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## *Interview with new* **ADEQ DIRECTOR STEPHEN OWENS**

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Generator's responsibilities; ADEQ comments

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Director Stephen A. Owens

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April / May 2003 Vol 1 No. 2

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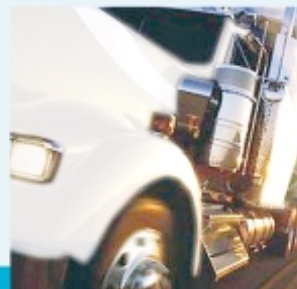
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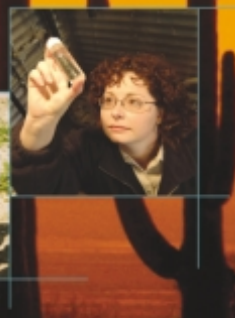
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# JOURNAL OF Environmental Management

## ARIZONA

April / May 2003

Volume 1 Number 2

## Contents

### FEATURES AND ARTICLES

- 6**     **INTERVIEW WITH STEPHEN OWENS**  
NEW DIRECTOR'S GOALS FOR ADEQ
- 8**     **HAZ WASTE FACILITY CLOSED**  
GENERATORS' RESPONSIBILITIES FOR WASTE
- 26**    **IMPLEMENT AN ENV. MGMT SYSTEM**  
AZ P2 PLANS ESTABLISH A READY  
FRAMEWORK

### COLUMNS

- 13**    **SUSTAINABLE DEVELOPMENT**  
LESSONS FROM WILL ROGERS, US/CANADA  
TRADE RELATIONSHIP, *NICHOLAS R. HILD, PHD.*
- 15**    **REGULATORY DEVELOPMENTS**  
LEGAL NEWS YOU CAN USE, *MICHAEL C. FORD*
- 23**    **IT'S ALL ABOUT CHEMISTRY**  
ARSENIC ISSUES, PART I, *LARRY OLSON, PHD.*

### DEPARTMENTS

- 4**     **FROM THE EDITOR**
- 5**     **TO THE JOURNAL**
- 11**    **NEWS BRIEFS**
- 16**    **ASSOCIATIONS PAGES**
- 28**    **PROFESSIONALS PAGE**
- 28**    **CLASSIFIED ADS**
- 29**    **CALENDAR**
- 30**    **FIND IT!**
- 30**    **ADVERTISERS INDEX**



Interview with ADEQ  
Director Owens *page 6*



Hazardous Waste Facility  
Ordered Closed *page 8*

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*Thank you. Editor*

**COVER PHOTO:** PATRICK GIBBONS, ADEQ COMMUNICATIONS DIRECTOR, HOLDS MEDIA CONFERENCE OUTSIDE INNOVATIVE WASTE UTILIZATION, LLC, MARCH 8TH. SEE RELATED STORY PAGE 8.

## Journal Info

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Journal of Environmental  
Management Arizona  
3145 E. Chandler Blvd, Suite  
110-641, Phoenix, AZ  
85048 Telephone & Fax:  
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## JOURNAL of Environmental Management ARIZONA

### Editorial

#### Publisher & Editor

James Thrush, M.S.  
[jimthrush@ehshomepage.com](mailto:jimthrush@ehshomepage.com)  
480-422-4430 x42

#### Contributing Authors; Apr/May Issue

Tom Curry *Central Arizona Project*  
J. Andy Soesilo, PhD, REM *Western International University*

#### Photography Assistance

Charles Holland  
[ChuckHolland@ehshomepage.com](mailto:ChuckHolland@ehshomepage.com)

### Advisors

#### Legal

Lown & Hilleman, PLC

#### Editorial

R. Bruce Scott, Nicholas R. Hild, Larry Olson, Tom Curry, Julie C. Rogers, J. Andy Soesilo

#### Operations & Business

Lisa Culbert, Daniel Nelson, Randy Anderson.

### Advertising

#### Advertising Sales Manager

Position not filled.

### Circulation

#### Circulation Manager

Position not filled

### Columnists

#### Regulatory Developments

Michael C. Ford *Bryan Cave LLP*

#### Sustainability & Sustainable

#### Development

Nicholas R. Hild, PhD,  
*Arizona State University*

#### It's All About Chemistry

Larry Olson, PhD. *Arizona State University*

### Programming

#### Programming/Technical Support

Hiep Van Vo  
[Hiep@ehshomepage.com](mailto:Hiep@ehshomepage.com)

## From the Editor



Thank you for a great response to our first issue! Especially thanks to those who called, sent comments, or took time to subscribe. The Journal is already reaching a huge portion of the Arizona environmental community and market, and over 2600 EH&S professionals recieved the first issue.

In this second issue, current events led to two feature stories. First, Stephen A. Owens was appointed new Director of the ADEQ. The Journal was privileged to receive an interview, and asked the Director about his direction for the agency. There is a lot of justified interest in the business and environmental community about what new directions the ADEQ might take under his leadership. The interview was conducted by Journal contributor Tom Curry, Environmental Compliance Administrator from the Central Arizona Project. Second, the closure of Innovative Waste Utilization, LLC, left many generators concerned about hazardous waste they sent to the facility. In a second feature article, we recap the closure events, and ADEQ provides comments on generator responsibilities, and sources of information on choosing a transporter or TSDF.

Looking forward, a main theme of our June/July issue will be employee environmental safety programs and training. An employer must identify what programs and training are required for employees and then develop and provide that training. That is not a simple task, as there are many circumstances that may trigger training requirements. We will look at how to determine what training and programs are required, what training resources are available, and how to get your money's worth from outside trainers.

Journal staff will have a booth at the SAEMS 13th Annual RCRA Seminar in Tucson on May 6th. I'll be there, and I hope you stop by the booth and say hello. (See SAEMS' advertisement on page 12.) I look forward to meeting you.

Thanks, as always, to our advertisers, columnists, our association contacts, and contributing authors, and everyone else for great material for a second issue. I hope you enjoy this issue, and put it to practical use.

Sincerely,  
Jim Thrush  
Publisher & Editor



# To the Journal :

## Letter's & email s

### EDITOR:

Congratulations to you and your team on an outstanding premier issue of the Journal of Environmental Management Arizona. What a terrific new resource for Arizona. "The Journal" has new meaning to EHS professionals outside of Wall Street.

PAUL KRAMKOWSKI

Environmental, Health, and Safety Waste Operations  
Manager Raytheon, Tucson

### EDITOR:

Congratulations on an excellent idea and commitment that you have achieved. In 23 years working in the Arizona environmental industry, this magazine is the first breath of hope for us non-networking, small business owners, who have to be involved in the daily operation of our business and unable to go out and network on the golf course, lunch, or cocktail hour. Even if you are fortunate enough to get out, you come back with an assortment of colored business cards that you place in your contact book. After three days you find the time to call your new-found contacts, and no one

remembers you.

This magazine is a networking and information jewel for us small guys. Small Business Owners should applaud you in your hard work.

DIANNE M. SHOLL

President & CEO

Diversified Transportation, Inc.  
Laveen, AZ

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who send in your comments  
& suggestions.*

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*An Interview with ADEQ Director*

## **Stephen A. Owens**

**Stephen A. Owens, recently appointed Director of ADEQ, speaks about his plans for the agency with the Journal**

by Tom Curry  
and Jim Thrush

**O**n February 28th, Tom Curry, Environmental Compliance Administrator from the Central Arizona Project, and Jim Thrush, Publisher & Editor of the Journal of Environmental Management Arizona, were privileged to meet with Steve Owens, the new Director of the Arizona Department of Environmental Quality (ADEQ). As head of the state agency that oversees environmental regulations and compliance in Arizona, the director's plans for the agency are very important to Journal readers and Arizona businesses. Tom asked the Director a few questions about his plans for ADEQ as he settles into his new position. The following are excerpts from the session.

*Director Owens, some of your predecessors came into the Directorship with an agenda to make some serious changes in how Arizona's environment is regulated. What are your plans, do you have an agenda?*

I came into the ADEQ with an agenda "only in the broadest sense", said Director Owens. His agenda has two items. First, to make the agency more user friendly and customer service oriented. For example, there is a need to reduce the timeframes on permitting. This will help reduce the element of uncertainty for businesses, which, he said, is the biggest problem of a businessman. And second, to focus on the best use of agency resources from a cost-effectiveness perspective and from a constituent service perspective. The Director emphasized outreach and compliance assistance, and said the agency will "focus outreach to get the biggest bang for the buck" and "retool to help those needing the greatest amount of assistance." An immediate challenge is to work with the state legislature to help them understand the impact of budget cuts on AZPDES.

*You've come on board at ADEQ during a time when our new Governor is emphasizing "efficiency and effectiveness" as mandates to departments to save money and justify existence. Governor Napolitano is implementing "efficiency reviews." Will ADEQ have an efficiency review?*

ADEQ will perform an efficiency review. "We will take a hard look at the programs here, the resources devoted to programs, and how well we are doing them. We will look at ways to do these (programs) more cheaply, and decide if it is worth doing them." Federal and state mandated programs,

---

Director Owens has a degree from Brown University and a law degree from Vanderbilt Law School, and has been a practicing environmental attorney in Phoenix for 14 years. From 1982-84 he served as counsel to the Subcommittee on Investigations and Oversight of the U.S. House of Representatives Committee on Science and Technology. From 1985 - 88 he was chief counsel and later state director for then U.S. Senator Al Gore. Director Owens has served on numerous environmental panels, including the EPA's Clean Air Act Advisory Committee, the Phoenix Environmental Quality Commission, and the Joint Public Advisory Committee of the North American Commission on Environmental Cooperation, which reviews environmental matters arising under the North American Free Trade Agreement (NAFTA). Director Owens also has written and lectured on Arizona environmental law. Steve and his wife Karen have two young sons, John and Ben.



*Director Steve Owens, Arizona Department of Environmental Quality*

the Director said, must be done and be done well.

*What are some of the efficiency and effectiveness programs you foresee for ADEQ?*

The agency is “looking at the cost of outsourcing work that could be brought in-house to cut costs and provide more responsive service.” The ADEQ also plans to reform the UST program.

*ADEQ has delegated substantial amounts of water and wastewater compliance enforcement to cities and counties. HB2123 is proposing the delegation of AZPDES to qualifying counties also. Is ADEQ receiving any funding from the EPA to operate AZPDES?*

The bulk of funding is from state appropriations. However, the Joint Legislative Budget Committee (JLBC) has proposed budget cuts that would affect AZPDES in 2004, and will require ADEQ to charge fees. There were no fees included in the original bill, but the JLBC proposal would allow fees, which could be substantial. The current JLBC


proposal, according to the director, is a jolt (to the program) because funding would end before fees would be collected. Instead, fees should be phased in.

*Do you support AZPDES being delegated to the counties?*

No, not at this time. There is substantial opposition to this, especially in the early days (of the program.) It makes sense to have authority closer to the counties, but the challenge is providing technical assistance when delegating to the counties. Counties want more technical knowledge.

*Continued on page 10*





*Raises concerns for generators*

# *ADEQ Orders Haz Waste Facility Closure*

ADEQ to supervise safe  
handling and disposal of all materials  
currently stored at the closed Innovative  
Waste Utilization, LLC, facility.  
Generators scramble to find a new TSDF

by Journal Staff

Many generators who shipped hazardous waste to Innovative Waste Utilization, LLC, (IWU), in Phoenix scrambled to choose another Treatment, Storage, and Disposal Facility (TSDF) recently after the Arizona Department of Environmental Quality ordered the IWU facility to cease operations. Faced with the sudden closure, and in light of the RCRA “cradle-to-grave” responsibility a hazardous waste generator incurs, the choice of a TSDF became a priority consideration for many IWU clients. Perhaps even generators who did not do business with IWU were also asking themselves, in light of recent events, “have I carefully chosen my waste transporter and my TSDF?”

*This article recaps the recent events surrounding  
IWU, and reports on ADEQ's position regarding a generator's  
responsibility for waste shipped to a TSDF*

On February 26, Arizona Department of Environmental Quality (ADEQ) Director Steve Owens ordered the closure of Innovative Waste Utilization, LLC, (IWU), a permitted hazardous waste TSDF based in Phoenix, after a drug enforcement task force made a number of arrests at the facility. Director Owens ordered IWU to immediately cease its operations at the facility.

ADEQ announced at the time that it was taking three separate actions:

- (1) ADEQ suspended the facility's hazardous waste permit effective immediately. The facility is no longer legally authorized to accept any hazardous waste.
- (2) ADEQ revoked the facility's hazardous waste permit, requiring the facility to close permanently. This action is subject

Photo: *Drums of waste at the IWU site. March 8th.*



to an appeal within 30 days.

(3) ADEQ issued a compliance order to govern the safe handling and disposal of all the materials currently stored at the facility. ADEQ will supervise those activities to ensure they are properly carried out.

According to an ADEQ spokesperson on March 8, the facility failed to comply with the order. During an inspection, conducted jointly with the Phoenix Fire Department, ADEQ inspectors discovered that barrels exposed to the weather had begun to tip or expand as a result of recent rains and rising temperatures, circumstances that would have been prevented if the company had complied with the order and begun removing the materials.

Director Owens determined that the improper storage of these substances, a wide variety of acids, corrosives, and other potentially flammable materials, posed an unacceptable risk to public safety and the community. On March 7th, the Director ordered his staff to take emergency response action to remove the substances. ADEQ officials estimated it may cost as much as \$500,000 to remove the waste from the facility, a cost they plan to recover from the company.

#### Generator responsibilities

In light of these recent events, and considering the “cradle-to-grave” responsibilities of a hazardous waste generator, the Journal asked ADEQ’s Waste Programs Division Director, Shannon Davis, for the Division’s position on generator responsibilities, not specifically to the IWU situation, but in any potential case where a TSDF might mishandle a generator’s hazardous waste.

#### **JOURNAL: *What are a hazardous waste generator’s responsibilities if their TSDF mishandles their waste?***

ADEQ: The generator is the first link in the cradle-to-grave hazardous waste management system. All generators are responsible for overseeing the ultimate fate of the waste that they generate. However, in the majority of instances, the TSD facility would be responsible for correcting any problems that resulted from waste mismanagement. A broad range of enforcement options are available to the regulating agency (ADEQ in Arizona) to facilitate quick resolution of problems at TSD facilities. These options include administrative, civil and criminal actions. In addition, TSD facility permit requirements include financial assurance to ensure that funds are available in case corrective action is required at a TSD facility.

If waste is mishandled by the TSD facility, the generator should ensure that his shipment records are up-to-date and that all manifests for waste sent to that facility are readily accessible. The regulating agency should be notified of the mismanagement by the generator so that any necessary action can be coordinated between the parties. Depending upon how the waste was mismanaged, the generator may need to arrange shipment of their waste to an alternate TSD.

#### **JOURNAL: *Does ADEQ advise facilities on what they need to do when choosing a TSDF?***

ADEQ: In general, ADEQ does not recommend specific TSD facilities. However, ADEQ would advise a generator to do, at a minimum, the following:

- ◆ ensure that the facility has any necessary permits in place,
- ◆ review the facility’s compliance record, and
- ◆ visit/inspect the facility prior to making a final TSD facility selection.

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#### Sources of information

The ADEQ publication, “Managing Hazardous Waste, A Handbook for Small Businesses,” states: “It is important to choose your transporter and your TSDF carefully since you remain responsible for the proper management of your hazardous waste even after it has left your site. For help in choosing a transporter or TSDF, check with the following sources:

- ◆ References from business colleagues who have used a specific hazardous waste transporter or TSDF
- ◆ Trade associations for your industry that might keep a file on companies that handle hazardous waste.
- ◆ The Better Business Bureau or Chamber of Commerce in the TSDF’s area, which might have a record of any complaints registered against a transporter or a facility.
- ◆ ADEQ can tell you whether the transporter or TSDF has a U.S. EPA ID number and a permit, if required.”

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While ADEQ plans to recover the waste removal costs at IWU from the company, it is still prudent to ask, “What more can a waste generator do to protect itself?” Janet R. Carl, Senior Vice President of Marsh USA, Inc., offered this advice:

- ◆ Audit your TSDF
- ◆ Ensure you have proper

*Continued on page 10*

## Stephen Owens: ADEQ Director

*Continued from page 8*

*Since ADEQ just recently acquired NPDES primacy, are there other programs overseen by the federal government (EPA) that would benefit ADEQ to take over by obtaining primacy?*

Not at any time soon. "But in general, whenever we are in a position to accept primacy we should do so," he said, "because local regulation is beneficial to those regulated, as opposed to dealing with regulators far away."

*Do you see any changes in the level of practical assistance that ADEQ offers to facilities handling hazardous waste or hazardous materials? For example, will the new Facility Assistance Unit have the personnel and resources available to implement assistance programs?*

"It is a top priority to provide services," the Director said, but (the level of services) depends on budgeting. However, there are no

general fund budget cuts for this agency (for 2003.)

*There is a concern that ADEQ will use enforcement to raise funds.*

We must give the public confidence that we are doing our job on enforcement. But, "enforcement is the least cost-effective" action the agency can take, while "compliance assistance is the most cost-effective" action ADEQ can take. However, "when warranted, the agency will take strong enforcement action." Enforcement will be devoted to those bad actors with violations that are deliberate or incompetent. If you make an honest mistake, then we want to work with you to correct (the matter).

*Terry Goddard recently became Attorney General and owing to required tightening of belts has been cutting his staff. Will his cuts effect enforcement actions in court for ADEQ?*

The Director said he has a good working relationship with the Attorney General. He said, "if we are faced with a need for significant enforcement action we believe the resources will be there."

*At closing, Jim offered a standing invitation to the Director and ADEQ to write a column for the Journal about any of the concerns of the agency. The Journal extends our appreciation to Director Owens for his participation in this interview.*

Tom Curry, Environmental Compliance Administrator, Central Arizona Project, can be reached at 623-869-2353, or by email at [tcurry@cap-az.com](mailto:tcurry@cap-az.com). Jim Thrush, Publisher, Journal of Environmental Management Arizona, can be reached at 480-422-4430 x42, or by email at [jimthrush@ehshomepage.com](mailto:jimthrush@ehshomepage.com).

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## TSDF Closure

*Continued from page 9*

indemnifications with your Transporter and TSDF

- ◆ Ask, what did they post for financial security?
- ◆ Purchase Pollution Legal Liability insurance, with Non-Owned Disposal Sites (NODS) coverage, to provide protection against possible clean-up costs, tort claims, and defense costs related to your disposal sites.

### *Editors Note:*

Journal staff invited Innovative Waste Utilization, LLC, to publish a statement, but no response was received as of the closing date for this issue.





# news briefs

❖ **Toxic Data Reports (TDR) are due.** Regulated Arizona P2 facilities are required to file a TDR by **July 1, 2003** to ADEQ. A TDR consists of a toxic release inventory (TRI) form, an annual progress report, and if applicable, an amendment to the P2 plan. If you have questions on completing your TDR call 602-771-4205. *See page 26 for a related article; P2 Plans and Emergency Management Systems (EMS).*

❖ **The Chandler Fire Department recently changed format requirements for electronic reporting of Hazardous Material Inventory Statements (HMIS) and Hazardous Material Management Plans (HMMP),** according to Virginia Holtzclaw, Lead Fire Prevention Specialist. The new requirement specifies that reports must be in a format that will import or interface with the software program currently used by the fire department. The submittal is required to determine the Fire Code Permitting criteria for storage, use, and/or handling of hazardous materials within the City of Chandler. Electronic reporting is required for all new or existing facilities and upon permit renewal.

**Environmental Compliance Solutions, Inc.** (ECS, Inc.), provides the electronic reporting software currently used by Chandler free to the city. If a facility is using software that is not importable, Ms. Holtzclaw said they are directed to ECS, Inc., for assistance.

The city turned to electronic reporting because of an effort by the city's Hazardous Material Advisory Committee to improve emergency planning, response time, and improve communications between the fire department and industry

response team members.

Benefits to the fire department are:

- ◆ Data is sent to a secure server by industry and can be delivered to responding fire units

- ◆ In route to, or once on scene, the fire department can retrieve information pertaining to the facility quickly to mitigate or identify the hazard

- ◆ Assists the Battalion Chief with placement of units, identifying parts of the building and effected area, locating of shut-off valves and aiding in identifying vulnerability areas.

- ◆ Entry Team can be provided with a map(s), printed at the scene, of the affected area and shut off-valve locations

- ◆ Provides real-time information to the responders, enhancing response effectiveness.

Benefits to industry are:

- ◆ All reporting data is in one place, fulfilling all UFC Article 80 requirements for hazardous materials storage and use functions

- ◆ Easier and faster submittals to the fire department — updates are very quick and easy, making perpetual compliance possible

- ◆ Can assist with facility inspections and audits

According to Ms. Holtzclaw, **“every time a company makes a change, I have that instantly. With the paper reporting, we could have materials on site for a year without our knowledge, before they (facilities) update with a paper copy.”**

❖ The Arizona Emergency

## News Briefs

will publish items of general interest regarding important notices, new products or services, significant accomplishments or awards to individuals or facilities, and other information helpful & of interest to Arizona's EH&S community. Photographs are also encouraged; contact us first regarding photo requirements. Please contact the editor, or send your notices to: Editor@ehshomepage.com

Response Commission publishes the "Gatekeeper Newsletter," a great source of current emergency and environmental information. You can find current and past issues of the newsletter at [www.dem.state.az.us/azserc/](http://www.dem.state.az.us/azserc/) in both Word and PDF format.

The Annual Gatekeeper Workshop has been rescheduled to May 15th, and AZSERC will be hosting an EPA Toxic Chemical Release Inventory Report Workshop (Form R) on the 16th. The location will be at 125 East Commonwealth Avenue, Chandler, Arizona. If you already registered for the original dates, your registration will be honored for this event. If you have questions please contact Diane Fernandez at 602-392-7517.

❖ The Office of Management and Budget (OMB) and the U.S. Environmental Protection Agency (EPA) recently announced the creation of Regulations.gov, a site designed to allow citizens and small businesses to access and comment on hundreds of rules from all federal agencies. At [www.regulations.gov](http://www.regulations.gov), you can find, review, and submit comments on Federal documents that are open for comment and published in the Federal Register, the Government's legal newspaper.

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13th Annual RCRA Seminar

## ***RCRA Survivor: Outlearn, Outthink, Outplan***

SAEMS invites you to attend the 2003 RCRA seminar -- an excellent way to keep up with ever-changing regulations and training options, and have a little fun, too. This year the seminar offers well-versed speakers, comprehensive resource materials, certificate of attendance, continental breakfast and gourmet lunch, vendor booths, door prizes, plus an opportunity to gather with your peers.

Date: May 6, 2003

Time: Registration begins: 7:30 a.m.

RCRA Basics: 8:00 - 9:00 a.m.

(Optional pre-session covering the ABC's of RCRA)

Seminar: 9:00 a.m. - 4:30 p.m.

Place: Tucson Marriott - University Park

880 E. Second St. (Euclid and Second)

Tucson, Arizona *Parking garage on First St. east of Euclid / attendees will receive parking vouchers*

The cost is \$105 to SAEMS members (\$115 to nonmembers) and includes continental breakfast, lunch, and course materials. Please register early - we expect a sell-out crowd. The price increases to \$135 after April 18th to both members and nonmembers.

This seminar is designed to meet annual training requirements for those who have already received basic RCRA training.

### **For more information:**

Contact Paul Kramkowski at 520.794.8766 or [paul\\_s\\_kramkowski@raytheon.com](mailto:paul_s_kramkowski@raytheon.com)

### **For a Registration Form:**

visit our website at [www.saems.org](http://www.saems.org)

To sponsor the seminar or participate as a vendor in the mini trade show, contact Pete Wagner at 520.663.4782 or [pwagner@slimfast.com](mailto:pwagner@slimfast.com)

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- ✓ Facility compliance personnel
- ✓ Consultants, attorneys, regulators, anyone involved in environmental issues





*Sustainability and Sustainable Development:*

## *Lessons From Wil I Rogers*

*"All I know is what I read in the newspapers..."*

Will Rogers, humorist

Nicholas R. Hild, PhD.

What got me to thinking about that quote was a quarter page ad I read recently in the Arizona Republic (February, 2003) that was aimed at making people aware of just how much the U.S. relies on Canada for so much of what runs our economy. It was illuminating, to say the least, because in the current administration's *'threat-driven'* federal agenda, we see very little about the importance of Canada and a whole lot about the political and/or strategic importance of various oil-rich Middle Eastern countries.

One of the things that struck me about the ad was it was the first time I have seen just how much our nation, and Arizona in particular, is impacted by trade with Canada. Arizona exports to our northern NAFTA neighbor: Semiconductors: \$139M/yr; Aircraft parts and engines: \$131M/yr; Computers: \$127M/yr; Agricultural products: \$90M/yr; Metals: \$68M/yr. But, *even more startling*, did you know that Canada is America's largest and most reliable source of energy, providing the U.S. with more oil and natural gas than Mexico, Venezuela, or any country in the Middle East (*emphasis added*).

Further, did you know that Canada buys more of what the U.S. produces than any other country in the world? More than Japan or Mexico, and more than all fifteen countries of the European Union combined (*emphasis added*).

You would think that Congress would realize that nurturing the trade-relationship with our good neighbors to the north would only be logical and, in our terminology, the *'sustainable'* thing to do, *as a matter of federal policy*. But, guess what? Congress has recently slapped a 27% U.S. import tax on Canadian lumber, under the misinformed assumption (i.e. excuse?) that such lumber comes at a great *environmental* price to Canadian forests. All this while, at the same time, our current administration eased air emissions controls requirements for power plants in the northeastern U.S. where SO<sub>x</sub> and particulates create acid rain which directly impacts Canadian border forests and communities dependent on the lumber they export (to the U.S.) for jobs.

I don't want to make this a political opinion column but I can't ignore the current 'world' situation either because it bears directly on our Canadian policies. And, it is especially critical since it is such a tangled web we need to understand because our *sustainable development* policies get buried so deeply in the turmoil, they may never surface again. So, lest anyone think our current (pending) war with Iraq isn't all about controlling world oil supplies (and a lot less about the threat that Iraq represents to the U.S.), read the New York Times newspaper release (November 26, 2002) that quoted Guy Caruso, head of the Energy Department's Energy Information Administration. Caruso says, the largest volume of U.S. Strategic Petroleum Reserve and stocks are actually in other countries outside the U.S., represented by those Middle Eastern countries with whom we have a *good relationship* built on fragile and very divergent ideology. Specifically, he notes that Saudi Arabia is our strategic safety valve with the excess oil to get our economy humming again, after the war. Interestingly, Saudi Arabia only supplies 1/6<sup>th</sup> of our oil while more than 50% is supplied by Canada, a country we obviously need to nurture continued support for, lest they tire of our 'bad neighbor' policies.

You know, I read all this in the newspapers; that's a good place to make a public outcry . . . before we have a war . . . for our children's children's children.

Nicholas R. Hild, PhD., Professor, Environmental Technology Management, Arizona State University College of Technology and Applied Sciences, has extensive experience in Environmental Management in the southwestern U.S. Dr. Hild can be reached at 480-727-1309 and by email at DrNick@asu.edu.

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The Journal maintains a website to enable on-line subscribing and provide information about the Journal.

Look here for reference materials, notices, and other documents that may be referred to occasionally in various articles.

Please visit the site and make use of our links and references.  
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# Regulatory Developments

Legal news you can use

Michael C. Ford, Attorney

*The purpose of this column is to highlight for the non-environmental lawyer developments in the law of practical importance to Arizona businesses. General familiarity with environmental laws and acronyms is presumed. If you have any questions or comments, or a topic you would like to see addressed, please let me know (see contact information below.)*

**T**he new year has already seen several significant developments regarding Clean Water Act compliance issues affecting Arizona environmental professionals.

**AZPDES.** After receiving NPDES permit program delegation from EPA at the end of last year, ADEQ issued on February 25, 2003 an AZPDES general permit for storm water discharges from construction activities. The permit covers both large (five acres or greater) and small (greater than one acre but less than five) construction projects. Those familiar with EPA's general stormwater permits will note a few new and unique requirements. For example, while endangered species are no longer a direct concern, the AZPDES permit contains special requirements for projects within one-quarter mile of waters designated by ADEQ as "impaired" or "unique." Such projects are not automatically authorized, and require SWPPP submittal and a 32-day review period. The permit also has some complex transition provisions for projects ongoing as of the effective date of the permit (February 28, 2003).

**SWANCC Fallout.** On January 15, 2003, EPA and the U.S. Army Corps of Engineers issued an advance notice of proposed rulemaking (ANPR) requesting public input regarding the proper scope of CWA jurisdiction in the wake of *Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers* (SWANCC). In SWANCC, the Supreme Court held that the Corps lacked §404 jurisdiction over an isolated, intrastate, non-navigable water (an abandoned gravel pit). The Corps had asserted jurisdiction to protect migratory bird habitat under the auspices of the so called "Migratory Bird Rule", but the Court rejected this rationale, thereby calling into question the constitutionality of agency jurisdiction under other CWA programs as well, namely NPDES (§402), oil spill (§301), water quality standards (§303), and the water quality certification (§401) programs.

The notice includes a joint guidance memorandum pending completion of the rulemaking process, which could be several years, given the anticipated extreme level of interest the rulemaking will generate (legislation has already been introduced in Congress to counteract SWANCC). The guidance states that neither the EPA nor the Corps will assert jurisdiction over isolated, intrastate, non-navigable waters, where the sole basis is any of the Migratory Bird Rule factors (use of the water as habitat for protected migratory birds or endangered or threatened species, and use of the water to irrigate crops sold in interstate commerce). For jurisdictional scenarios based on the other interstate commerce grounds listed in 33 CFR §328.3(a)(1)(i-iii), the guidance instructs field staff to seek prior formal approval from Corps Headquarters. CWA applicability to wetlands and ephemeral streams and washes are among the controversial issues that should be resolved by the anticipated rule. The comment period on the notice

*Continued on page 24*

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Michael C. Ford is an Attorney with the Phoenix office of Bryan Cave, LLP. Mr. Ford practices exclusively in the area of environmental and occupational safety law. His practice is focused primarily on regulatory compliance advice and enforcement defense. He can be reached at 602-364-7417, or by email at [mcford@bryancave.com](mailto:mcford@bryancave.com).

# Associations Pages

*Editors note:* Arizona's many environmental associations provide a path for communication and education in the EH&S community. Among other benefits, they provide networking opportunities, educational resources, and keep members informed on professional news and technical advancements. Many of these resources are available to both members and nonmembers, so always look to these associations when you need assistance.

If your organization is not represented here, and you would like to be, please call us. Being a part of the Associations Pages benefits both the organizations and the readers, most of whom belong at most to a only a few of the organizations, but still would like to keep current on all environmental activities.

---

## AAI

AAI was pleased to have ADEQ Director Steve Owens and Deputy Director Patrick Cunningham at its March 12th EHS Committee Breakfast Meeting. Both

discussed their new roles and their vision for the agency and addressed a number of questions from those in attendance.

Barton Day from Bryan Cave LLC will be speak at the April 9th EHS Committee Breakfast Meeting about an environmental damages legal claim by the government of Kuwait against the government of Iraq resulting from the 1991 Gulf War. AAI's Environmental Health and Safety Committee holds a breakfast meeting each month on the second Wednesday at 7:30 AM where speakers address EHS related topics like these. Visit AAI's web site at [www.azind.org](http://www.azind.org) for more information or call Brent Frazier (number below).

AAI and EPA Region IX teamed up to host an SPCC work shop on March 12th. Peter Reich from EPA Region IX was the presenter and provided a full-day work shop and addressed question on recent changes to the SPCC program.

AAI's annual EHS Summit is scheduled for August 13th, 14th and 15th at the Prescott Resort in Prescott, Arizona. For more information on opportunities to sponsor, present or attend, please contact Brent Frazier at 602-252-9415 or visit AAI's web page at [www.azind.org](http://www.azind.org).

*Jeff Homer,  
EHS Committee  
Co-Chair*



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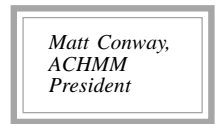
## ACHMM Thunderbird

The 2003 National Conference of the Academy of Certified Hazardous Materials Managers (ACHMM) is

being held September 14-17, 2003 at The Fairmont Hotel in Dallas, Texas. This is a national conference which attracts environmental, health, and safety managers, industrial hygienists, spill response professionals, regulators, and consultants throughout the United States.

ACHMM expects 800 - 1000 environmental professionals to visit Dallas for the 2003 Conference. At the 2002 Conference in Kentucky, attendees represented 45 states (including Alaska and Hawaii), Washington D.C., and the West Indies. For more information, visit the local ACHMM

*Matt Conway,  
ACHMM  
President*



Thunderbird Chapter website ([www.thunderbirdchmm.org](http://www.thunderbirdchmm.org)). Please remember that you do not need to be a CHMM in order to attend the National Conference.



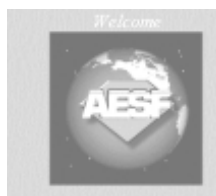
*Barry Westerhausen,  
Sergeant at Arms*

At the AESF meeting held on February 13th, Dave Jallo, Greg Walliman, and Chuck Paulausky of

Environmental Data Management (EDM) gave a presentation on the current state-of-the-art in environmental information management systems (EIMS). This included a demonstration of the software capabilities of EDM's Comm-Trac environmental package. The package provides time saving benefits along with included alerts of up-coming environmental issues and responsible parties for each action item. Dave also touched on the regulatory incentives to EIMS and provided sources for additional information.

Our meetings are on the second Thursday of each month at the Doubletree Plaza Sunrise Room, 3345 E. 44th at Van Buren (1 block south of HWY 202). The social hour begins at 5:30 PM, dinner at 6:30, and the meeting starts at 7:30. For more information on AESF, contact Barry Westerhausen, LA Chemical, at 480-206-4107, or by email at [bwesterhausen@lachim.com](mailto:bwesterhausen@lachim.com). Visit the Greater Arizona Branch AESF website at [www.aesf.org/bd.cfm?br=52](http://www.aesf.org/bd.cfm?br=52).

## AESF



*David G. Young,  
President*

The Arizona Environmental Strategic Alliance identified its three "Critical Few" priorities for 2003:

- (1) Provide practical environmental information to the public of Arizona through the Alliance's partnership with Earth's 911;
- (2) Partner with key stakeholders to develop an Environmental Leadership Performance Track program for Arizona; and
- (3) Drive items that are not being currently addressed by other groups or organizations. These priorities are seen as the best use of our resources in a manner that will bring the most benefit to the environment of Arizona and are currently being addressed by the Alliance.

The Alliance is currently working with Earth's 911 to provide environmental information to the public of Arizona through Earth's 911's web site (<http://www.cleanup.org>). We encourage everyone to use the web site to see how as individuals you can help Arizona's environment everyday. Through its member companies and organizations, the Alliance is working to spread the word about the web site and get feedback from

## Arizona Environmental Strategic Alliance





the public.

During our regular February 6th meeting our EPA Region 9 Advisory Council member, Tai-Ming Chang, Deputy Director of the Cross-Media Division, shared EPA's experiences with Performance Track programs in other states and how such a program could be implemented in Arizona.

To address the third priority, on February 12th the Alliance met with ADEQ Director Steve Owens and Deputy Director Patrick Cunningham to discuss this year's Alliance priorities and to offer our assistance in helping to improve Arizona's environment. Several potential projects include developing a web-based materials exchange system, and developing a "Buy Green" coalition.

For more information about the Arizona Environmental Strategic Alliance, please see our website at <http://www.azalliance.org> or contact David Young by phone at 480-460-5751 or 602-561-2470 (cell) or by e-mail at [azalliance@azalliance.org](mailto:azalliance@azalliance.org).

## AZ ELM



Arizona Environmental Leadership Through Mentoring (AZ ELM) is a non-profit organization of environmental professionals whose clear vision is to provide a strong leadership and mentoring role in Arizona. The primary goal of AZ ELM is to improve our quality of life and the environment in Arizona.

*David L. Kirchner,  
President*



The mission of AZ ELM is to mentor Arizona small- and medium-sized businesses and organizations by providing educational assistance, information, and resources to help those organizations to achieve improved performance and compliance with environmental, health & safety regulations.

AZ ELM will provide a framework through training and education that encourages a holistic, multimedia approach to encourage and enhance more green business practices and sustainability. The objectives are not only to assist businesses and organizations with routine environmental compliance, but also to help them to move beyond compliance and improve their competitiveness in the world marketplace.

During AZ ELM's March 2003 board of directors meeting, the board elected Mr. David L. Kirchner to serve as its new president. Mr. Kirchner, who is a professional geologist, established four goals for his first year as AZ ELM's leader:

- 1) Award grant money to AZ Elm's first mentor recipient,
- 2) Obtain a firm commitment from Arizona Department of Environmental Quality to actively support and participate in AZ ELM's programs,
- 3) Add new members to AZ ELM and activate the current membership of small and medium-sized businesses, and
- 4) Organize and host AZ ELM's 2nd annual Symposium

for Environment and Economic Development (SEED).

If you are interested in joining AZ ELM or participating in SEED #2, which has been set for late October 2003, please contact Mr. Kirchner at 602-840-3333 or by e-mail at [kirchner@basin-and-range.com](mailto:kirchner@basin-and-range.com). Also, for additional information about the organization, please visit AZ ELM's web site at [www.azelm.org](http://www.azelm.org).



*Mike Block,  
President*

The Arizona Hydrological Society has a busy schedule for 2003.

A number of special workshops and symposia are

in the works, as well as regular monthly activities. Members and non-members alike are encouraged to participate.

AHS and the Water Resources Technology Program of Gateway Community College are pleased to announce a two-day Aquifer Test Workshop short course to be held April 24-25. The workshop will be held at Gateway Community College in Phoenix. Instructors for the workshop include Jim Butler of the Kansas State Geological Survey and Glenn Duffield, author of AQTESOLV. For more information, please see the AHS webpage or contact Dr. Peter Kroopnick at [pkroopnick@brwnald.com](mailto:pkroopnick@brwnald.com) or (602) 567-3850 or Michael Geddis at [mikeg@hgcinc.com](mailto:mikeg@hgcinc.com) or (520) 293-1500, x-114.

In conjunction with the Salt River Project, the U.S. Water Conservation Laboratory, and the Arizona Department of Water Resources, AHS will present the 11th Biennial Symposium on Groundwater Recharge at the Embassy Suites in Tempe on June 5-7. Among the many topics that will be explored are conjunctive use of surface and groundwater, interstate water banking, and impacts of recharge on groundwater quality, wildlife, and human health. For more information, please contact Doug Bartlett at [dbartlett@clearcreekassociates.com](mailto:dbartlett@clearcreekassociates.com).

Planning is well underway for the Arizona Hydrological Society's 16<sup>th</sup> Annual Symposium, to be held September 17 - 20, 2003 at the Mesa Centennial Center. The symposium planning committee has selected "Sustainability Issues of Arizona's Regional Watersheds" as the theme for this year's event. Technical sessions will focus on the issue of sustainability in our arid environment. The Mesa Centennial Center promises to be a great venue with lots of space for exhibitors! If you are interested in exhibitor space, or even sponsoring part of the symposium, please contact Dave Christiana, Symposium Treasurer at [dchristiana@ox.net](mailto:dchristiana@ox.net). If you would like more information about the symposium program, please contact Julie Rutkowski, Symposium Committee Chair at [rutkowski.julie@ev.state.az.us](mailto:rutkowski.julie@ev.state.az.us).

Please visit our website at [www.azhydrosoc.org](http://www.azhydrosoc.org) for the latest on all of our upcoming activities including monthly meetings in Flagstaff, Phoenix, and Tucson.

## *Arizona Hydrological Society*



## SAEMS

SOUTHERN ARIZONA ENVIRONMENTAL MANAGEMENT SOCIETY, INC.

### **SAEMS Co-hosts "Meet and Greet" with ADEQ Leadership**



*Jeff Yockey,  
President*

SAEMS, along with the Arizona Department of Environmental Quality (ADEQ) Southern Regional Office (SRO) staff, and the NIEHS University of Arizona Superfund Basic Research Program sponsored a reception in Tucson for ADEQ Director Steve Owens and Assistant Director Patrick Cunningham. The event provided an informal opportunity for southern Arizona stakeholders to meet ADEQ's new leadership. In addition, it provided Director Owens a forum to give an initial assessment of his new job, and to describe his vision for ADEQ. The event attracted nearly 100 participants.

#### ***Upcoming Events***

SAEMS will have a booth at the Tucson Earth Day Festival on Saturday, April 19, 2003. Participating in Earth Day festivities is an excellent opportunity for environmental professional to reach out to young people and educate them on environmental matters that affect their local communities and beyond. The event runs from 9am to 1pm and is open to the general public.

SAEMS will hold its annual RCRA Seminar on May 6, 2003. The daylong event historically attracts over 150 people who receive instruction on issues relating to all aspects of hazardous waste management. The faculty consists of a diverse group of professionals representing industry, regulators, consultants and attorneys, all with real world experience. The seminar meets the requirements for annual, 8-hr RCRA refresher training.

For more information about these events or SAEMS in general, visit our web site at [www.SAEMS.org](http://www.SAEMS.org), or contact Jeff Yockey, SAEMS President, at 520-884-3692.

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Charlotte Payton,  
Vice President

The Environmental Professionals of Arizona (EPAZ) and Arizona Department of Environmental Quality share a history of common

EPAZ



interests, growth, and involvement that goes back decades.

Those of you who were active in the environmental community in the late 1980s will remember the HazWaste Society. It was formed in 1986 with the objective to study, evaluate, and control the hazardous wastes generated in Arizona. About that same time, the scope of RCRA (Resource Conservation and Recovery Act) and its subsequent amendments were expanding. Other EPA companion laws, such as Superfund, were also starting to impact the regulated community. The HazWaste Society became a popular local forum to provide environmental professionals with updates on emerging environmental regulations.

To keep pace with the evolution of the environmental industry, the HazWaste Society changed its name to the Environmental Professionals of Arizona in 1997 and adopted a new mission statement that better reflected members' evolving concerns: *to promote effective management of pollution prevention efforts throughout the environment.*

During that same era, Arizonans' concerns about groundwater contamination paved the way for ADEQ's creation as a state agency on July 1, 1987, to administer the state's environmental protection programs. Simply stated, our mission has always been *to protect public health by protecting the environment.*

ADEQ staff started a tradition by serving as founding board members of the HazWaste Society. This involvement has continued over the years, and I'm proud to support that tradition by serving as EPAZ vice-president in addition to my responsibilities in ADEQ's Waste Programs Division, Facility Assistance Unit.

To support the regulated community in meeting environmental mandates, EPAZ has often drawn upon the knowledge and expertise of ADEQ staff to provide updates on emerging issues and new regulations. For years, the HazWaste Society and ADEQ co-sponsored an annual "HazWaste Symposium." Now, at EPAZ's annual "Regulatory Round-Up" conference held in October, ADEQ serves as a co-sponsor and provides speakers to address "hot" environmental topics.

In addition, ADEQ senior managers are frequently guest speakers at EPAZ monthly luncheon meetings. The March 13 meeting featured ADEQ Water Quality Permits Manager Michele Robertson, who provided a timely update on the newly implemented Arizona Pollutant Discharge Elimination System program. The state recently assumed primacy for this permit program covering point source discharges to state waters and industrial sources discharging

to publicly owned treatment works. On June 12, ADEQ Director Steve Owens will highlight his plans and future directions for the agency. And, of course, I'm at every luncheon meeting and look forward to seeing you there also. Visit our website at [www.epaz.org](http://www.epaz.org) or call Charlotte Payton at 602-771-4179 for more information.

## Valley Forward

VALLEY FORWARD



Imagine approximately 1,000 eager, young minds gathering to learn and celebrate the importance of the environment and how it affects our quality of life in Valley communities. For

Valley Forward, students and educators across Maricopa County, this gathering is a reality known as EarthFest®.

Now in its 14<sup>th</sup> year, Valley Forward Association is proud to host EarthFest®, the state's official Earth Day celebration and Valley Forward's largest and most prominent environmental education program. The multi-faceted event takes place April 22 (Earth Day) at the Phoenix Civic Plaza. EarthFest® brings together approximately 1,000 students in grades 4-6 to educate them on all aspects of the environment including air quality and transportation, land use planning and open space, energy, conservation, recycling, water, and waste issues.

Supported by Valley Forward, members and volunteers lead students through EarthFest® activities which include hands-on, interactive learning stations and community building exercises. Students have the opportunity to develop mini-models of a "sustainable" community incorporating the important environmental factors covered in the program.

The half-day field trip will wind up with keynote remarks by renowned Valley architect Vern Swaback, who will provide an overview of what makes communities livable and how they can personally contribute to a healthy environment.

Also part of the overall EarthFest® celebration, Valley Forward is hosting a community GreenUp project on April 26<sup>th</sup>. The project brings together individual volunteers, corporate teams, families and students for a beautification program at a designated Valley location. GreenUp affords volunteers the opportunity to get involved in a community project that results in the power of pride and a real sense of accomplishment at the end of the day.

Valley Forward's work doesn't stop there. Also on the docket this year are key environmental issues which Valley Forward and its new board have identified as priorities for 2003. Projects currently underway include developing a resource guide to turn urban brownfields into viable, usable land across the Valley, the linking of hiking and biking trails with river corridors county-wide and the continuation of targeting transportation, water and land use throughout Maricopa County.

For more information on EarthFest® and/or the Valley Forward Association, call 602-240-2408 or visit Valley Forward online at [www.valleyforward.org](http://www.valleyforward.org).



*Diane Brossart,  
President*



# *It's All About Chemistry*

*Is that arsenic in my drinking water?*

Larry Olson, PhD.

**W**hy should I be concerned if arsenic is found in my tap water? First of all, in Arizona it is not so much a matter of if, but how much. Arsenic is ubiquitous in Arizona soils and the proportion of groundwater contaminated by naturally occurring arsenic is one of the highest in the country.

Epidemiological studies show a correlation between oral exposure to arsenic and skin cancers (including squamous and basal cell carcinomas), as well as liver, bladder, and GI tract cancers. Non-cancerous effects and symptoms of chronic arsenic poisoning include:

- peripheral neuropathy characterized by numbness in hands and feet and muscle weakness
- loss of hair, voice and weight
- nausea, GI hemorrhage, and vomiting
- cardiac abnormalities
- hyperpigmentation and keratosis.

As you can see, from a toxicology standpoint, exposure to arsenic is a major concern.

Under the Safe Drinking Water Act (SDWA), EPA is required to set Maximum Contaminant Level Goals (MCLGs) for a contaminant in drinking water at a level at which there is "no known or anticipated adverse effect on the health of persons." MCLGs are not enforceable standards, but are health goals. However, EPA is required to set enforceable Maximum Contaminant Levels (MCLs) as close to MCLGs as feasible "using the best technology and taking cost into consideration." MCLGs for all Group A (known) or Group B (probable) human carcinogens are set at 0 mg/L. Arsenic is classified as a Group A carcinogen by EPA.

Since 1975, the MCL for arsenic has been 50 mg/L (ppb), based on a Public Health Standard from 1943. Amendments to the SDWA in 1996 required EPA to propose new drinking water standards for arsenic by January 1, 2000 and finalize a new rule by January 1, 2001. Any such new standard involves determining whether improvements to human health justify the costs of more stringent drinking water regulations by considering:

- Benefits of health risk reduction
- Cost of compliance
- Effects on infants, children, pregnant women, and elderly
- Effects on individuals with serious illness or others at increased risk.

Based upon these considerations, the National Research Council (NRC) in 1999 reviewed the most recent data related to estimating the risk associated with arsenic in drinking water and concluded that the MCL of 50 mg/L should be lowered as soon as possible.

On June 22, 2000, EPA published proposed new arsenic regulations that set the non-

*Continued on page 25*

Larry Olson, PhD., Associate Professor, Arizona State University Environmental Technology Management Program. Dr. Olson holds a Ph.D. in Chemistry from the University of Pennsylvania, and is an environmental chemist with interests in remediation technologies and international env. mgmt. He can be reached at 480-727-1499, or by email at [Larry.Olson@asu.edu](mailto:Larry.Olson@asu.edu)



## FORD: Reg Devel opments

*Continued from page 15*

closes April 16, 2003.

Mining Waste Legislation has also been introduced in Congress to amend the definition of "fill material" (discharges of which require a §404 permit from the Corps). The proposed law would nullify the joint EPA/Corps rule issued last year which defines fill material as material which has the *effect* of raising the bottom elevation of a water or converting wet areas to dry land. The unified definition is consistent with EPA's prior position, whereas the Corps' regulatory language

had focused on the *purpose* of the discharge. This subtlety fostered a controversy over whether discharges of waste material, such as overburden from mining operations, qualified as fill material subject to authorization by the Corps under §404, or whether they could only be authorized by an EPA NPDES permit under §402. An anti-mining group scored a shocking but short-lived victory on the issue last year, when a federal district court in Kentucky concluded the Corps' lacked authority to issue a permit for a coal mining operation to discharge overburden into stream beds (*Kentuckians for the Commonwealth, Inc. v. Riverbush*). On January 29, 2003, the Fourth Circuit Court of Appeals reversed, thereby upholding the Corps' authority to regulate and issue permits for such discharges. The proposed legislation would effectively reverse the Fourth Circuit, EPA and the Corps, and require all waste discharges to be covered by an EPA-issued NPDES permit. Stay tuned, as the new year could get even more interesting for Clean Water Act permittees in Arizona.



*Hon. Ken Reilly*

At left: Hon. Ken Reilly of Ken Reilly Seminars, Co., Richmond, Texas, presenting a RCRA Compliance Seminar recently at the Phoenix Airport Holiday Inn Select. Judge Reilly has returned to Phoenix and Tucson annually for 16 years to conduct RCRA training for students, many of whom return year after year. At right: employees from various Arizona facilities listen and participate in the course. Judge Reilly can be reached at 281-239-8387.



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## OLSON: Arsenic

*Continued from page 23*

enforceable MCLG at 0 mg/L and the enforceable MCL at 5 mg/L. Comment was requested on alternate MCLs of 3, 10, and 20 mg/L. The final rule, published on January 22, 2001 in the Federal Register, set the MCL at 10 mg/L. This level was expected to "maximize the health risk reduction at a cost justified by the benefits."

When the new Bush administration took office in January 2001,

EPA postponed the effective date of the rule and requested additional public comment. However, on October 31, 2001, Administrator Whitman reaffirmed that the 10 mg/L MCL standard would be enforced and the original compliance date of January 23, 2006 would not be changed.

What does this mean for Arizona? Estimates are that one third of the drinking water systems in the state exceed the new 10 mg/L standard and will require treatment.



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In the next issue, we will look at what those treatment options are, how much they cost, and from where the money will come to pay for it.



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# *Developing an EMS through P2 planning*

*Reversing the course*

Are you implementing  
an Environmental  
Management System?  
Arizona facilities with a  
P2 Plan may have much  
of what is needed  
already in place

by J. Andy Soesilo, Ph.D., REM

**O**n May 15, 2002, the Administrator of the U.S. Environmental Protection Agency (EPA) Christine Todd Whitman issued an updated EPA statement on Environmental Management Systems (EMS). The renewed policy advocates the use of EMS's across organizations to achieve improved environmental performance and compliance, pollution prevention (P2), and continual improvement. The agency will encourage the use of recognized environmental management frameworks, such as the ISO 14001 standard, as the basis for designing and implementing EMS's and support initiatives that will assist in increasing the use of EMS's in the United States.

This article portrays the connection between an EMS and a P2 program as a chicken-egg relationship. While the use of an EMS can help an organization to improve its P2 program, conversely, an organization without an EMS but having a P2 plan in place can use its P2 planning process to help develop an EMS. The latter represents an important

tenet for certain facilities in Arizona where having a P2 program in place is required by state law. Under Arizona law, the regulated P2 facilities include large quantity generators (LQG's) of hazardous waste, toxic release inventory (TRI) form filers, facilities using a toxic substance exceeding 10,000 pounds annually, and voluntary P2 plan filers. Please see Arizona Revised Statutes (A.R.S.) §49-961 et seq. for Arizona law on the mandatory P2 program.

To demonstrate that the Arizona P2 planning process can be used as a trigger in the development of an EMS, it is necessary to examine what constitutes an EMS, evaluate specific Arizona P2 plan requirements, and then compare those EMS elements with the P2 planning constituents. The comparison will enable us to determine the effectiveness of using the Arizona P2 planning process in developing an EMS and to identify particular action plans which are necessary for the development of an appropriate EMS.

Typically, an EMS consists of elements that are common to managing many organizational processes: planning, organizing, actuating, and controlling. Stapleton, Glover, and Davis (2002)<sup>1</sup> assert that the keys to a successful EMS are:

1. A Policy statement serving as a declaration of top management commitment to the environment.
2. A planning process starting with the identification of environmental aspects, legal requirements, goals and targets, and action plans to achieve goals and targets.
3. An implementation strategy which includes establishing roles and responsibilities for environmental management and ensuring that employees are trained, documentation are maintained, and processes for internal and external communication are established. The strategy also outlines the control of documents and the control of operations including the development of an emergency preparedness and response plan.
4. A monitoring framework which tracks key activities and performance including compliance with legal requirements, correction of problems and prevention of their recurrence, and audit of EMS performance.
5. A management review to evaluate whether the system is suitable, adequate, and effective in satisfying the needs of the



organization.

In Arizona, P2 regulated facilities are required to prepare and implement a P2 plan that addresses a reduction in the use of toxic substances and the generation of hazardous waste. The plan must be submitted to and approved by the Arizona Department of Environmental Quality (ADEQ). The outline of the P2 plan is elaborated under A.R.S. §49-963.J. To help regulated facilities submit plans that meet the statutory requirements, ADEQ published a manual containing instructions on how to identify key areas of concern, develop opportunities, and generate the business plan for implementing a P2 plan on a facility wide basis (ADEQ, 2000)<sup>2</sup>.

Pursuant to Arizona law, a P2 plan submitted by regulated facilities should include the following components:

1. A policy setting forth management and corporate support for the P2 plan and a commitment to implement the plan to achieve the plan goals.
2. A statement of the plan's scope and objectives, review of facility processes, analysis of P2 opportunities and P2 activities that are already in place, explanation of P2 options considered but not implemented, and description of specific P2 goals.
3. A provision to require employee training programs and



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incorporate the P2 plan into management practices and procedures in order to ensure its institutionalization.

4. An analysis of the progress made and the reporting of the P2 plan implementation status annually.

5. Amendments to the P2 plan including the explanation of the need for the amendments.

The comparison between EMS components and Arizona P2 plan requirements suggests that any Arizona facility having a P2 plan can utilize its current P2 planning process to help develop its EMS because much of what is needed for an EMS may already be in place even though they may have been designed for other purposes. Although there is some work involved in planning, implementing, and maintaining an EMS, the development of an EMS can be a mechanism for positive change in the company.

An EMS can help facilities comply with regulations more consistently and effectively. While an EMS should help a facility to improve compliance, this does not mean that problems will never occur. An effective EMS should help the facility identify

*Continued on page 29*

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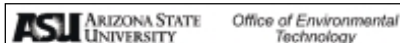
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# Calendar

Arizona Environmental Dates, April 15 through July 15, 2003

## April

- 24 - 25 Aquifer Test Workshop Phoenix. AHS and Water Resources Technology Program of Gateway C. College to hold workshop. Contact Dr. Peter Kroopnick at 602-567-3850 or Michael Geddis at 520-293-1500 x114.
- 22 EarthFest - Earth Day Phoenix Civic Plaza. Hosted by Valley Forward Assoc. Contact 602-240-2408, or [www.valleyforward.org](http://www.valleyforward.org).
- 30 SAEMS luncheon meeting Tucson. Contact Jeff Yockey, President, at 520-884-3692.

## May

- 6 SAEMS RCRA Seminar Tucson. Meets requirements for annual, 8-hr RCRA refresher training. Contact Jeff Yockey at 520-884-3692, or visit [www.SAEMS.org](http://www.SAEMS.org).
- 8 EPAZ luncheon meeting Phoenix. Speaker: Roger Ferland. Topic: Ethics. Contact Eddie Martinez at 480-961-1300. Meetings held at Sheraton Phoenix Airport Hotel from 11:30 am to 1 pm.
- 15 Gatekeeper Workshop Chandler. Rescheduled - original reg. will be honored. Contact Diane Fernandez 602-392-7517.
- 16 EPA TRI Form R Workshop Chandler. Rescheduled - original reg. will be honored. Contact Diane Fernandez 602-392-7517.
- 28 SAEMS luncheon meeting Tucson. Contact Jeff Yockey, President, at 520-884-3692.

## June

- 5 - 7 Groundwater Recharge Tempe. 11th Biennial Symposium on Groundwater Recharge. For more information contact Doug Bartlett at [dbartlett@clearcreekassociates.com](mailto:dbartlett@clearcreekassociates.com). Sponsored by AHS, SRP, US Water Conservation Laboratory, and Arizona Department of Water Resources.
- 12 EPAZ luncheon meeting Phoenix. Speaker: Steve Owens, ADEQ Director. Contact Eddie Martinez at 480-961-1300. Meetings held at Sheraton Phoenix Airport Hotel from 11:30 am to 1 pm.
- 25 SAEMS luncheon meeting Tucson. Contact Jeff Yockey, President, at 520-884-3692.

## July

- 1 Toxic Data Reports due Arizona. Regulated Arizona P2 facilities are required to file a TDR by **July 1**. If you have questions call ADEQ at 602-771-4205.
- 10 EPAZ luncheon meeting Phoenix. Topic: Homeland Security. Contact Eddie Martinez for speaker info. at 480-961-1300. Meetings held at Sheraton Phoenix Airport Hotel from 11:30 am to 1 pm.

*Environmental associations, regulatory agencies, non-profits, and others may suggest items for the Calendar. Deadline for submission is 6 weeks prior to publication date. Acceptance for publication is at the discretion of the editor. Editor: 480-422-4430 x42*

## EMS System/P2 Planning

*Continued from page 27*

and address these problems and prevent their recurrence. In addition, by developing an EMS, companies are required to integrate environmental management aspects with other key organizational processes. Such integration will result in increased efficiency, improvement of financial outlook, product quality, and environmental performance of the facility. Companies with an EMS will enhance their image with the public, regulators,

lenders, and investors. They also will widen their marketability.

### Footnotes:

<sup>1</sup> Stapleton, P.L.; Glover, M.A.; Davis, S.P.; Environmental Management Systems: An Implementation Guide for Small and Medium-Sized Organizations - Second Edition; NSF International, Ann Arbor, MI, 2001.

<sup>2</sup> Arizona Department of Environmental Quality; Pollution Prevention Plan Guidance Manual, ADEQ, Phoenix, AZ, 2000.

J. Andy Soesilo, Ph.D., REM, Associate Professor, Western International University, can be reached at 602-771-4205, or by email at [soesilo.j@ev.state.az.us](mailto:soesilo.j@ev.state.az.us).





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<b>A</b> AAI 16 ACHMM 16 ADEQ 6 AESF 17 AHS 19 Annual Gatekeeper Workshop 12 Aquifer Test Workshop 19 Arizona Env. Strategic Alliance 17 arrests 8 arsenic 23 AZ ELM 18 AZPDES 7, 15 AZSERC 12  <b>B</b> Block, Mike 19 Brossart, Diane 22  <b>C</b> Calendar 29 Canada, trade-relationship 13 Carl, Janet R. 9 Chandler Fire Department 11 Chang, Tai-Ming 18 Chemistry, It's All About 23 choosing a TSDF 9 Clean Water Act 24 closure of Innovative Waste Utilization 8 Conway, Matt 16 cradle-to-grave 9 Curry, Tom 10 CWA 15  <b>D</b> Davis, Shannon 9 Day, Barton 16 Disclaimer, legal 4 drug enforcement task force 8  <b>E</b> EarthFest 22 Electronic reporting 11 EMS 26 EMS, keys to success 26 enforcement, ADEQ 10 Environmental Compliance Solutions, Inc. 11 Environmental Data Management 17 Environmental Management Systems 26 EPAZ 21  <b>F</b> Facility Assistance Unit 10 fill material, definition 24 financial assurance 9 Ford, Michael C. 15  <b>G</b> Gatekeeper Newsletter 12 Generator responsibilities 9 GreenUp project 22  <b>H</b> HazWaste Society 21 Hild, Nicholas R. 13 Holtzclaw, Virginia 11 Homer, Jeff 16  <b>I</b> Innovative Waste Utilization, LLC 8  <b>J</b> Jallo, Dave 17  <b>K</b> Ken Reilly Seminars 24 Kirchner, David L. 18 Kramkowski, Paul 5  <b>M</b> Maximum Contaminant Level Goals 23  <b>Migratory Bird Rule</b> 15 <b>Mining Waste</b> 24  <b>N</b> NPDES 10  <b>O</b> Olson, Larry 23 outreach/compliance assistance 6 outsourcing work, ADEQ 7 Owens, Stephen 6  <b>P</b> P2 plan components 27 P2 plans 26 Paulausky, Chuck 17 Payton, Charlotte 21 permits, stormwater 15 permitting timeframes 6 Pollution legal liability ins. 10 primacy, benefits 10  <b>R</b> RCRA Seminar, SAEMS 12 Regulations.gov 12 Regulatory Developments 15 Reich, Peter 16 Reilly, Ken 24 Robertson, Michele 21 Rogers, Will 13  <b>S</b> SAEMS 12, 20 Safe Drinking Water Act 23 Sholl, Dianne 5 Soesilo, J. Andy 26 stormwater permits 15 Sustainability 13 Swaback, Vern 22 SWANCC Fallout 15  <b>T</b> Thrush, Jim 6 Toxic Data Reports 11 trade-relationship, Canada 13 Treatment, Storage, and Disposal Facility 8 TSDF 8 Tucson Earth Day Festival 20  <b>U</b> UST program, reform 7  <b>V</b> Valley Forward 22  <b>W</b> Walliman, Greg 17 Westerhausen, Barry 17  <b>Y</b> Yockey, Jeff 20 Young, David G. 17	
---	--

## Advertiser Index

Advertiser	Page
Aegis Environmental Strategies	28
AMEC Earth and Environmental	2
Arizona State University	28
ASU East Office of Environmental Technology	28
Basin and Range Hydrogeologists, Inc.	32
Carter Affiliates, Inc.	28
Del Mar Analytical	25
Diversified Transportation, Inc.	27
Environmental Compliance Solutions, Inc.	28
Lown & Hilleman, PLC	20
Oilind Safety	27
Precision Analytical Laboratories, Inc.	5
R. Bruce Scott, LLC	28
Rogers Consulting Services, LLC	28
Romic Environmental Technologies Corp.	31
Siam Thai Cuisine Restaurant	25
Univar USA Inc.	2

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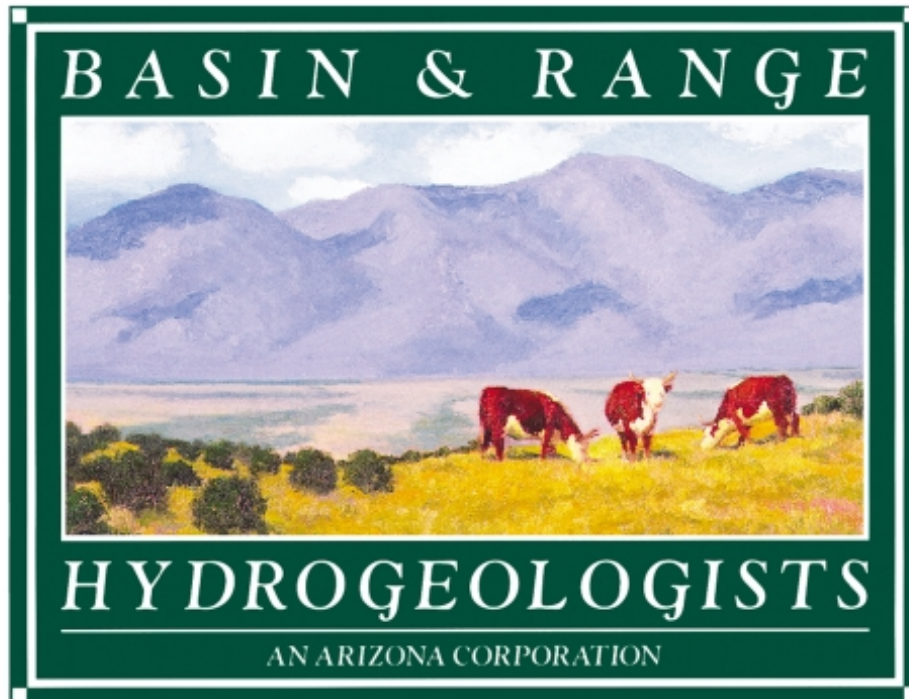
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