

# FLORIDA BEACON

## From the President's Desk Mary Gutierrez



As this is my first newsletter article in my new role of President for FAEP, I would like to start off by thanking our Past President Kristin Bennett for making this an easy role to transition into. I am excited for what the year will bring and feel very fortunate to have a board with historical knowledge and a wonderful work ethic.

I like to keep things simple. I also recognize that we are all volunteers in the roles we serve within FAEP. However, that is not to say that the time and roles we play aren't vastly important and contribute greatly to the success of this great organization. My point is that I don't want to start off by overburdening the board. (That will come later .....just kidding).

So here are the 2014 goals we have started to focus our energies on:

1. Increase membership – Ideally, I would like to double our current membership.
2. Increase the student chapters and membership – The intent is to try and implement/create student chapters for every FAEP chapter.
3. Complete a Board Book – We want something that provides FAEP history while providing a source of information for existing and new board members. It'll be a "go to" book.
4. Finish the CEU, CEP, and all other certifications – By having as many certifications available as possible we will potentially increase membership and provide an added benefit to existing members.
5. Implement a State Environmental Excellence Awards Program – This committee is made up of Mary Gutierrez, Melissa O'Connor, and Courtney Arena. We hope to have our first awards ceremony in the fall. Our objective is to take winners from the chapter awards and move them to be part of the nomination to the state awards (this will vary if a chapter does not have a current award program) and then on to the national awards.

See page 2

## Florida Association of Environmental Professionals

Spring 2014



### FAEP 2014

#### Board of Directors

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Melanie Metal - SW Chapter

Elva Peppers - TL Chapter

Tim Terwilliger - TB Chapter

Paul Fitzgerald - TC Chapter

Erin Kane - At Large Member

Alexis Presser - At Large Member

Courtney Arena - At Large Member

### At-Risk Cities May Help Drive Climate Change Solutions

Check out the story  
on page 7!!



Find out more about FAEP  
Member Benefits at our website:  
[WWW.FAEP-FL.ORG](http://WWW.FAEP-FL.ORG)

Interested in becoming  
a member of FAEP?  
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## From the President's Desk Continued

It is also our goal to show appreciation and value of our members. Our responsibilities include:

- ◆ List of chapters who have awards and what are they (i.e. Environmental Professional of the Year, Group Project of the Year, etc.);
  - ◆ Willingness of each chapter to create awards program if it doesn't already exist;
  - ◆ Research a timeline for each chapter awards and how it would relate to the State and NAEP award schedules;
  - ◆ Craft a one-page nomination form and a longer application form and detailed summary; and
  - ◆ Create an evaluation committee and a specific evaluation process.
6. Implement a State Scholarship Program – This committee currently consists of Mary Gutierrez and Paul Fitzgerald. Our objective is to encourage environmental career paths. Our responsibilities include:
- ◆ List of chapters who have a scholarship program;
  - ◆ Willingness of each chapter to create a program if it doesn't already exist;
  - ◆ Research a timeline for each chapter scholarship program and how it would relate to the State annual conference;
  - ◆ Craft an application and evaluation criteria; and
  - ◆ Create an evaluation committee and a specific evaluation process.

It might seem like a lot at first read, but I feel confident that we will be able to accomplish everything we have laid out.

I will start making the chapter rounds in May, I look forward to meeting many of you in the coming year.

Respectfully,  
Mary Gutierrez  
President, FAEP

## EPA Calls for 2014 Presidential Green Chemistry Challenge Award

### **New green chemistry technologies promote new products and markets**

Washington - The U.S. EPA is asking companies or institutions to nominate their innovative technologies for the 2014 Presidential Green Chemistry Awards. EPA is looking for nominations from companies and institutions that have developed safer chemical processes and products that may reduce the generation and use of chemicals that are hazardous to people's health and the environment.

"The Awards recognize innovative technologies that are making chemicals and chemical processes safer, more efficient, or cleaner. These game-changing technologies are having real world results with significant reductions in waste and greenhouse gas emissions as well as substantial savings of water and other resources," said Jim Jones, EPA's assistant administrator for the office of Chemical safety and Pollution Prevention. "As an added benefit, these technologies often result in reduced costs, increased market opportunities, or both. EPA is complementing the Award Program by providing a forum for winners and nominees to focus on maximizing their investment in green chemistry.

Information on past award winners and how to submit entries can be found at: [www2.epa.gov/green](http://www2.epa.gov/green)

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## Upcoming Conferences and Workshops

Event	Date	Place
Florida Society of Environmental Analysts	May 21 - 23, 2014	Clearwater, Florida
Florida Association for Water Quality Control	June 11 - 13, 2014	Naples, Florida
28th Annual Environmental Permitting School	July 23 - 25, 2014	Marco Island, Florida
Florida League of Cities	Aug. 14 - 16, 2014	Hollywood, Florida

FAEP shares information about conferences pertaining to the environmental professions. The FAEP does not endorse any of the referenced conferences.

## DEP Announces New Division of State Lands Director

The Florida Department of Environmental Protection is pleased to announce that Kelley Boree will serve as director of the Division of State Lands beginning May 16, 2014.

“Kelly’s vast work experience and knowledge of both the public and private sector is going to prove invaluable to the department,” said Deputy Secretary for Land and Recreation Katy Fenton. “Her commitment to Florida’s parks and extensive background with land acquisitions make her the ideal candidate for this position.”

Boree joins the department from the City of Jacksonville, where she has served as the Director of Parks and Recreation for the past four years, overseeing one of the largest park systems in the state. As a current member of the Acquisition and Restoration Council, she is active in the evaluation and selection of state land acquisition projects on the Florida Forever priority list, as well as the review of management plans and land uses for all state-owned conservation lands.

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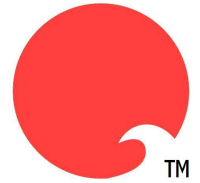
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## National Association of Environmental Professionals Update

Having retired my hat as FAEP President, I am writing to you now wearing new hats: FAEP Past-President and NAEP Board of Directors, Secretary. When submitting my nomination for the NAEP Board of Directors, I did so with the intention of working with the NAEP Board to obtain new and affordable member benefits for both NAEP members and NAEP Affiliated Chapter members. As an Affiliated Chapter of NAEP, all FAEP members, regardless of whether you are an NAEP member, receive certain NAEP benefits.



### NAEP Member Benefits

As a member of FAEP, you are an Affiliated Chapter member of NAEP. This provides you with some of the benefits of the National organization without the expense of becoming a National member. I would be remiss if I did not encourage you to get ALL of the benefits of NAEP membership by becoming an NAEP member but it is understandable that an entity that has a presence only in Florida, or even more so in only one geographic area of Florida, may not reap all of the values of membership in a national organization. But you do reap the benefits of standing under the umbrella of a nationally recognized and well respected association of environmental professionals. Keep in mind, whether you are an NAEP member or a member of FAEP and local chapter only, you do have a voice in making your membership work for you. Speak out and share your opinions and suggestions with your local chapter board, the FAEP board, and NAEP board members.

Listed below are but a few of the benefits of the NAEP/FAEP Affiliation Agreement:

1. National Desk: The NAEP **National Desk** is a biweekly (once every two weeks) publication of current national issues affecting the environmental professional. The NAEP **National Desk** is provided through a licensing agreement with Environment and Energy (E&E) Publishing, LLC ([www.eenews.net](http://www.eenews.net)). E&E's four daily online publications are ClimateWire, EnergyWire, Environment and Energy Daily, Greenwire and E&E News PM. You can access a copy of the National Desk directly from the NAEP website. Recent articles include:
  - ◆ Proposed broader protection for wetlands, streams
  - ◆ OCEANS: Climate change acidifying tropical Pacific Ocean more than expected – study
  - ◆ INTERIOR: Official plays peacekeeper as agencies converge at U.S.-Mexico border
  - ◆ EPA: Environmental reporters' group slams 'incredibly secretive' agency

As part of the licensing agreement, E&E Publishing is offering a discount on new subscriptions. Please see [www.eenews.net/trial/naep](http://www.eenews.net/trial/naep) for more information.

2. Webinars: NAEP offers NAEP sponsored webinars as well as webinars sponsored by the American Public University (APU) and the Vermont Law School. You may register for the webinars yourself and/or your chapter may host a webinar as a chapter event. The live webinars are usually offered from 1:00-2:30 EST and have 3 to 4 presenters. There is also an opportunity for Q&A. The NAEP is in the process of finalizing the arrangements to offer recorded webinars. The recorded webinar provides flexibility for chapters and individuals to view the webinars at a time that is convenient for you and provides chapters the opportunity to host a chapter event. Perhaps a brown bag lunch or an evening offering with food and beverages. You can obtain continuing education credit for participating in the webinars. APU also offers a series of free webinars to which FAEP members have access. NAEP is developing a new relationship with the Vermont Law School that will be offering its first webinar in June 2014.
3. Other less visible benefits: other benefits that are more “behind the scenes” that you may not be aware of include: availability of general liability insurance coverage available to FAEP and all of the FAEP local chapters – at no additional cost to the local chapters; the ability to join/renew NAEP, FAEP and local chapters directly from the NAEP website (you can also do this on the FAEP website); profit sharing with the host chapter from the NAEP annual conference proceeds; opportunity for leadership positions to help you develop management skills to further your career.

These are but a few of the benefits for which you are eligible as an affiliated member of NAEP. During the next eighteen months, the NAEP chapters committee will be working to address additional benefits while we gear up to renew the affiliation agreement in 2015.

Continued on next page

We chose to serve because we believe in NAEP, FAEP, the code of ethics that governs both and the environmental community in all its glorious diversity.

### **NAEP Board of Directors**

NAEP has twelve elected At-Large board members and thirteen Affiliated Chapter Representatives. Elected Board members are voted on by NAEP membership and serve three-year terms (board members can succeed themselves with several serving many consecutive terms). Chapter representatives are either the chapter president or someone appointed by the chapter. The roles and responsibilities of both elected and chapter representative board members are the same. Each has one vote and participation by all is vital to have a successful and sustainable Board of Directors.

There are five Florida representatives serving on NAEP Board of Directors including three elected At-Large board members: David Dickson (Cardno Entrix), Courtney Arena, NAEP Treasurer (Stanley Consultants), Kristin Bennett, NAEP Secretary (Tetra Tech, Inc.) and two chapter representatives: Mary Gutierrez (Earth Ethics, Inc./FAEP president) and Bruce Hasbrouck (Faller, Davis & Associates, Inc.). In addition to serving on the Board of Directors, your Florida representatives also serve on several NAEP committees. The NAEP Board of Directors meet quarterly to address the business and administration of NAEP with the committees generally holding conference calls and in-person meetings during the annual conference. While the responsibility is time consuming, we all believe strongly in the mission of NAEP and are committed to ensuring NAEP and FAEP continue to provide benefits (such as training and affordable continuing education opportunities including webinars) for its members.

### **Opportunities for YOU to get involved in the NAEP**

NAEP has several committees in which you are encouraged to participate. This is an opportunity for you to help shape the face and voice of environmental professionals.

One focus of NAEP's mission is "...developing the highest standards of ethics and proficiency in the environmental professions." This mission is exemplified in the work of our national Committees. There are eight Committees: Awards, Chapters, Communication, Conference, Education, Environmental Policy, Membership, and Operations. A full description of each committee is listed on NAEP webpage at [www.naep.org](http://www.naep.org). You will find the interest/practice areas, focus of the Committee and leadership contact information. We encourage all NAEP members to seriously consider getting involved in a Committee that excites you and holds similar professional interest for you and your career growth.

### **2014 NAEP Annual Conference**

FAEP was the proud host of the successful 2014 NAEP Annual Conference held April 7-10 in St. Petersburg. All of the local FAEP chapters aided the success of the conference by contributing to the financial sponsorship of the conference, by participating on the Conference Planning Committee, by volunteering at the conference, by attending and presenting at the conference. Special recognition should be given to the Tampa Bay Chapter that hosted the conference. In addition to the conference planning and implementation, TBAEP arranged for a "dine-around town" during the conference to ensure all participants enjoyed the hospitality of St. Pete, arranged a roof top networking event on the final night of the conference, as well as marshaling a host of student volunteers. As part of the arrangement with NAEP, the host chapter may receive a percentage of the profits from the conference. We will not know the exact amount until later this year, but FAEP and TBAEP do anticipate receiving some funds for their successful efforts.

The FAEP Board of Directors will have to decide how those funds will be used to benefit FAEP and all of the local FAEP chapters. Serving as host, and reaping the financial rewards, is one of the benefits of being an affiliated chapter of the NAEP. While those on the planning committee can attest organizing the annual meeting, including getting people to volunteer as track chairs, moderators and soliciting for sponsors, is a great deal of work, it was well worth the effort. Now we are looking forward to enjoying the fruits of the Hawaii Chapter's efforts as they serve as hosts for the 2015 conference in Waikiki April 13-17, 2015.

Sincerely,  
Kristin Bennett

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# Restore The Gulf Workshop - Four Years Later



Reduced Admission for Government, Elected Officials, and Students.

Wednesday, April 30, 2014 from 9:30 - 5:00  
Hilton Pensacola Beach, FL (12 Via DeLuna Drive)

Register Before April 18 and Take Advantage of Early Registration Savings

See Reverse for Workshop Agenda



Join Us for an Informative Discussion on Where We Are and Where We're Going

CEUs are available and included in your workshop registration



This event is co-located with the Power Up Energy Expo



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Date: Wednesday, April 30 from 9:30 - 5:00  
Location: Hilton Pensacola Beach, FL (12 Via DeLuna Drive, Pensacola Beach, FL)

*Restore The Gulf* brings together scientists, researchers, environmental advocates, and industry leaders involved in the Gulf of Mexico restoration effort. Don't miss this important event. Seating is very limited so register early.

**Restore The Gulf Agenda - Wednesday, April 30, 2014**

9:45 - 10:00: Welcome & Introductions  
10:00 - 11:30: Morning Panel: The State of the Environment  
11:30 - 12:00: Question & Answer Session  
12:00 - 2:00: Lunch in the Technology Showcase Hall  
2:00 - 4:00: Afternoon Panel: Economic & Environmental Impacts  
4:30 - 5:00: Closing Remarks

Register Early and Save  
Early Registration Discount: \$75 (Before April 18)  
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[Click here](#) to to view the full agenda and to register for this Workshop  
For questions, please contact Mary at [mary.earthethics@cox.net](mailto:mary.earthethics@cox.net)

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# Climate Change

## At-Risk Cities May Help Drive Climate Change Solutions

It is already taking shape as the 21st century urban nightmare: a big storm hits a city like Shanghai, Mumbai, Miami, or New York, knocking out power supply and waste treatment plants, washing out entire neighborhoods and marooning the survivors in a toxic and foul-smelling swamp.

Now the world's leading scientists are suggesting that those same cities in harm's way could help drive solutions to climate change.

A draft report from the [Intergovernmental Panel on Climate Change \(IPCC\)](#), obtained by the Guardian, says smart choices in urban planning and investment in public transport could help significantly lower greenhouse gas emissions, especially in developing countries. The draft is due for release in Berlin on Sunday, the third and final installment of the IPCC's authoritative report on climate change.

"The next two decades present a window of opportunity for urban mitigation as most of the world's urban areas and their infrastructure have yet to be constructed," the draft said. Around 1 billion people live in cities and coastal areas at risk of sea-level rise and coastal flooding – and those figures are expected to rise in the coming decades. Most of the high-risk areas are in Asia, but the U.S. East Coast, where the rate of [sea level rise](#) is three or four times faster than the global average, is also a "hotspot," with cities, beaches and wetlands exposed to flooding. But those at-risk cities also produce a large and growing share of emissions that cause climate change – which makes them central to its solution.

"They are at the frontlines of this issue," said Seth Schultz, research director for the [C40 group of mega-cities](#) taking action on climate change. "And on the whole cities have extraordinarily strong power to deliver on these things." Even in America, where Republican governors and members of Congress deny the existence or have rolled back action on climate change, [cities are moving ahead](#). South-east Florida faces a triple threat – flat, built on porous rock, [and in line for high sea-level rise](#). Planners in four south-eastern counties are preparing for 24 inches of sea-level rise by 2060 – which could put a large area around Miami underwater.

Beaches and barrier islands are already starting to disappear. Miami and other towns flood during heavy rain storms and full-moon high tides, and saltwater is already seeping into the network of canals in the Everglades. "Sometimes it is tempting to think those impacts just occur in small coastal areas, but they are more extensive than that," said Jennifer Jurado, director of natural resources for Broward County.

Her nightmare scenario in a future of rising sea level would be flooding from both directions – the coast and inland – with saltwater contaminating groundwater reserves, and saturating farmland. Jurado and officials in three other south-eastern counties of Florida have teamed up on a plan to cut emissions and protect populations from future sea-level rise. Officials started with computer modeling to draw up details plans of what Florida would look like under future sea-level rise.

Broward County is now restricting development in areas at risk of two feet of sea-level rise. Water districts in Sweetwater and other towns south of Miami are installing pumps at \$70 million each to divert storm runoff water and pump it back into the ocean.



The rate of sea level rise is three or four times faster than the global average on the U.S. East Coast, which is also a "hotspot," with cities, beaches and wetlands exposed to flooding.



A nightmare scenario in a future of rising sea level would be flooding from both directions - the coast and inland- with saltwater contaminating groundwater reserves, and saturating farmland.

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## CLIMATE CHANGE CONTINUED

And while Florida's Republican Governor Rick Scott, has put climate change efforts on hold, Broward County last month committed to getting 20 percent of electricity for county from renewable sources and increasing energy efficiency by 20 percent. Homeowners are being offered rebates on their property taxes to install solar panels.

The county has also pledged to cut greenhouse gas emissions 80 percent by 2050.

Across the country in another Republican-controlled state, Salt Lake City in Utah has also been dealing with climate change.

Salt Lake City, which is at risk of running out of water because of climate change, set ambitious targets to cut emissions, and was the first city in America to commit to offsetting emissions from official travel.

Meanwhile, Utah's state legislature this month passed bills offering new financial incentives for solar panels and plug-in vehicles. The bills also require Utah to convert 50 percent of state transport vehicles to alternative fuels or plug-ins by 2018.

Such initiatives are becoming more common across America as city officials take future climate change into account for planning, zoning and land use, said Christina DeConcini, director of government affairs for the World Resources Institute.

"I think there is a growing focus on climate change," she said. "A lot of cities have sustainability departments and people focusing on it, and more and more of the work they are doing is focused on climate and climate impacts." The reason, she said, was transparent. "Cities that are more at risk are definitely paying more attention.

### Resources:

- ◆ Intergovernmental Panel on Climate Change - [www.theguardian.com/environment/ipcc](http://www.theguardian.com/environment/ipcc)
- ◆ Surging Seas - Sea level rise analysis by Climate Central, find your community and see what the sea level threat is for you at different water level elevations! [sealevel.climatecentral.org/](http://sealevel.climatecentral.org/)
- ◆ C40CITIES Climate Leadership Group - [www.c40.org/](http://www.c40.org/)
- ◆ Cities Bypass Slow Government to Lead the Way on [Climate Change](#)
- ◆ US Coastal Cities in Danger as Sea Levels Rise Faster Than Expected, [Study Warns](#)

*Climate Central, The Guardian*



Smog-covered sky in Salt Lake City, Utah. The city has set ambitious targets to cut emissions, and was the first

## PADDLERS COMPLETE 1,515 MILE SEA KAYAKING JOURNEY AROUND FLORIDA COAST

Tallahassee - The FDEP congratulates kayakers Marc DeLuca and Jim Windle for finishing the entire 1,515-mile Florida Circumnavigational Saltwater Paddling Trail, as mapped and developed by the FDEP Office of Greenways & Trails. The two retired police officers from Charlotte, N.C., began their four-month journey Nov. 2, 2013 as Big Lagoon State Park near Pensacola and finished March 1, 2014, near Fort Clinch State Park just south of the Georgia border. They are the 12th and 13th paddlers to complete the entire trail since it opened in 2007.

"While thousands of people paddle short segments of the trail each year, we can appreciate the few who have the time and fortitude to paddle the whole thing," said Donald Forgione, Director of the Florida Park Service, "It's a huge accomplishment."

The two men faced extreme weather, large ocean swells and some health scares. On day three, DeLuca's kayak almost sank in rough seas due to a leaky rear hatch cover. They battled a case of influenza near Miami, and a serious foot infection requiring hospitalization almost sideline Windle in St. Augustine. The two pressed on, vowing not to give up.



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## 2 CHARTS THAT PUT THE CHINESE POLLUTION CRISIS IN PERSPECTIVE

**No one now alive has experienced anything similar in North America or Europe, except in the middle of a forest fire or a volcanic eruption.**

Everyone "knows" that China is badly polluted. I've written over the years, and still believe, that environmental sustainability in all forms is China's biggest emergency, in every sense: for its people, for its government, for its effect on the world. And yes, I understand that the same is true for modern industrialized life in general. But China is an extreme case, and an extremely important one because of its scale.

Here are two simple charts, neither of them brand-new but both easily comprehensible, that help dramatize how different the situation is there. The first, by Steven Andrews for *China Dialogue via ChinaFile*, compares official Chinese classifications of "good" air conditions with those in Europe or North America.

Here is the point of this graphic: The green and yellow zones in the left-hand column, showing official Chinese government classifications, are for "good" or "OK" air—while those same readings would be in the danger zone by U.S. or European standards. When you're living in China, it's impossible not to adjust your standards either to ignore how dire the circumstances are, so you can get on with life, or to think that any day when you can see across the street is "pretty good."

The scale for all countries stops at 250 (micrograms per cubic meter). Everyone who has spent time in Beijing or other bad-air cities knows what it is like with readings of 500 or above. Even Shanghai had a 600+ "airpocalypse" this past winter. No one now alive has experienced anything comparable in North America or Europe, except in the middle of a forest fire or a volcanic eruption.



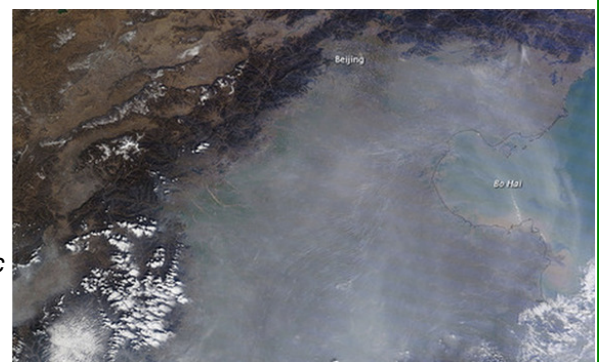
### DAILY AVERAGE POLLUTION

The World Health Organization (WHO) guidelines consider anything over 10 micrograms per cubic meter of PM2.5 to be hazardous to health.



Sources: Chinese Ministry of Environmental Protection, American Lung Association and WHO. Simon Denyer and Richard Johnson/The Washington Post. Published on February 2, 2014, 5:46 p.m.

Here's the other chart, comparing the 10 most-polluted Chinese cities with the 10 in America. It is from *The Washington Post* a few weeks ago. The U.S. readings on this chart show something about challenges in the Central Valley of California, which is where six of the seven most-polluted cities are. (And the other is Los Angeles.) But the scale difference of Chinese pollution is sobering. Even the worst American cities would be in the tip-top most excellent bracket in the chart at the top.



More sobering still: Air pollution, while the most visible (literally), is not the most serious of China's environmental problems. Water pollution, and water shortage, are worse.

*James Fallows, The Atlantic*

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# Minnesota's Vapor Trail: Toxic Gases In Basements

## Discovery that contamination in soil can vaporize and seep into homes prompted a statewide review of polluted sites

The discovery that toxic vapor can rise from contaminated groundwater has undercut decades of pollution cleanup efforts in Minnesota, prompting state regulators to revisit 293 cleanup sites to determine if contaminants that once seemed contained underground are producing health hazards today.

While cleanups in southeast Minneapolis and St. Louis Park have been well publicized, the Minnesota Pollution Control Agency has quietly undertaken a much broader review, and found another 53 pollution sites, from Bagley to Rochester, where vapor intrusion is being addressed. The review is ongoing at 80 additional sites.

State pollution officials also must decide whether to revisit 268 Superfund sites that were closed out years ago, because old cleanup strategies didn't for vapor risks.

"We will deal with these sites and we will do a professional job of responding to them to protect public health and improve and restore the environment," said John Linc Stine, MPCA commissioner. "Unfortunately, the legacy of past actions is something that all of society is living with."

Among the 53 known problem sites, at least eight were old dry cleaning, where it was common practice to dump cleaning chemicals out the back door.

Others include the Duluth Air Force Base and the Tonka Corp. toy manufacturing site in Mound — where a primary issue had been preventing contamination of nearby Harrison Bay on Lake Minnetonka. The review of these sites has been ongoing since 2008, when the state issued its first guidance for dealing with soil vapor.

Data requested by the Star Tribune regarding the 53 problem sites shows that 68 adjacent residences and 92 businesses received testing. Mitigation systems have been installed in 11 homes.

None of the sites are as large or problematic as Minneapolis' Como neighborhood, which is adjacent to an old General Mills research plant where 1,000 gallons of toxic chemicals such as trichloroethylene, or TCE, were dumped yearly from 1949 to 1962.

Since November, testing of soil vapor has been completed beneath more than 270 Como properties, largely single-family homes or rental apartments for students at the University of Minnesota. General Mills has agreed in 144 cases so far to pay for mitigation systems — mostly negative air-pressure systems that draw vapors out of the soil and prevent them from building up in basements.

Measured in micrograms per cubic meter of air, TCE levels that reached the thousands in a few cases have created anxiety for Como residents who wonder what they have been breathing and whether their houses will be sellable ever again.

"I don't feel safe living there," said Coral Sadowy, 66, who wonders if TCE exposure is related to her uterine cancer. A TCE reading of 3,370 below her basement grossly exceeded General Mills' threshold of 20 for a mitigation system.

Continued on next page

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# Minnesota's Vapor Trail: Toxic Gases In Basements


## Shift in the science

The common thread at these sites is the use of solvents or other compounds known as “volatile organic chemicals” such as TCE and perchloroethylene, or PCE.

Research has linked these compounds to higher of cancer, birth defects and other disorders when people are exposed to high levels of them over long periods.

These chemicals tend to sink into the groundwater and sometimes collect in dense globs that contaminate the water unless removed. For years, the primary environmental concern has been whether the chemicals were contaminating drinking water supplies. If not, the strategy often was to contain the chemical plumes below the ground and slowly remove the chemicals by pumping and airing out the groundwater.

While this satisfied scientific knowledge of the time, it didn't address facts discovered in the late 1990s — namely, that these chemicals could vaporize underground and rise through the soil in potentially harmful levels to basements of homes and businesses.

Minnesota is slightly ahead of the curve nationally in reviewing its pollution sites for vapor risks, though  York completed the process several years ago and other states in New England are farther along, said Lenny Siegel of the Center for Public Environmental Oversight in Mountain View, Calif.

“The reason vapor intrusion to me is a high priority is because it is an intrusion,” he said. “Something that doesn't belong in people's homes is getting in there and they can't do anything about it.”

Minnesota's change in cleanup policy is reflected in sites such as the old Despatch Laundry and Whiteway Cleaners at E. 26th Street and Stevens Avenue S. in Minneapolis. There, in 2000, the public was assured that cleaning chemicals dumped in the ground presented no imminent vapor risk.

Early advice was wrong

“Inhalation exposure to PCE vapors that may have migrated through soil and building foundations is unlikely, particularly any distance from the site,” an MPCA advisory letter indicated at the time.

Fast forward a decade, and MPCA data show that vapor tests were conducted at 17 homes — two of which received mitigation systems to prevent vapor risks. Permanganate was injected into the ground because the chemical neutralizes PCE.

State pollution experts have charted an unpopular course in reviewing such sites and disclosing to neighbors that sites once believed safe are presenting the potential for environmental and health hazards.

In Como, many nervous residents have limited their access or their children's access to basements — even if testing has found low TCE levels. In some cases, the properties are basement apartments for U students.

Stine said state officials will work swiftly in each case to notify residents of vapor risks and address them.

“It's a huge undertaking,” he said. “There's some good news in the speed that we're moving in getting these sites assessed. We've got more than half of them evaluated for risk.”

Among active sites, 162 have either been cleared of vapor risks or cleaned up sufficiently to remove those risks.

Among some of the 80 sites still under investigation, cleanup efforts are underway. Forty mitigation systems were installed in homes in St. Louis Park, where investigators still are tracing the source of TCE contamination that was initially discovered in 2007 in an Edina water well.

A looming issue for the MPCA — one that hasn't been accounted for in its budget — is the cost of reopening investigations into old Superfund sites. The agency is preparing to test a few sites this year to -determine how severe soil vapor problems might be, Stine said.

Today, Coral Sadowy spends considerably less time in her home. With cancer treatments approaching that will weaken her immune system, she worries about exposure to any contaminants. A negative air pressure system has yet to be installed, because engineers for General Mills have determined that a new basement floor will be needed for the system to work.

A retired Realtor who doubts her house will be sellable for years, Sadowy has another idea: “I wish they'd just tear it down, dig a big hole and suck that stuff out of there.”

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