and find value.

This past July the western section of the Pennsylvania

Chapter PAEP hosted a phenomenal program at the Phipps Conservatory and Botanical Gardens. This event was for PAEP members and our NAEP Board of Directors who were in Pittsburgh for our quarterly board meeting. The program focused on the revolutionary design of its newest project, the Center for Sustainable Landscapes (CSL). Once completed, the CSL will emerge as a living building, exceeding LEED Platinum certification. In accomplishing the Living Building design standards, the CSL will produce all of its energy on site from renewable sources and treat and supply all of its water needs (net zero energy, net zero water) while serving as a leading environmental education and research center. Those of us who attended this event were quite inspired to see such leading individual and collective creativity in sustainable design. It is examples like this that gives me hope that future generations will see a completely sustainable world.

This past year I had the opportunity to be a part of the events of eight NAEP Chapters in almost every region of the country. I am pleased I got to participate in so many chapter events; it's through these professional events that we create moments of interaction that bring the greatest reward; the reward of lasting professional relationships. At the national office we continue to research and develop additional member benefits such as inexpensive general liability insurance for the Chapters and professional liability insurance for the self-employed or small firm environmental professional. After the first of the year we will launch our series of webinars with the first one being a NEPA legal update given by two of our top, nationally recognized environmental professionals. More information about the webinars will be coming soon in future e-Newsletters and e-blasts.

As of this writing most of our Chapters have signed the affiliation agreement to renew our partnering commitment with NAEP, the Chapters and environmental professionals around the country. It has been quite an exhilarating journey and this journey has renewed my hope that we are all connected and share strong commonalities within the environmental professions. The Executive Committee has made itself available throughout the year to answer questions, dialogue and keep an open mind to the unique circumstances of each of our 17 Chapters. We are blessed too that we have at least two new Chapters in the early formation stages. John Irving, our Chapters Committee Chair for many years, has been very responsive to the Chapters' needs. And during the affiliation discussions I believe we have listened intently and have acknowledged and addressed Chapter concerns. We wholeheartedly support and appreciate the Chapters' willingness to share thoughts and opinions through this important, breakthrough process.

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## Fractured: The Road to the New EPA “Fracking” Study



*Adam Orford*

For over a decade, a debate has raged over “hydraulic fracturing” (“fracking”), a method of increasing production at natural gas wells in coalbeds, shale formations and other unconventional sources. Fracking is exempt from federal drinking water regulations, but stands accused of

threatening water supplies across the country. It has recently become the focus of intense scrutiny and widespread media attention as natural gas production has expanded toward the Atlantic seaboard. Now, the Environmental Protection Agency is reopening its investigation into fracking’s potential environmental impacts – a series of contentious public scoping meetings for the study wrapped up this week. As EPA contemplates the task ahead, this article explains how it arrived at this point – and why it matters.

### Natural Gas in Shale – A Study in Pressures

Although the environmental risks associated with fracking are in the headlines today, those risks can be evaluated only in the context of the activity’s purpose: natural gas extraction in the face of finite resources and rising demand. That story begins 350 million years ago.

### Lithostatic Pressure: Shale Gas Formation

The Marcellus Formation lies under a large part of the Appalachian Basin – from New York’s finger lakes region, spreading westward toward Lake Erie and southwest through central Pennsylvania, then sweeping south across the entirety of West Virginia and into Virginia and Maryland. It is a 50- to 1000-foot-thick layer of shale – a fissile sedimentary rock – lying nearly a mile deep at its northwest edge and sinking deeper as it moves under the Blue Ridge. It was once the seabed, laid down gradually, hundreds of millions of years ago, across a sloping limestone ridge under deep, oxygen-depleted waters.

Without oxygen, the organic matter that fell to those depths from a more hospitable surface did not decay. Over time, a rich mixture was buried under successive sedimentary layers on the sea floor. As pressure from the overlying strata increased, the shale formed and heated, and pyrolysis achieved what oxygen had not: the organic material decomposed into gaseous hydrocarbons—natural gas. Trapped in shale under limestone, the gas remained

widely diffused throughout the rock’s pore spaces and, as the land shifted over geologic time, became concentrated in countless vertical fractures throughout the formation.

The result was vast reserves of natural gas deep underground in “low permeability” geologic formations – rock that does not allow gas or fluid to pass through it easily. The Marcellus Formation is believed, together with a number of similar shale layers found in the southeastern, midwestern and western areas of the country,<sup>1</sup> to be one of the largest potential sources of natural gas in the United States.

### Economic Pressure: Natural Gas Development

Fast forward to the present, and natural gas has become an important and extremely valuable fuel. In recent years, the United States has consumed about 23 trillion cubic feet (TCF) of natural gas per year.<sup>2</sup> Of that, on average about 19 TCF<sup>3</sup> was produced domestically, and 4 TCF was imported.<sup>4</sup> Although these levels have declined in the immediate past, eventual economic recovery is expected to lead to steadily increasing U.S. natural gas consumption over the coming decades,<sup>5</sup> and, due to its relatively low carbon content, changes in energy policy – particularly a national regulatory regime for carbon – have the potential to drive U.S. natural gas demand much higher, very quickly.

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- 1 *E.g.*, the Barnett Shale in the Forth Worth Basin under Dallas; the Fayetteville Shale in the Arkoma Basin between Arkansas and Oklahoma; the Haynesville Shale in the North Louisiana Salt Basin extending into Texas and Arkansas; the Woodford Shale in the Anadarko Basin in south-central Oklahoma; the Antrim Shale in the Michigan Basin; and the New Albany Shale in the Illinois Basin, extending across Indiana and into northern Kentucky.
- 2 U.S. Energy Information Administration, Natural Gas Consumption by End Use (U.S. Annual) (2004-2009).  
[http://www.eia.doe.gov/dnav/ng/ng\\_cons\\_sum\\_dcu\\_nus\\_a.htm](http://www.eia.doe.gov/dnav/ng/ng_cons_sum_dcu_nus_a.htm)
- 3 U.S. Energy Information Administration, Natural Gas Withdrawals and Production (U.S. Annual) (2004-2009).  
[http://www.eia.gov/dnav/ng/ng\\_prod\\_sum\\_dcu\\_NUS\\_a.htm](http://www.eia.gov/dnav/ng/ng_prod_sum_dcu_NUS_a.htm)  
Exports are about 1 TCF per year. See U.S. Energy Information Administration, Natural Gas Exports by Country (U.S. Annual) (2004-2009).  
[http://www.eia.doe.gov/dnav/ng/ng\\_move\\_expc\\_s1\\_a.htm](http://www.eia.doe.gov/dnav/ng/ng_move_expc_s1_a.htm)
- 4 U.S. Energy Information Administration, Natural Gas Imports by Country (U.S. Annual) (2004-2009).  
[http://www.eia.doe.gov/dnav/ng/ng\\_move\\_imp\\_c\\_s1\\_a.htm](http://www.eia.doe.gov/dnav/ng/ng_move_imp_c_s1_a.htm)
- 5 U.S. Energy Information Administration, Annual Energy Outlook 2010, p. 56 and Figure 41.  
[http://www.eia.doe.gov/oiaf/aeo/pdf/trend\\_2.pdf](http://www.eia.doe.gov/oiaf/aeo/pdf/trend_2.pdf)



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The stability – or fluctuation – in natural gas prices is a function of the ability of the U.S. to replace those natural gas reserves consumed through production and consumption with new reserves, through exploration and development.<sup>6</sup> In recent years,<sup>7</sup> exploration and new production technologies have kept pace. For example, in 2007-2008 (an unusually good year), the U.S. proven natural gas reserves (237.7 TCF) were diminished by 20.5 TCF production, but replenished by 29.5 TCF total discoveries.

But the low-hanging fruit has largely been plucked, at least for conventional technologies. While easily accessible natural gas still is being discovered, the lion's share of new proven reserves (including those added in 2007-2008) result from applying innovative extraction technologies and techniques to recover previously known resources that were uneconomical using conventional production methods. Over the last decade, this has led to increased focus on extracting gas and oil from “unconventional” deposits – diffuse accumulations in low-permeability formations such as sandstones, chinks, coal beds, and shales. Hydraulic fracturing is one such technique.

### Hydraulic Pressure: Shale Gas Extraction through Fracking

Shale does not give up its natural gas easily. The fractures (“joints”) in a shale layer – where most of the recoverable natural gas is – are roughly vertical, and a traditional, vertical well necessarily intersects very few of them. The rock's low permeability means that gas does not flow into the well from adjacent, unconnected joints. Consequently, vertical wells have not been notably productive.

To increase well productivity, well operators have needed to increase the network of fractures that the well can access. To get those fractures, they simply apply pressure: pumping large volumes of hydraulic fracturing fluid into an isolated well section. The pressurized fluid – a mixture of water and chemicals – permeates the rock, fracturing the fissile shale. It carries with it a “proppant,” generally sand or ceramic beads, that lodges in the fractures, propping them open after the fracking fluid is pumped back out. With the fluid gone and the fractures opened, the shale gas escapes into the well.

Fracking is not a new technique. However, advances in directional drilling have allowed wells to be aligned within the semi-horizontal shale layer, perpendicular to the shale joints, maximizing each well's interface with the shale and increasing the number of intersected fractures. These advances have finally

made it economically feasible to extract natural gas from previously undeveloped sources – such as the country's shale beds. No other technique shows such promise for meeting the U.S. demand from domestic natural gas resources so cheaply.

### Fracking and the Environment — Twenty Years of Political Pressure

Allegations of water quality impacts associated with hydraulic fracturing date back to at least the early 1990s, but hard evidence has been scarce. In 2004, EPA concluded that there was no credible evidence of environmental risks from fracking. Although fracking opponents challenged the scientific soundness of EPA's conclusion, Congress went on to exempt fracking from federal drinking water regulation the next year, and shale gas production has expanded rapidly since then.

That expansion has brought fracking into the public eye like never before. As states have adjusted to the influx of industry, conflicting policies of caution and expansion have made for a lively news cycle, and confusion and concern about the potential effects of fracking in different regions has spread. Now, Congress has urged EPA to conduct a “study on the relationship between hydraulic fracturing and drinking water.” As EPA moves forward, environmental interests say the study does not go far enough, while industry argues that the study has become a juggernaut far exceeding Congress's intent.

### 1990 to 2005: Road to the Fracking Exemption

In 1974, Congress enacted the federal Safe Drinking Water Act (“SDWA”).<sup>8</sup> Part C of the Act established the Underground Injection Control (“UIC”) program,<sup>9</sup> prohibiting any “underground injection” (defined as the “subsurface emplacement of flu-

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6 See U.S. Energy Information Administration, U.S. Crude Oil, Natural Gas and Natural Gas Liquids Reserves 2002 Annual Report, [http://www.eia.doe.gov/pub/oil\\_gas/natural\\_gas/data\\_publications/crude\\_oil\\_natural\\_gas\\_reserves/historical/2002/pdf/arr.pdf](http://www.eia.doe.gov/pub/oil_gas/natural_gas/data_publications/crude_oil_natural_gas_reserves/historical/2002/pdf/arr.pdf)

p. 29 and Figure 18 (showing replacement between 1993 and 2002); U.S. Crude Oil, Natural Gas and Natural Gas Liquids Reserves 2007 Annual Report, p. 29, Figure 18 (showing replacement between 1997 and 2007).

7 For complete details, see U.S. Energy Information Administration, U.S. Crude Oil, Natural Gas and Natural Gas Liquids Reserves 2007 Annual Report, Appendix G. [http://www.eia.doe.gov/pub/oil\\_gas/natural\\_gas/data\\_publications/crude\\_oil\\_natural\\_gas\\_reserves/historical/2007/pdf/appg.pdf](http://www.eia.doe.gov/pub/oil_gas/natural_gas/data_publications/crude_oil_natural_gas_reserves/historical/2007/pdf/appg.pdf)

8 42 U.S.C. § 300f *et seq.*

9 42 U.S.C. § 300h *et seq.* Under the UIC, EPA issues regulations establishing minimum requirements for states to follow, and, if requested, reviews proposed state UIC programs for compliance with these minimum requirements. States may also choose not to regulate, in which case EPA runs the program.



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ids by well injection”) that endangers underground drinking water sources.<sup>10</sup> EPA policy into the 1990s was that this law did not apply to hydraulic fracturing because, EPA had concluded, the UIC program applied only to operations where the “principal function” of an injection was the placement of fluids, and the principal function of fracking is resource recovery.<sup>11</sup> States, therefore, were left to regulate fracking under their own laws as they saw fit.

This interpretation stood unchallenged until 1995, when Alabama citizens living near a coalbed methane operation that used hydraulic fracturing reported contaminants in their drinking water wells, and petitioned EPA to require Alabama to regulate fracking under the UIC.<sup>12</sup> Over objections from these landowners, EPA approved Alabama’s UIC regulations, which did not govern fracking. The residents appealed EPA’s decision and, in 1997, the Eleventh Circuit overruled EPA’s interpretation, instructing the agency to begin requiring states to regulate fracking under the SDWA.<sup>13</sup>

Although the Eleventh Circuit would limit its ruling in 2001,<sup>14</sup> the seeds of regulatory uncertainty had been sown. Two very different political pressures were quickly brought to bear: on the one hand, by those concerned with potential environmental impacts of a widespread and largely unregulated industrial practice; on the other, by those concerned that unnecessary government oversight would cripple energy development. The former wanted fracking’s environmental impacts studied, the latter wanted the practice exempted from environmental regulation.

Both sides had some initial success. EPA began studying the environmental impact of hydraulic fracturing during coalbed methane production to determine whether the practice posed risks to drinking water. Around the same time, newly elected President George W. Bush convened the National Energy Policy Development Group (“Energy Task Force”), lead by Vice President Dick Cheney, to make recommendations on the Administration’s energy policy.

The Energy Task Force completed its work first, releasing its final report in May 2001. ([www.wtrg.com/EnergyReport/National-Energy-Policy.pdf](http://www.wtrg.com/EnergyReport/National-Energy-Policy.pdf)) Although it did not go into much detail, the report did briefly discuss fracking, stressing the importance of the technique and mentioning the possibility of increased environmental regulation.<sup>15</sup> But the report was more significant for what it did not say: fracking had been the subject of debate among the report’s authors and EPA. Initial drafts had portrayed hydraulic fracturing as essential to energy development, and rec-

ommended that fracking be exempted from the SDWA; EPA officials had requested several times that the report caveat its conclusions in light of EPA’s ongoing fracking study, and drop the recommendation for exemption. The resulting language appears to have been a compromise: there was no legislative recommendation, but likewise no reference to the ongoing environmental investigation.<sup>16</sup>

EPA’s final report on fracking arrived in July 2004. ([http://water.epa.gov/type/groundwater/uic/class2/hydraulicfracturing/wells\\_coalbedmethanestudy.cfm](http://water.epa.gov/type/groundwater/uic/class2/hydraulicfracturing/wells_coalbedmethanestudy.cfm)) For those that had been following the issue, its conclusion was a bombshell: “injection of hydraulic fracturing fluids into coalbed methane wells poses little or no threat to [underground sources of drinking water] and does not justify additional study at this time . . . EPA did not find confirmed evidence that drinking water wells have been contaminated by hydraulic fracturing fluid injection into coalbed methane wells.”<sup>17</sup> While the report vindicated the industry position, it

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- 10 42 U.S.C. § 300h(b)(1). Underground injection “endangers drinking water sources if such injection may result in the presence in underground water which supplies or can reasonably be expected to supply any public water system of any contaminant, and if the presence of such contaminant may result in such system’s not complying with any national primary drinking water regulation or may otherwise adversely affect the health of persons.” 42 U.S.C. § 300h(d)(2).
- 11 *Legal Envtl. Assistance Found., Inc. v. U.S. E.P.A.*, 118 F.3d 1467, 1471 (11th Cir. 1997).
- 12 The campaign to regulate fracking in Alabama appears to have begun as early as 1989. Coalbed Methane Association of Alabama, History of Coalbed Methane in Alabama. <http://www.coalbed.com/displaycommon.cfm?an=1&subarticlenbr=14>
- 13 *Id.*, 118 F.3d at 1478.
- 14 *Legal Envtl. Assistance Found., Inc. v. U.S. E.P.A.*, 276 F.3d 1253 (11th Cir. 2001), *cert. denied*, 537 U.S. 989 (2002).
- 15 Report of the National Energy Policy Development Group: National Energy Policy, 5-6 (May 2001).
- 16 T. Hamburger & A. Miller, A Changing Landscape: Halliburton’s Interests Assisted by White House (L.A. Times, Oct. 14, 2004).
- 17 EPA, Evaluation of Impacts to Underground Sources of Drinking Water by Hydraulic Fracturing of Coalbed Methane Reservoirs [http://water.epa.gov/type/groundwater/uic/class2/hydraulicfracturing/wells\\_coalbedmethanestudy.cfm](http://water.epa.gov/type/groundwater/uic/class2/hydraulicfracturing/wells_coalbedmethanestudy.cfm) EPA 816-R-04-003, at 7-5 (2004). EPA noted that “the risk posed to USDWs by introduction of [fracking] chemicals is reduced significantly by groundwater production and injected fluid recovery, combined with the mitigating effects of dilution and dispersion, adsorption, and potentially biodegradation.” EPA also noted that “high stress contrast between adjacent geologic strata results in a barrier to fracture propagation” – i.e., deep fractures do not generally extend upward through impermeable layers toward shallower groundwater sources.



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quickly drew criticism. One EPA scientist went so far as to publicly call the report “scientifically unsound” and accused members of the report’s peer review panel of conflicts of interest.<sup>18</sup> These criticisms, whatever their merits, resonated with similar criticisms of Bush Administration science policy made during the same period,<sup>19</sup> and were widely heralded by the environmental community as proof that the EPA’s study could not be relied upon.

Meanwhile, the idea of exempting fracking from the SDWA – unmentioned in the 2001 national policy report but not forgotten – had taken root and gained traction in Congress. The first draft of what would eventually become the Energy Policy Act of 2005 (“EPAAct 2005”) had been introduced in the House in early 2002. The bill, among many other things, proposed exempting hydraulic fracturing from SDWA regulation. The fracking exemption would become one of the many points of negotiation as Congress spent the next several years arguing over energy reform. When EPA issued its report in late 2004, Congress was already reaching the end of its long deliberations over energy reform. One might speculate that with the legislation nearing the finish line, the EPA report greatly simplified the debate over the fracking issue.

On July 29, 2005, the Senate approved a conference version of EPAAct 2005. The law included an amendment to the SDWA, exempting from its scope “the underground injection of fluids or propping agents (other than diesel fuels) pursuant to hydraulic fracturing operations related to oil, gas, or geothermal production activities.”<sup>20</sup> Fracking (unless using diesel fuel) would not be federally regulated; states were free to continue to regulate as they saw fit.

### 2005 to 2010: Road to the New EPA Study

Most of the above action regarding fracking occurred largely outside the perception of the mainstream public. Fracking was not making headlines. In the wake of the EPA study and EPAAct 2005, as natural gas exploration and development moved forward, fracking opponents began to change this.

The most prominent element of the campaign was to demand detailed disclosure of the chemicals used in fracking. Industry had long assured regulators that fracking fluids were fairly benign and, at any rate, would be contained underground or handled carefully on the surface, but resisted disclosing the precise chemical makeup because the formulas are proprietary intellectual property. Opponents pointed out that some chemicals used in fracking operations were known to be toxic, that increased use led to increased risk of spills, and that regulators would not know

what to test for and medical professionals would not know what to look for if the chemicals remained secret. Disclosure bills have been proposed repeatedly at the local, state and federal level ever since.<sup>21</sup> Most recently, disclosure language was attached to the Senate’s legislative response to the Gulf Oil Spill.<sup>22</sup>

Some in the industry fueled the chemical exposure debate by continuing to use diesel as an additive to enhance proppant delivery, despite having agreed not to do so in 2003 and the exclusion in EPAAct 2005 that subjects such injections to regulation.<sup>23</sup> In February 2010, the House Energy & Commerce Committee reported that two signatory companies had continued to use diesel through at least 2007. ([http://energycommerce.house.gov/index.php?option=com\\_content&view=article&id=1896:energy-a-commerce-committee-investigates-potential-impacts-of-hydraulic-fracturing&catid=122:media-advisories&Itemid=55](http://energycommerce.house.gov/index.php?option=com_content&view=article&id=1896:energy-a-commerce-committee-investigates-potential-impacts-of-hydraulic-fracturing&catid=122:media-advisories&Itemid=55)) Although the companies involved have said that the diesel was used by mistake and it was not clear that the incidents occurred at locations covered by the MOA or the SDWA, the controversy has kept the disclosure question front and center.

Particularly in areas with air quality issues, opponents have focused on possible air impacts associated with the drilling operations themselves. Fracking requires pressure, pressure requires pumps, and pumps require fuel to burn, with associated air

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- 18 In October 2004, an EPA environmental engineer in Denver named Weston Wilson sent a letter and report to his Congressional representatives in Colorado, particularly concerned that coal beds in which fracking is conducted can occur within aquifers that are drinking water sources. W. Wilson, Letter to Wayne Allard, Nighthorse Campbell and Diana DeGette (Oct. 8, 2004). <http://www.earthworksaction.org/pubs/Weston.pdf>
- 19 Union of Concerned Scientists, Scientific Integrity in Policy Making (2004). [http://www.ucsusa.org/scientific\\_integrity/abuses\\_of\\_science/reports-scientific-integrity.html](http://www.ucsusa.org/scientific_integrity/abuses_of_science/reports-scientific-integrity.html)
- 20 42 U.S.C. § 300h(d)(1).
- 21 *E.g.*, the current Fracturing Responsibility and Awareness of Chemicals (“FRAC”) Act (S. 1215) (H.R. 2766).
- 22 Clean Energy Jobs and Oil Company Accountability Act of 2010 (S. 3663), Title XLIII.
- 23 In late 2003, EPA and several development companies entered into a Memorandum of Agreement to end the practice in coalbed methane wells near underground sources of drinking water. Memorandum of Agreement between the United States Environmental Protection Agency and BJ Services Company, Halliburton Energy Services, Inc., and Schlumberger Technology Corporation: Elimination of Diesel Fuel in Hydraulic Fracturing Fluids Injected into Underground Sources of Drinking Water During Hydraulic Fracturing of Coalbed Methane Wells (Dec. 12, 2003).



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impacts. Concerns also have been raised that the fracking process itself may release air pollutants. Emissions from drilling operations, consequently, have been under fire.<sup>24</sup>

More than anything else, fracking opponents have sought evidence that fracking pollutes groundwater, as has long been suspected. In August 2009, EPA discovered chemicals used exclusively in fracking operations in several groundwater wells near natural gas operations in Pavillion, Wyoming. The Pennsylvania travails of Cabot Oil & Gas (fined for a several spills of fracking fluids) came to light around the same time and were widely publicized,<sup>25</sup> as was a natural gas well blowout that occurred at the same time as the *Deepwater Horizon* blowout was being repaired.

Fracking, therefore, has suffered from its own successes. In July 2008, Pennsylvania lifted a five-year moratorium on new drilling in state lands to allow access to the Marcellus shale.<sup>26</sup> At almost the same time, New York streamlined its own leasing process to meet the sudden rise in interest.<sup>27</sup> Fracking quickly moved into the back yards of a major portion of the mid-Atlantic, an extremely populous area recently unused to resource extraction industries. Combined with the above incidents fueling concern over the practice, the expansion has generated a large political backlash. Most recently, on August 3, 2010, the New York State Senate approved a moratorium on new drilling permits in the Marcellus Shale through May 15, 2011.<sup>28</sup>

Amid all of this, the number of studies focused on the environmental impacts of fracking have remained small, and so the evidence still sparse. To remedy this situation, on October 8, 2009, Congress adopted a conference report for EPA's funding bill that

urge[d] the [EPA] to carry out a study on the relationship between hydraulic fracturing and drinking water, using a credible approach that relies on the best available science, as well as independent sources of information . . . to be conducted through a transparent, peer-reviewed process that will ensure the validity and accuracy of the data.

The 2004 fracking study would be reopened.

## Conclusion

All eyes are now focused on EPA. In its conceptual model ([http://www.epa.gov/safewater/uic/pdfs/hydrofrac\\_landscape\\_model.pdf](http://www.epa.gov/safewater/uic/pdfs/hydrofrac_landscape_model.pdf)) circulated for public comment, EPA identifies a number of potential transport pathways into groundwater for contaminants that it believes may merit further review: infiltration from natural fractures or fractures created during fracking operations deep in the well; leakage from higher in the well, either during or after operations, due to improper construction, damage, abandonment, etc.; and surface leaching from storage pits and spills. According to industry, there is limited risk from deep injections because the majority of fracking fluids are withdrawn from the well after injection and handled pursuant to state and federal waste management regulations, while what is left is isolated deep underground, separated from drinking water supplies by impermeable strata. Environmental interests argue that more fluid remains underground than industry claims, and that recent incidents show a need for stricter federal oversight; and are urging EPA (over industry objections) to expand the study's scope into air and other impacts. Comments to the EPA's Study Scope were due before September 28, 2010, as described here. ([http://water.epa.gov/type/groundwater/uic/class2/hydraulicfracturing/wells\\_hydroout.cfm](http://water.epa.gov/type/groundwater/uic/class2/hydraulicfracturing/wells_hydroout.cfm))

*For more information about hydraulic fracturing or shale gas development, contact Adam Orford (<http://www.martenlaw.com/lawyers/aorford>) or any member of Marten Law's Energy group. (<http://www.martenlaw.com/practices/energy>)*

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- 24 Greenwire, EPA weighs tougher air pollution rules on drillers (Aug. 5, 2010).
- 25 They have recently received widespread national attention. C. Bateman, A Colossal Fracking Mess (Vanity Fair, June 21, 2010). <http://www.vanityfair.com/business/features/2010/06/fracking-in-pennsylvania-201006>
- 26 Greenwire, Pa. lifts drilling moratorium on state lands to tap Marcellus (July 17, 2008).
- 27 Greenwire, Marcellus boom poses threat to N.Y. reservoirs (July 23, 2008).
- 28 The law must also pass the state's lower legislative body before becoming law. M. Navarro, N.Y. Senate Approves Fracking Moratorium (N.Y. Times, Aug. 4, 2010); <http://green.blogs.nytimes.com/2010/08/04/n-y-senate-approves-fracking-moratorium/>  
E. Honan, New York AG candidates back natgas drilling moratorium (Reuters, Sept. 10, 2010). <http://www.reuters.com/article/idUSN1027557220100910>



*In July 2010 the NAEP Board of Directors had their summer meeting in Pittsburgh. The Western Pennsylvania Chapter of NAEP had a Chapter meeting on Friday, July 16 at the Phipps Conservatory. Kelly Ogrodnik presented to us on the amazing changes being undertaken by the conservatory. We plan to revisit this project over the construction period just to keep the membership informed.*

*Information on the Green Building Alliance in Pittsburgh and information on LEED Certification can be found here: (<http://www.gbapgh.org/resources>). For more information on the Living Building Challenge visit this site (<http://lilbi.org>). Finally, to find more about the Phipps conservatory, here is the main link (<http://phipps.conservatory.org/project-green-heart/index.aspx>)*

*If you have never been to Pittsburgh I encourage you to visit. I spent many years in the area and am amazed by what changes have occurred in that city. Truly, Pittsburgh is one of the most beautiful cities in the US now.*

*Paul B. Looney, CEP, CSE, PWS  
NAEP Newsletter Editor*

## The Green Heart of Pittsburgh Imagines a Building as Efficient as a Flower

Phipps Conservatory and Botanical Gardens, a Victorian steel and glass conservatory located in Pittsburgh, Pennsylvania, has been inviting visitors from around the world to explore the unique ecosystem living within its structure and on its grounds for more than 100 years. In 1893, steel and real estate magnate Henry Phipps constructed Phipps Conservatory as a gift to the City of Pittsburgh with the intent to provide guests with a source of instruction and a place of leisure. Inspired by the City Beautiful movement and originally stocked with tropical plants from the 1893 World's Columbian Exposition in Chicago, the Conservatory has evolved into a model of sustainability and an exhibit space ranked among the nation's top conservatory experiences.

Designed by the New York firm Lord & Burnham, the original Victorian glasshouse cost \$100,000 to build. When it opened, its nine rooms made it the largest and finest conservatory of its kind in the United States. As one of the region's most vibrant and beloved cultural attractions, Phipps is today listed on the National Register of Historic Places. Located amid one of the city's largest historic green spaces, Schenley Park, and adjoining the region's education, research and medical communities, Phipps programs have informed more than 3.5 million visitors since 1993, including attendees from every state and 56 foreign countries. The Phipps programs are aimed mainly to provide the visitor with information about the importance of plants and eco-harmony while providing horticultural education opportunities and a getaway for the casual visitor.

The Conservatory is filled with lush plants from diverse regions, and part of Phipps' mission is to preserve that sensory experience for future generations, both in its greenhouses and in the natural world. By taking action on-site, inspiring visitors to live more eco-friendly lives and supporting sustainability research and outreach programs, Phipps aims to impact how people inter-

act with the world. Through its ever-evolving, interactive displays, the Conservatory allows visitors to learn about sustainable horticulture, conservation, biodiversity and green building design.

Behind the scenes, Phipps is committed to sustainable operations in all of its departments. A focus on organic horticulture and Integrated Pest Management (IPM) are coupled with sustainable plant display gardens, and an historic front lawn that is not irrigated. It gets water by following the environment's natural water cycle, while allowing for overflow car parking on its Alcoa Geoblock® permeable parking system. Inside the conservatory, a sustainable purchasing program focuses on buying locally, recycled and salvaged materials; a comprehensive composting program in the Certified Green Restaurant® includes pre- and post-consumer food composting, while recycling of items includes toxic and hard-to-recycle electronics and durable goods.

An on-site farmers market each Wednesday from June to October fosters Phipps' commitment to locally grown, organic food and land management practices. A dedication to superior indoor air quality ensures that at least 95% of cleaning products are GreenSeal-certified, and paints and sealants that are low- and no-VOC. A recent accolade named Phipps the 15th power purchaser in the non-profit sector of the US Environmental Protection Agency's Green Power Partnership Program following Phipps' investment in a 100% renewable energy offset of campus electricity consumption.

In recent years, Phipps has assumed a leadership position in sustainability for public gardens worldwide with the initiation of a three-phase expansion of its campus. This effort was initiated and led by Executive Director Richard Piacentini. In 2005, the 11,000-square-foot earth sheltered LEED® certified Welcome Center, the first in a public garden, was completed. In 2006,

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## Phipps

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phase two of the project was celebrated with the opening of the Tropical Forest Conservatory, which is the most energy-efficient conservatory in the world. This set a new standard for conservatory building design and operation. The 12,000-square-foot multi-level glasshouse incorporates revolutionary design and the latest eco-technology utilizing earth tubes, massive vents, fogging and a new type of shading system. Through this design, Phipps has essentially been able to eliminate the greenhouse effect in its conservatory buildings.

During the winter season, selective use of insulated glass, energy blankets, root-zone heating, thermal massing and an on-site Solid Oxide Fuel Cell reduce heating costs to one-seventh that of a typical conservatory. Phase two of the project also incorporated the creation of state-of-the-art production greenhouses. These come complete with multiple growing zones, computer-controlled environments, shade cloths, energy blankets and an open-roof system that ensures the interior of the greenhouse is never hotter than the exterior air temperature. It was the opening of the phase two buildings that brought the Phipps slogan, **The Green Heart of Pittsburgh**, to widespread use.

Now, Phipps' ambitious on-site plans enter a third phase with the design and construction of the Center for Sustainable Landscapes (CSL), a building that will exceed LEED® Platinum certification by achieving **Living Building Challenge** certification. In accomplishing the Living Building Challenge (LBC) design standards set forth by the International Living Building Institute (ILBI), the CSL will achieve net zero energy and net zero water by producing all of its own energy on site from renewable resources and treating all of its own water. Serving as a leading environmental education center, horticultural research facility, and administration building, this \$20 million project will set a new standard for green building practices and operations, and will secure, once again, international recognition of Phipps and Pittsburgh.

During the planning stages of this project, Phipps accepted the LBC from the Cascadia chapter of the U.S. Green Building Council. Based in Oregon, Washington, and British Columbia, the Cascadia chapter opens The Living Building Challenge to all projects across the United States, Canada and beyond. The LBC attempts to raise the bar and define a closer measure of true sustainability in the built environment. By accepting this challenge, Phipps plans the Center for Sustainable Landscapes to exceed LEED® Platinum certification (Leadership in Energy and Environmental Design), currently the industry's most recognized certification for green buildings. The LBC process differs from LEED® in that it forgoes optional credits for a series of prerequi-



Figure 1. Artist's Color Rendering of the New Center for Sustainable Landscapes.

sites, otherwise known as imperatives, that all must be adhered to for certification success.

In addition to Phipps' endeavor to achieve LBC certification, the CSL was recently selected by the Sustainable Sites Initiative (SITES©) as a pilot project to test the newly emerged landscape rating system. Initiated through a joint effort of American Society of Landscape Architects, US Botanic Garden and Lady Bird Johnson Wildflower Center, SITES© takes a similar approach to green building as LEED, but with a major focus on landscapes. It is expected to become the international standard for eco-friendly landscape practices.

Through a comprehensive series of sustainable design technologies, the CSL's building and landscape will maximize energy efficiency, provide water and material conservation and exemplify natural beauty. The CSL will serve as a model of sustainability, displaying design strategies that will be technically feasible, commercially viable, and can be replicated by others. Inside the state-of-the-art building, and within its surrounding landscape, Phipps will conduct and disseminate original research to help transform the way people relate to the natural world.

Achieving revolutionary energy and water efficiency began early in the planning with a commitment of an Integrative Design Process. A series of charettes and regular meetings allowed the Pittsburgh and Pennsylvania-based design team [see list at end of article] to strategize solutions together that focused on Phipps' operational needs, building functionality, site, and architectural and engineering systems, all while maximizing efficiency and beauty.

In addition to the design team, community project partners

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## Phipps

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were engaged throughout the process including: Carnegie Mellon University (Center for Building Performance and Diagnostics), Chatham University, University of Pittsburgh (Mascaro Sustainability Initiative), Green Building Alliance and National Energy Technology Laboratory (NETL). Through collaboration with the design team and partners, high performance targets were established that included improved envelope, heating, ventilation and cooling, lighting, power, and water conservation.

Facing due south, the building embraces a passive solar design strategy and a robust building envelope in an effort to provide optimal energy efficiency and achieve an expected reduced annual energy usage of at least 50% in comparison to a traditionally-designed building. In conjunction with southern orientation, high performance, low-e windows provide state-of-the-art solar and thermal control and energy efficiency, while admitting maximum daylight. Light shelves, louvers and overhangs minimize summer cooling loads and contribute to building heating in winter, while translucent window shades reduce nighttime heat losses. Windows will be a combination of manual and computer-controlled to allow the building occupants to gain a sense of connection with both the outdoors and the environment inside. By allowing for natural ventilation at mild-temperature and low-humidity times, energy needs of the building will be reduced.

The building will operate from a combination of geothermal heating and cooling, a rooftop energy recovery unit, solar photovoltaics (PV) and a vertical axis wind turbine. Twelve ground-source geothermal wells are expected to capture about 70% of the building's heating and cooling energy from the ground's consistent 57°F temperature.

Working in conjunction with a Berner International rooftop energy recovery unit and a Building Management System (BMS), the unit will make use of an economizer cycle that will provide

“free cooling” using outside air when ambient temperatures are cooler and drier than indoor temperatures. That will be done without mechanical refrigeration. A desiccant wheel will use energy that would otherwise be exhausted to pre-treat temperature and moisture in incoming outside air with minimal energy use and without mechanical refrigeration. Reduced moisture levels and humidity control of the air will allow for a higher comfortable indoor temperature setpoint of 78°F.

A vertical axis wind turbine located adjacent to the rooftop energy recovery unit will operate continuously by utilizing the unit's exhaust. Additional energy production will be gained from a 120kW solar photovoltaic (PV) system mounted in several locations, including the roof of the adjacent Buildings & Ground facilities building and upper campus buildings. Any excess energy generated will serve the upper campus electricity needs within the conservatory buildings. BMS meters and sensors located throughout the building and energy systems will collect and report on renewable energy generation, allowing for real-time monitoring and public education opportunities. This information will be vital to achieving Living Building Certification, as one year's data must be gathered, reported and reviewed before certification can be awarded.

Sustainable and salvaged materials will be used throughout the building, including wood for the exterior obtained from deconstructed Pennsylvania barns. A strict ‘Red List’ limits the incorporation of materials with toxic ingredients and by travel distance. The materials selection process was highly refined to ensure compliance with the ‘Red List’ and distance prerequisites. These steps led to materials that are locally produced, contain no-VOC or formaldehyde toxicity, high recycled content, and highly durable material with long service lives and ease-of-maintenance. Furthermore, construction waste will be diverted from landfills through efficient site design, recycling and reuse.

The Center for Sustainable Landscapes will interact with its surrounding landscape as a vital part of its existence. The design aims to restore natural landscape function, provide wildlife habitat, and offer educational opportunity, while also cleaning and supplying the building with all water necessary for operation. Drinking water will be brought in from the municipal system – a requirement of the Allegheny County Health Department. The impact on municipal sewage treatment and energy-intensive potable water systems will be greatly reduced through the capturing of all stormwater from the lower site. Two 1,700 gallon underground cisterns will store enough water to allow for use in toilet flushing, interior green wall irrigation and facility maintenance.

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## Phipps

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A lagoon system will capture stormwater runoff from the CSL site and roof, the maintenance building roof, and overflow from the underground cisterns. The system replicates a natural wetland or marsh water treatment process, allowing for a 7-step process where plants and symbiotic root microbes absorb organic and mineral nutrients, processing water to tertiary non-potable standards. Post-treatment lagoon overflow will be permeated naturally into the landscape through a series of infiltration systems.

All sanitary water from CSL and adjacent maintenance building will be treated with a subsurface flow 2-stage wetland treatment cell system. Sand filtration will provide additional treatment of the wetland effluent while an ultraviolet process will disinfect water to gray water standards. Most of this water will be reused to flush toilets. Any residual water will be disposed through evapo-transpiration using a Sundrive® greenhouse system.

The sustainable landscape will feature all native, non-invasive plants that will make use of rain water as irrigation, ensuring that no additional irrigation need be installed. A walking trail and boardwalk will lead through a variety of landscape communities including wetland, rain garden, water's edge, shade garden, low-land hardwood slope, successional slope, oak woodland and upland groves.

An extensive green roof design will outfit the third floor of the building, which is located at the same elevation as the Tropical Forest terrace on the upper campus. Demonstration green roof gardens for residential applications will feature edible and ornamental plants, with a focus on urban locations. The system will aid in reducing the volume of stormwater and pollutants while also insulating the building to reduce HVAC needs, and reducing the heat island effect. It will also provide for a space for events such as weddings, meetings or corporate events so the general public will be able to experience this advanced technological cam-

pus. Permeable asphalt, unit pavers and stone paving, as well as a series of rain gardens and bioswales will capture overflow and serve as residential-scale stormwater demonstrations.

Upon its opening, the CSL will be one of the greenest buildings in the world, a model for sustainability in the urban cityscape and a prototype for a new style of residential and work environments that will interact with the environment in a new, mutually-beneficial way. By showcasing the architectural design and engineering talent of Pittsburgh and Pennsylvania firms, the CSL will further secure the region's leading role in sustainable innovation and advancements in the green building movement worldwide.

With the bid review process now underway, Phipps expects to commence construction on the CSL in late 2010. For more information on Phipps and its programs, visit [www.phipps.conservatory.org](http://www.phipps.conservatory.org)

### Center for Sustainable Landscape's Pittsburgh and Pennsylvania Based Design Team

- The Design Alliance Architects; Architecture, Pittsburgh
- Andropogon; Landscape Architecture, Philadelphia
- Atlantic Engineering Services; Structural Engineering, Pittsburgh
- Civil & Environmental Consultants, Inc. (CEC); Civil Engineering, Pittsburgh
- Evolve, LLC; LEED Certification, Pittsburgh
- Indevco; Owner Representative, Pittsburgh
- H.F. Lenz; Commissioning, Johnstown
- Massaro Corporation; Pre-Construction Manager, Pittsburgh
- Maya Design; Interpretation, Pittsburgh
- Pitchford Diversified; Enhanced Commissioning, Butler
- 7group, LLC; Energy, Daylight and Materials Consultants, Kutztown
- Sundrive, Inc. Ottsville



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*Kelly Ogradnik is the sustainable design and programs manager at Phipps Conservatory and Botanical Gardens in Pittsburgh, Pennsylvania. Kelly manages the development and implementation of sustainable programs on Phipps' campus and serves as a sustainable landscape design consultant within the community. Kelly holds a Master of Landscape Architecture from Chatham University and a Bachelor of Science from The Pennsylvania State University in Environmental and Renewable Resource Economics. She is also a LEED™ accredited professional.*



## About This Issue

As THE Association of Environmental Professionals, NAEP believes that this is the perfect vehicle for publication of great technical articles and a place for professional discourse about the important environmental issues facing us nationally and internationally. The ENews is an important value added to membership and a way for non members to understand the importance of associating as fellow professionals.

This particular issue of the ENews contains some of the first of many planned articles on the Deepwater Horizon Incident. The incident impacted the Gulf Coast region greatly. The incident and how it was addressed also brought some important environmental questions to light. Environmental Professionals are still in the process of finding answers to many of the more complex issues. In an effort to provide you with good information, multiple perspectives and other resources, in addition to the article in this issue, we are including links to three newsletters that were published this past summer and fall. They have a Florida perspective, but we are working hard to widen this information source.

### FAEP Beacon newsletter July 2010

<http://data.memberclicks.com/site/naep/FAEPBeaconJuly2010.pdf>

### University of Florida Panhandle Outdoors newsletter Summer 2010

<http://data.memberclicks.com/site/naep/PanhandleOutdoorsSummer2010.pdf>

### University of Florida Panhandle Outdoors newsletter Fall 2010

<http://data.memberclicks.com/site/naep/PanhandleOutdoorsFall2010.pdf>

If you have something to add to this series, please contact me and we will work to get your voice heard.

*Paul B. Looney, CEP, CSE, PWS, NAEP Newsletter Editor, plooney@volkert.com*

*The following article is written by an NAEP member who was fortunate enough to be on-site working on the Deepwater Horizon Incident. Commander Carol Pollio, PhD serves in the US Coast Guard. She is also the Program Director for Environmental Programs at American Public University and American Military University. APU is an on-line university that currently has over 3,000 students in the Environmental Program and 75,000 students overall. The students are located all over the United States and the world. APU is a sponsor for the 2011 Conference in Denver.*

*This first person account provides a great insight and professional attitude; and presents a great counterpoint to the breathless reporting that occurred during the incident. While there are definitely areas where the incident has badly affected environmental resources (we are trying to get articles from Alabama, Mississippi, and Louisiana) it is good to know that the reports of gloom and perpetual doom were due to the need to fill a 24-hour news cycle and not based on science.*

## A Personal Voyage of Discovery on the Deep Water Horizon

*Commander Carol Pollio, PhD*

### Getting to the Spill

The orders recalled me to New Orleans, but I'd been told I could end up anywhere from Houston to Florida. Thus began my assignment to the Gulf Oil Spill. I headed into New Orleans on July 5th, and then on to Mobile, Alabama, on July 7th. The Incident Command Post (ICP) in Mobile was in a small business park. Spending almost a week there was an exciting experience.

The ICP was in a constant state of what resembled Brownian motion. Folks entering and leaving, shuttle buses coming in and

out, and lots of people bustling here and there – and that was just outside the ICP! Sometimes I felt more like a worker bee in a hive.

Being inside the ICP was really an amazing experience. There were several hundred folks there – most wearing color-coded vests with inserts showing their Incident Command System position – nearly all of them talking at the same time. What most impressed me was how each person would have probably 30 or more mini-meetings per day – many just a few sentences long — and (often) make major decisions as a result of those condensed briefings.

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Beach cleaning operations go on behind a Warning Sign on a Florida beach in Escambia County.

## Oil Spill

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My first assignment was to be an assistant to the USCG Planning Chief at ICP Mobile. My day began at 6:30 a.m. and typically ended at 7:00 p.m. or later. The day was filled with meetings, briefings, and gathering information for the Coast Guard Planning Chief. There was also a BP Planning Chief on site and working together with the USCG out of the same office.

The general impression in the ICP was that BP was making every effort to make this situation right. I heard their honest and upbeat optimism that the cap would work, when it couldn't be expressed outright to the media. I witnessed them strategize on different approaches and I worked side-by-side with their staff, who were dedicated and thoughtful people. It was a great experience to be on the inside – very different from my previous years as a wildland firefighter, where I was always the “grunt” in the Incident Command System organization! While I spent only a few hectic days in Mobile, I was very happy to hear that my ‘permanent’ assignment had been determined – Liaison Officer to Santa Rosa County, Florida.

### Day-to-Day Responsibilities

The first thing I wanted to see when I reached the field in the Florida Panhandle was the oil on the beach that was being reported. Part of my familiarization tour included Ft. Pickens, Navarre Beach, and Pensacola Pass. The Ft. Pickens area had been hit with oil in early June, but once the weather changed, the oil was pushed back out to sea. Since that time, the area experienced mostly tarballs – small, thumbnail sized chocolate colored pieces of sand and oil, with a consistency of peanut butter. Fortunately, the tarballs were scattered along the shoreline and easy to clean up.

Crews composed of previously unemployed local residents swarmed the beaches every day, removing every trace of oil. Typically, there were two 10-hour shifts of cleanup workers. During August, when the heat index exceeded 105 degrees, they began using night crews for cleanup. I saw night crews working with headlamps on Pensacola Beach while I was there. Overall, the beaches of Florida were very clean.

I was not able to visit Alabama or Louisiana, but I heard that they were not so fortunate. AL and LA experienced much more oil, but also had the equipment and resources needed to actively work to clean it up.

The long-term effects of this incident are yet to be determined, but the response to the spill was outstanding. For example, when I arrived in the Gulf there were more than 40,000 responders working on the spill. That alone was unprecedented.

### The Challenges of Being a Liaison Officer

As a Liaison Officer, I was assigned to facilitate response operations in Santa Rosa County, Florida. Stationed at the Santa Rosa County Emergency Operations Center (EOC), I worked with county and local officials and community leaders on a daily basis to keep the lines of communication open. My day was filled with meetings, briefings, and conference calls. Most days I also found time to visit “my” beaches and check-in with the beach cleanup crews, surveillance teams, and site safety officers. Two nights per week I briefed the Assistant Secretary of the Department of Homeland Security on issues in my area of responsibility – in this case, Santa Rosa County. Most of what I did was try to make things work and help make everyone happy, or at least satisfied that we were doing all that we could to respond to the emergency.

The hardest part of my job and the most important, by far, was simply listening. There are many impacts of disaster, but often people forget about the social, economic, and emotional toll these events have on area residents. Being able to provide a sounding board for people's frustration can be challenging and it must be done with sincerity and respect for each situation and individual. Sometimes, this can be difficult, because emotions are high and you may be the first person to bear the brunt of their anger. I read once that all anger is an outward expression of fear. That certainly has proven to be true in my experience, especially in disasters like this one, where we may not know the full extent of the damage for some time. This was (and is) definitely true in the Gulf.

One of the most persistent rumors in the Florida Panhandle

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## Oil Spill

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was that of “undersea oil”. Many believed that there were rivers or lakes of oil on the bottom of the Gulf or still in the water column, waiting to “bubble up” and wash ashore. I know that this rumor caused fear and apprehension, because I was asked this question every day. While in the Gulf, I had briefings by scientists that indicated such a behavior in oil of this type would be highly unlikely and they had never seen it happen.

On the other hand, I am a field biologist and know that the behavior and fate of contaminants does not work the same way in the field it does in the lab. While working on my dissertation, for example, I found leopard frogs showing great resistance to high levels of zinc in the field, while most had perished when exposed in the lab. So the only answer I could provide people was that of a scientist – I don’t believe that this light oil would behave that way, but I certainly couldn’t rule it out, either. I could only hope (and express to the person asking) that the rumor was false. Dealing with rumors, anger, and fear was by far the greatest challenge of my position as Liaison Officer.



Pelican statue (USCG) in downtown Pensacola, Florida.

### **Humor – Sometimes It’s the Best Medicine**

The best part of my job was working with people. To be a Liaison Officer, you absolutely must like working with people!

I am a strong believer that humor, applied appropriately, can go a long way toward comforting people and building relationships. There were some funny stories I heard in the Gulf, and I used those stories to get a laugh here and there, and to break down some of the barriers I encountered during my assignment.

In talking with the oiled wildlife call dispatcher, I learned that someone had called in several downtown Pensacola pelican statues as oiled birds at least three times. (I guess that’s like the old phone prank line, “Is your refrigerator running?...Then you better get out there and catch it!”) Another smile came when I saw local businesses advertising ice cream with “tarball topping” or “Damn the tarballs, we’re still diving!” posted at a scuba diving shop — it showed the humor and also the resilience of the folks down there. One thing you can definitely say about Floridians — they are survivors!

### **Rumor Control**

As the visible oil diminished over time, my job as Liaison Officer definitely changed. I began to spend most of my time doing “rumor control” – allaying fears of phantom oil and assessing the socioeconomic impacts of the spill. I spent a lot less time on operational issues and political conflicts. Some of the most



CDR Carol A. Pollio in front of the State of Florida Emergency Operations Mobile Command Center, Bayou Chico, Florida.

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## 2011 Annual Conference

Denver, Colorado • April 26-29, 2011

**W**e have confirmed all our keynote speakers for the April conference, both Symposiums are coming together nicely, and the conference session schedule is full and confirmed. Registration is now open and available online. Check out our website where all the latest information is available: [www.naep.org](http://www.naep.org).

### Keynote Speakers:

#### **Tom Cech (Wednesday, April 27)**

University of Northern Colorado

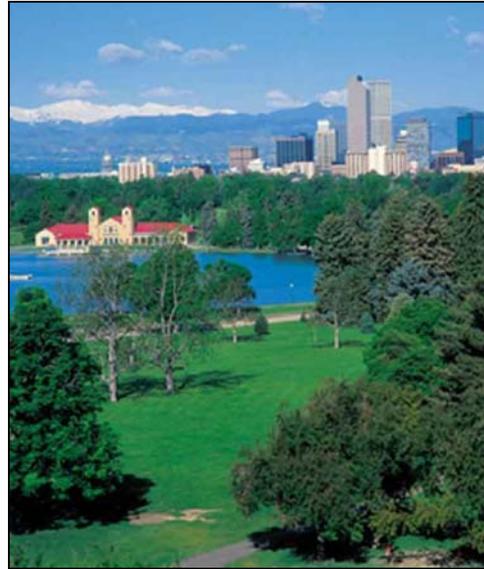
Tom Cech was born and raised on a farm near Clarkson, Nebraska. He graduated from Kearney State College with a Bachelor of Science Degree in Math Education, and later received a Masters Degree in Community and Regional Planning from the University of Nebraska – Lincoln. He has been Executive Director of the Central Colorado Water Conservancy District in Greeley since 1982.

Tom has been an adjunct professor at the University of Northern Colorado in the Earth Science Department where he developed materials for “Principles of Water Resources” published by John Wiley & Sons. He is currently an Affiliated Faculty member in the Department of Forest, Rangeland, and Watershed Stewardship at Colorado State University in Fort Collins. Tom also recently published “Introduction to Water Resources and Environmental Issues” with Cambridge University Press, and “Colorado Water Law for Non-Lawyers” with the University Press of Colorado.

#### **Jim Evanoff (Wednesday, April 27)**

Yellowstone National Park

Jim has been with the National Park Service for the past 29 years. His career has involved working in four other National Parks before coming to Yellowstone in 1988. Starting in Curecanti National Recreation area, Colorado, Jim was instrumental in developing the infrastructure for this newly acquired Park unit. Next he moved to Grand Teton National Park and was responsible for preservation of over 100 historic structures within the park. After working there for 3 years, Jim transferred to Arches National Park in southern Utah. The next move was to



Mt. Rushmore in the Black Hills of South Dakota, where his responsibilities included the preservation maintenance of the famous four faces. Currently in Yellowstone, Jim is the Environmental Protection Specialist for the Park. His work experiences have varied from assisting in wolf reintroduction to spearheading many of the

Park’s “greening initiatives.” Jim manages many of Yellowstone’s environmental programs and provides guidance to other national parks for achieving sound environmental stewardship. He holds a Bachelor of Science degree from the University of Wisconsin.

#### **Tseming Yang (Thursday, April 28)**

Deputy General Counsel International Affairs, USEPA

President Obama has appointed Professor Tseming Yang, director of Vermont Law School’s U.S.-China Partnership for Environmental Law, to serve as deputy general counsel for international affairs of the U.S. Environmental Protection Agency. He will be on a leave of absence from Vermont Law School during his time at the EPA.

From 2007-2010, he served as director of the U.S. AID-funded Vermont Law School/Sun Yat-sen University Partnership for Environmental Law in China. Professor Yang’s research and teaching focus on US and international environmental law, including environmental justice, global climate change and China’s environmental laws. From 1998 to 2003, he served as a member of EPA’s National Environmental Justice Advisory Council and chaired the International Subcommittee.



## Conference

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### **Stan Rogers (Thursday, April 28)**

*Headquarters Air Force Command*

Stan Rogers is the Command Environmental Conservation Program Manager at Headquarters Air Force Space Command, Colorado Springs, Colorado. In addition to administering Natural and Cultural Resources programs, he is responsible for Space Command's overseas Environmental Programs and Integrated Pest Management Programs. His programs span across 33 installations in the Continental United States, Hawai'i, Alaska, Puerto Rico, and overseas locations including Greenland, Antigua, and Ascension Island. In addition to his role at Space Command, Mr Rogers serves as the Air Force's Conservation Law Enforcement Program Manager coordinating training and law enforcement operations for over 60 Federal conservation law enforcement officers across the U.S.

Prior to arriving at Headquarters Space Command in 1999, He was the Base Natural Resources Program Manager and NEPA Coordinator at Shaw Air Force Base and Poinsett Range, South Carolina and was responsible for fisheries and wildlife management, protection of threatened and endangered species and conservation of sensitive habitats and wetlands. Before working for the Air Force, Stan was a wildlife management and forestry consultant in the Carolinas and Georgia assisting private and commercial landowners. He also worked as a biological technician with the South Carolina Department of Natural Resources and Clemson University accomplishing Black bear research in the Upstate of South Carolina. Stan is a graduate of Clemson University with a Bachelor of Science in Aquaculture, Fisheries, and Wildlife Biology.

### **Chris Dionigi (Friday, April 29)**

*National Invasive Species Council*

Chris Dionigi has served as the Assistant Director for Domestic Policy for National Invasive Species Council (NISC) since 2000. His work covers the full range of topics addressed by NISC with a particular emphasis on the early detection of invasions, eradication of localized infestations, and the control of widespread invasive species. Prior to joining NISC, he was a USDA legislative fellow on the U.S. Senate Committee for Agriculture where he worked on Clean Water Act and invasive species issues. Chris was a Research Plant Physiologist for the U.S. Department of Agriculture's Agricultural Research Service (ARS) where he led an aquaculture/aquatics research program and authored over 20 peer-reviewed scientific manuscripts. He holds a Ph.D. in Crop Science (emphasis in Weed Science), and Master of Science and Bachelor of Arts degrees in Biology. Chris is a third generation native of Colorado.

## 4 Hot Topic Breakfasts (all on Friday April 29):

### **Oil Spill Crisis Communication**

No one was well served by the handling of the communications of the most severe environmental crisis of our time. (The italics are mine but based on the White House's assessment.) As a professional who has handled crisis communications and management for more than 35-years, this presentation provides a communicator's analysis and opinion of how all parties failed in a time of a national crisis. It looks at what went wrong (and in some rare occasions what went right); documents why based on my experience all parties in the communications stream failed to properly inform and educate; articulates the lessons learned to ensure that future crises provides valuable environmental information and education to the public; and provides specific recommendations on what we must do if we are to effectively communicate future environmental crises so that we are educating and enlightening the public instead of scaring them needlessly.

### **Sustainability – Applied Best Practices in Technology and Implementation**

P2 needs a branding makeover. Pollution Prevention is simply not getting the job done for sustainability. Shrinking government agency budgets have reduced or eliminated programming and outreach efforts. Economic uncertainty compounds the problem and all but eliminates any capital investments that do not deliver a payback of 2 years or less. Sustainability is at a crossroads while cash continues to remain King. By now, most if not all the low hanging fruit has been plucked or harvested. Green 101 has been implemented and exhausted. Time is of the essence. Lead, follow or step out of the way. During this highly interactive discussion, participants will learn how a small business partnered with their regional EPA office and state P2 program on a "Lean & Green" event that delivered:- \$100,000 in annual saving,- Reduced annual electricity consumption by 35% (and 7 tons of coal),- 31,000 lbs of CO2- 28,800 lbs of waste to landfill eliminated- 6,000 lbs of packaging materials used in products eliminated ,- 70,000 pages of paper reduced annually,- 80,000 pages of paper converted to 100% recycled,- 19 trees saved,- Increased shipping capacity by 50% Participants will learn 3 techniques to engage all stakeholders on the journey to Lean and Green and build a culture of continuous improvement. For those in industry we hope those who have not yet started on their Lean journey will learn how to start. For those in the public sector they will learn that even in

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## Conference

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tight budget situations, building a lean culture is less about money and more about leading effective change and learn from states who are leading lean and green in other organizations. For lean practitioners overall they will learn how to build a highly successful model for Lean collaboration and learning, which can be replicated with excellent results.

### **Body of Knowledge for Environmental Professionals**

To be considered environmental professionals, we all must understand a broad range of scientific, social, and environmental concepts, terms, and principles. We also must be able to access and understand a large amount of useful, accurate, and current information if we are to carry out our activities effectively and professionally. What concepts must be understood? Where can relevant information be obtained? The Academy of Board Certified Environmental Professionals is a professional association whose mission is to confer the Certified Environmental Professional credential to meritorious environmental professionals found to meet exemplary standards of ethics and technical practice. The process used by this Academy to certify environmental professionals is accredited by the Council of Engineering & Scientific Specialty Boards. This board requires that the Academy use procedures that assure relevance of the knowledge, skills, and abilities that define the body of knowledge of the certification scope. According to Wikipedia, a “Body of Knowledge” is a “complete set of concepts, terms and activities that make up a professional domain, as defined by the relevant professional association.” Therefore, in response to this requirement, the Academy has taken steps to define the environmental professionals’ Body of Knowledge. A panel of experts will be assembled who represent expertise in five areas in which an environmental professional might practice: Environmental Assessment, Environmental Documentation, Environmental Operations, Environmental Planning, and Environmental Research and Education. Each expert will describe the updated body of knowledge identified by the Academy, the inputs received from its survey of members in 2010, and the process being undertaken to make this information more useful and complete. Input from the audience will be sought. Discussions will consider the best methods for reporting the information assembled. The objective of these proceedings is to advance the cause of maintaining a body of knowledge that will help both new environmental professionals develop their skills, and experienced professionals access information that is needed to carry out activities in this field.

### **Emerging Trends in Environmental Justice**

Nationally, more and more tolled roadways are being evaluated, proposed, and built as state transportation departments (DOTs) work to provide sound funding sources for needed transportation infrastructure. Tolling scenarios range from traditional toll roads and toll bridges where all lanes of a highway are tolled, to congestion management approaches such as high occupancy toll lanes (HOT lanes) and other pricing structures. Not surprisingly these proposed facilities have generated many questions for the Federal Highway Administration and state DOTs as they figure out how possible effects to low-income and minority populations should be evaluated under NEPA and what constitutes an effect. Transportation agencies are not the only agencies wrestling with how to implement Executive Order 12898. In fact, a cabinet-level working group on environmental justice has recently been reinstated to review and update strategies for addressing disproportionate environmental impacts on poor, minority, or tribal communities. This presentation will focus on emerging trends in environmental justice analysis as it pertains to proposed highway tolling projects. Specifically, this presentation will collect and summarize recent environmental studies on proposed tolling projects in different states to see how different DOTs are approaching the question of does paying a toll have disproportionately high and adverse effect to low-income highway users. For example, the environmental justice finding for the SR 520: I-5 to Medina Bridge Replacement and HOV Project determined that tolling all lanes on the SR 520 bridge would result in a disproportionately high and adverse effect to low-income populations because the toll (regardless of the price) would represent a higher percentage of a low-income persons income (WSDOT et al 2010). This finding brings up obvious questions for all transportation NEPA practitioners. The intent of this presentation will be to provide information on other environmental justice determinations to help inform continued dialogue on this emerging topic. Reference Washington State Department of Transportation and US DOT Federal Highway Administration. 2010. SR 520, I-5 to Medina: Bridge Replacement and HOV Project Supplemental Draft EIS and Section 4(f)/6(f) Evaluation.

It’s going to be a great conference, full of interesting topics and the latest information. Please consider if your company would benefit by participating as an exhibitor or sponsor. Contact Donna Carter at [naepfl@verizon.net](mailto:naepfl@verizon.net) for more information, or it is also available on the website [www.naep.org](http://www.naep.org).



## 2011 Awards Committee Status Report

I am surprised each year by the quality of the nominations we receive and the enthusiastic participation of each award winner in the Conference proceedings. Such participation adds an important element to the success of each Conference. The short, two to three award presentations at a luncheon seems to work well, highlighting accomplishments without too much detail or lengthy description.

From my perspective, the presentation of awards at the Atlanta Conference moved along and seemed to be well received by the Awardees and Conference attendees. The technical sessions were well attended and very informative. The technical session remains a very good venue to learn of each award-winning project in more detail. The people that I spoke to who presented or participated in the technical sessions seemed enthusiastic and appreciative of the opportunity.

The Award Committee consistently does an exemplary job in the timely review and rating of all nominations, those for the 2010 Atlanta Conference as well as past Conferences. We should acknowledge the fine work these folks have done over the years. The Awards Committee is:

**Nick Stas**

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**Connie E. Chitwood**

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In discussion with Donna Carter, it was agreed that the target date for award nominations is September 30, 2010. We later moved this date to December 1, 2010 due to the low number of nominations on hand. We now have 27 nominations. Note the list of nominations has 27 nominations one of those is a letter of recommendation and one on the list actually contains two nominations. The Award Committee is to complete their review of nominations by the middle of January, 2011. Hopefully, we will

have sufficient information on hand for the Conference planning group to complete their work for scheduling award presentation and technical session scheduling.

In years past, there is a rush of applications on or a week or two after the due date. The same things took place this year as well. I believe with the help from Tim and Abby we will make significant improvements and avoid the last minute press of scheduling award presentations and technical sessions and any miscommunications among award winners and nominees.

*Robert S. Cunningham, Award Committee Chair*

## Oil Spill

*Continued from page 13*

persistent and challenging rumors had to do with dispersant use, the fate of the oil, and subsurface oil. In addition, there were many conspiracy theories being tossed around.

There was a great deal of fear that dispersants used to treat the oil spill are or will turn out to be a threat to public health and the environment. It is certainly true that dispersants have never been used under the water's surface to disperse oil near the source, as was done in the Gulf. One mystery was several reports we received that a boat was seen spraying a clear liquid on the water in the Gulf (presumably spraying dispersant). Like many of the rumors we heard, no one was able to find the mystery vessel. Likewise, reports of dispersant "pools" being found inside Pensacola Bay near Gulf Breeze, Florida, were investigated, turning out to be algae instead. It made for some busy (and at times a bit crazy) days trying to track down so many dispersant-related reports. To date, none have been founded, but all had to be checked out, just in case there was any truth to the reports.

Recently, figures were released by the Deep Water Horizon Incident Command that showed 75% of the oil product spilling from the Deepwater Horizon rig had been collected and accounted for — the remaining 25% had been (according to official reports) degraded and then disintegrated by wind, water, and sunlight.

This, was not believed by most people I encountered in the Pensacola area. Instead, we received reports of oil — from the US Army Corps of Engineers saying a core sample they were drilling came up with oil in it (it was decaying organic matter, a very different thing — and smell!) to reports of oil discovered in Pensacola Pass (it was sargassum, a type of seaweed). Many in the Community were convinced that despite the constant overflights and reconnaissance missions that found no skimmable oil, there still remained thousands of barrels of oil undetected.

A recent CNN report featured local university professors and

*Continued on page 18*



## Oil Spill

*Continued from page 17*

scientists stating that there is oil remaining on the bottom of the ocean in the DeSoto Canyon. True? I am not sure.

As a scientist myself, I agree that there could still be microscopic oil and possibly even submerged oil there, but I would like to see the data. One significant benefit of the spill, if there is one, is that the Gulf of Mexico will be the most studied ecosystem in coming years. At this time, there are more research vessels in the Gulf than ever. We will know more about the science of oil behavior (at least this particular type of product) than we have ever known. But we also should not forget, though, that natural fissures in the ocean floor leak oil into the Gulf of Mexico daily. During the response and study of the remaining oil, a new species of oil-eating bacteria was discovered that digested oil and did not contribute to the dissolved oxygen depletion that had been feared. There are at least 40 known bacteria that digest oil in their daily diet, which were being credited with some of the disappearance of the oil from the ecosystem. Many of these bacteria are present in the Gulf because of the natural fissures leaking oil mentioned earlier.

There certainly were small patches of ‘sand-entrained oil’ here and there (and continue to be, to this day), and occasional large tar mats have washed ashore. There still is oil beneath the sand

on some beaches in the Florida panhandle, and efforts continue to remove it. Specially-designed equipment, called “sand sharks” (mechanized beach cleaning machines) are being used to remove tarballs up to 18 inches below the surface. At some point, though, the tarballs will be weathered and disintegrate completely.

The situation in Alabama, Mississippi, and Louisiana is likely different — I can only speak for Florida and my experience there. It will be interesting to see what the research tells us and how it helps us better prepare for and deal with oil spills in the future. As a scientist, although there was limited impact of the oil in Florida, how the Gulf will fare as time goes on will still be a source of education for me. That said, the long-term impact of the oil spill on both the environment and public health will be an ongoing topic of research and discussion for many years.

*Dr. Carol A. Pollio has been a member of the US Coast Guard Reserve for the past 27 years and has attained the rank of Commander. She is the Program Director for the Environmental Studies Program at American Public University and American Military University, and has worked for the Department of Interior as a Biologist for the past 33 years. She was called to Active Duty by the US Coast Guard to respond to the Gulf Oil Spill from July through September, 2010.*

## Two Great Members Only Resources Just Added to the Website

### NEPA Annual Report Now Available Online to NAEP Members

In April 2010, the NEPA Working Group published the third National Association of Environmental Professionals (NAEP) National Environmental Policy Act (NEPA) Working Group Annual Report. The report provided a summary of activities conducted by the NEPA Working Group and of major NEPA-related issues during 2009. Of particular note for 2009 was passage and implementation of the American Revitalization and Recovery Act, also known as “the stimulus act,” which infused a great deal of Federal funding into projects. Our report brought together the activities of the NEPA Working Group with a retrospective view of NEPA documentation, regulation and court case summaries from 2009. Commentary considered the relationship between ARRA and the NEPA process.

### NAEP Energy and Environmental Policy Report July 2010

Each quarter, the Energy and Environmental Policy Committee prepares a Policy Report, for review by the NAEP Board of Directors. The intention of the reports is

to highlight current events and proposed legislation in the areas of energy and environmental policy for use by NAEP members. Our July Energy and Environmental Committee Policy Report is now available to NAEP membership in the Members Only section. July’s policy report focuses on energy, air quality, climate change, and transportation. Our thanks to Dr. John Perkins, Steve Gerritson, Casey Carlton, Stephanie Miller, and Jeff Vlach for their contributions to the report.

### Please also remember:

### NAEP Environmental Practice - Available Online

The September 2010 issue of Environmental Practice, the official NAEP journal, is now available online through the Members Only section of the NAEP website. This is a great members-only benefit since members have access to the current and many past issues of the journal.

To access the online journal go to the Quick Links section and you will see “Environmental Practice Online”. Please click it and follow through to the Cambridge University website.

For more information on how to access these benefits or how to become a member of NAEP please contact Abby Murray at [naepmbrsvcs@naep.org](mailto:naepmbrsvcs@naep.org) or by phone at 856-470-4521.



## Energy and Environmental Policy Committee

The Energy and Environmental Policy Committee is excited to announce a new subcommittee, Peak Oil, which will be chaired by Charles Eccleston and vice-chair, David Keys, CEP. The mission of this committee is to study peak oil issues, educate the NAEP membership and public, and analyze alternatives to objectively evaluate and compare strategic environmental implications of various strategies. The objectives of the subcommittee are to:

- Draw on all available expertise of NAEP practitioners in analyzing peak oil policy issues to identify and recommend methods and approaches for addressing direct, indirect, and cumulative impacts of peak oil.
- Educate environmental professionals and members of the public about the ramifications of peak oil.
- Establish or reinforce technical channels with the U.S. Environmental Protection Agency, the Council on Environmental Quality, non-governmental organizations, and institutions of higher learning to aid in information sharing concerning peak oil strategies.

The following link provides an introduction to the issue of peak oil and its socioeconomic ramifications on modern society. This is a preprint of an article published by Charles Eccleston in the Journal of Environmental Quality Management, Spring, located Wiley URL: <http://www.interscience.Wiley.com/>. Please use this link to access the article ([http://data.memberclicks.com/site/naep/Peak%20Oil\\_Spr\\_08\\_Eccleston%5B1%5D.pdf](http://data.memberclicks.com/site/naep/Peak%20Oil_Spr_08_Eccleston%5B1%5D.pdf)).

If you are interested in finding out more about the Peak Oil Subcommittee, please contact Charles Eccleston, email: [env\\_planing@msn.com](mailto:env_planing@msn.com) or David Keys, email: [david.keys@noaa.gov](mailto:david.keys@noaa.gov)

Our July 2010 and October 2010 Energy and Environmental Committee Policy Reports will soon be available to NAEP membership. NAEP will be posting links to these reports on the Committee's webpage, which can be accessed from the organization's homepage at: [www.naep.org](http://www.naep.org) Each quarter, the Energy and Environmental Policy Committee prepares a Policy Report, for review by the NAEP Board of Directors. The intention of the reports is to highlight current events and proposed legislation in the area of energy and environmental policy for use by NAEP members. Thank you to Drs. John Gerritson and Thomas Cuba, and Mr. Steve Gerritson for the preparation of an informational and educational paper on cap and trade. This paper will also be posted on the Committee webpage for those interested NAEP members.

## Open for Business – Spread the Word

### An Invitation from Your Sustainable Systems Working Group

*By Don Sayre, Chair*

The Sustainable Systems Working Group is OPEN FOR MEMBERSHIP. You are invited to add your passion and your talents to the mix so the NAEP becomes the environmental professional's blend of choice for sustainable practices and sustainable development.

We are defining sustainability on a global basis and ways to develop sustainability at the local and personal level. What sustainable means to one individual can be a far cry from what sustainable means to another. The NAEP's Sustainable Systems Working Group wants to be the best source of information for

anyone to go to for insight and direction. We also want to emphasize how to achieve sustainability through implementation of procedures that address the requirements of the National Environmental Protection Act (NEPA).

What's it take to join? Simple. Send an email to the Chair <[donsayre@gmail.com](mailto:donsayre@gmail.com)>. You're invited to include your ideas on how to define sustainability. In fact, the Sustainable Systems Working Group has a writing project underway, "Sustainable as Wisdom," a book of collected ideas on defining sustainable and sustainability. Add it to your resume and C.V.

Time to get some traction and increase recognition of the NAEP Sustainable Systems Working Group in the US and abroad. It looks like 2011 is the perfect time to approach the President's Council on Environmental Quality and the new Federal Environmental Executive with our definitions and guidance and our approach to implementing NEPA for sustainable development and development of sustainability as a national and international imperative.



## New Peak Oil Committee

The National Association of Environmental Professionals (NAEP) now has a Peak Oil Committee chaired by Charles Eccleston and vice-chaired by David Keys, CEP. They are seeking new members who want to actively participate in this exciting policy arena. If you are interested in becoming a member of the Peak Oil Committee please contact either Charles at [env\\_planning@msn.com](mailto:env_planning@msn.com) or David at [davidkeys8@aol.com](mailto:davidkeys8@aol.com) or (727) 510-6021.

Oil, as well as other resources, will eventually peak. It is just a question of when and how prepared, or unprepared, we will be.

The US Department of Energy requested Dr. Robert L. Hirsch et. al. to prepare a report on the potential impacts of a geological phenomena known as Peak Oil (or Hubbert's Peak). The report, *Peaking of World Oil Production: Impacts, Mitigation, and Risk Management* (also widely known as the Hirsch Report — <http://data.memberclicks.com/site/naep/PeakingofWorldOilProductionDOEreportFeb2005.pdf>) was issued by Department of Energy in February 2005. The report's authors surveyed a range of forecasts from optimists and pessimists alike, which project a global peaking date ranging anywhere from 2005 to 2037.

The report's Executive Summary begins with the following paragraph:

The peaking of world oil production presents the U.S. and the world with an unprecedented risk management problem. As

peaking is approached, liquid fuel prices and price volatility will increase dramatically, and, without timely mitigation, the economic, social, and political costs will be unprecedented. Viable mitigation options exist on both the supply and demand sides, but to have substantial impact, they must be initiated more than a decade in advance of peaking.

The objectives of the Peak Oil Committee are to:

1. Draw on all available expertise of NAEP practitioners in analyzing Peak Oil policy issues to identify and recommend methods and approaches for addressing direct, indirect, and cumulative impacts of Peak Oil.
2. Educate environmental professionals and members of the public about the ramifications of peak oil.
3. Update the NAEP membership on a regular basis on the latest Peak Oil studies.
4. Establish or reinforce technical channels with the U.S. Environmental Protection Agency, the Council on Environmental Quality, non-governmental organizations, and institutions of higher learning to aid in information sharing concerning Peak Oil strategies.

The Peak Oil Committee is an interdisciplinary group of experienced environmental professionals that reports to the NAEP Board of Directors and the Environmental and Energy Committee. The mission of this committee is to study Peak Oil issues, educate the NAEP membership and public, and publicize alternatives for mitigating the impacts of peaking.

## FHWA Sustainable Highways Self Assessment Tool

A few months ago the Federal Highway Administration released a beta test version of a sustainability self assessment tool for transportation agencies and highway projects. It is on the web at <http://sustainablehighways.org/> and comments are currently being accepted. This is a valiant effort by the FHWA to tackle a very difficult issue, namely, what is a sustainable project? And more difficult, and perhaps more important, "What is a sustainable transportation system?"

This beta version is open to anyone to use and review. I encourage everyone to take a look, and provide useful feedback.

*F. Yates Oppermann, Environmental Planner, Colorado Department of Transportation  
RMAEP Chapter Representative*

## Announcing NEPA — Free resource available for download

Along with the Environmental Quality Improvement Act and Clean Air Act §309 in ".epub" format — a companion to the NEPA regulations in ".epub" format. Essential statutory references on your iPad, iPhone, iPod Touch ..... or any e-reader that can display a file in ".epub" format. Free download here: <http://web.me.com/olschmidt/NEPA/iBook.html>

*For more information contact: Owen Schmidt, [oschmidt@att.net](mailto:oschmidt@att.net)*



## CEQ Issues Final Guidance on Categorical Exclusions

On December 6, 2010, the White House Council on Environmental Quality (CEQ) published a notice in the Federal Register announcing the final guidance on establishing, applying, and revising Categorical Exclusions (CATEXs) under the National Environmental Policy Act (NEPA). The final guidance is available on the CEQ website at [http://ceq.hss.doe.gov/ceq\\_regulations/NEPA\\_CE\\_Guidance\\_Nov232010.pdf](http://ceq.hss.doe.gov/ceq_regulations/NEPA_CE_Guidance_Nov232010.pdf)

Although the new guidance does not create any new requirements, it documents current CEQ policy and recommendations on CATEXs. The guidance could substantially affect NEPA practitioners that directly or indirectly support agency NEPA programs on the application of CATEXs.

**Establishing/Revising CATEXs.** The final guidance discusses circumstances when agencies might need to revise or establish new CATEXs, such as when missions change, when multiple NEPA reviews find no significant impact from a class of action, and when events or reviews show that a class of action might have significant impacts. In revising or establishing new CATEXs, the guidance reiterates the CEQ recommendation that a CATEX should completely cover the “Category of Activity” and should include representative examples of the type of activities covered by the CATEX. Agencies should also consider whether their existing list of extraordinary circumstances—and procedures for how they are applied—adequately accounts for those situations and settings where additional analysis is warranted.

When revising or establishing new CATEXs, agencies should also include consideration of whether cumulative effects “would cause sufficient environmental impact to take the actions out of the categorically excluded class.” Several potential methods to substantiate a new or revised CATEX is provided, including monitoring of previous actions, impact demonstration projects, benchmarking of other agencies’ experiences, and information from professional staff, expert opinions, and scientific analyses. The final guidance also reiterated the CEQ policy of ensuring the public is afforded an opportunity for input in the CATEX development process.

**Applying CATEXs.** In previous guidance, the CEQ “strongly discourage[d] procedures that would require the preparation of additional paperwork to document that an activity has been categorically excluded.” The new guidance states “each Federal

agency should decide—and update its NEPA implementing procedures and guidance to indicate—whether any of its categorical exclusions warrant preparation of additional documentation.” For activities with little risk of significant environmental effects, such that there is no practical need for, or benefit from, preparing additional documentation – the administrative record for establishing the categorical exclusion and any normal project development documentation may be considered sufficient. In continuing the CEQ’s recent theme of the importance of meaningful public involvement in the NEPA process, the guidelines state that agencies should specify in their procedures when the public should be engaged or notified before a CATEX is used. The guidance also recommends that agency websites include their NEPA procedures, list of CATEXs and applicable extraordinary circumstances, and information on agencies’ use of CATEXs where there is high public interest.

**Periodic Review of Agency CATEXs.** While the current CEQ guidance directs agencies to revise their procedures “as necessary to ensure full compliance with the purposes and provisions of [NEPA]”, the new guidance goes much further and recommends a 7 year cycle for agencies to regularly review their CATEXs for currency and appropriateness. The final guidance states “As part of its oversight role and responsibilities under NEPA, CEQ will contact agencies following the release of this guidance to ascertain the status of their reviews of existing categorical exclusions.”

The CATEX final guidance is the first of three sets of NEPA-related guidance CEQ plans to release. The other two are *NEPA Mitigation and Monitoring*, and *Consideration of the Effects of Climate Change and Greenhouse Gas Emissions*. Both sets of draft guidance are dated February 18, 2010, and are available at the CEQ website at [http://ceq.hss.doe.gov/current\\_developments/new\\_ceq\\_nepa\\_guidance.html](http://ceq.hss.doe.gov/current_developments/new_ceq_nepa_guidance.html). The public comment period on both draft guides has passed.

To keep current on these CEQ guidance documents, you are encouraged to join and participate in the NAEP NEPA Working Group. NEPA Working Group members are leading NEPA professionals from Federal, State and local agencies, industry, and academia. NEPA Working Group activities include a monthly conference call. For more information on the NEPA Working Group, contact Lisa Mahoney (Clark Group), Chair, or Joe Trnka (HDR), Vice Chair.



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Thank you,  
Gary F. Kelman, Chair

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



## Arizona Association of Environmental Professionals Chapter Report

### AZAEP'S 3rd Golf Tourney is a Smashing Success!

The AZAEP 3rd Annual Fundraising Golf Outing, held Friday, November 19 at the Kokopelli Golf Club in beautiful Gilbert, Arizona, was a great success. Over 50 golfers braved a chilly morning start that quickly warmed into a beautiful sunny day with temperatures reaching well into the 70's.

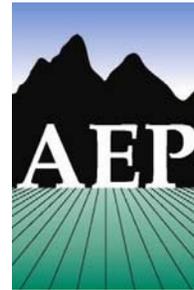
For the last two years, AZAEP focused on putting together the National Association of Environmental Professionals (NAEP) National Conference (held in Scottsdale in April 2009). After successfully pulling that off, we got back to our "grass roots" fundraiser: GOLF!! Despite the number of players being lower than previous years' events, the outing still managed to bring in \$8000 which resulted in a profit of \$4600 for the AZAEP Future Environmental Professional Scholarship fund!

As in previous years, **HDR, Inc.** generously contributed as the Title Sponsor. We also received support from the following firms/companies: **Kimley-Horn and Associates, Logan Simpson**



**Design, Jacobs Engineering, Arrange For a Change, AZTEC Engineering, Ecoplan Associates, and Ritoch-Powell and Associates.** Even our very own **Pat Mariella**, AZAEP newest Board Member, contributed towards the golf outing at the Gold level! Thanks so much to all of our sponsors for their very generous support! We couldn't have done it without you!

With our name back in the limelight, we hope to double our participation and contributions for 2011. The AZAEP Golf Committee sends a hearty "Thanks" to everyone who participated, contributed, and volunteered for this worthy cause, and we hope to see you, and other friendly faces, at the 2011 Tourney!



## California Association of Environmental Professionals Chapter Report

*Submitted by: Roger Turner,  
NAEP California Chapter Representative*

The end of the year is a good time to reflect on what we have achieved as an organization and ponder where we are going in the coming year. We continue to strive for the best in member benefits and develop the very best professional environmental organization for our members. The coming year will present new challenges as we embrace the opportunity to plan our future and think about what we really want to achieve. Today we take positive action, using the lessons of the past to steer a steady course to the destination we have planned for our future. Experience gives us the wisdom to know we will have to be flexible to change course from time to time, but keep the final destination in mind until we arrive.

The AEP Board of Directors has scheduled five meetings in 2011. These meetings are typically face to face, however, one or two of them will be by webcast/conference call giving AEP a big savings. These meetings will be set in convenient locations near airports or rail stops using venues that are inexpensive, possibly using nearby consultant offices. A number of important issues were discussed and action taken.

AEP has a well constructed budget and bookkeeping program (thanks to Mel Willis for all his good on this task). The AEP



## California AEP

*Continued from page 23*

approved its draft 2011 budget with the final approval to take place at the Boards January 8, 2011 meeting. AEP has faced the tough decisions on supporting member benefits and chapter programs working with declining revenues. There have been adjustments in the budget, but the number one priority is to keep member benefits at the highest level and make cuts in the overhead expenses and administrative costs (like webinars for some meetings). A few items of interest — full funding for Student Chapter support was approved; funding for the Environmental Monitor will print one hard copy and 3 electronic versions; the CEQA workshops will change format (the Spring session will be a half day and focus on legislation and court cases, a focused half-day workshop in the summer timeframe addressing major issues of importance, and the fall CEQA Basics); and, support for our Legislative Advocate remains unchanged.

The budget for the 2011 Conference in Monterey is approved. This Conference offers a blend of practical information; introduces new technologies and methodologies, legislative perspectives, and environmental policy. The Conference will be set at the Monterey Plaza Hotel perched over the beautiful Monterey Bay and located on historic Cannery Row. The Conference is set for March 6 to 9, 2011. Visit the AEP 2011 Conference Webpage for updates, hotel and travel information, and conference registration.

AEP is working on the 2012 AEP Conference to be hosted by Superior and Central Chapters. This Conference is planned for the Lake Tahoe area. Also, the Los Angeles Chapter will host the 2013 conference. Marie, Campbell is the chair for the LA Conference. The 2012 and 2013 conferences will be held in the April/early May timeframe each year.

The AEP Board approved the Affiliation with NAEP and directed the President to sign the Affiliation Agreement. Ron Deverman, President of NAEP and Gene Talmadge, President of AEP will have a joint signing ceremony at AEP's January 8, 2011 Board meeting in Coast Mesa, CA! This is a very special event! I am happy to report that the AEP membership voted 87% to approve and continue our affiliation with NAEP. AEP looks forward to working with NAEP in the coming years on many programs of mutual interest for our members.

The new AEP website is in final testing and will launch before the end of the year. Look for a new look and interactive structure on the AEP website in January 2011.

California has had quite a year in Legislative Affairs. During the California elections this fall Proposition 23 was defeated

which leaves AB32 in place. However, it now places a significant emphasis on implementing SB375, Greenhouse Gas legislation, which continues to place a significant role for the environmental professional to implement. The Governor's veto of AB 2754, realignment of Office of Planning and Research and State Clearing House (SCH), which was strongly supported by AEP means that things will essentially return to what we knew before. There is a role for AEP to play in further defining how CEQA documents are managed by the SCH. AEP is working on how this may be done. There will be continued interest in climate change legislation that may influence some legislation and Proposition 26 (requiring a "super majority" to approve taxes and certain fees) may result in some secondary effects that can be cause for concern. Always a challenge!

AEP and APACA has formed an ad hoc committee, known as the "Enhanced CEQA Action Team", or ECAT. CEQA has recently experienced an increase in proposed amendments that have been counterproductive to sound environmental planning. The mission of this team is to recommend legislative and regulatory changes to enhance CEQA's efficiency and effectiveness in achieving its original purposes. This mission is founded on the premise that CEQA is an important and constructive element of California public agency policy and decision-making.

AEP wishes all our friends at NAEP and its Affiliated Chapters a great holiday season.



## Georgia Association of Environmental Professionals Chapter Report

The GAEP is wrapping up a full year, capped off by a successful NAEP conference in April. Our annual meeting and members lunch was held December. As of December, GAEP has an active membership of 64. We are in the midst of election of officers for 2011. This past year or chapter activities included a diversity of events, from educational and instructional speakers, to social networking events, and even a field trip. We're looking forward to 2011 and the opportunities that an increased membership can bring.



## IAEP Illinois Association of Environmental Professionals Chapter Report

On December 8, 2010, the IAEP hosted a fall seminar titled “IEPA Regulated Uncontaminated Soils” presented by Steve Newlin with AECOM. As of July 2010, the Illinois EPA started regulating uncontaminated soils for use as fill material. They are currently formulating guidelines that are anticipated to be in use in 2011. Mr. Newlin provided insight about how he has assisted his clients navigate the new regulations. Thirty six environmental professionals and engineers from the private sector, municipalities, and utilities attended. IAEP recruited 21 new members as a result of the seminar.

In November the IAEP announced the annual student scholarship essay competition. Students from universities and community colleges will be writing about one of three environmental topics to show their understanding of current relevant events (from NEPA to Asian Carp). The first place scholarship is \$1,500, second is \$1,000 and third is \$500. Funding for these scholarships comes from the IAEP golf outing organized by Greg Merritt. The deadline for entries is January 28, 2011. Eligibility requirements and the application form are located on the IAEP website [www.iaepnetwork.org](http://www.iaepnetwork.org)

IAEP President Robert Sliwinski and NAEP President Ron Deverman signed the Chapter affiliation agreement on November 5th. IAEP looks forward to working more closely with NAEP to provide additional opportunities for IAEP members and a better awareness of NAEP.



NAEP President Ron Deverman and IAEP President Robert Sliwinski sign the chapter affiliation agreement.

## President’s Letter

*Continued from page 1*

I know of no other national association that gives their Chapters the freedom of choice whether individual Chapter members also become national members. Yet it is in this spirit of freedom that NAEP and the Chapters continue to grow and flourish together, and we move forward to greater accomplishments as an association and as a profession. Remember — no boundaries. I truly believe that our boundless journey together makes us stronger, and through this strength we have the opportunity for a more enduring future.

In *Red Bird*, Mary Oliver also expresses these thoughts,

“Someday we’ll live in the sky./ Meanwhile, the house of our lives is this green world./...One jump, and I’m home.” It is through the leap beyond ourselves and our self concern that we realize the shining light of family, community and our place in this green world. As we end this magnificent year I end this President’s letter with a call to remember what gave you special satisfaction this year in your career, in your personal life. Know that we are on the same journey to realize the fervency of what we can accomplish together. Enjoy the new year.

Ron Deverman, NAEP President



## Mid Atlantic Region Environmental Professionals Chapter Report

### MAREP's First Birthday!

The Mid Atlantic Region Environmental Professionals association (MAREP) just celebrated its first birthday! On December 8th, 2009, a core group met to outline their vision for an organization that would actively serve environmental professionals in the MD/DC/VA region. Beginning with our inaugural event on April 8th, 2010, we've hosted 7 events so far, each providing opportunities for career development, personal enrichment, and networking. Just barely a year old, MAREP is 33 members strong and counting!

In October, Ron Deverman took time out of his busy schedule to join our event in Northern Virginia. Event attendees listened intently as Ron gave an inspirational presentation on two important topics: NAEP initiatives and Environmental Ethics. Ron's presentation was followed by a great Q&A session and casual networking.

In December, we hosted a robust holiday party to an enthusiastic group in the Baltimore area. The party included a tour of an innovative green building, a presentation on the latest PID technology, a cheerful spread of munchies and drinks, an eco-basket giveaway, and energetic networking throughout the evening.

Much thanks to Ashtead Technologies, RAE Systems, the Green Building Institute, and Global Baskets for helping to make this event successful.

We have a membership meeting scheduled for January 11th in Rockville, MD, and our next event will be held on January 27th in Gaithersburg, MD. On the distant horizon, the MAREP Board has committed to hosting a half-day environmental professional development seminar in May, 2011. We have already started planning for the seminar which will be the main topic of discussion at our January membership meeting.

These are exciting times! From MAREP, many wishes to everyone for a happy and prosperous New Year!



## Quest for papers

As you have noticed over the last few issues of this publication, NAEP is trying to improve the content of this newsletter. This is YOUR newsletter. As the Editor I am depending on the membership to help make this a premier publication of the premier Environmental Professional Association.

Here is what I am looking for: approximately 2,500 to 3,500 words, MS word format. The content is up to you. Controversial issues are welcome. I am hoping to eventually receive letters to the editor where these articles can be discussed. Please keep the discussion respectful and we can all learn.

To date we have had articles on Hometown Democracy, Confined Animal Feeding Operations, Water Quality Standards, Fracking, Green Buildings and the Gulf Oil Spill.

I am receiving some great input from the network and you will be seeing those articles as the year progresses. Keep the articles and ideas coming; there is ALWAYS room for your voice. If you are not sure whether your idea or article can be included, please contact me and we can flesh it out together. This newsletter is getting better and I want all of us to feel we are a part of this positive change.

*Paul B. Looney, CEP, CSE, PWS  
NAEP Newsletter Editor  
plooney@volkert.com*



## Northwest Association of Environmental Professionals Chapter Report

**H**appy New Year from NWAEP! 2011 will bring new speaker events to be held in Portland. Check the events calendar at [NWAEP.org](http://NWAEP.org) for details as they are developed or sign up for email notifications and we will email you when we have dates and topics.

We are looking for members willing to serve two year terms on our board. We have three positions available; if you are interested please contact Molly at [nwaepemail@frontier.com](mailto:nwaepemail@frontier.com). Ballots for board elections will be going out at the end of January and winners will be announced at our annual meeting to be held in Portland in March.

A special call to NAEP members in the Seattle area -- NWAEP is trying to invigorate out Seattle members and needs someone with the time and energy to lead our charge. If this sounds like something you would be interested in, or maybe you would just like to help, please contact Molly at [nwaepemail@frontier.com](mailto:nwaepemail@frontier.com).



## Pennsylvania Association of Environmental Professionals Chapter Report

### Board of Directors Elections

**T**he Pennsylvania Association of Environmental Professionals (PAEP) held elections for its 2011-2012 Board of Directors in November. Congratulations to the following new or returning individuals for their election to the PAEP Board of Directors: Mitchell Burack, Jeffrey Leberfinger,

Duane Peters, Crystal Quintin, and Angela Schreffler. Their two-year term begins on January 1, 2011. PAEP thanks all of our Directors for their time and leadership!

### Environmental Assessment

PAEP has spent considerable effort to revise the format and expand the contents of its quarterly newsletter under the direction of Vice President Duane Peters. Check out the latest version of *Environmental Assessment*, the official newsletter of the PAEP, at [www.paep.org/newsletters/10PAEP\\_SummerFall\\_Newsletter.pdf](http://www.paep.org/newsletters/10PAEP_SummerFall_Newsletter.pdf).

### Student Interactions

PAEP is establishing groundwork for new relationships with the environmental programs at both Susquehanna University and the Harrisburg Area Community College (HACC) and working towards establishing student chapters of PAEP at both. Additionally, PAEP participated in career day in November at Shippensburg University.

### Conservation Heritage

PAEP's summer conservation heritage intern Mark Laysen, in cooperation with the Pennsylvania Historical and Museum Commission, conducted research on the life and work of Maurice Goddard and contributed to PBS-affiliate WITF-TV's documentary, *The Life of Maurice Goddard*, which aired in November. Dr. Maurice Goddard (1912–1995) was one of Pennsylvania's leading and least known conservationists. The documentary can be viewed in its entirety at <http://video.witf.org/video/1640758793/>.

### PAEP Section Events

PAEP's Western, Central, and Eastern Sections have been busy holding many successful monthly events, and our Pollution Prevention/Energy Efficiency (P2E2) Roundtable has been active throughout 2010 with events and tours. Just some of these events this fall included a nutrient credit trading program update and EPA/PADEP TMDL update, a walking tour of a mine discharge passive treatment system, a networking session for college students, and holiday socials. The Western Section is conducting a guided tour of the Phipps Conservatory's Candlelight Evenings Winter Flower Show on December 17th.

### 2011 Annual Conference

The PAEP 2011 Annual Conference will be held from September 21-23, 2011 at the Ramada Inn & Conference Center in State College, PA. Look for more information in the coming months at <http://paep.org/>.



## Rocky Mountain Association of Environmental Professionals Chapter Report

The Rocky Mountain Association of Environmental Professionals (RMAEP) is a non-profit professional society of members in six western states: Colorado, Idaho, Montana, Nevada, Utah, and Wyoming.

- In November, RMAEP members joined another local organization, the Colorado Hazardous Waste Management Society (CHWMS), for a networking happy hour event in Denver. The event was a great way for RMAEP members to connect with other environmental professionals outside our organization.

- RMAEP kicked off the holiday season with our annual holiday party. This year the event was held at the Breckenridge Brewery in Denver. The Breckenridge Brewery provided delicious BBQ and beer, and a great time was had by all!

### RMAEP's upcoming events:

**January 26:** Please join us for RMAEP's annual member meeting. This meeting will give you the opportunity to meet other members, meet the RMAEP board, vote on important measures affecting the organization, and get more involved in RMAEP for the coming year!

### Where: Denver Museum of Nature and Science

More details will be available shortly at [www.rmaep.org](http://www.rmaep.org)

### NAEP 2011 Annual Conference Coming to Denver:

### Seventh Generation Thinking: Learning from the Past — Planning for the Future

**Sheraton Denver Downtown, April 26-29, 2011**

### Sponsorship and Exhibitor Opportunities are now available!

Please see the NAEP website for additional details



## ABCEP Report

The Academy of Board Certified Environmental Professionals is continuing to expand its services to Certified Environmental Professionals. Our latest offering in ABCEP's effort to go to a paperless application process is the enhancement of our website to allow on-line applica-

tions for the CEP and CEP-IT certifications. Professionals wishing to apply should go to our website, [ABCEP.org](http://ABCEP.org) and follow the directions to start the process. The web-based system also allows you to monitor your progress towards certification.

Another service fulfills a need for greater communication among CEPs. CEP-CONNECT is a vehicle that will allow CEPs and CEP-ITs to learn about one another, trade knowledge, learn about participation opportunities with ABCEP and virtually socialize. Go to [ABCEP.org](http://ABCEP.org) to learn more about this new communications mechanism.

ABCEP plans to be very active in next year's NAEP conference with an exhibit where attendees can meet and discuss the CEP and CEP-IT process with ABCEP members and officers. We will also participate in a panel discussion on certification and preside over a "Hot Topic" Breakfast. We encourage you to attend the NAEP conference and take part in our activities.

Several NAEP officers have decided to apply for certification as a CEP and are currently going through the process. They have realized that in the current economic environment, enhancement of your professional career credentials, even though you already have reached the senior status within a national organization it beneficial. ABCEP encourages all NAEP members to follow your leaders and apply for one of the few environmental credentials that have third-party accreditation.

For more information, please contact Nadine Jackson-Bey, ABCEP's Executive Administrator at 866-767-8073 or [office@abcep.org](mailto:office@abcep.org). You can also contact Gary Kelman, ABCEP's President at [ABCEPPrez@gmail.com](mailto:ABCEPPrez@gmail.com).

*Gary Kelman, President  
Academy of Board Certified Environmental Professionals*



## 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

**B**eginning 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 non-profit organization. In 2005, the ABCEP achieved accreditation by the Council of Engineering and Scientific Specialty Boards (CESB – [www.cesb.org](http://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](mailto:office@abcep.org); [www.abcep.org](http://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.



Call for papers for publication in the scholarly journal:

# Environmental Practice

The journal of the National Association of Environmental Professionals

ENERGY  
vol. 13 no. 3

The editorial office of Environmental Practice is currently in the planning stages of a theme issue on the subject of Energy. While Environmental Practice accepts articles on a wide variety of subjects, manuscripts are especially sought with an emphasis on all types of energy particularly nuclear energy and its associated waste disposal.

Perspectives are welcome from scholars, practitioners, and students.

Deadline for submittals is  
February 15, 2010 to  
[dcarro17@depaul.edu](mailto:dcarro17@depaul.edu)

**Sample issues of the journal  
can be found at:**

[http://journals.cambridge.org/action/  
displayJournal?jid=ENP](http://journals.cambridge.org/action/displayJournal?jid=ENP)

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