



ASCE

ILLINOIS SECTION

NEWSLETTER

Vol. 37 No. 9

American Society of Civil Engineers

September 1996

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ILLINOIS SECTION NEWSLETTER

Mailed to all ASCE-IS dues-paying members

American Society of Civil Engineers
Illinois Section — Zone III — District
8

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**Submission deadline
for the Oct. Newsletter
is Sept. 9, 1996**

Wetland Banking

As demand for new housing, retail and office space continues, much of the remaining vacant land contains environmental constraints such as floodplain and wetlands. These environmental constraints provide unique challenges to designers in today's environmentally conscious society. Changing environmental regulations in the past 10 years have placed additional demands on the development of land. In particular, the U.S. Army Corps of Engineers, the U.S. Fish and Wildlife Service, the Illinois Environmental Protection Agency, and local jurisdictions have become more stringent in the protection of wetlands. Wetlands provide many environmental benefits by removing pollutants from stormwater runoff, providing stormwater storage, encouraging groundwater recharge, and providing a habitat for both wildlife and vegetation. Current regulations typically require the preservation or mitigation of impacted wetlands, which must be considered in new development.

Avoidance of wetlands can result in incongruous land plans, loss of investment return for developers, and small fragmented wetlands that are not likely to survive. As wetlands deteriorate, they often become unsightly, overgrown with invasive species, and "mosquito havens."

Wetland banking has become a popular alternative in the last few years. In short, new wetlands are created on large parcels of land for mitigation credit. These credits are bought in lieu of on-site mitigation. As a wetland bank is constructed and becomes established, the owner of the bank may sell Corps of Engineer approved mitigation credits

to developers who have wetlands that would impact site development. One particular wetland bank that has been successful is the St. Charles Wetland Mitigation Bank. This site is owned by the St. Charles Park District and was developed by Land and Water Resources, Inc. Prior to the start of the project in 1992, the 52-acre mitigation site was a cultivated farm field drained by tile to Otter Creek, which meanders through the property. This site contained extensive areas of floodplain and hydric topsoil. To construct the mitigation bank, the hydric topsoil was stripped and stockpiled for respread. The underlying soils were mass graded to create topography conducive to the creation of a variety of wetland plant communities. The subsurface farm tiles were disabled to help restore the wetland hydrology. Once grading was complete, the entire site was planted with appropriate native plant communities. An aggressive approach was necessary to prevent soil erosion during establishment of the plants. Another obstacle was protecting the young plants from geese and other wildlife.

In total, 48 acres of restored native plant communities were established with a total of more than 46 acres of jurisdictional wetland suitable for sale as mitigation credits. The establishment of the mitigation bank was completed in 1995 and is owned by the St. Charles Park District. The bank now serves as a nature preserve and as a passive recreation and educational area.

Other public and private agencies also developing wetland mitigation
(Continued on Page 2)

Marketing to Government Agencies

As competition increases in the marketplace, getting your message across to decision makers becomes increasingly important. But what techniques do you use? What techniques only serve to annoy your potential clients? Many clients have very definite ideas regarding what they look for in a consultant and how they want to be marketed. Your marketing efforts have a direct impact on your ability to get work.

As a service to clients and consultants, the Management Group is pleased to present a marketing panel discussion on Monday, Sept. 30, 1996, entitled, "Successful Marketing From a Client's Perspective." Our panel members include such esteemed persons as Stan Kaderbek of the Chicago Department of Transportation, Pat McAtee with Metra, Ken Macander of the Illinois Department of Transportation, and Ralph Wehner of the Illinois State Toll Highway Authority. The dinner discussion will be held at the Como Inn,

with a 5:30 p.m. open bar, 6 p.m. dinner and 7 p.m. panel discussion. The cost of the dinner will be \$25. RSVP to Mark Schultz at (312) 782-8150.

The panel members will speak briefly on their experiences on the receiving end of our marketing efforts, and then the floor will be open to questions. The objective of this discussion is to determine what marketing strategies and approaches are effective and what types of marketing efforts are not productive. Please come prepared with questions for our guests. This is an opportunity to fine tune your marketing skills with advice from the people who directly evaluate your performance.

The Management Group is also preparing a survey to determine what type of activities and assistance the group can provide to our members. Management is a very broad-based topic, and we plan to focus on those areas that will provide the most

Illinois Section Annual Meeting on Oct. 16

Mark your calendars now for the Illinois Section's 20th Annual Meeting, which will be held on Oct. 16, 1996. The event begins at 5:30 p.m. with a cocktail reception, followed by dinner at 6:30 p.m.

See the flyer enclosed in this mailing for more details and for registration information.

benefit. We need your help to determine what that focus should be. Your assistance in completing the survey (only one page!) and returning it to us is greatly appreciated. If you would like to complete a survey and have not received one from us, please call Karen Steingraber at (312) 467-0123 for a copy.

*Karen Steingraber
Terra Engineering*

IS Nominates Mike Goodkind for Directorship

Your Board of Directors is pleased to announce Mike Goodkind as its official nominee for the District 8 Director position for the three-year term starting in 1997. Mike is a Fellow of ASCE and served as President of the Illinois Section in 1981-82. Nationally, he has served on the Committee on Younger Members, chaired the Committee on Younger Member Publications, chaired the Committee on Standards of Practice, and is currently a corresponding member of the Committee on Quality in the Civil Engineering Profession. He is a member of numerous other professional and civic organizations. Mike is president and chief executive officer of Alfred Benesch & Company, a 165-person civil engineering consulting firm with offices in Chicago, Wisconsin, Michigan and Pennsylvania.

Under the terms of the District 8 Bylaws, the Director nomination is made available to the member sec-



tions on a rotational basis. The last Illinois Section Director was Don Eckmann, who served from 1992 to 1994. Director's qualification requirements should include prior service as a section officer or member of a national committee.

The Illinois Section should be well represented by Mike's position on the ASCE national board. The Section wishes him well in the election process and urges all members to provide their support and input.

Wetland Banking

(Continued from Page 1)

banks throughout the Chicago area include the DuPage County Department of Public Works, Wetlands Research, Inc., and Land and Water Resources. Wetland mitigation banks provide a variety of benefits to the public, the development community and the environment. Developers receive the benefit of increased flexibility in development of their property; the public realizes the benefits of passive recreation and open space areas; and the overall environment realizes benefits that larger wetlands provide. However, developers, design engineers, and regulatory agencies should be cognizant of the impacts that the removal of individual wetlands have.

Additional discussions regarding wetlands and wetland banking will take place at upcoming seminars sponsored by the Urban Planning and Development Group, including the Development Round Table scheduled for fall of 1996, and the Permitting Workshop scheduled for the spring of 1997.

PRESIDENT'S NOTES

In previous columns, I have talked about the need for civil engineers to step forward and become active in order to elevate the status of our profession. We all have great demands on our time, and it is a challenge to strike a balance between family, work, recreational activities, etc. Not everyone has the desire or inclination to serve in local government or become active in professional organizations. Although the Illinois Section would like all of its members to be active, there are less time-consuming ways that you can make significant contributions to our profession.

One of the simplest and most effective ways to step forward for our profession is to join ASCE's Key Contact Program and the associated Regulatory Affairs Network. By signing up for these programs, you will receive information about pending legislation that impacts our profession, as well as changes being pursued by federal regulatory agencies. The information you receive comes in the following forms:

- Keynotes
- Key Alerts
- Regulatory Updates
- Regulatory Alerts

Keynotes summarize Congressional activity on various issues that impact our profession. Key Alerts contain timely information about important issues and advice on how best to influence the legislative process. The Key Alert contains all the information necessary for composing a letter to your senator or representative. Letters from civil engineers can make a difference. As noted on ASCE's web page, "During the 103rd Congress, Key Contacts made their voices heard on several issues, including retention of the Brooks Act, which requires federal agencies to procure engineering services on the basis of qualifications, infrastructure investment and financing, and restoring tax-exempt educational assistance."

Regulatory Updates summarize progress on federal regulations to keep you informed of their scope and potential impact as they are being written. Regulatory Alerts con-



tain timely information on proposed federal regulations. The Alerts ask you to write directly to federal regulators to give them the benefit of the best technical engineering advice. Recent issues have included a decision by the U.S. Department of Housing and Urban Development to impose tougher building standards on mobile homes and a rule proposed by the U.S. Energy Department that would deny federal renewable-energy subsidies to hydropower plants while allowing them for solar-powered facilities and geothermal units.

I am a member of both programs and have found it to be very rewarding. I have received prompt responses from my representatives

each time I have written. I urge you to join these programs and encourage others at your firm or agency to do the same. For further information, please call ASCE National at (202) 789-2200 (e-mail: cdinges@dc.asce.org) or Barb Pries at the Illinois Section office at (312) 263-1606.

Registration Begins for Young Engineers' Forum '96

The Western Society of Engineers is holding its 47th Annual Young Engineers' Forum beginning on Tuesday, Sept. 17, 1996, at 5 p.m. at the Union League Club of Chicago, 65 W. Jackson, Chicago.

The forum is a six-week workshop and discussion series featuring top executives, experts in their field, and faculty from leading universities geared toward professionals with up to 10 years of experience who are seeking increased administrative responsibilities. Each Tuesday night session includes a social hour, dinner and an hourlong presentation.

Discussion topics include career planning, networking, leadership, communications, and project risk assessment. The last session is a view from the top by an executive panel. Registration is \$285 and must be received no later than Sept. 13, 1996. For more information, contact the Western Society of Engineers, 53 W. Jackson, Suite 1730, Chicago, IL 60604; (312) 913-1730.

EE&WR Offers 3-Day HEC-RAS Class

The EE&WR Group is offering a three-day class for HEC-RAS version 2.0. HEC-RAS is a Windows-based steady state hydraulics model developed by the U.S. Army Corps of Engineers. Features include graphic display of input and output, use of existing HEC-2 decks, floodway delineation, bridge scour and channel modifications.

The class is scheduled for Oct. 30 through Nov. 1 at the IL-DOT facility in Schaumburg. Richard

Hayes, known for his HEC-2 and other HEC classes, will be the instructor.

Register through Sept. 30 by sending the name, organization, address and phone number of each attendee to David Moughton, 208 Hackberry Dr., Streamwood, IL 60107; or calling evenings at (630) 213-7395. The cost is \$350 per attendee, with checks made payable to "EE&WR." No refunds will be given for cancellations after the deadline.

Volunteers Needed for 1997 Future Cities Competition

The Illinois Section ASCE and Fluor Daniel are co-sponsors again this year for the 1997 Future Cities Competition. The competition is for seventh- and eighth-grade students to foster interest in engineering, math, and science through hands-on computer modeling, essay writing, oral presentation, and model building of a "future city."

Volunteers are needed to help plan the competition or to be an engineer mentor to a school. Planners are needed to work with schools, help sign up engineer volunteers, and help with press releases and promotional mailings. Engineer mentors typically visit their selected school three or four times throughout the competition to answer questions and

guide the students. Information sessions will be held to coach the engineer mentors prior to school visits.

Please call for more information. It's your chance to make a difference! For details, see the flyer enclosed in this mailing or contact Chris Rops at (312) 930-9119.

Great Lakes Conference on In-Situ Remediation

For the past four years, a consortium of professionals and educators has gathered annually to exchange ideas and information, and to address problems and solutions dealing with the geotechnical and geo-environmental field in the Great Lakes region. This, the Fourth Great Lakes Conference was focused on issues concerning the *In-Situ Remediation of Contaminated Sites*. This conference was held on May 17, 1996 at the University of Illinois at Chicago and was co-sponsored by the Illinois Section of the American Society of Civil Engineers (Geotechnical Group and Environmental Engineering & Water Resources Group), the North Central Section of the Association of Engineering Geologists, and the Illinois Groundwater Association. Over 110 individuals participated in this conference.

Eighteen technical presentations and two keynote presentations were made at the conference. The technical presentations included topics such as immobilization, stabilization, vitrification, electrokinetics, vapor extraction, soil washing, air sparging and others.

The first keynote presentation was made by Dr. James K. Mitchell, Via Professor of Civil Engineering at Virginia Tech, on "Soil Mechanics Considerations in Environmental Geotechnics." Dr. Mitchell gave an entertaining and informative presentation on the important role of soil mechanics principles in environmental design. To convey his point on this subject, Dr. Mitchell included a few case histories on the causes and effects of recent geotechnical failures at waste containment facilities.

The second keynote presentation was made by Dr. Bruce Rittmann, Professor of Civil Engineering at Northwestern University, on "Basics and Applications of Bioremediation." Dr. Rittmann provided a fundamental understanding of bioremediation and described different applications of bioremediation for soil and groundwater clean-up.

Copies of the conference proceedings are available for \$30 per copy (checks payable to the University of Illinois at Chicago) from Dr. Krishna Reddy, Department of Civil and Materials Engineering, University of Illinois at Chicago, 2095 Engineering Research Facility, 842 W. Taylor St., Chicago, IL 60607.

The next conference is scheduled for May 16, 1997 at the University of Michigan at Ann Arbor. The theme will be *Site Characteristics for Geotechnical/ Geoenvironmental Problems*. For details, contact Dr. Richard Woods at (313) 764-8495.

UIC Engineering Students Compete in Design Contest

For the past three years, undergraduate students at the University of Illinois at Chicago (UIC) have participated in an environmental design competition sponsored by New Mexico State University and the Waste-management Education and Research Consortium. This competition has been designed to provide potential solutions to real world environmental problems, bringing valuable experience to students and innovative ideas and technology to industry.

This year's competition was held on March 20-25, 1996 in Las Cruces, New Mexico. The competition involved remediation of leaking underground storage tanks and contaminated soil and sludge at a federally designated Department of Energy site. Requirements of the competition were very time- and cost-intensive and involved the design and demonstration of a bench-scale remediation process, oral and written presentations, and transportation of all team materials and personnel to Las Cruces.

To address and surmount our remediation task, the team incorporated a dual unit process utilizing soil washing and electrokinetic remediation techniques. Six representatives from the full 14 team members traveled to New Mexico and participated in this competition.

This year the student team from UIC returned with an official recognition for their performance. Through hard work, teamwork and good ideas, the team was able to perform at a level that earned a Judges Choice Award for "The Team with the Most Versatility." This prize is signified with a trophy and a \$500 award.

Aside from the official recognition, the team gained hands-on experience in the environmental field, associated with environmental professionals from all over the country, and achieved a high level of unity and cooperation as a group.

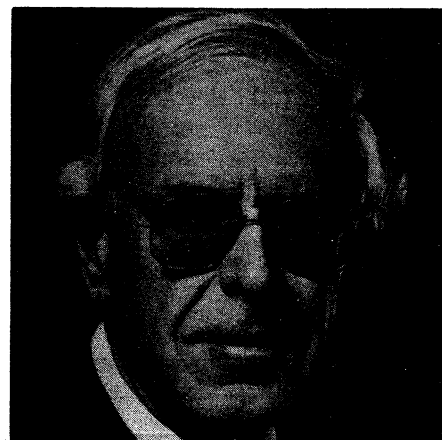
The faculty advisor for this competition was Dr. Krishna Reddy of the Department of Civil and Materials Engineering at UIC. Financial support from the following sponsors is gratefully acknowledged: Fluor Daniel; Camp, Dresser & McKee; San Man Construction Co.; Baxter & Woodman, Inc.; H.W. Lochner, Inc.; and the Illinois Section of ASCE (Environmental Engineering & Water Resources Group and the Urban Planning & Development Group). The competition was co-sponsored by UIC's Department of Civil and Materials Engineering, as well as the College of Engineering.

Prof. Bazant Elected Member of National Academy of Engineering

Zdenek P. Bazant, Water P. Murphy Professor of Civil Engineering and Materials Science at Northwestern University, has been elected a member of the National Academy of Engineering. He was cited for "his contributions to solid mechanics, particularly structural stability and size effects in fracture."

Prof. Bazant has authored over 350 scientific articles in refereed journals and many proceedings papers. He has published and edited 17 books.

In 1996, he received the Prager Medal from the Society of Engineering Sciences and the Newmark Medal from ASCE. He received many more awards and honors. He is a Fellow of the American Academy of Mechanics, ASME, ACI and ASCE. He served as the Editor-in-Chief (1988-94) of the ASCE Journal of Engineering Mechanics. In 1976, he was named Outstanding New Citizen by the Metropolitan Chicago Citizenship Council. Prof. Bazant's achievements are too many to list.



Van Zelst's 150 Woodblock Prints Featured in Yokohama Museum

The Japanese business custom of exchanging gifts provided ASCE member Ted Van Zelst with his first woodblock prints by the esteemed Japanese artist, Un'ichi Hiratsuka. This summer the largest display of the work of the artist ever to be mounted will be at the Hiraki Ukiyo-e Museum, Yokohama, Japan. The exhibition is entitled, "Masterpieces by Hiratsuka Un'ichi from the Van Zelst Collection in Celebration of the Centennial Anniversary of his Birth." Ted and Louann Van Zelst have lent the works to the museum as a gesture of gratitude for their relationship with the artist, who continues his work at age 100+. They attended the exhibit's opening ceremonies in May.

"This exhibition includes many pieces that have never before been seen by the Japanese public," said Mr. Mitsunobu Sato, the museum's director, "including some of the early color landscapes, which are very rare. Indeed, some of these prints have never been on public display. I researched collections of his work for exhibition, and found the Van Zelst Collection to be a unique compilation; it includes the best and rarest examples of all phases of the artist's development and is both the largest and finest assemblage of Hiratsuka's work to be found



*Stone Bridge Over C&O Canal
Georgetown, Washington, D.C.
Black and white woodblock print
1962
19.5 x 16.25 inches*

anywhere."

Van Zelst was engaged by the artist's depiction of bridges, monuments and other unique structures, an interest that comprised a theme in the early years of his collection of the Hiratsuka work. At one time, he sponsored a traveling exhibit of Hiratsuka's work entitled, "The Bridge and I."

Project Management Institute Midwest Chapter Program Calendar

Sept. 21 *Fall Social
An Evening on Lake Geneva
Chartered Cruise on
"Belle of the Lake"*

Oct. 2 *Chapter Meeting
"Using Project Management
in the Public Sector"
by Margaret Goldstein
of GMS Consulting Inc.
at Como Inn, Chicago*

Nov. 13 *Chapter Meeting
"PMI — Today and in the Future"
by Ronald Waller, PMI President,
of Johnson Controls, Inc.
at Raffaelli's in Libertyville*

Dec. 11 *Chapter Meeting
"The 1B Processor Story"
by Stanley Golinski &
Paul Rutkowski
of Lucent Technologies
at Como Inn, Chicago*

Jan. 8 *Chapter Meeting
"Computerized Project
Management Training"
by Chris Torkelson
of National Mutual Life
at John Ernst Cafe, Milwaukee*

Feb. 5 *Chapter Meeting
"Strategic Planning and
Project Management"
by Jerome Groen
of Abbot Laboratories
at Raffaelli's, Libertyville*

SECTION ACTIVITIES

Urban Planning & Development Group

The UP&D Group is preparing the Round Table Seminar agenda for developers, municipal planners, public works officials, and consulting civil engineers that is scheduled for Oct. 13, 1996. The pros and cons of the development process will be discussed. Your ideas are welcomed at our next breakfast meeting. Please contact John Zimmermann at (847) 698-6400 for details. The next scheduled meeting will be:

Date: Sept. 19, 1996
Time: 8:15 a.m.
Place: Denny's Restaurant
Oakbrook Terrace

Associate Member Forum

September Meeting

It's time to plan next year's events. Join us for our annual planning meeting and help us plan next year's meetings and outings. If you thought you might want to get involved, now is the time to do it. Give us your input so next year will be a great success. Please call Don Wittmer by Sept. 11 if you will be able to attend.

Date: Sept. 12, 1996
Time: 5:30 p.m.
Place: HTNB Corporation
111 N. Canal, Suite 880
RSVP: Don Wittmer at (312) 930-9119

Geotechnical Group

Geotechnical Group meetings are held **every second Tuesday of the month**, September through May.

Time: 5:30 p.m. social
6:30 p.m. dinner
7:30 p.m. presentation
Place: Como Inn
546 N. Milwaukee, Chicago
Cost: \$25 with reservations, \$30 at the door, \$10 for students with reservations, \$15 for faculty with reservations.
RSVP: Ms. Pat Moser at (708) 717-4263 by noon on the preceding Thursday.

September Dinner Meeting

The September dinner meeting will be a joint meeting held with the Structural Group and the Structural Engineers of Illinois. The guest

speaker will be Mr. Clyde N. Bakers, Jr. of STS Consultants Ltd., who will speak about soil-structure interaction problems with combined foundation systems. Mr. Baker will discuss several innovative projects involving large footings and mats supported on piles or straight shafts, utilizing the shared load concept. One case history he will discuss is a 12-story office building and parking garage south of the Loop.

Date: Sept. 10, 1996

October Dinner Meeting

Dr. Gonzalo Castro, GEI Consultants, Inc., Winchester, MA, will speak on "Empirical Methods in Liquefaction Evaluation."

Date: Oct. 8, 1996

Environmental Engineering & Water Resources Group

An HEC-RAS short course is scheduled for Oct. 30, 31 and Nov. 1, 1996. Mr. Richard Hayes of the COE will be the instructor. Look for the announcement on Page 3 of this newsletter.

An FEQ short course is being planned for December. The location, date, etc. are now being established. If you wish to have your name placed on a contact list when plans are finalized, call Dave Kendall at (708) 574-2568. A formal announcement of the course will also be included in future newsletters.

Plans for the WRPMD 25th special conference scheduled for June 6-11, 1998 are proceeding. Call the EE&WR Group chairperson if you are interested in participating in the planning of this national conference. We will be needing volunteers this fall. Arrangements for a conference of this size and importance must be finalized well in advance.

The next EE&WR Group meeting will be:

Date: Sept. 10, 1996
Time: 5:30 p.m.
Place: River Center
Main floor conference room
111 N. Canal St., Chicago
RSVP: Dave Kendall at (708) 574-2568

Structural Group

September Meeting

Mr. Clyde N. Baker, Jr., of STS Consultants will discuss soil-structure interaction problems with combined foundation systems. This is a joint dinner meeting with the ASCE Geotechnical Group and the Structural Engineers Association of Illinois. See the Geotechnical Group notice for more information.

Date: Sept. 10, 1996
Time: 6:30 p.m.
Place: Como Inn
546 N. Milwaukee, Chicago
RSVP: Barb Pries at (312) 263-1606

Management Group

For information on the Management Group and its activities, contact Jeff O'Connor at (312) 454-1060.

Administration Meeting

Date: Thursday, Sept. 19, 1996
Time: 5:15 p.m.
Place: Collins Engineers, Inc.
165 N. Canal, Suite 975
Chicago

Management Dinner

Marketing to Government Agencies is the focus for a presentation by a panel of representatives including Stan Kaderbek, CDOT; Pat McAtee, METRA; Ken Macander, IDOT; and Ralph Wehner, ISTHA. See details in the article on Page 2 of this newsletter.

Date: Monday, Sept. 30, 1996
Time: 5:30 p.m. social
6:00 p.m. dinner
7:00 p.m. panel discussion
Place: Como Inn
546 N. Milwaukee, Chicago
RSVP: Mark Schultz at (312) 782-8150 by Sept. 26.

Autodesk University Conference & Expo

The North American Autodesk User Group offers this event for high-end users of the program.

Date: Sept. 15-19, 1996
Place: Navy Pier, Chicago
RSVP: ARI Inc. at (414) 242-4262.

Niche Marketing by Barry Koren

CONCLUSION: A NICHE VIEW

If you have very special stature in your niche, convey that message to your clients frequently, year after year, internally in addition to externally. The effect is cumulative. Alter and improve offered services. However, despite all the changes around, do not change your identity with its special stature. *Reprints of this seven-part series are available.*