

# MINNESOTA GROUND WATER ASSOCIATION

NEWSLETTER v.2 n.1

October 1983

Thanks to all of you who attended the August drilling and monitoring-well installation seminar at Johnson Well Screen Division and thanks for all of the comments. The seminar was a complete success and we owe it to the drillers and speakers who donated their time and equipment. The seminar was attended by 140 members and many came in from outside the metro area. In fact, quite a few drove in from Wisconsin for the meeting. As I understand, Wisconsin has also organized a Ground Water Association, good luck to our neighbors. I would like to congratulate the people in Wisconsin for their excellent ground water slide show and public service announcements presenting their theme "Ground Water: Wisconsin's Buried Treasure." Their educational material should be used as a model for similar programs the MGWA might consider developing. Anyone who is interested in seeing the slide/cassette tape show or for more information, please call me at 612/296-0431. The MGWA has purchased a copy of the slide show.

Staying on the topic of education, Pat Mayer would love to hear from anyone who wants to help develop educational materials, call her at 612/725-4590. Pat recently borrowed several sets of materials--films, slides, brochures--from the NWWA. Quite a few members from the MGWA viewed the material and some of it is being considered for purchase. Any material the MGWA obtains would be available to members for use or for distribution to interested parties. My only comment about the NWWA films is that both were at least ten years old and they seemed more out-of-date when one considers the current emphasis on aquifer restoration and utilization of ground water resources. Making a twenty minute film or a good show of 40 slides is expensive, but the expense is warranted when you think of how often the topic of ground water is mentioned by the news media. I think the MGWA should strongly emphasize public education as part of its objective. How about some comments and help on this!

Enclosed in the newsletter is a ballot for two director positions. Please vote. The directory is also enclosed, please let Tom Clark at 612/296-7791 know if there is anything amiss.

This November our program will be Dr. Tom Winter who many of you will recognize from his work on ground and lake water interactions, details of the meeting are inside. This winter we will attempt another half day seminar, the program topic will center on the individual as an expert witness. Any help or volunteers will be appreciated. I have also discussed with several other members another summer seminar. The topic would be on ground water quality monitoring. The program would look at problems from well installation to the lab analysis, and possibly the legal problems of using the final data. The title might be something like "Is there such a thing as true ground water quality data after drilling." By the way, this organization is yours, if you have an idea for a program, you are encouraged to bring it forth and use the resources of the organization. This is not just limited to our quarterly meetings; as I mentioned before, educational programs are needed.

(Continued next page)

The MGWA newsletter is always looking for contributions and helpers. Much work goes into getting the newsletter together and if you have some time, we could use the help. The cost of the newsletter is partly paid by the companies whose business cards appear in each issue. The MGWA thanks those companies for their support. Anyone who would like to place your card in the newsletter may do so by contacting Kelton Barr 612/920-0655. Other organizations who wish to place meeting announcements should also call Pat Mayer. Membership in the MGWA is currently 222 although we mail newsletters to over 250 people. The Mid-West Ground Water Conference is this October 27-28th at Champaign Urbana, Illinois. If you are driving and have room or if you want to go and need a ride or if you just want info, please call me.

Those of you who attended the August seminar might recall my announcement where I proclaimed that I had sold my soul for a clear sky to prevail over our luncheon picnic. People went outside to the fresh air and soon everyone was eating and talking and getting wet from the rain. Someone then had to say, "Gil, it looks like your soul isn't worth much." Well I thought about it and decided that the man was right. So I beckoned the infamous soul exchanger in the subterranean inferno and asked if I could trade some other MGWA members for a nice day. That was acceptable but we couldn't agree on who. I asked, "What would you like, our group has many professions and types of people. How would you like some government people, I have lots of them?" The purveyor of darkness frowned and said, "No, I have plenty of them here already. You ought to see the eternal punishment we give them after they've made all those mortals suffer with their rules and regulations." I shuddered wondering, if like Scrooge, I might still have time to repent. I then offered, "How about a student. They work hard for just scraps of food?" Again the demon responded, "No, I have lots of them too, and they're strange. They seem to enjoy the pain and punishment." I thought about it and then suggested a lawyer, or a consultant or two, or maybe a professor. I can't print the fiend's response to that suggestion. I then asked, "What is it you don't have?" The man in horns smiled and said. "I don't get any volunteers, no one ever volunteers to come down here. Do you have any to spare." I was shocked. "Never," I exclaimed, "volunteers are people with hearts of gold, saints in my eyes, the seminar never would have happened if people hadn't volunteered. I'll never part with someone who nobly steps forth and says they'll help. How dare you to even ask!" The fallen one cowered at my rage and meekly asked, "What would you trade then?" I thought about it and then it hit me. "I might have some members in the fall who will forget to pay their dues. Would you like them?" His forked tail wagged, "You bet, I'll take all of them, then they can pay their dues down here." We shook on it and the rest is history, a rain free afternoon was ours. Think about it.

Members whose dues are due this fall have been notified in the mail. Please remember to send it in or bring it with you to the fall meeting. See you then, get those ballots in and let's hear from you.

Gil Gabanski, President

## ASSOCIATION NEWS

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### MGWA Public Education Committee

The Public Education Committee is putting together educational materials that will be made available to the general public in the near future. The Committee has on hand or has ordered the following: a slide presentation, grade school curriculum guide, and other printed material from the Wisconsin DNR, brochures from NWWA, a slide presentation produced by the New England Water Pollution Control Council, and a list of films currently available for rent or purchase. In the coming months the goals of the Committee are to review some of the available films and recommend to the MGWA Board the films which should be purchased, if any; to design a brochure describing the Minnesota Ground Water Association; to develop simple, effective demonstration materials to use when explaining the principles of ground water flow, occurrence and pollution; to meet with the Environmental Board and other appropriate groups to determine what the role of an organization such as the MGWA should be. At this time, we hope to be able to offer educational materials and - as often as possible - speakers, to interested groups.

One of the benefits of a professional organization like the Ground Water Association is that it gives members an opportunity to represent their profession out in the community, to provide accurate information to concerned people, and to encourage young people to enter the profession.

The Committee is planning to meet sometime in November or early December. If you want to participate, call Pat Leonard-Mayer (612/725-4590 or -4500) and suggest a meeting time/date/location that would be convenient for you.

### Dues

Cards are being mailed to MGWA members as a reminder to renew their membership in the Association. Please respond as soon as you receive your notice. Cards have gone out to those members who joined during the first quarter of Water Year 1983. Dues are \$10/regular and \$5/student and are tax deductible. Consider making a contribution to the Association and encourage your colleagues to join.

In the coming year the Association will continue the quarterly Newsletter and will provide the MGWA Membership Directory to all members. Some of the activities now being planned are - Expert Witness Seminar - Ground Water Modeling Short Course - Ground Water Quality/Monitoring/Sampling Seminar. We have also contacted an Environmental Mediator about a lunchtime presentation later in the year. MGWA activities will again be offered to members at low - or no - cost.

## MGWA ELECTIONS-FALL 1983

As mandated in our organizational bylaws, elections for treasurer and for membership chairperson are to be held biannually on odd-numbered years. Enclosed is a self-addressed post card with a ballot printed listing the willing candidates for these offices. Vote for your choice by checking the appropriate box and returning the ballot so that it reaches our P.O. box by midnight November 7, 1983. Results will be announced at the Fall meeting on November 16th. A brief rundown on each candidate follows:

Larry Johnson, Project Manager, E.C. Hickok and Associates for 5 years;  
BS, Geology, Kansas State University  
MS, Science Management, University of Alaska

Ken Olson, Hydrogeologist, Bruce Liesch and Associates for 3 years;  
BS, Geology, University of Minnesota  
MS in progress, Hydrogeology, University of Minnesota

Gretchen Sabel, Pollution Control Specialist, Solid and Hazardous Waste Division, MPCA for 5 years;  
BS, Biology, University of Cincinnati

Tom Clark, Senior Hydrologist, Minnesota Pollution Control Agency for 5 yrs;  
BA, Geology, Oberlin College  
MA, Geology, University of Texas

Ask Santa for these (or order directly from the publisher)

*Drinking Water Supplies: Protection Through Watershed Management*, R. J. Burby, E. J. Kaiser, T. L. Miller, and D. H. Moreau, Ann Arbor Science, Ann Arbor, Mich., 1983, \$29.95.

*Groundwater Contamination in the United States*, V. I. Pye, R. Patrick, J. Quarles, Univ. of Penn. Press, Philadelphia, 307 pp., 1983, \$14.95.

*Mathematical Modeling of Water Quality: Streams, Lakes, and Reservoirs*, G. T. Orlob (Ed.), John Wiley, New York, xx + 518 pp., 1983, \$105.

*Conservation of Water and Related Land Resources*, P. E. Black, Praeger, New York, xx + 209 pp., 1982.

*Buying a Better Environment: Cost-Effective Regulation Through Permit Trading*, E. F. Joeres and M. H. David (Eds.), Univ. of Wisconsin Press, Madison, x + 276 pp., 1983, \$7.50.

*Methods and Instrumentation for the Investigation of Groundwater Systems*, Committee for Hydrological Research TNO, The Hague, The Netherlands, xiii + 690 pp., 1983, \$30.

*Principles of Water Resources Planning*, A. S. Goodman, Prentice-Hall, Englewood Cliffs, N. J., xii + 563 pp., 1984, \$34.95.

*Public Involvement and Social Impact Assessment*, G. A. Daneke, M. W. Garcia, and J. D. Priscoli (Eds.), Westview Press, Boulder, Colo., xii + 303 pp., 1983, \$25.

*Ground Water Monitoring Technology: Procedures, Equipment and Application*, R. D. Morrison, Timco Mfg., Prairie du Sac, Wis., xv + 111 pp., 1983, \$33.

*Agricultural Management and Water Quality*, F. W. Schaller and G. W. Bailey (Eds.), Iowa State Univ. Press, Ames, xviii + 472 pp., 1983, \$39.95.

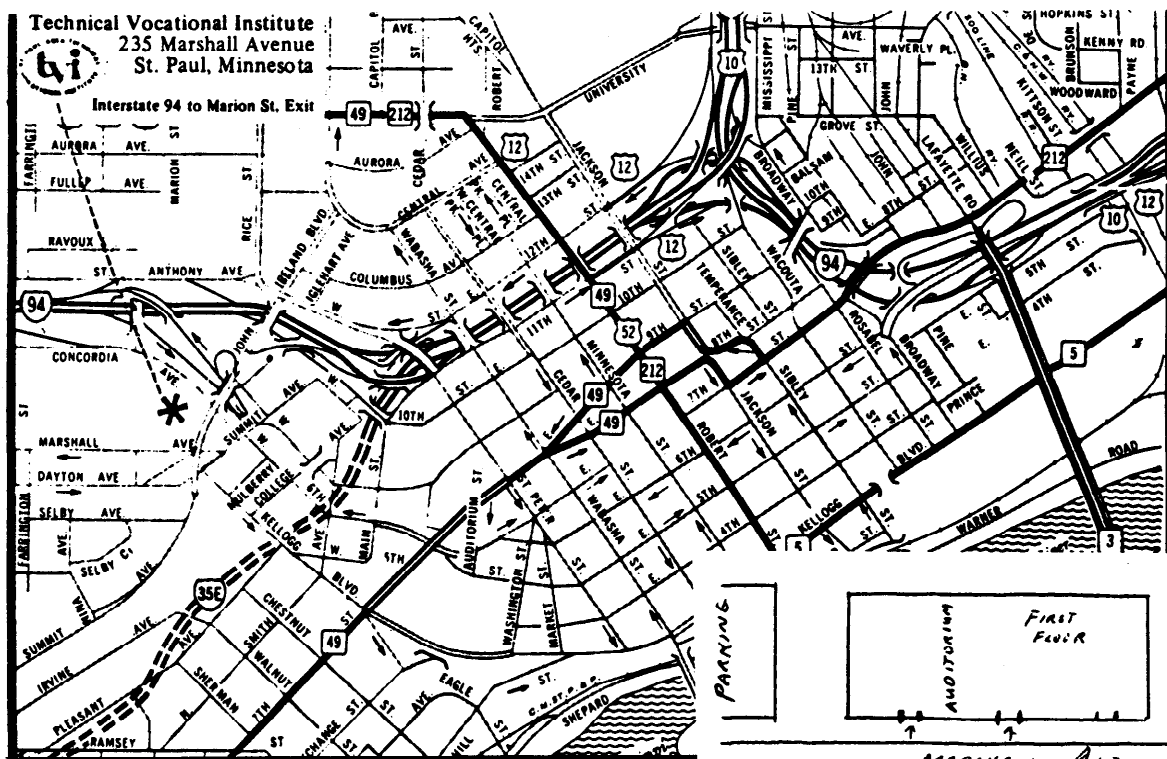
*Fundamental Concepts in the Numerical Solution of Differential Equations*, J. F. Botha and G. F. Pinder, John Wiley, New York, xii + 202 pp., 1983, \$24.95.

(List from Eos, v. 64, n. 39, Sept. 27, 1983)

# MINNESOTA GROUND WATER ASSOCIATION

## FALL 1983 MEETING

- WHAT: MGWA Fall 1983 Meeting. A short business meeting will precede a presentation/discussion about "The Why's, Wherefore's, How's, and I-Told-You-So's of Piezometer Installations". This meeting will jointly sponsored with the Minnesota Section, AWRA.
- WHO: Dr. Tom Winter, Research Hydrologist with the USGS in Denver and former Minnesotan, will discuss his research undertaken on the appropriate techniques for constructing, installing, and measuring piezometers to insure precise and accurate hydraulic head determinations.
- WHEN: Wednesday evening at 7:30pm, November 16, 1983-- the week before Thanksgiving.
- WHERE: The auditorium of the St. Paul Area Vocational-Technical Institute, 235 Marshall Avenue, St. Paul (maps enclosed). The Institute is located between the St. Paul Cathedral and I-94 by the State Capitol. Offstreet parking (free) is available in a lot west of the building on Marshall (a one-way street); enter building from Marshall Ave., and follow signs to the Auditorium.



## MGWA GROUNDWATER MODELING COURSE

The Minnesota Ground Water Association is co-sponsoring with the University of Minnesota Continuing Education Extension a short seminar on groundwater modeling. This course will cover the basic methods of groundwater modeling with an emphasis on computer applications. The course will try to provide those attending with an understanding of the mathematical bases for groundwater models and familiarize them with the analytical, finite difference, and finite element methods that are often used for groundwater modeling. Several regional groundwater models based upon these methods will be presented and applied and several applications of these methods demonstrated in the course. This seminar will take three days.

In addition, an additional two-day seminar will follow for those interested in learning more about advanced analytical models. This will be devoted to detailed discussion of advanced analytical elements and the applications in computer models. Detailed lecture notes will be provided for both courses.

Arrangements for the modeling course are still underway. However, the course is expected to be offered in February at a very reasonable cost. The course will be taught by Drs. Otto D.L. Strack and Henk Haitjema and other members of the Department of Civil and Mineral Engineering at the University of Minnesota. More information will be provided in the future to the MGWA members.

AGU Fall Meeting, San Francisco, California, December 5-9, 1983. Contact AGU, 2000 Florida Ave., N.W., Washington, D.C. 20009.

Symposium on "Optimization Techniques for Managing Ground Water and Stream-Aquifer Systems," will be held as part of the AGU Fall Meeting in San Francisco, California, December 5-9, 1983. Sponsored by the Ground-Water Committee of AGU. Contact Dr. S. M. Gorelick, U.S.G.S., Mail Stop 21, 345 Middlefield Rd., Menlo Park, CA 94025, phone 415-323-8111, ext. 2141.

Geological Society of America Annual Meeting, Indianapolis, Indiana, October 31-November 3, 1983. Contact J. M. Latulippe, GSA, P.O. Box 9140, Boulder, CO 80301.

Water Well Design Course for Consultants, Columbus, Ohio, November 30-December 2, 1983. Contact NWWA, 500 W. Wilson Bridge Rd., Worthington, OH 43085, phone 614-846-9355.

Ground-Water Investigations at Hazardous Waste Sites: Safety and Liability Considerations, San Diego, California, October 27-28, 1983. Contact NWWA, 500 W. Wilson Bridge Rd., Worthington, OH 43085, phone 614-846-9355.

Safety and Hazardous Waste Disposal Sites Conference, Columbus, Ohio, January 16-17, 1984. Contact NWWA, 500 W. Wilson Bridge Rd., Worthington, OH 43085, phone 614-846-9355.

## AROUND THE STATE

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### MPCA

The Minnesota Pollution Control Agency has three publications available dealing with ground water in Minnesota:

Procedures for Ground Water Monitoring: Minnesota Pollution Control Agency Guidelines

Ground Water Quality Monitoring Program: Analytical Data for 1982 and Principal Aquifer Analysis

Ground Water Protection Strategy Framework for Minnesota

Procedures for Ground Water Monitoring will remain in draft form until August, 1984, during which time comments will be received from its users. Ground Water Quality Monitoring Program is the fifth in a series of documents describing the ambient quality of Minnesota's ground water. Ground Water Protection Strategy Framework is the final report to the U.S. EPA resulting from a 29-month grant to the agency under Section 208 of the Clean Water Act. Copies of these reports are available - call MPCA at 296-7791.

### Citizens League Study

The Citizens League is forming a study committee to conduct research on the topic of Ground Water Supply and Quality. The committee will suggest an organizational framework for management and accountability in Minnesota's ground water supply, recognizing the interaction between quality and supply, and assuming that in coming years demand for this resource will exceed its availability. The study will get underway in early 1984.

The policy of the League is that committee members should be members of the League. The Citizens League, a non-partisan, public affairs group, does research and education in the St. Paul-Minneapolis metropolitan area. For information, call the League's office 612/338-0791.

### Water Planning Board, EQB, merged

After four years of debate, the Legislature has created the permanent water resources coordinating body recommended in the Water Planning Board's 1979 framework water plan. The Water Planning Board and the Southern Minnesota Rivers Basin Board were merged with the state Environmental Quality Board to form the recommended organization in Laws 1983, Chapter 301. The Legislature expects that there will be a stronger link between planning for environmental protection and natural resource use and the adoption of state policies. (from On the Waterfront, v. 4, n. 2, Aug. 1983)

### Superfund Update

The MPCA Board has approved \$50,000 for use at the Isanti solvent site to provide a permanent clean drinking water supply for 3 families; \$250,000 to clean up above-ground arsenic sites in the state; and \$100,000 for remedial investigations of below-ground arsenic sites (excluding Perham, Wadena and Morris). The \$250,000 for above-ground arsenic cleanup is the Agency's first use of the State Superfund. Part of the money will be used for a publicity program to encourage citizens to report above-ground arsenic storage sites in addition to the 50 sites reported thus far.

## IN THE SOCIETIES

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### National Water Well Association/Technical Division

Illinois and Wisconsin join Minnesota in forming state Associations. The first meeting of the Illinois Groundwater Association was held in Morris on June 1, 1983. An enthusiastic group of 81 people attended the afternoon and evening meeting. One of the speakers was Tom Johnson of the Illinois Geological Survey who was the guest speaker at the first MGWA membership meeting one year ago. In Wisconsin, the organizational work is well underway. Bob Brobst and Gary Kulibert, MGWA members from Wisconsin, attended the August seminar and discussed their plans for the Wisconsin organization with MGWA members. They expect to hold a membership meeting in the near future.

NWWA has expressed some interest in holding a regional conference in the Twin Cities. MGWA members who feel that we are long overdue for a conference may want to write to the NWWA Planning and Management Committee (500 West Wilson Bridge Road, Worthington Ohio 43085) to encourage our parent organization to schedule a Twin Cities conference in the near future.

### American Geophysical Union/Hydrology Section

The journal Water Resources Research will begin monthly rather than bi-monthly publication in January 1984. In addition to this change, the Hydrology Section Executive Committee is considering developing a new journal to serve the more practically oriented members of the Section. The Committee welcomes written comments on whether such a journal is needed.

A Hydrology Section Committee on the History and Heritage of Hydrology has been formed. The Committee plans to write up its purposes and goals in an article for Eos and the schedule some History of Hydrology sessions, probably for the Fall 1984 and/or Spring 1985 Meetings.

from Eos, Trans. Am. Geophys. Union, v. 64, n. 37, Sept. 13, 1983\*\*

\*\* In the Hydrology Section report, the issue of certification of hydrologists was discussed. MGWA will be presenting a discussion of the issue in the next Newsletter and the AGU Hydrology Section actions will be included in that report. Anyone who wants to participate in this exchange of ideas should contact Kelton Barr at 612/920-0655.

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### MGWA Board of Directors

Gil Gabanski 612/296-0431  
President

Kelton Barr 612/920-0655  
Secretary

Dennis Woodward 612/725-7841  
Vice-President

Tom Clark 612/296-7791  
Membership Chairperson

Kent Peterson, the 1983 MGWA Treasurer, left Minnesota recently to take a research position in the Denver area. The Board members thank Kent for his work with the Association and wish him all the best at his new job.

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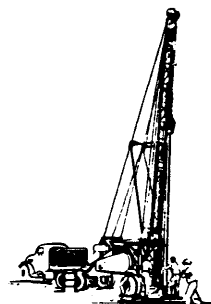
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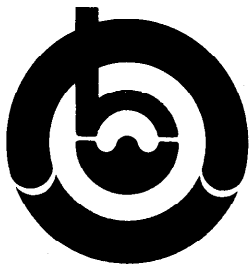
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