

Association of Environmental Engineering Professors

# Newsletter

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# President's Corner

We should have an article in the AEEP by-laws that says that anyone who is charged with writing the Long Range Plane for AEEP should not be required to implement it. But this is exactly what seems to be happening. With Jim Morgan's resignation form the Board, I was elected to the presidency, and now am stuck with all these recommendations that I was counting on other people implementing. But the brighter side of the picture is that suddenly we have a lot to do.

In this inaugural President's Corner, let me review some of the items we hope to accomplish this year.

- We will begin a program of publishing course syllabi in our newsletter. You will soon be asked to submit a syllabus for a course that you consider especially interesting and exciting, and share this with your colleagues. Bruce Logan will be in charge of the selection process.
- 2. Study how we can assist our members in broadening our research funding base. We have for too long got fat at the NSF and EPA trough, and this is increasingly tenuous. Some mechanisms should be in place to share information on research opportunities from foundations, private corporations and other sources of research funding.
- 3. We want to develop a student grade membership for AEEP. This will also be part of the project to ease the transition from student to faculty, and to make it more likely that our students will join our organization.
- 4. We need to define ourselves. Just who are we? Are we really environmental engineers? Or are we environmental scientists? Or neither or both? Linda Abriola is forming a committee to study this question. She will appreciate your thoughts.
- 5. The academic Genealogy Project is in its last stages. We will publish a final list sometime in the spring.
- Consider the publication function of AEEP. The American Academy of Environmental Engineers has initiated an ambitious program for marketing the books published as part of the WASTECH project. Should we develop a

- similar program, or combine our publishing effort with theirs?
- 7. The dues structure for AEEP needs overhaul. We have not raised our dues since the founding of the organization in 1968. This is an incredible record of fiscal restraint, made possible by the hundreds of volunteer hours contributed by all of us. But with the growth in the size of the organization, and the increase in the program, it is becoming increasingly evident that we cannot depend on volunteerism for such mundane tasks as correspondence, membership update, and so on. Joe Malina has formed an ad hoc task force to review the entire dues structure.
- 8. We are, to my knowledge, the only profession which has as its lead accrediting agency an organization to which not all of us can belong. One needs to be a registered professional engineer in order to belong to the American Academy of Environmental Engineers, and for some of our members, this is not possible. This is, in a sense, control without representation. Something needs to be done, and we are working with the AAEE to develop some alternatives.
- 9. In years past, when AEEP was a small organization with a modest program, and we were able to call on our members for contributions of time and money for the running of AEEP, there was no need for a "home" for AEEP. Yet there are now so many programs and initiatives for which an organizational memory is necessary. Sometime during this year, I want to look into the possibility of establishing a permanent paid secretariat for AEEP. This could be at a member university, or at the office of a related organization.

The board will be struggling with these questions during the coming few months. Your thoughts, guidance and opinions are terribly important to us. Let me know what you think. (Editor's note: The complete Long Range Plan is on pages 6&7.)

# **AEEP News and Announcements**

# 1994 AEEP Distinguished Lecturer

**Professor James J. Morgan**, the Marvin L. Goldberger Professor of Environmental Engineering Science at the California Institute of Technology, is the 1994 AEEP Distinguished Lecturer.

Morgan, who has been active in the water enviornment field since 1963, is the founding editor of <a href="Environmental Science & Technology">Environmental Science & Technology</a>. Morgan holds a bachelor's degree in civil engineering from Manhattan College, a master's in enviornmental engineering from the University of Michigan and a Ph.D. in applied chemistry from Harvard.

The two lecture topics he will present are (a) Coagulation and Surface Chemistry in Natural Waters, and; (b) Oxidation-Reduction Processes in Water Quality. The lecture tour will be arranged during the period of February 15 to April 30, 1994. Tentatively the list of universities he will be visiting is as follows: Clarkson Univ., Clemson Univ., Univ. of Colorado, Univ. of Florida, Univ. of Michigan, Univ. of Pittsburgh, Univ. of New Mexico, South Dakota School of Mines, Stanford Univ., Texas A & M, Washington Univ., and the Univ. of Washington. Dr. Morgan's itinerary was unavailable at press time, but if you would like further information please contact: E. Joe Middlebrooks, Dept. of Civil Engineering - 258, University of Nevada at Reno, Reno, NV 89557-0152, Tel: (702) 784-1325.

#### **AEEP Founders' Award**

Richard Engelbrecht, Professor of Civil Engineering at the University of Illinois was awarded the 1993 AEEP Founders' Award at the Annual Meeting held on October 4, 1993 in Anaheim. This award is given annually to recognize an AEEP member who has made "sustained and outstanding contributions to environmental engineering education and the profession". The 1992 award was presented to Professor Perry L. McCarty of Stanford University.

Nominations are being sought for the 1994 AEEP Founders' Award. Nominations may be made by communicating (orally or in writing) the name of the nominee to the chair of the Awards Committee, Amit Amirtharajah, School of Civil Engineering, Georgia Institute of Technology, Atlanta, GA 30332. Tel: (404) 853-0628, Fax: (404) 853-3177. The deadline for nominations to be assured of receiving full consideration is March 15, 1994.

# Leading Researchers Win WEF Award

AEEPmember David A. Dzombak and Douglas B. Spengel received the Harrison Prescott Eddy Medal from the Water Environment Federation at the organization's 66th Annual Conference and Exposition in Anaheim, California in October.

Dzombak and Spengel were recognized for their research paper "Biokinetic Modeling and Scale-Up Considerations for Rotating Biological Contactors." Their paper, which appeared in the May/June 1992 issue of Water Environment Research, WEF's peer-reviewed research journal, represents an advancement in

biological wastewater treatment through rotating biological contactors.

Dzombak is an assistant professor of civil engineering at Carnegie Mellon, where he has taught and conducted research in water and soil quality engineering since 1989. He was previously senior staff consultant with the consulting engineering firm of Paul C, Rizzo and Associates.

### **AEEP Outstanding Paper Award**

Nominations are sought for the 1994 AEEP Outstanding Paper Award for a "landmark paper that has withstood the test of time". Nominators should send a copy of the paper and a letter (2 pages maximum) to Amit Amirtharajah, School of Civil Engineering, Georgia Institute of Technology, Atlanta, GA 30332, Tel: (404) 853-0628, Fax: (404) 853-3177. The letter should give the full citation, the reasons why the paper is considered a "landmark', and a description of the influence the paper has had on the practice of environmental engineering. Nominations must be made by members of AEEP who are not an author or co-author of the paper; they are due July 1, 1994.

According to the current rules of the competition, any author of a winning paper is ineligible in the competition for a period of three years, and at least one of the authors must be living. The winners since 1984 were:

- 1984 Sturnm, 'W., and C.R. O'Melia, "Stoichiometry of Coagulation," Jorn. Amer. Water Works Assn., May 1968.
- 1985 McCarty, P.L., and A.W. Lawrence, "Unified Basis for Biological Treatment Design and Operation," <u>J. San. Engrg.</u> <u>Div., ASCE</u>, June 1970.
- 1986 Dick, R.I., "Role of Activated Sludge Final Settling Tanks," J. San, Engrg. Div., ASCE, April 1970.
- 1987 Dick, R.I., and B.B. Ewing, "Evaluation of Activated Sludge Thickening Theories," J. San Engrg. Div., ASCE, August 1967.
- 1988 McCarty, P.L., "Anaerobic Waste Treatment Fundamentals," Public Works, September-December, 194.
- 1989 Weber, W.J., and J.C. Morris, "Kinetics of Adsorption on Carbon From Solution," and "Equilibria and Capacities for Adsorption Carbon," <u>J. San. Engrg. Div., ASCE</u>, April 1963 and June 1964.
- 1990 O'Connor, Donald J., "Oxygen Balance of an Estuary," Jour. San Engrg, Div., ASCE, 86, SA3, 35-55, May 1960.
- 1991 Yao, K.M., M.T. Habibian, and C.R. O'Melia, "Water and Waste Water Filtration: Concepts and Applications," <u>Envir. Sci. & Tech.</u>, 5(11), 1105, May 1971.
- 1992 Argaman, Y., and W.J. Kaufman, "Turbulence and Flocculation," J. San. Engrg. Div., ASCE, 96, SA2, 223-241, April 1970.
- 1993 Stevens, A.A., and J.M. Symons, "Measurement of Trihalomethane and Precursor Concentration Changes," <u>Jour. Amer. Water Works Assn.</u>, 69:10:546, 1977.

Please take a few moments to reflect on the papers that you think have had the greatest impact on environmental engineering and consider nominating one of them for this award. Note that papers in all areas of environmental engineering, including air pollution, water quality, solid waste, hazardous waste, etc., are eligible.

# Engineering Science and CH2M-Hill Doctoral Thesis Awards

Entries are sought for the 1994 Outstanding Doctoral Thesis Awards, one sponsored by Engineering Science, Inc., and the other by CH2M-Hill. Two separate but equivalent awards will be given, each consisting of a plaque and a cash prize of \$1000 for the student and a plaque and a cash prize of \$500 for the faculty advisor.

Faculty advisors wishing to compete should send three copies of the thesis to James M. Symons, Dept. of Civil and Environment Engineering, University of Houston, Houston, TX 77204-4791. The theses should be accompanied by a simple letter of transmittal stating the student's current address and indicating when the thesis was completed. The copies will not be returned, so xerographic copies inexpensively bound are recommended.

The deadline for submission is March 15, 1994 for dissertations completed during the 1993 calendar year. Faculty advisors are urged to limit themselves to a single entry (which will be considered for each of the two awards); self nominations by students will not be accepted.

A selection committee of three AEEP members will read and judge each thesis on the basis of 100 points allocated as follows:

Scientific and Technical Merit of the Research - 30

Originality of Research - 30

Contribution to Advancement of Environmental

Engineering - 30

Clarity of presentation - 10

The selections will be made by September 1 so that the recipients and their advisor can be invited to the AEEP luncheon at the WEF meeting. The recipients of the 1993 awards were: **Engineering Science Doctoral Award:** 

Wookeun Bai, "Modeling Dual-Limitation Kinetics Incorporating Intracellular Cofactor Responses," under the supervision of Bruce Rittmann, University of Illinois.

#### **CH2M-Hill Doctoral Award:**

Radisav Vidic, "Oxidative Coupling of Phenols on Activated Carbon-Fundamentals and Implications," under the supervision of Makram Suidan, University of Cincinnati.

Our thanks to Engineering Science and CH2M-Hill for their generosity in sponsoring these awards and to the members of the 1993 Doctoral Thesis Review Panel: John Tobiason (Chair), James Symons, and James Hunt.

#### Deadline for April 1994 AEEP NEWSLETTER

Please submit articles for the April issue of the AEEP Newsletter to:
Chet A. Rock
University of Maine
Dept. of Civil Engineering
5711 Boardman Hall
Orono, ME 04469-5711
FAX: (207) 581-1215
Phone (207) 581-2170
before Friday, March 4th.

# Montgomery-Watson Consulting Engineers M.S. Thesis Awards

Entries are sought for the 1994 Montgomery-Watson Master's Thesis Awards. First and second place awards will be given, each consisting of a plaque and a cash prize for both the student and the faculty advisor. The cash prize for the first place award is \$600 for the student and \$300 for the faculty advisor; the amounts for the second place award are \$400 and \$200, respectively.

Faculty advisors wishing to compete should send three copies to C.P. Huang, Dept. of Civil Engineering, University of Delaware, 352 DuPont Hall, Newark, DE 19716. They should be accompanied by a simple letter of transmittal stating the student's current address and indicating when the thesis was completed. The copies will not be returned, so inexpensive xerographic copies are recommended.

The deadline for submission is March 15, 1994 for dissertations completed during the 1993 calendar year. Faculty advisors are urged to limit themselves to a single entry (which will be considered for each of the two awards); self nominations by students will not be accepted.

A selection committee of three AEEP members will read and judge each thesis on he basis of 100 points allocated as follows:

Scientific and Technical Merit of the Research - 30

Originality of Research - 30

Contribution to Advancement of Environmental Engineering - 30

Clarity of presentation - 10

The selections will be made by September 1 so that the recipients and their advisor can be invited to the AEEP luncheon at the WEF meeting. The recipients of the 1993 awards were:

First Place: Jennifer Becker, "Biodegradation of Chloroform Under Methanogenic Conditions," under the supervision of David Freeman, University of Illinois, Urbana-Champaign, IL.

Second Place: David Widrig, "Preozonation to Enhance Coagulation: The Effect of Algal Species and Water Quality on the Removal of Dissolved Organic Carbon," under the supervision of Kimberly Gray, University of Notre Dame, Notre Dame, IN.

Our thanks to Montgomery-Watson Consulting Engineers of their generosity in sponsoring these awards and to the members of the 1993 Master's Thesis Review Panel: Ryan Dupont (Chair), C.P. Huang, and W.P. Ball.

#### LEWIS PUBLISHERS

"Constructed Wetlands for Water Quality Improvement"

Lewis Publishers announces the release of Constructed Wetlands for Water Quality Improvement, edited by Gerald Moshiri. Topics discussed in this text include: design and treatment of wastewater, water conservation and groundwater protection, waste and potable water issues, treatment of various wastewater and runoff concerns including agricultural, hazardous, domestic and industrial, and constructed wetlands as wildlife habitats.

The book is currently available for \$79.95 from Lewis Publishers, 200 Corporate Boulevard, NW, Boca Raton, FL 33431, Tel: (800) 272-7737 (in the continental US), or (407) 994-0555 (outside the continental US).

# ES/AEEP DISERTATION AWARDS

Year	Author (Advisor)	Title
1974	Dr. Douglas Merrill (Dr. Roger Jordan) University of Colorado	
1975	Dr. William J. Snodgrass (Dr. Charlie R. O'Melia) UC Berkeley	"Predictive Phosphorus Model for Lakes - Development and Testing"
1976	Dr. Michael K. Stenstrom (Dr. John F. Andrews) Clemson University	"A Dynamic Model and Computer Compatible Control Strategies for Wastewater Treatment Plants"
1977	Dr. Bill Botchelor (Dr. Alonzo W. Lawrence) Cornell University	"Automatic Denitrification Using Sulfur Election Donors
1978	Dr. Mesut Sezgin (Dr. David Jenkins) UC Berkeley	"The Effect of Dissolved Oxygen Concentration on Activated Sludge Process Performance"
1979	Dr. Bruce E. Rittmann (Dr. Perry L. McCarthy) Stanford University	"The Kinetics of Trace Organics Utilization by Bacterial Films"
1980	Dr. Thomas K. Jewell (Dr. Donald D. Adrian) Univ. of Massachusetts	"Urban Stormwater Pollutant Loadings"
1981	Dr. Antonio O. Lau (Dr. David Jenkins) UC Berkeley	"Substrate Uptake and Mass Transfer Effects in Activated Sludge Bulking"
1982	Dr. Chia-Hwa Joseph Yang (Dr. Richard E. Speece) Drexel University	"The Effects of Cyanide and Chloroform Toxicity on Methane Fermentation"
1983	Dr. Edward J. Bouwer (Dr. Perry L. McCarthy) Stanford University	"The Transformations of Trace Halogenated Organic Compounds in Biofilms"
1984	Dr. Bruce Elliot (Dr. Walter J. Weber, Jr.) The University of Michigan	"Fate of Toxic Organic Compounds in Activated Sludge and Integrated Activated Sludge/Carbon Treatment Systems"
1985	Dr. Arthur L. Baehr (Dr. M. Yvuz Corapciaoglu) University of Delaware	"Immiscible Contaminant Transport in Soils with an Emphasis on Gasoline Hydrocarbons""
1986	Dr. William W. Clarkson (Dr. William J. Jewell) Cornell	"Fermentation of Paticulate Organic Matter to Methane in a Thermophilic Anaerobic Attached Film Expanded Bed Reactor"
1987	Dr. David Dzombak (Dr. Francois M.M. Morel) Mass. Inst. of Technology	"Toward a Uniform Model for the Sorption of Inorganic Ions on Hydrous Oxides"
1988	Dr. James R. Michelcic (Dr. Richard G. Luthy) Carnegie-Mellon University	"Microbial Degradation of Polycyclic Aromatic Hyrocarbons Under Denitrification Conditions in Soil- Water Suspensions"
1989	Dr. Cheng-Fang Lin (Dr. Mark M. Benjamin)	"Adsorption of Metals and Dissolution of Ferrigydrite in the Presence of Polyphosphates"

1990	Dr. Gordon D. Cobb (Dr. Edward J. Bouwer) Johns Hopkins University	"Modeling and Experimental Simulations of Organic Contaminant Biotransformations in Subsurface Environments"
1991	Dr. Jil Talkovsky Geller (Dr. James R. Hunt) Univ. of California at Berkeley	"Dissolution of Non-aqueous Phase Organic Liquids in Porous Media"
1992	Dr. Lisa Alvarez-Cohen (Dr. Perry L. McCarthy) Stanford University	"Cometabolic Biotransformation of Trichloroethylene and Chloroform by Methanotrophs - Experimental Studies and Modeling of Toxicity and Sorption Effects"
1993	Dr. Wookeun Bae (Dr. Bruce E. Rittmann) Univ. of Illinois at Urbana- Champaign	"Modeling Dual-Limitation Kinetics Incorporating Intracellular Cofactor Responses"

## 1994 AEEP Committee Assignments

<b>Committee</b>	<u>Chair</u>	Vice Chair	<b>Board Contact</b>
AAEE Liaison	Aarne Vesilind	N. Bruce Hanes	Aarne Vesilind
AEEP Register Update	Gary Amy	Robin Collins	Aarne Vesilind
AICHE Liason	Michael Aitken	Room Comis	Grady
Archives	Richard Walters		Aarne Vesilind
Arrangements	Steve Randtke		Steve Randtke
Audit	Jim Young	David A. Long	Mark Rood
Awards	Appiah Amirtharajah		Sandra Woods
AWMA Liaison	Tim Keener		Mark Rood
AWWARF Liaison	William Knocke		Steve Randtke
Bylaws	Mark Benjamin	H. David Stensel	Steve Randtke
Directory	Mark Rood		Ed Bouwer
Distinguished Lecturer	Joe Middlebrooks	Debra R. Reinhart	Les Grady
Education	Mike Stenstrom		Mike Stenstrom
Enrollment Survey	Bill Ray		Cliff Randall
Latin American Initiatives	Bruce Thompson		Paul Bishop
Legislative Affairs	Bob Baillod		Paul Bishop
Long-Range Affairs	Bruce Logan	N. Bruce Hanes	Aarne Vesilind
Membership	Ed Bouwer		Ed Bouwer
Minority Recruiting	Jim Johnson		Paul Bishop
Newsletter	Chet Rock		Mark Rood
Nominating	Paul Bishop	Bob Baillod	Paul Bishop
Publications	Des Lawler		Sandra Woods
1995 Education Conference	Chet Rock		
Sustaining Member Liaison	Joe Malina		Mark Rood
UCOWR	Bob Baillod	Howard Peavy	Steve Randtke
USANC Relations	Bruce Rittmann		
WEF & WERF Liaison	Bill Boyle		Mike Stenstrom

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## ASSOCIATION OF ENVIRONMENTAL ENGINEERING PROFESSOR'S

#### Long Range Plan/October 1993

#### Preface

The Board of Directors of The Association of Environmental Engineering Professors established a Long Range Planning Committee, consisting of Bruce Hanes, Mike Kavanaugh, Joe Middlebrooks, Paul Bishop, Bob Baillod, P. Aarne Vesilind, Chairman, with the charge of writing a comprehensive long range plan for the Association. As requested, the Long Range Plan is presented herewith to the Board of Directors.

As is noted in the Long Range Plan, one of the objectives should be a periodic update of the Long Range Plan so as to make it a living document. Accordingly, we recommend that a permanent Long Range Planning committee be established and that this committee annually present a revised Long Range Plan to the Board of Directors.

The objective of the Association of Environmental Engineering Professors is to assist its members, through cooperation and sharing, to become better educators, researchers, scholars and professionals, for the benefit of their students and the profession of environmental engineering. In so doing, the Association supports and promotes the wise use of our natural resources, the abatement of pollution, and the preservation of our environment.

Originally founded as the American Association of Professors in Sanitary Engineering (AAPSE), AEEP now has over 500 members engaged in the profession of teaching and conducting research in environmental engineering. The Association has become an increasingly effective representative for the profession, and the steady growth in membership attest to the value of its programs to its members.

It is both proper and instructive to occasionally take stock of what the Association has achieved, and to propose long term value to its members and to provide an even greater voice in the promotion of environmental quality. Accordingly, the following long range plan is intended to position AEEP to move into the 21st century as the premier academic organization devoted to enhancing cooperation, promoting professional growth, and speaking with a unified and reasoned voice for programs to enhance environmental quality.

This long range plan presents some ideas and recommendations for how the Association can better meet its vision as stated above. The document is divided into three sections according to the primary objectives of AEEP:

Assist members in their role as educators.

Assist members in their role as researchers, scholars and professionals.

Promote the profession of environmental engineering and the quality of our human and natural environment.

#### 1. Assist members in their role as educators.

Present programs include the publication of the registry of graduate programs. The distinguished lecturer, enrollment survey, research needs conferences, environmental education conferences, publication of the newsletter and other manuals and books, and the annual workshops.

Recommended actions for the future:

Establish a registry of undergraduate programs in environmental engineering.

With the tremendous growth of undergraduate environmental engineering programs, a registry would be useful for advising, promoting, and for comparing the programs among the universities. This registry might be published commercially. Use the newsletter to publish course syllabi for new or

Use the newsletter to publish course syllabi for new or innovative courses, both graduate or undergraduate.

The Newsletter editor might select particularly interesting course syllabi that would provide interesting and innovative ideas for graduate as well as undergraduate courses. Reading lists and ideas for projects would be especially welcome.

#### Launch a series of text books in areas of perceived need.

Writing textbooks is tedious and time consuming, and there is seldom any guarantee that the book would be accepted in the field and become widely used. If the AEEP undertook a program in which the topics could be identified <u>first</u> and the book assigned to volunteers, this unpredictability would be decreased. The AEEP could establish an editorial board that would oversee the quality of the publications, and be paid a fraction of the royalty. This proposal does not differ much from what is presently being done with the ASCE and WEF Manuals of Practice. In effect, we would be writing "manuals of practice" for our profession and for our use.

#### Provide wider publication of the AEEP distinguished lecture.

The publication of the distinguished lecture in a widely read journals such as <u>Journal of Engineering Education</u> and ASCE's <u>Journal of Environmental Engineering</u> would be one way of enhancing the status of the program.

Encourage the introduction of new concepts into environmental engineering curricula.

New concepts such as pollution prevention sometimes have difficulty appearing in established curricula. AEEP should take the lead in encouraging such adoptions by conducting workshops, providing background materials, and publicizing innovative courses. AEEP should consider obtaining grants from the EPA or NSF in order to implement this initiative.

Include as part of the Distinguished Lecturer series persons who are distinguished educators as well as distinguished researchers.

By limiting out distinguished lecturer series only to researcher, we are sending the message that teaching is not important, and the "distinguished" grade can only be achieved through research. Why can we not include an occasional master teacher who can energize the entire environmental engineering curriculum by sharing ideas on how teaching can be enhanced?

# 2. Assist members in their role as researchers, scholars and professionals.

At the present time, AEEP responds to this objective with the legislative liaison activity and in acting as a sponsoring organization for the American Academy of Environmental Engineers. The latter activity allows AEEP to sponsor members to the Academy. International activity includes the Latin American initiative and the membership in USANC.

#### Recommended for the future:

Work toward universal acceptance of environmental engineering as a specialty option in professional engineering examinations. Consider the formation of an umbrella organization that can speak for the environmental engineering profession.

The AEEP is a sponsoring organization of the American Academy of Environmental Engineers, as is ASCE, WEF and other organizations. There is an argument to be made, however, that the amount of fragmentation and overlap due to historical divisions in our profession is counterproductive in the modern world, and that a single organization that speaks for all environmental engineers would be useful.

Initiate an "Education" article for each issue of the Environmental Engineer (AAEE publication) in order to communicate the needs and concerns of the educators to the wider environmental engineering community.

This could also be a restatement of the "President's Corner" from the AEEP Newsletter.

# 3. Promote the profession of environmental engineering and support the enhancement of the human and natural environment.

Some of the present activities include the minority recruiting initiative, the sustaining members project, the publication of the AEEP Directory, publication of "So You Want to Be an Environmental Engineer?", presentation of awards for outstanding work in behalf of the profession and AEEP, and the activities of the membership committee.

#### Recommended actions for the future:

#### Define the field of environmental engineering and sciences.

While the name of the Association includes the work "engineer", a large number of our members do not have undergraduate engineering degrees and would not characterize themselves as engineers. Is there a better way of expressing what we collectively do?

## Develop a program for encouraging the formation of student organizations in environmental engineering.

With the tremendous growth in undergraduate as well as graduate student enrollments, student organizations patterned in part after the ASCE student chapters may provide an outlet for student interest and enthusiasm.

#### Create a student grade membership in AEEP.

Senior graduate students who intend to make academics a career might very much benefit from interaction with established professionals. A student grade membership would help them become involved in AEEP.

## Provide a smooth transition from student membership to full AEEP membership.

Upon graduation, as these new academics enter their profession, AEEP could provide assistance in their transition. This might include inviting these people to AEEP luncheons as guests of the Association, inviting them to the social functions, or holding special workshops for younger members on such topics as teaching skills, tenure and research funding. AEEP dues could be waived for the first year after graduation.

Initiate a membership campaign directed not only at engineers and scientists engaged in water engineering but also make a conscious decision to attract air pollution engineers and industrial hygiene engineers and scientists. The problem with attracting an air pollution engineer to join AEEP is that our program offers little support in this area. Should we greatly extend our programs in airpollution, hazardous waste management, systems engineering, etc. in order to attract these people to AEEP, or should we be content with filling the water niche and not even try to encourage other fields to join? We recommend that if AEEP intends to indeed speak for the entire environmental engineering educational establishment, it is absolutely necessary to actively recruit and encourage membership in areas other than water engineering.

Continue to work with AAEE toward a better mutual understanding of accreditation and educational objectives.

Continually update and improve the "So You Want to Be an Environmental Engineer?" pamphlet, including the publication of an inexpensive flyer.

#### Publish a directory of consulting engineering firms for use by graduating students seeking employment in environmental engineering.

This publication should be written and organized by AEEP, but funding for its publication may well come from the engineering firms who wish to be listed in the registry. This may also be a joint activity with the American Academy of Environmental Engineers.

## Assist other organizations and governmental agencies in areas of environmental concern.

The Legislative Liaison Committee should be strengthened and become more active, perhaps working through AAEE.

Reconsider AEEP dues at regular intervals.

The dues have been unchanged since 1969, while the services provided by AEEP have expanded significantly. It is time to raise the dues and to establish a mechanism where the dues structure is reviewed at regular intervals.

#### Establish a paid secretariat for AEEP.

At the present time, AEEP is a purely volunteer organization, with no paid staff. We recommend the creation of a paid secretariat that handles such items as the updating of the directory, the printing and distribution of the newsletter, and other talks. Members who accept significant responsibility must be given budgets that will allow them to buy assistance such as the hiring of work-study students. One suggestion is to hire a half time secretary who would be physically housed at the AAEE headquarters. Such an arrangement would again strengthen the bond between the two organizations.

Write a "Code of Ethics" for environmental engineering that incorporates the need to take future generations and the global ecosystems into account in professional decision making.

## Systematize the preparation and implementation of long range plans.

These plans should be placed on the agenda and reviewed at regular intervals, with perhaps 5-year full reviews and updates. The long range planning committee should be a permanent committee of AEEP, with the chair a member of the Board of Directors.

Comments on the <u>Long Range Plan</u> are welcomed. Convey your thoughts to: Aarne Vesilind, Dept. of Civil Engg., Duke University, Durham, NC 27706.

# **EMPLOYMENT OPPORTUNITIES**

## **Arizona State University**

The Department of Civil Engineering at Arizona State University (ASU) invites applications for an associate professor or professor position in the area of environmental engineering. Candidates must have an earned doctorate in engineering, a well established record for research, a significant level of scholarly production, and a record of teaching excellence. We are seeking a faculty member who has the potential to provide a significant contribution to the development of the environmental engineering effort in the department. We are particularly interested in an individual in the area of physical/chemical treatment but applicants with other areas of specialization will be considered. Duties include development of funded research activity including graduate student supervision, graduate and undergraduate teaching, and college, university, and professional community service. Salary will be commensurate with experience and qualifications. The Department currently has 18 full-time faculty, 350 undergraduate and 147 graduate students. The Department offers B.S., M.S., and Ph.D. degrees in all areas of civil engineering. The undergraduate program in civil engineering is fully accredited by ABET. ASU enrolls over 43,000 students and isolated in the Phoenix metropolitan area. The Civil Engineering Department has a committed effort to rapidly expand its research activities and graduate program. Applicants must forward a resume, transcript, and names of three referees to: Dr. Larry W. Mays, Chair, Department of Civil Engineering, Arizona State University, Tempe, AZ 85287-5306. Application deadline is February 15, 1994 or every 15th of the month thereafter until the position is filled.

ASU is an equal opportunity, affirmative action employer.

## **Clarkson University**

Clarkson University seeks applicants for a tenure track position in the Department of Civil and Environmental Engineering to begin in the Fall semester 1994 at the rank of Assistant Professor. The duties of the applicant will include teaching at the graduate and undergraduate levels as well as participation in and continued development of established research programs. The Ph.D. or equivalent degree is required. Professional registration, academic experience or practical experience are desirable. Applicants should demonstrate a dedication to teaching, and should provide clear evidence of commitment to scholarship. Applications from individuals with a demonstrated scholarly expertise in Environmental Fluid Mechanics (position number 509) are sought. Those with emphasis on flow and transport process affecting water quality are especially encouraged. Review of applications for the position will begin January 15, 1994 and will continue until the position is filled. Send a resume and the name of three references to the Chair of the Environmental Fluid Mechanics Search Committee, Department of Civil and Environmental Engineering, Box 5710, Clarkson University, Potsdam, NY 13699-5710.

Clarkson is an affirmative/equal opportunity employer.

## **California State University**

The School of Engineering and Computer Science is conducting a search for the Dean of Engineering and Computer Science position. Interested persons are requested to contact Dr. John Hester, Associate Dean, School of Engineering and Computer Science, California State University, Sacramento, 6000 J Street, Sacramento, CA 95819-6023, phone (916) 278-6366.

### **Concordia University**

The Department of Civil Engineering at Concordia University invites applications for a tenure-track position at the Assistant Professor level in Environmental Engineering. Applicants must possess a Ph.D. in Civil Engineering with specialization and a proven research record in biological processes, environmental chemistry, biochemistry or environmental management and control. Industrial experience is an important asset. The successful candidate will be expected to participate in the development of the environmental engineering laboratory, establish a significant research program, supervise M. Eng. and Ph.D. students and demonstrate high quality teaching of graduate and undergraduate courses. Membership, or eligibility for membership, in a Canadian professional engineering association is required. Applicants should sent a curriculum vitae, a statement concerning teaching and research interests and the names of at least three referees to: Professor O.A. Pekau, Chair, Dept. of Civil Engineering, Concordia University, 1455 de Maisonneave Blvd. West, Montreal, Quebec, Canada, H3G 1M8.

The position is available now and applications will be accepted until it is filled. Concordia University is committed to employment equity and encourages applications from women, aboriginal people, visible minorities and disabled persons. In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada. All things being equal, women candidates shall be given priority.

## **Drexel University**

Applications are invited for a tenure-track position at the rank of Assistant Professor in the Chemical Engineering Department. The applicant should hold a recent Ph.D. in chemical engineering or environmental engineering, and should have an outstanding academic record, a commitment to excellence in undergraduate and graduate education, and an interest in developing a strong research program of national recognition. The search is restricted to those with a background related to environmental engineering. Send a resume, along with a summary of research plans and names of three professional referees to Prof. Charles B. Weinberger, Chairman of Search Committee, Dept. of Chemical Engineering, Drexel University, Philadelphia, PA 19104.

Drexel University is an equal opportunity/affirmative action employer.

## Lehigh University

The Civil Engineering Department at Lehigh University is inviting applications for two tenure-track faculty positions in environmental engineering, starting in the spring or fall of 1994. Appointments will be made at the Assistant or Associate Professor level but candidates with exceptional qualifications will also be considered for full professorship. One position is to be filled by a candidate specializing in biological treatment processes of water, wastewater and soil. The candidate is expected to develop and teach graduate-level courses in this specialty. The second position will be filled by a candidate specializing in any major area of environmental or geoenvironmental engineering. The successful candidates are expected to teach at both the undergraduate and graduate levels, to develop a strong research program, and to supervise graduate students in M.S. and Ph.D. programs. An earned doctorate degree in Civil/Environmental Engineering or related field is required.

The Civil Engineering Department at Lehigh currently comprises 23 full-time faculty members, approximately 90 graduate students and 225 undergraduate students. Applications are sought from all qualified people regardless or race, color, or creed. Applications received by January 15, 1994 will be assured full consideration. The applicant should send resume, supporting materials, and the names of three references to: Arup K. Sengupta, Search Committee Chair, Fritz Engineering Laboratory, 13 East Packer Avenue, Bethlehem, PA 18015-3176.

The department is committed to strengthening and expanding in the Environmental Engineering area. Lehigh University is an equal opportunity/affirmative action employer.

## The University of Michigan

Applications and nominations are sought for the Chairperson of the Dept. of Civil and Environmental Engineering, University of Michigan, Ann Arbor. Necessary qualifications for the position include an earned Ph.D. (or doctorate) in Civil, Environmental or related engineering field and distinguished achievements in research and education, as well as demonstrable administrative and leadership skills. A strong commitment to excellence in engineering education is essential, and a vision beyond traditional departmental disciplines is desirable in such areas as academic-industry relations, education delivery systems, environmental and infrastructure issues, and futuristic materials and building systems. The Dept. of Civil and Environmental Engineering offers a comprehensive program in research and instruction at the undergraduate and advanced graduate levels in several disciplines, including; Construction, Environmental, Geotechnical, Materials, Structural, and Water Resources Engineering. The department currently has a 24 full-time equivalent tenured or tenure-track faculty, 300 undergraduate students, and 165 graduate students. It has outstanding laboratory and computational facilities with an annual research budget in excess of five million dollars. It is expected that the position of Chairperson will be filled by July 1, 1994. However, applications will be accepted until the position is filled. Interested persons should send a letter of application and a detailed curriculum vitae to: Professor Robert D. Hanson, Chairman, Search Committee, Department of Civil and Environmental Engineering, University of Michigan, 2340 G.G. Brown, Ann Arbor, MI 48105-2125. Nominations in writing of likely candidates are also encouraged. Following initial screening, potential candidates will be asked to provide the names of five professional references.

The University of Michigan is an Equal Opportunity
Affirmative Action Employer. Women and minority candidates
are especially encouraged to apply.

## **Northwestern University**

The Department of Civil Engineering at Northwestern University invites applications for a tenure-track faculty position in environmental geotechnology. The desired qualifications include a strong background in solving groundwater flow problems with expertise in the transport of reactive contaminants in both saturated and partially saturated media. Applicants should have an earned doctorate in civil engineering or a related field (such as soils science or hydrogeology) with a commitment to developing the area of environmental geotechnology with geotechnical engineering, an interest and aptitude for teaching at the graduate and undergraduate levels, the ability to undertake research on the geological and chemical aspects of geoenvironmental engineering problems in an interdisciplinary setting, and the potential for obtaining external funding for research in both the fundamental and applied aspects of geoenvironmental engineering. While the position is open to all ranks, an appointment at the rank of Assistant or Associate Professor (without tenure) is preferred. The physical facilities in the department have undergone a complete reconstruction during the past, and state-of-the-art laboratory and computations facilities are available. Important opportunities exist for collaboration with the Environmental Engineering group, which is expanding with an emphasis in the areas of bioremediation and microbial ecology. This position will be available on September 1, 1994, and prompt submission of an expression of interest and supporting credentials in encouraged; to ensure full consideration, applications should be received by December 31, 1993, but the search will continue until a suitable candidate is identified and hired. Interested persons should send a complete professional resume, including the name and telephone numbers of several references to Prof. Raymond J. Krizek, Dept. of Civil Engineering, Northwestern University, Evanston, IL 60208-3109. Hiring is contingent upon eligibility to work in the United States.

Northwestern is an equal opportunity, affirmative action employer. Applications from women and under-represented minority groups are encouraged.

continued...

**Ohio University** 

The Civil Engineering Department of Ohio University invites applications for tenure-track positions in environmental and transportation at the assistant professor level. Preference will be given to applicants who can teach transportation related courses. Successful candidates will have excellent opportunities to participate in ongoing research projects in the department. A Ph.D. with an undergraduate degree in civil engineering is required. The positions require teaching of undergraduate and graduate courses in civil engineering and the development of externally funded research. Applicants should submit a complete resume, including a statement of teaching and research interests, and three references to Dr. Glenn Hazen, 141 Stocker Center, Department of Civil Engineering, Ohio University, Athens, Ohio 45701. Screening of the candidates will begin on December 15, 1993, and will continue until the positions are filled. Ohio University is an equal opportunity/affirmative action employer.

## **Purdue University**

A tenure track, academic year position will be filled at the assistant or associate professor level with the starting date on or before August 15, 1994. The position is for a person with the ability to integrate chemical and biological processes with hydrologic and geotechnic applications. Responsibilities include teaching undergraduate and graduate courses, advising students, developing new course offerings, and exerting strong initiatives for externally funded research programs. A Ph.D. degree in civil engineering or closely related field is required. Excellent communication and research skills are necessary.

Purdue is the land-grant university in the State of Indiana with approximately 36,000 students on the West Lafayette campus. The faculty of the School of Civil Engineering consists of 61 professors with a full range of interests. The program has about 800 undergraduate students in the upper three years and has about 300 graduate students. The environmental and hydraulics engineering area currently has 12 professors and over 100 graduate students.

The application deadline is January 15, 1994 or until the position is filled. Please send a detailed resume of education and experience along with a statement describing the interdisciplinary aspects of your research and the names and addresses of three references to: Prof. Ronald F. Wukasch, Chairman of the Search Committee, School of Civil Engineering, 1284 Civil Engineering Building, Purdue University, West Lafayette, IN 47907-1284, Tele: (317) 494-2201, Fax: (317) 496-1107.

Purdue University is an equal opportunity/affirmative action employer.

## University of Nebraska

The Department of Civil Engineering (Lincoln campus) has an opening for a faculty member to teach and conduct research in environmental engineering. Background and interest in physiochemical biological processes preferred. Exceptional candidates in other areas of environment engineering will also be considered. This is a tenure-tract position with an academic year appointment. UNL is committed to a strong program in environmental engineering and enjoys the support of the State of Nebraska through the Nebraska Research Initiative. The Center

for Infrastructure Research (CIR), which is closely associated with the Civil Engineering Department provides opportunity and support for initiating research. The Civil Engineering Department, the CIR and the University Water Center provide opportunity for collaborative research between the faculty in Civil Engineering and other engineering and non-engineering units. There are six environmental engineering faculty in Civil Engineering in Lincoln and Omaha. Faculty are engaged in numerous collaborative research projects in areas of pollution prevention, solid and hazardous waste engineering, risk analysis, groundwater contamination, and global atmospheric change, among other. In addition, excellent opportunities exist for international collaboration. Duties will include teaching environmental courses at the undergraduate and graduate level; advising undergraduate and graduate students; commitment to pursuing and developing an external-funded program of research and scholarly activities. A bachelors degree in engineering and an earned Ph.D. degree in Environmental Engineering are required. A background in the areas of physiochemical or biological processes is preferred. Professional engineering registration, or significant progress toward it is desirable. Application deadline is February 15th, 1994 and applicants should send a resume with names, addresses and telephone numbers of three (3) references, applications should be submitted: Dr. William E. Kelly, Chairman, Dept. of Civil Engineering, W348 Nebraska Hall, Univ. of Nebraska-Lincoln, Lincoln, NE 68588-0531. The University of Nebraska-Lincoln is committed to a pluralistic campus community through Affirmative Action and Equal Opportunity and is responsive to the needs of dual career couples. We assure reasonable accommodations under the Americans with Disabilities Act; contact Dr. William E. Kelly.

## University of Utah

The Department of Civil Engineering at the University of Utah, Salt Lake City, Utah is seeking candidates for two tenure track faculty positions, one in Environmental and one in Transportation Engineering. The Environmental position is funded and the Transportation position is subject to the expected availability of future funding. The appointments will be at the Assistant/Associate Professor level with a projected starting date for Autumn Quarter 1994. Candidates must possess a Bachelor's in Civil Engineering or a closely related field and a Ph.D. in Civil or Environmental Engineering at the time of appointment. Preference will be given to environmental candidates with professional registration and specialized knowledge in physical-environmental processes. Preference will be given to Transportation candidates with professional registration and strong skills and expertise in the areas of traffic operations, IVHS, Urban Transportation Systems or GIS. The successful candidates will be expected to develop sponsored research programs, advise master and doctoral students, and demonstrate a strong commitment to the teaching of undergraduate and graduate courses. The department undergraduate program is accredited by ABET. Opportunities exist for participating in ongoing research activities and developing research programs in conjunction with the Center for Environmental Technology, the Earth Science Research Institute, and the emerging Center for Infrastructure Design and Public

continued...

Works policy. Salary and benefit packages are competitive. Applicants should send a detailed resume with names, addresses, and phone numbers of at least three references to: Professor Sam Ghosh, Chair, Search Committee, Department of Civil Engineering, 3220 Merrill Engineering Building, University of Utah, Salt Lake City, Utah 84112. The University of Utah has a current enrollment of more than 26,000 students. The University of Utah's location provides easy access to diverse professional, cultural and recreational opportunities. Applications will be accepted until the positions are filled.

The University of Utah is an Equal Opportunity/Affirmative Action employer and encourages applications from women and minorities and provides reasonable accommodation to the known disabilities of applicants and employees.

## Florida International University

The Civil and Environmental Engineering Department at Florida International University (FIU) seeks applications for a tenure-track 12-month faculty position in Environmental Engineering. FIU is the largest university in south Florida with an enrollment of about 25,000 students. The department is comprised of 14 full-time faculty with an enrollment of 320 upper division undergraduate students and 100 graduate students. The department currently has an annual external funding of over \$1.5 million and offers a B.S. Degree in Civil Engineering with a major option in Environmental Engineering and M.S. degrees in both Civil Engineering and Environmental. The position is a joint appointment with the University Drinking Water Research Center, which has approximately \$1.5 million in analytical instrumentation and conducts funded research in all environmental areas. The successful candidate is expected to be

a spirited individual willing to join and support teaching and team research initiatives. FIU is interested in candidates who are committed to the highest standards of scholarship and professional activities.

Requirements for this position include an earned B.S. degree in engineering and a Ph.D. degree in Civil or Environmental Engineering, or comparable engineering discipline, U.S. professional engineering registration or capable or obtaining the Florida registration within three years of employment, and evidence of scholarly achievement and promise. All eligible candidates are welcome. However, we are seeking outstanding applicants in the areas of environmental biotechnology or fate/transport of contaminants in the hydrosphere. Duties for the position include general undergraduate and graduate teaching, advising students, and development of an active externally sponsored research program. It is anticipated that the appointment will be made for the academic year beginning in August 1994. Although the position is envisioned to be at an entry level, rank for exceptional candidates will be commensurate with experience in both instruction and research. Applications from women and minority candidates are especially encouraged.

Applications postmarked on or before March 24, 1994, are eligible for consideration. Applicants should submit a complete resume, a statement of teaching and research interests, list of relevant professional experience and publications, college transcripts, copies of diplomas, and names, addresses, and phone numbers of three references direct all inquires and correspondence to: Dr. Hector R. Fuentes, P.E., D.E.E., Chair of the Search and Screen Committee, Civil and Environmental Engineering Department, College of Engineering and Design, Florida International University, Miami, FL 33199.

FIU is a member of the State University System of Florida and is an affirmative action/equal access/ equal opportunity employer.

# ORGANIZATIONS OF INTEREST

#### 1994 Kappe Lecturer

The American Academy of Environmental Engineers offers your university the opportunity to have the Academy's 1994 Kappe Lecturer, Dr. Davis L. Ford, P.E., DEE, visit your campus for one or two days during the 1994 fall semester.

The objective of the Kappe Lectures is to share the knowledge of today's practitioners with tomorrow's engineers. Dr. Ford has prepared two lectures: 1) "Applying Traditional Biological Science to Non-Traditional Bioremediation Cleanup"; 2) "The Role of the Environmental Engineer in Arbitration, Negotiation, and Courtroom Litigation." At your option, he is prepared to present one or both in settings of your choosing. In addition, during his stay at your campus, Dr. Ford will be available for informal meetings with you and fellow staff members or area professionals.

To take advantage of this opportunity, please contact William C. Anderson, P.E., DEE, Executive Director, American Academy of Environmental Engineers, 130 Holiday Court, Suite 100, Annapolis, Maryland 21401. Tel: (410) 266-3311 or Fax: (410) 266-7653.

#### AWWA Offers Corrosion Control Software

The American Water Works Association (AWWA) is offering a software package that enables drinking water professionals to optimize corrosion control in public water supplies through modeling.

The "Rothberg, Tamburini and Winsor Model for Corrosion Control and Process Chemistry" can assist water utility managers, operators, engineers, and chemists evaluate the three primary corrosion control strategies included under the US Environmental Protection Agency's (USEPA) Lead and Copper Rule, as well as model water quality at any point of water supply treatment process. The model has been developed for DOS-based computers. It will work with spreadsheets run directly from DOS or through Windows. Both Lotus 1-2-3™ and Quattro Pro™ spreadsheet formats are included on the disk provided. It is available for \$125 plus \$5 shipping and handling within the US, Canada, or Mexico. Call 1-800-926-7337 to order. Reference catalog number 53019GK for a 3-1/2 inch disk and 53020GK for a 5 1/4 inch disk.

# CONFERENCES/CALL FOR PAPERS

### 1994 Gordon Research Conference Environmental Sciences: Water June 19-24, New Hampton, NH

The 1994 Gordon Research Conference on Environmental Sciences will address contaminants in soil and subsurface systems. The conference includes topics on: reactions of chemicals in soil; environmental microbiology and biotechnology; transport and transformation of contaminants in the subsurface; experimental controlled release and site studies; environmental risks and regulations; and environmental assessment and exposure. The speaker program mixes young, new researchers and older, established researchers from academia, government and industry. The program brings together environmental scientists and engineers whose work ranges from laboratory-scale to field-scale.

Additional information on the program and an application form to attend, will be published in the February 11, 1994 issue of Science, or contact Richard G. Luthy, Conference Chair, Dept. of Civil Engineering, Carnegie Mellon University, Pittsburgh, PA 15213 or EMail luthy@ce.cmu.edu

#### The Fifth Annual West Coast Conference "Contaminated Soils and Groundwater"

The Association for the Environmental Health of Soils is pleased to present, *The Fifth Annual West Coast Conference: Contaminated Soils and Groundwater*. The conference will take place March 28th through April 1st, 1994 at the Sheraton Long Beach, Long Beach California.

The conference has become the preeminent West Coast Conference in this important environmental area. Attracting between 350 and 600 attendees annually, the conference draws from local, state and federal agencies; the military; a number of industries including petroleum and transportation; the utilities; the environmental engineering and consulting community; and academia. This year the conference will feature a Federal Programs Session; an International Session; and an Utility Session in addition to sessions covering remediation, ecological risk, analysis and fate, and regulatory issues.

Part co-sponsors include: Applied Geosciences, ARCO Products Company, Applied Environmental Services Inc., California Department of Health Services, Dames & Moore, US EPA/OUST, Groundwater Technology, Harding/Lawson Associates, Lawrence Livermore National Laboratory, Levine Frick, McLaren/Hart, Port of Los Angeles, Radian Corporation, RETEC, Shell Oil Company, Southern California Edison Company, Southern California Gas Company, Texaco, Western States Petroleum Association, and Woodward-Clyde.

Preliminary programs will be available in January of 1994. Exhibit space is available. For additional information, please contact: Mary K. Terry, Association for the Environmental Health of Soils, 150 Fearing Street, Suite #20, Amherst, MA 01002; Tele: (413) 549-5170; Fax: (413) 549-0579.

#### ASCE Water Resources Council Stormwater Management Modelling

ASCE Water Resources Council is sponsoring a one week retreat on "Stormwater Management Modelling" - three handson SWMM Workshops and a Two-Day Conference, Airport Delta Hotel, Toronto, Ontario on February 28 through March 4, 1994

February 28 - March 2: The USEPA SWMM Hands-On Short Course on stormwater management modelling.

February 28: Introductory Seminar.

March 1: Intermediate Workshop.

March 2: Advanced Colloquium on SWMM Interfaces and Enhancements.

March 3 - 4: The Conference on Stormwater Management and Water Quality Modelling.

Call for Papers: Abstract for papers on any aspects of: surface water quality modelling; modelling impacts on aquatic ecosystems and habitats; stormwater and pollution management modelling; urban drainage system design and analysis; BMPs; landscape architecture; emerging instrumentation; GISs; decision analysis systems; facilities management systems; CAD; policy, legislation, permitting and enforcement; and the use of state-of-the-art computer models in resolving real pollution problems and for eco-restoration, should be sent by January 21, 1994 to the address below.

Call for Displays: Requests to display equipment, instrumentation, publications, or other material should be sent by the same date to: Evelyn James, CHI, 36 Stuart St., Guelph, ON, Canada N1E 4S5. Tele: (519) 767-0197. Fax: (519) 767-2770

The conference is sponsored by the ASCE Water Resources Council, the USEPA, and Ontario Ministry of Environment and Energy. The workshops are sponsored by CHI.

# 49th Annual Purdue University Industrial Waste Conference

The 49th Annual Purdue University "Industrial Waste Conference," will be held May 9-11th, 1994 at the Stewart Center, Purdue University, West Lafayette, Indiana. The Purdue Industrial Waste Conference was started in 1945 by Professor Don E. Bloodgood and has continued successfully since then. More than 3,000 technical papers have been presented at the conference and have been published in an annual *Proceedings*. In 1993, the conference presented 80 technical papers and was attended by nearly 500 people from industry, consulting firms, universities, and agencies. During our first poster session, 40 posters were presented by environmental engineering graduate students from the U.S. and Canada.

All papers presented at the conference will be edited and published in the 49th Purdue Industrial Waste Conference Proceedings. The proceedings may be purchased in advance at a reduced cost at the time of registration; these reserved copies will be mailed after the conference. Proceedings will also be available through LEWIS PUBLISHERS/CRC Press, Inc., as are the Proceedings from many of the past conferences.

For general information, contact: Ms. Cynthia S. Dalton, Conference Secretary/Co-Editor, Purdue Industrial Waste Conference, School of Civil Engineering, Purdue University, 1284 Civil Engineering Building, West Lafayette, Indiana 47907-1284; Phone: (317) 494-2194; Fax: (317) 496-1107.

The North American Association for Environmental Education
23rd Annual Conference
Cancun, Mexico
September 23-27, 1994
Collaboration and Opportunity in North America:
Energy Through Diversity

The 1994 Conference theme explores the concept of diversity within environmental education (EE). North America harbors a rich cultural, biological, topographical, and societal matrix. The mixing of all these elements results in an extraordinary diversity as you move from the Peninsula of the Yucatan in Mexico, through the United States of American into the Canadian Northwest Territories. At the same time the region is confronted with many complex environmental problems that require creative approaches for their resolution.

The NAAEE Conference in Cancun is designed to bring together many different EE perspectives from across the region. The gathering presents an unparalleled opportunity to explore distinct viewpoints, examine practices, and analyze model programs. By exploring the diverse approaches within EE, we will gain a broader understanding of the field, which will be both professionally rewarding and beneficial for our programs.

The program Committee has identified four strands for the conference. Within each strand presenters are encouraged to address issues such as EE in urban and rural areas, environmental equity and justice, women and the environment, indigenous people, ethnic diversity, the role of the media and other mass communication systems, special areas of concern such as energy or biological diversity, research findings of importance to the practitioner, and converting Agenda 21 into action. The specific strands are: (1) Environmental Education Programs for Children and Youth; (2) Working with Adults and Public Decision Makers; (3) Environmental Education in Commerce, Industry, and Labor; and, (4) Preparing Tomorrow's Environmental Educators: Training the Trainers.

For additional information, contact: Dr. Marguerite McKnight, PREE, 101 ECB, Slippery Rock University, Slippery Rock, PA 16057. Tel: (412) 738-2622. Fax: (412) 738-2959.



### REMINDER

Deadline for the April 1994 AEEP Newsletter is Friday, March 4th.

# National Water Policy Debated at National Water Regulation Conference

National water policy — a hotly debated issue with enormous economic and environmental — will be the focus of the conference "National Water Resources Regulation — Where is the Pendulum Now?" January 31 - February 1, 1994, in Washington, D.C. The conference will provide a forum for nationally-recognized legislators, scientists, attorneys, planners, regulators and engineers to debate if there is over-regulation, under-regulation, and if existing regulation meets present and future national needs. The conference is sponsored by the American Society of Civil Engineers (ASCE) and co-sponsored by 25 organizations including the American Bar Association, Environmental Protection Agency and Water Environment Federation.

During the past 20 years, more than a dozen major federal laws have been enacted governing water quality. They impose multiple, and sometimes conflicting, requirements. Some experts argue that regulation has gone to far, hurting people, companies and the economy. Others insist regulation hasn't gone far enough, pointing to many areas suffering from an overall decline in health and environmental quality. With \$150 billion spent each year on environmental regulation, many question whether the money is well-spent. Some also believe regulations are controlled by politics and lack scientific justification, and accommodate the legal process at the expense of science and engineering.

The conference will feature 37 noted speakers, including one of the nations' leading experts on potential toxic effects of chemical compounds Dr. Bruce Ames of the University of California at Berkeley; EPA Assistant Administrator for Water Robert Perchiseppe; and recognized authority on water quality Donald Elliott, Esq., professor of law at Yale University. They will address these and other questions, and make definitive recommendations for change.

The early registration deadline is January 24, 1994. The cost is \$375 for academic and government institutions, \$475 for non-profit organizations, and \$575 for private firms and consultants. On-site registration also is accepted. For more information and to register, contact Catherine Tehan, Conference Coordinator, at 800/548-ASCE.

# International Symposium/Workshop on Environmental Biotechnology

On July 4th through 8th, 1994 the International Symposium/ Workshop on Environmental Biotechnology will convene at the University of Waterloo, Waterloo, Ontario, Canada N2L 3G1. It will be sponsored the UNEP and UNESCO. For further information, contact: Prof. W.A. Anderson, Dept. of Chemical Engineering. Fax: (519) 746-4979; or phone (519) 888-4567 ext. 5011. EMail anderson@cape.uwaterloo.ca

Invoice #	
Date	

#### ASSOCIATION OF ENVIRONMENTAL ENGINEERING PROFESSORS

Attn: Dr. Desmond F. Lawler
Department of Civil Engineering, ECJ 8.6
The University of Texas at Austin
Austin, Texas 78712

lt	em# Title	Member	Non-Mem Price	Quantity	Amount
1	Environmental Engineering Unit Operations and Unit Processes Laboratory Manual, 1988 (Ed.: Suidan)	\$10.00	\$20.00		
2	Aquatic Microbiology Laboratory Manual 1976 (Cooper, et al.)	\$ 7.00	\$ 7.00		
3	Proceedings, Sixth Conference on Environmental Engineering Education (Aug, 1991, Corvallis, OR)	\$12.00	\$ 12.00		
4	Fundamental Research Directions for Environmental Engineering (Proceedings of the Nov., 1988 AEEP/NSF Conference)	\$ 8.00	\$16.00		
5	Register of Environmental Engineering Graduate Programs (1993 Edition)	\$25.00	\$40.00		
6	So You Want to Be an Environmental Engineer?	\$ .50	\$ .50		
7	AEEP Computer Manual (Ed.: Crittendon)	\$20.00	\$40.00		
8	AEEP Diskette (Set of 5 Discs)	\$10.00	\$20.00		-
9	AEEP - 25 Years (Hendricks/Baumann)	\$10.00	\$20.00		

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Prepayment required. Please forward a check or money order payable to **AEEP** to the above address. (Please **do not** make check to The University of Texas.)

## APPLICATION FOR MEMBERSHIP

# in the Association of Environmental Engineering Professors

Official Title	Department
Business Address	Tel
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Applying for: Membership Status Affiliate Status	Rank:
PLE	ASE ATTACH RESUME
Dues are payable	to the association on a calendar year basis.

Dues are payable to the association on a calendar year basis.

The AEEP annual dues payment, prorated according to the date of application, is shown below.

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RANK	1 Jan.	1 Apr.	1 July	1 Oct.
	31 Mar.	30 June	<b>30</b> Sept.	31 Dec.
Professor	\$45 <b>0.00</b>	\$37.50	\$25.00	\$12.50
Associate Professor	25.00	18.75	12.50	6.25
Assistant Professor	25.00	18.75	12.50	6.25
Affiliate Member	20.00	15.00	10.00	5.00

#### Please return this form along with your dues to:

Edward J. Bouwer
Dept. of Geography and Environmental Engineering
The Johns Hopkins University
3400 N. Charles Street
Baltimore, MD 21218-2686
Enclosed are my AEEP dues in the amount of: US \$

Signature	Date

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Association of Environmental Engineering Professors

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