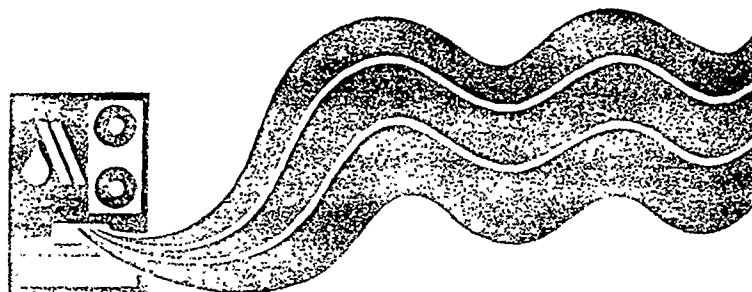


**Experience Tomorrow Today at the 1984
AWWA Annual Conference and Exposition
Dallas, Texas June 10-14, 1984**

PLAINTIFF'S EXHIBIT

CAP-962





Experience Tomorrow Today
The American Water Works Association Annual Conference
and Exposition
Dallas, Texas • June 10-14, 1984



What Experience Tomorrow Today Really Means

The history of the water supply industry has been one of continual progress. And most of this progress has been the result of the water supply industry's ability to look into the future and anticipate the essential demands of tomorrow.

Yet the world of tomorrow approaches us at an ever-quicken pace. The problems of tomorrow—population growth, natural resource shortages, pollution—will occur whether or not we're ready for them.

It is in this spirit of challenging the essential demands of tomorrow that the theme "Experience Tomorrow Today" was created. To meet the critical needs of tomorrow, we must begin to work today. The 1984 AWWA Annual Conference and Exposition is an important—and essential—component toward meeting that goal.

Essential to Your Future

The AWWA annual conference is the largest meeting of water supply industry leaders in the world. You will not find more of your colleagues, more technical education, more in-depth seminars and more water supply exhibits anywhere, at any time.

The annual conference brings together the knowledge of tomorrow's problems, the tools to deal with them and the people who will design and implement the water supply reality of tomorrow.

Technical Presentations of Real Significance

The 1984 AWWA conference tackles the problems you're most concerned about:

- Computer use in water supply design and management
- Financial management
- Leak detection
- Remote meter reading
- Future economic and technological environment
- Water reuse
- Water protection
- Energy cost-effectiveness
- Water rights and aquifer depletion
- Construction contracts

The 1984 conference seminars and technical program address the specific problems that you must deal with on a day-to-day basis. More importantly, they point you in the direction of specific solutions.



A Professionally Administered Conference—For Professionals

In addition to a solid technical program, the 1984 AWWA Annual Conference and Exposition is everything you've come to expect from AWWA. Throughout the conference, you can take advantage of a multitude of other programs designed to augment your water supply knowledge.

The exposition is projected to be the largest ever. You have ample opportunity to learn about specific products and services that will help you in the future.

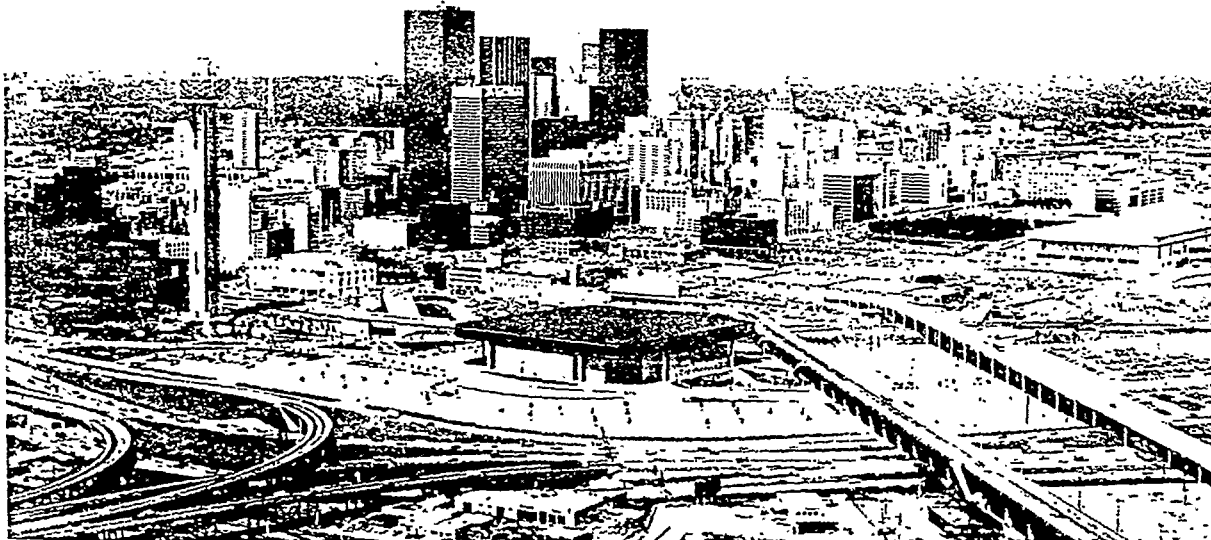
Numerous tours have been arranged that let you see first hand the best the Dallas area has to offer in water supply design, technology and management.

And speaking of Dallas, the city provides one of the best business environments possible. Centrally located for easy travel from nearly all areas, Dallas can accommodate AWWA's size and complexity.

Experience Tomorrow Today

AWWA urges you to get ready to experience tomorrow by registering for the conference today. This small investment of five days could put you years ahead in handling the water supply demands of tomorrow.

Attend the 1984 AWWA Annual Conference and Exposition and experience tomorrow today. Your future demands it.





CONFERENCE AT A GLANCE

ANNUAL CONFERENCE SEMINARS

All AWWA conference presentations offer detailed information applicable to a wide variety of water industry problems and issues. The Sunday conference seminars, however, feature a depth and scope of information that only a day-long conference can provide. Chaired by internationally known water industry experts, these seminars cover the most important issues facing the water industry today. And they offer the special opportunity for interaction on both a speaker-to-speaker and a speaker-to-audience level. So plan to attend a conference seminar and make the most of your attendance at the Dallas conference.

TECHNICAL PROGRAM

The AWWA annual conference technical program provides a wide variety of specific, in-depth and useful material on just about every issue facing the water industry today—and tomorrow.

Four days of technical program attendance gives you a head start on problems that can affect you, your business and your career. That's why the AWWA annual conference technical program has become an absolute necessity for leaders in the water industry.

The opening general session features a thought-provoking presentation by a prominent speaker. It sets the tone for the vital information that follows.

Plan to attend the technical sessions and keep up with the dynamic flow of issues facing the water industry now and in the future.

EXPOSITION

You already know that the AWWA annual

conference is the largest gathering of water supply professionals sharing the greatest amount of water industry information in the world. The conference is also the largest assembly of state-of-the-art water supply products and services.

The AWWA exposition gives you an unequalled opportunity to examine products that affect you on a day-to-day basis.

Conveniently located near the meeting rooms, the exhibits give you the chance to plan how new products and services can benefit you in the future.

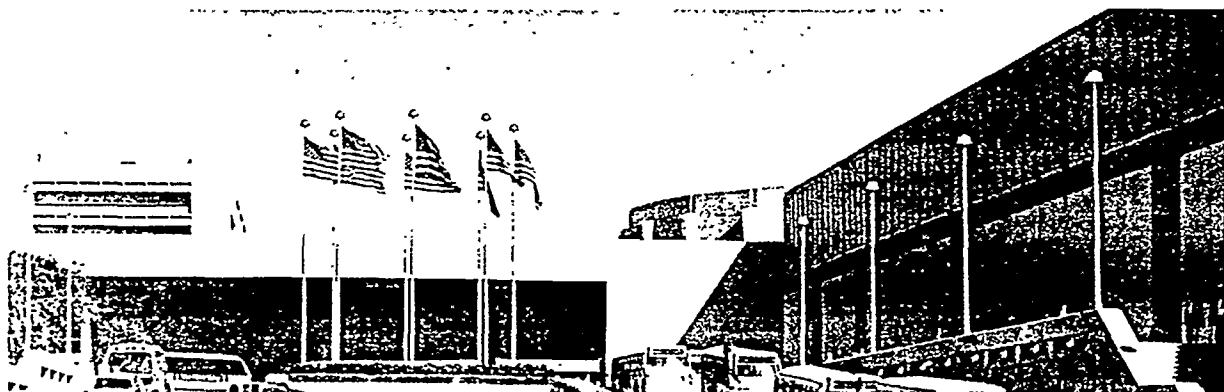
AWWA BOOKSTORE

While visiting the exhibit area, make sure you stop by the AWWA Bookstore. You'll find on display AWWA's best-selling and latest publications, including all AWWA standards, operator certification study guides, training materials and more. A number of public relations aids will also be available for purchase.

Credit cards (VISA, Mastercard, American Express) are welcome.

MANUFACTURERS' FORUM

A popular addition to the exposition, the manufacturers' forum gives you another opportunity to get specific information from selected exhibitors. They provide 45-minute non-selling presentations on recently developed technologies. Signs and announcements in the technical sessions will keep you posted on the schedule.





FACILITY TOURS

AWWA facility tours provide the unusual opportunity to see state-of-the-art water industry facilities first hand. This on-sight inspection allows you to see the culmination of many ideas that will affect you in tomorrow's water industry. The tours are designed to be stimulating, informative and enjoyable and give you a chance to compare notes with your colleagues in the industry.

AWWA facility tours offer the unique opportunity to visit some of Dallas's outstanding water facilities. Join your colleagues on these educational events and register for tours now.

Monday 1:00 p.m.-5:00 p.m.

East Side Purification Plant-Learn how this large 400 MGD surface water purification plant uses ferric sulfate coagulation and lime softening along with taste and odor control, disinfection and fluoridation. Observe how chemical feed equipment, basins, dual media filters and sophisticated analytical laboratory equipment operate.

Tuesday 8:00 a.m.-Noon

White Rock North Water Transmission Line-Visit the construction site of an 84-inch (2100-mm) water transmission line that will ultimately run 15.3 miles (24.5 km) through Dallas. Also, see the concrete pressure pipe

manufacturing facility of Gifford-Hill-American, Inc.

Tuesday 1:00 p.m.-5:00 p.m.

Central Pumping Control Center and Meter Repair Shop-The Dallas Water Utility's central pumping control center has computer facilities for data collection and display. You'll see remote control operation of pumps, valves and flow rate devices for customer cities. The utility's meter repair facility features shop facilities for repair and testing of customer billing meters.

Wednesday 8:00 a.m.-Noon

Central Wastewater Treatment Plant and Research Laboratory-Learn about primary and secondary sedimentation basins, biological rotating trickling filters, activated sludge (surface aeration) and multimedia filtration at this 150 MGD wastewater treatment plant. Then see the Research and Central Laboratories that conduct water and wastewater research projects using an atomic absorption spectrophotometer and liquid and gas chromatographs.

Wednesday 1:00 p.m.-5:00 p.m.

Texas Instruments, Inc. Ultra Pure Water Facility-See how this large industrial water processing plant produces large quantities of ultra pure water necessary in the semiconductor-manufacturing process. This tour illustrates the new uses of water tomorrow, today (80-person limit).



REGISTRATION INSTRUCTIONS [For registration form]

The form may be copied to register people from your organization.

1-Registrant and spouse should register on the same form.

2-Both the registration and hotel portions must be completed.

3-Registrations and payment **MUST** be received *before May 25* to qualify for the lower advance registration rates. Requests for hotel rooms received after May 18 are conditional on space availability. Requests for hotel rooms received after May 25 will not be processed.

4-Requests for registration refunds must be received no later than June 1, 1984.

5-Balances outstanding at the close of the conference will incur a charge of 1 1/2 percent per month.

6-AWWA will acknowledge your registration; the housing bureau will acknowledge your hotel assignment.

7-Hotels and rooms are assigned on a first-come, first-serve basis.

8-Hotels will require a deposit 15 days after you receive the Housing Bureau acknowledgement. If the deposit is not submitted, the hotel has the right to cancel your reservation. All changes and/or cancellations must be made in writing to the Dallas Housing Bureau up to May 25, 1984 at the following address:

AWWA Housing Bureau
1507 Pacific Ave.
Dallas, TX 75201

Do not send the deposit to the Housing Bureau

9-Mail your completed registration form with full payment or credit card information to:

AWWA Conference
6666 West Quincy Avenue
Denver, Colorado 80235

Hotel Rates 1984 AWWA Annual Conference and Exposition Dallas, Texas June 10-14, 1984

Number of Rooms	Hotel	Single	Double	Suite
250	Adolphus	\$ 85	\$ 95	\$
75	Bradford	65-85	75-95	95-105
650	Dallas Hilton	62-73-78	78-89-96	195-285 (1 hr)*
450	Fairmont	80-90	90-100	225-325 (2 hr)
175	Grenelefe	63	73	
150	Holiday Inn	57	67	
800	Hyatt Regency	83	93	250 (1 hr) 400 (2 hr)
700	Loews Anatole	83	89	
150	Marriott-Market Center	60	70	
150	Plaza of the Americas	75	85	
330	Sheraton Dallas	76, 86	86, 96	175, 225
50	The Plaza Hotel	55	65	

Room rates quoted above include a \$3 per night shuttle bus subsidy.

See back of registration form for map of convention hotels.



AWWA 1984

NAME
FOR
BADGE _____

TITLE _____

COMPANY _____

ADDRESS _____

CITY _____ STATE OR PROVINCE _____ ZIP _____

COUNTRY _____ PHONE _____

SPOUSE
OR GUEST _____CONFERENCE
REGISTRATION

REGISTRATION FEES-(circle choices)

	Before May 25	After May 25
Technical—Sessions & Exhibits		
With Banquet (incl. Fun Night) A	\$245	\$295
Without Banquet (incl. Fun Night) B	210	260
Monday Only C	75	95
Tuesday Only D	75	95
Wednesday Only E	75	95
Thursday Only F	75	95
Student-(college or university) G	10	15
Exhibits Only		
Sun.-Wed. H	10	15
Exhibitor complimentary J	.	.

EXTRA COST

Fun Night @ \$20 T _____
Fun Night-Child (under 12) @ \$12 R _____
Extra Banquets @ \$35 K _____

Facility Tours:

East Side Purification Plant-Mon. P	15	20
White Rock N. Wtr. Transmission- Tue. Q	15	20
Central Control & Meter Repair-Tue. R	15	20
Wastewater Trtmt. Pl. Research Lab-Wed. S	15	20
Ultra Pure Water Plant at TI-Wed. T	15	20

Seminars-Sunday:

Hydraulics U	75	100
Chloramination V	75	100
Groundwater Contamination W	75	100
Financial Programs (1/2 Day). X	40	55
Non-specific Organic Analyses Y	75	100
Conference Proceedings Z	45	45

Spouse-Hospitality Exhibits & Favor

With Banquet (incl. Fun Night) SA	\$70	\$90
Without Banquet (incl. Fun Night) SB	35	55

EXTRA COST

Spouse Tours:

Even J.R. Loves Dallas SV	14	14
Discover Dallas SW	13	13
Dallas Homes-Tue. SX	18	18
Fashionably Dallas SY	30	30
Where The West Begins SZ	15	15
Antique And Unique TA	12	12
Dallas Heritage Tour TB	16	16
Shopping Dallas Style TC	12	12
Art About Town TD	28	28
Dallas Homes-Wed. TE	18	18

Seminars-Wednesday

Living Better-Feeling Worse TF	5	5
New Insights-Meaningful Living TG		

TOTAL COST-ALL REGISTRATIONS \$ _____

____ Personal Check ____ Company Check

Make check payable to AWWA in US funds.

Credit Card No. _____

____ American Express ____ Visa ____ Mastercard

Expiration Date _____

Occupation (Circle One)

WTR Water Utility	EDU Educator
CTR Contractor	RES Research Lab
CON Consultant	FED Govt.-Federal
EXH Exhibitor	STA Govt.-State
MFG Mfg-Not Exhibiting	LOC Govt.-Local
REP Mfgs Representative	STU Student
DIS Distributor	OTH Other _____

Choice	Hotel	Rate	Type (Circle One)	Name(s) of all Occupant(s)
1	_____	_____	Single	1 _____
2	_____	_____	Double	2 _____
3	_____	_____	Twin	3 _____

Send Confirmation to:

Name _____

Company _____

Address _____

City _____ State _____ Zip _____

Telephone No. _____

Arrival Date _____ Time _____

Departure Date _____

Requests received after May 18 are
conditional on space availability.

DO NOT SEND DEPOSIT TO HOUSING BUREAU

AWWA 1984

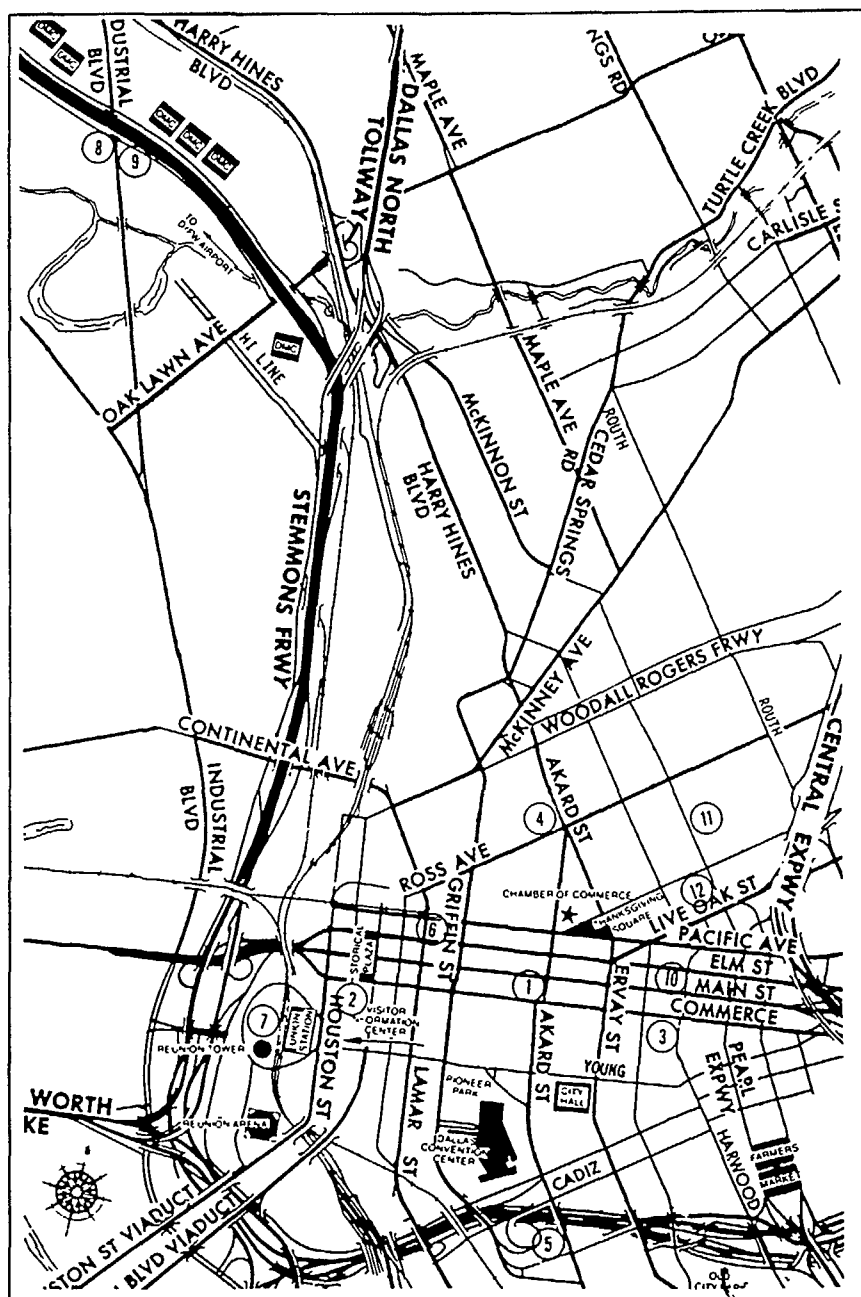
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MAP OF CONVENTION HOTELS

Key:

- | | |
|-------------------------|---------------------------|
| 1. Adolphus Hotel | 7. Hyatt Regency |
| 2. The Bradford Hotel | 8. Loews Anatole |
| 3. Dallas Hilton | 9. Marriott Market Center |
| 4. The Fairmont Hotel | 10. The Plaza Hotel |
| 5. The Grenelefe | 11. Plaza of the Americas |
| 6. Holiday Inn Downtown | 12. Sheraton Dallas |





CONFERENCE PRESENTATIONS

CONFERENCE SEMINARS

Sunday, June 10, 1984

AWWA conference seminars provide conference attendees with an opportunity to learn more about the latest developments in water supply technology. These in-depth seminars are led by widely recognized experts. Plan now to attend one of these valuable Sunday seminars.

Seminar Schedule*

- 7:00 a.m.-9:00 a.m. On-site Registration
Pick up Registration Course Materials
- 9:00 a.m.-5:00 p.m. Seminars run concurrently
- 12:30 p.m.-2:00 p.m. Luncheon

Other Information

- Pre-registration-\$75
- On-site registration-\$100
- Registration includes course materials (seminar notebooks and proceedings) and luncheon
- Shuttle bus service is available all day Sunday.
- *Except for Sunday Seminar "Developing Financial Programs in the 80s." See schedule for this seminar on page 11.

SEMINAR TOPICS AND CO-CHAIRMAN

- Distribution Division

Co-Chairmen: *John E. Pilzer, Gene Seibel*
Moderator: *G. Brewster Cole*

This seminar features a practical overview of the latest developments in in-house programs to conduct fire-flow tests, hydraulic grade line tests, pump performance analysis and water loss control.

Seminar Topics

- Fire-flow tests
- Hydraulic gradients
- Pump performance
- Water loss control
 - Unaccounted-for water
 - Per capita consumption
 - Leak detection
 - Hardware display

Moderator

G. Brewster Cole is chairman of Pitometer Associates in New York City. Cole received his undergraduate degree from Dartmouth College and is a member of the Distribution Division's Leak Detection Committee.



Robert C. Hoehn

SEMINAR TOPICS FOR THE QUALITY DIVISION

- Water Quality Division

Coordinator: *Robert G. McCall*

Moderator: *Robert C. Hoehn*

A controversial issue facing the water treatment industry today is the switch from free-residual chlorination to chloramination.

Since the THM maximum contaminant level of 0.01 mg/L was imposed, many systems have switched to chloramines because they do not affect the THM level. This switch has concerned many in the water treatment field because they do not believe that chloramines disinfect as effectively as chlorine.

The Water Quality Division's Disinfection Committee presents a spirited discussion of the pros and cons of chloramination.

Seminar Topics

- Chemistry and measurement of chloramination
- Mechanisms and kinetics of microbial inactivation by chloramines



- Health aspects of chloramination
- Regulatory aspects of chloramines
- Advantages and disadvantages of chloramines
- Design, operation and economic aspects of conversion to chloramines
- Case studies

Moderator

Robert C. Hoehn is professor of civil engineering at Virginia Polytechnic Institute and State University, Blacksburg, Virginia. He holds a bachelor's degree and a master's degree from North Texas State University and a doctorate degree from the University of Missouri-Columbia. With more than 20 years experience in water treatment, Hoehn has directed various research studies in the areas of disinfection and THM control and has authored numerous technical articles dealing with both areas. Hoehn chairs the Water Quality Division's Disinfection Committee.



Alan F. Hess



Thomas J. Sorg

EXPERIENCES WITH REGULATED WATER CONTAMINATION

- Water Quality Division

Coordinators: John L. Cleasby, Alan A. Stevens

Co-Moderators: Alan F. Hess, Thomas J. Sorg

Learn the latest on existing and proposed drinking water regulations, conventional and

innovative water treatment techniques, alternatives to treatment and problems associated with contamination of groundwater aquifers. Both organic and inorganic sources of contamination are reviewed with emphasis on actual case histories and practical experience.

Seminar Topics

- Proposed USEPA drinking water regulations
- Utility experiences related to existing and proposed drinking water regulations
- Point-of-use treatment technology to control organic and inorganic contamination
- Hazardous waste disposal practices related to groundwater contamination
- Reverse osmosis treatment technology to control organic and inorganic contamination
- New wells vs. treatment dilemma
- Handling wastes from groundwater treatment systems
- Case studies of utility experiences

Coordinators

Alan F. Hess is manager, water quality and treatment, of Malcolm Pirnie, Inc., Paramus, New Jersey. He holds bachelor's degrees in civil and sanitary engineering from Pennsylvania State University and a master's degree in civil engineering from the University of Pennsylvania. He has managed several projects on treatment techniques to control volatile organic contaminants and has been involved in studies related to organic and inorganic contamination at more than 25 water systems across the United States. Hess served as chairman of an AWWARF committee that prepared a recent handbook on organic contaminants in drinking water in association with the Netherlands Water Research Institute (KIWA) and is chairman of the Water Quality Division's Organic Contaminants Committee.



Carl Goebel

DEVELOPING FINANCIAL PRACTICES IN THE '80s

- Management Division

Moderator: *Carl Goebel*

As we move into the mid-'80s, economic issues attract more public attention every day. And with this increased attention, the public is taking a closer look at water utilities' financial practices. Cost-conscious water consumers may resist the rate changes necessary to meet long- and short-term revenue requirements.

This seminar reassesses past financial practices, reviews current capital requirements and reveals the latest thinking in cost-effective financial management.

Seminar Topics:

THE WATER INDUSTRY IN THE 1980s

- Supply and demand forecast; special regional problems
- Economic, regulatory and environmental issues

CAPITAL REQUIREMENTS: AN INDUSTRY OVERVIEW

- Infrastructure renewal, replacement and expansion
- Source development; treatment requirements

FINANCING CAPITAL REQUIREMENTS

- Alternative methods of financing
- Rates and charges for water service; other market mechanisms

MONEY MARKET CONDITIONS

- Meeting financial requirements in the money market
- Money market fees and immediate cash flow requirements

FEDERAL IMPACT ON WATER UTILITY OPERATIONS

- Recent legislation; impact of pending legislation
- Future sources of grant funds

MARKETING A FAVORABLE IMAGE OF WATER UTILITIES

- The role of management
- Presenting water utility concepts to regulatory agencies

Moderator:

Carl Goebel is chief administrator of Portland's Bureau of Water Works. He holds a master's degree in economics and taught economic and monetary courses at the university level several years before his employment with the City of Portland, Oregon, as a management analyst in 1973. Goebel is presently chairman of the Management Division's Committee on Financial Management, which has four subcommittees working in the areas of accounting, financial analysis, rates and charges and professional development programs in finance for managers.

Details pertinent only to this seminar program.

- Course materials, coffee and rolls available in meeting room between 8:00-8:30 a.m.
- Seminar starts promptly at 8:30 a.m.
- Seminar concludes at 1:00 p.m. (half-day)
- Registration fee-\$40, advanced (\$55, on site)
- Registration fee does not include luncheon



Afternoon

Session 2

WORKING FOR TOMORROW

• Distribution Division

Co-Chairmen: *Donald E. Jackson, Gene A. Seibel*

1. Repainting Steel Elevated Tanks: How to Eliminate Problems
Joseph S. Barry
2. Assessment of Remote Register Meters: An Industry Survey
Frank Gradilone, III, Donald L. Schlenger

Experience tomorrow today as Schlenger presents a progress report of the latest survey on the practices and uses of remote register meters. The most up-to-date figures on use, performance of equipment and increased productivity give a good idea on the direction remote metering will take in the future. Based on a careful analysis of more than 1,300 responses, this presentation reveals interesting differences among utilities based on size, location, length of time metering has been used, types of meters, installation strategies and data transmission methods.

3. Justification of Remote Meter Reading
Robert S. Shierry

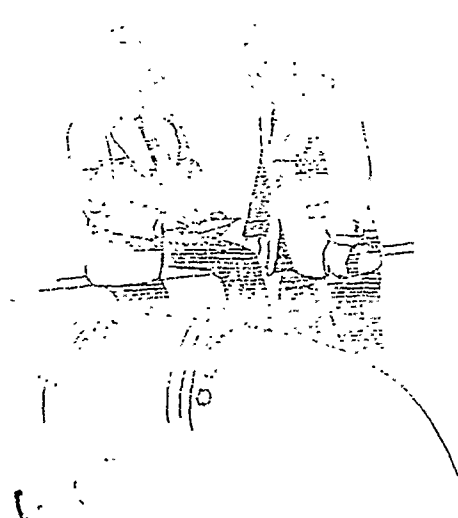
Remote meter-reading devices can be justified to regulatory commissions, according to the in-depth study of Northern Illinois Water Corporation's presentation to the Illinois Commerce Commission. The study emphasizes many advantages of remote water metering including significant financial benefits, lower labor costs and increased customer satisfaction. The study also details the process of justification and installation.

4. Water Audit: Positive Effect on Utility Operations
Claus Dunkleberg

On-site utility audits have proven to be a plus for water utility personnel who assisted during the audits. Case histories document these workers gained a better understanding of the discovery process (lost and broken valves and incorrect records), leak detection and unaccounted-for water. Also, on-site inspection of water delivery systems offer special advantages to utilities with limited staff.

5. An Examination of the Benefits of Leak Detection
Christopher L. Carr

Leak detection programs continue to be cost-effective methods for saving significant amounts of water. This presentation focuses on net benefits and benefit/cost ratios using several important variables including interest rates, water costs, leak detection and repair costs and initial leakage amounts. This session also documents how the California Department of Water Resources uses benefit/cost ratios in practice to select the most suitable leak detection programs.



**Session 3****20/20 VISION: A VIEW OF THE FUTURE****• Management Division**

Co-Chairmen: *Edward W. Limbach, Karl W. Peltz*

1. **A Water Utility Executive's Look Into the Future**

William H. Miller

Technology is exploding. Computers are rapidly becoming the way of life. And management information systems are more popular than ever. Yet customers demand quality water at a low price.

How will the water utility manager cope in the future? Will technology, computers and management information systems help—or hinder—his decision making? Hear one utility manager's view of 21st-century utility operations.

2. **Overview of the Economy: Prosperity or Depression**

James O. Fogleman

Understanding economic trends is essential to your future success. This presentation demonstrates the use of trend analysis as a tool for effective planning and water utility management. It also explores economic trends between now and the end of the century.

3. **Technological Future for the Information Age**

Bernard C. DeLoach

Future telecommunications technology will force adaptation by management. But how? Find out how you will communicate—and manage information—in the future.

4. **The Impact of Space Technology on Our Quality of Life**

Jon A. McBride

This presentation by a U.S. astronaut is a fascinating study of the space program to-date.

McBride tells of the technological innovations from the National Aeronautical and Space Administration's space lab program.

Session 4**WATER ON THE WAY: LIVING OFF THE WATER REUSE****• Resources Division**

Co-Chairmen: *Neil M. Cline, L. Stephen Lau*

As water-short utilities and industrial consumers use up their primary water supplies, water reuse is certainly one of tomorrow's ideas for today. This session shares the latest water reuse technology practiced by two prominent utilities and one water-intensive industry. Included is a presentation that highlights water desalination and the latest in reverse osmosis.

Attend this session and discover tomorrow's exciting frontier of water reuse today:

1. **Advanced Water Reuse Demonstration**

Plant—Denver

Stephen W. Work

2. **Reverse Injection Keeps El Paso Wet**

Daniel Knorr

3. **The Future of Water Reuse in the**

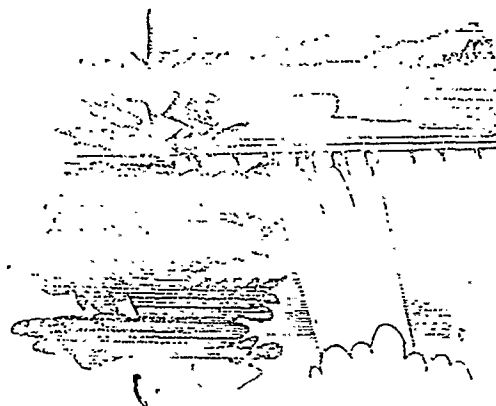
Comet

David H. Furukawa

4. **The Future of Water Reuse in the**

Pulp and Paper Industry

Craig Wybil





Session 5
INNOVATIVE SURFACE WATER
TREATMENT TECHNIQUES

- Water Quality Division

Co-Chairmen: *Edward W. Bailey, Jr., John E. Courchene*

Learn the latest developments in surface water treatment technology.

Session 6
RESEARCH DIVISION

TUESDAY, JUNE 12, 1984

Morning

Session 7
PLANNING FOR TELEPHONE

- Distribution Division

Co-Chairmen: *Thomas D. Mogren, P.E. Pilgreen*

1. **Our Water System Infrastructure: Planning Now for the 21st Century**
Richard J. Metzger

Learn how the city of Poughkeepsie, New York, earned immediate savings equal to five percent of pumping energy costs and up to 25 percent savings when all infrastructure evaluation recommendations were in place. A recent study conducted for the city demonstrated these cost savings by coordinating pump capacity/efficiency testing, system hydraulic modeling and leak detection surveys.

2. **Project Apricot: Planned Dual System Water Reuse**
Donald F. Neunham

Apricot, an acronym for "a prototype realistically innovative community of today," is a far-reaching program designed to bring the benefits of the most modern water technology to Altamonte Springs, Florida. The most important element of this program provides treated wastewater plant effluent for all non-potable uses throughout the city. The program

also allows the city to significantly increase the amount of fresh water it can draw from the Florida aquifer.

3. **Impact of Transition from Ground Supply to Surface Supply on the Distribution System**
T. Anthony Reed

By the year 2000, the City of Georgetown, Texas, will have grown by 300 percent. The city will change its water source from scattered individual wells to a combination of surface water and groundwater. Because of well contamination, an emergency plan must be designed. How will Georgetown deal with water in the future? Reed answers this question and more during this interesting look into tomorrow.

4. **Computer-aided Water Quality Management in Distribution Systems**
Ivan Metzger

Metzger demonstrates the current need to use computer-aided hydraulic models in distribution system water quality management. These models have been used to develop successful intense flushing processes. Also, several preliminary evaluations of quality management by chemical methods have recently been made using applications of the models.

5. **Supervisory Control and Data Acquisition System Replacement and the SCADA Complete Replacement System**
Robert Mortenson

In 1982, the Santa Clara (Calif.) Municipal Water Department completely replaced its supervisory control system with a new supervisory control and data acquisition system (SCADA). The system incorporates many new features including code digital telemetering and electronic processor control of wells and pumps. Mortenson's presentation reviews a utility's options for the selection of design consultant, control equipment and installation method when building SCADAs. He places special emphasis on the transition from the old system to the new SCADA.



Session 8
UNIVERSITIES FORUM I

Session 9
MANAGEMENT POLICY CONSIDERATIONS
IN RESOURCE CONFLICTS

• Management Division

Co-Chairmen: *Kenneth M. Lowthian, Robert L. Wubben*

1. Reservation of Water Supply for Future Public Use
Glen H. Fiedler, Eugene F. Wallace

Setting aside limited water resources for future long-term needs is an important public policy problem. The economic and management considerations of various reservation strategies must be considered. Fiedler and Wallace shed new light on the benefits and costs of the reservation process.

2. Competing Use for Limited Water
Gregg A. Campbell

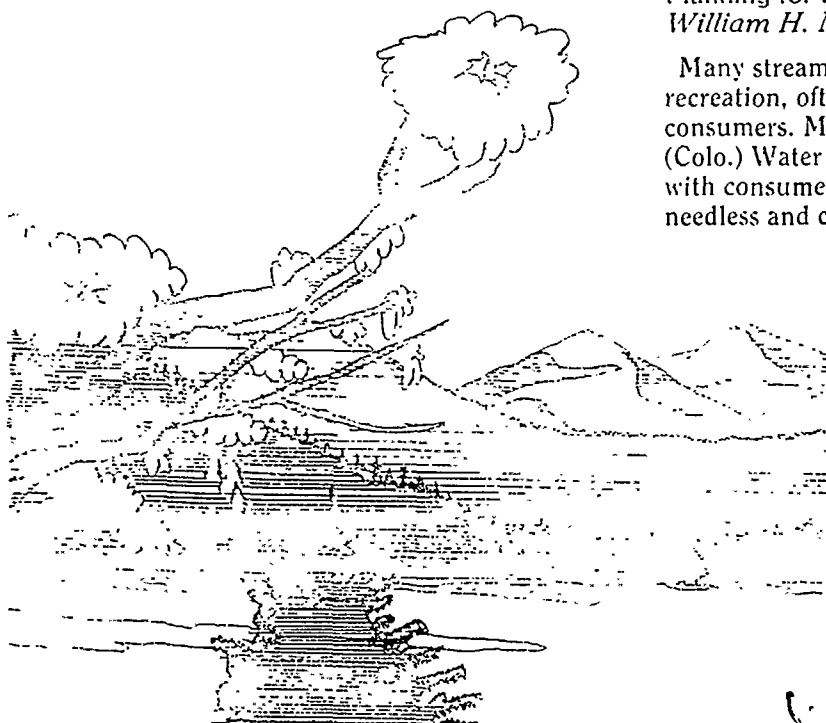
Campbell addresses the need and difficulty of evaluating maximum net benefits for alternative uses of a limited water supply. How should public water supply be valued? Campbell discusses the water utility manager in the evaluation and its effect on state legislative and policy branches.

3. Utility Planning and Management Necessary to Compete for Limited Water Resources
Gene E. Kronk

How can the water utility manager become involved in the legislative process to ensure that the need for future public water supplies is adequately represented? This presentation emphasizes some effective methods to accomplish this goal.

4. Public Water Supply vs. Instream Resource Management, Litigation, or Resource Planning for Maximum Benefit
William H. Miller

Many streams and rivers are being used for recreation, often resulting in a clash with consumers. Miller shows how the Denver (Colo.) Water Department used mediation with consumer groups to effectively avoid needless and costly litigation.





Session 10

WATER RESOURCES: PROTECT THEM OR LOSE THEM

- Resources Division

Co-Chairmen: *J. Darrell Bakken, Richard P. McHugh*

1. Protecting Water Resources through State Water Rights
S. E. Reynolds

2. Impact of the Arizona State Groundwater Act on the Tucson Water Utility
Stephen E. Davis

What does the future hold for Tucson after the passage of the Arizona Groundwater Act? Find out in this presentation about dramatic changes in public awareness, water use information, groundwater overdraft, regulation, water rates, water quality and potential future growth limitations.

3. Spokane County Protection and Management Plan for a Sole Source Aquifer
William Dobratz, John Maxwell, Robert Wubben

What are the technical, financial and institutional considerations involved in developing a comprehensive program for managing a sole source aquifer? The Spokane-Rathdrum Plan coordinated water service and resources among 80 utilities in a rapidly growing area. In addition, this session presents procedures for managing potable, waste and stormwater consistent with local land-use policies.

4. Protecting Dallas Impounding Reservoirs
R. Frederick Stone

Stone presents a comparison between protected and non-protected water sources. He contrasts the latest in Dallas's efforts on watershed protection, tributary monitoring

and hazardous-spill early warning systems with efforts in other cities with non-protected water sources. The effects of other factors including the location and availability of water are also included.

Session 11

INNOVATIVE GROUNDWATER TREATMENT TECHNIQUES

- Water Quality Division

Co-Chairmen: *John L. Cleasby, Carl L. Hamann, Jr.*

Learn practical ways of solving groundwater contamination problems using the latest technology.

Session 12

STANDARDS COUNCIL

Co-Chairmen: *Gordon L. Laverty, Walter K. Neubauer*

1. Standards Committee Function and Membership
Gordon L. Laverty
2. AWWA Standard for Steel Elevated Tanks, Steel Pressure and Gravity Pipes
Robert E. Vansant
3. The American Society of Civil Engineers Standard for Water Tanks
Fred E. Harem

Session 13

STANDARDS COUNCIL

Session 14

MAINTENANCE AND REHABILITATION OF WASTEWATER SYSTEMS

- Education Division

Co-Chairmen: *Jack W. Hoffbuhr, Daniel K. Sander*

**Session 15****COMPUTER-ASSISTED DESIGN OF WATER SYSTEMS**

- Engineering & Construction Division

Co-Chairmen: *A. Lee Cesario, Robert C. Moehle*

Find out how new developments in computer-assisted design will affect your future. The results of a recently completed national survey conducted by the Computer-assisted Design of Water Systems Committee indicates that a wide range of computer technology is being used in the design, analysis and operation of water systems. The survey also indicates that an exciting new class of programs using new databases and graphics programs are emerging that will affect the design of water systems for years to come.

1. Computer-assisted Design of Water Systems

A. Lee Cesario

2. Computer-assisted Design at Falls Church, Va.

Millard P. Robinson, Jr.

3. Case Study: Charleston, South Carolina

Raymond Topping

Topping presents the latest results of a new survey in which computer-assisted techniques were used to upgrade Charleston's water system. The survey covered all components of the system including clear well system service, the high reserve and booster pump facilities and the distribution piping system. The Charleston computer analyzes the existing condition and projects future conditions. The survey was also used to develop operational improvement and power management programs.

4. Water Computer Programs for Water Supply Design

David Maidment

The need to quickly design municipal water supply systems is becoming more critical both

in developing countries and in rural North America. This presentation highlights five new computer programs that greatly facilitate rapid design. Using the BASIC computer language and the widely available Apple II 48K microcomputer, the programs design water systems based on yield of water source, projected water demand, size of delivery pipeline, regulating reservoir capacity and systems projected revenue. Sample problems show the practical uses of each of these design systems.

5. An Engineer's Computer Hardware Primer

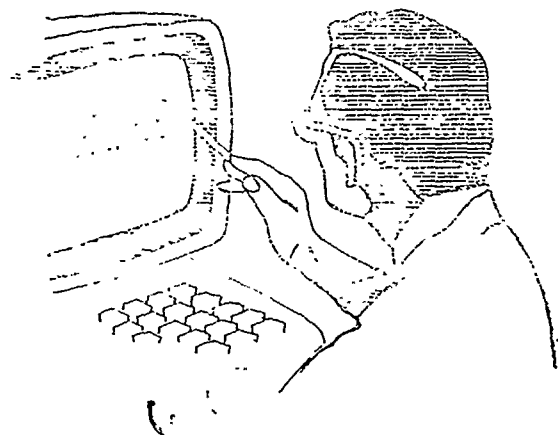
Thomas Coolidge

Session 16**INTERNATIONAL EXPERIENCES**

One of the best ways to prepare for tomorrow today is to learn from history. During this session, the 250- to 500-year-old urban water systems in Europe are explored.

Maintaining water quality in these antiquated systems is an especially challenging task. Problems in backflow protection, pressure maintenance and leak detection are highlighted.

Exploring these problems will enable you to avoid many of the problems inherent in many of Europe's older systems.





WEDNESDAY, JUNE 13, 1984

Morning

E1

Early Bird (8:00 a.m.-9:00 a.m.)

**LIFESTYLES AND THEIR EFFECT ON
EMPLOYEE HEALTH AND SAFETY**

- Management Division

Chairman: *William H. Miller*

Moderator: *Mark D. Rothenberg*

Speaker: *Michael P. Ericksen*

This session covers contemporary lifestyle problems and the benefits of employee physical fitness programs. The establishment and content of these programs is also discussed.

E2

Early Bird (8:00 a.m.-9:00 a.m.)

**EMERGENCY PREPAREDNESS AND
CONTINGENCY PLANNING**

- Management Division

Chairman: *Lester J. Hash*

Moderator: *Robert J. Jensen*

Speakers: *Robert J. Jensen, W. Thomas Richards*

Jensen and Richards highlight revisions to AWWA Manual M19 on emergency planning. They describe Denver's emergency plan and stress the major considerations in an emergency plan.

Session 17

CORROSION: PROBLEMS AND CURES

- Operators' Forum

Co-Chairmen: *Gerald S. Allen, Donald C. Renner*

1. **Underground Pipeline Corrosion**
Troy F. Stroud

What are the latest methods used to combat corrosive soils? What are the causes of external corrosion? What are its effects on piping? Stroud provides the most up-to-date answers to these questions.

2. **Protective Coatings for Water Utility Structures**

Noel C. Duvic

Duvic presents the latest in available coatings, surface preparation methods and application recommendations for maximum protective results. He also compares the effectiveness of different coating specifications in resisting corrosion.

3. **Corrosion Associated with Service Lines, Plumbing and Electrical Grounding to the Water System**

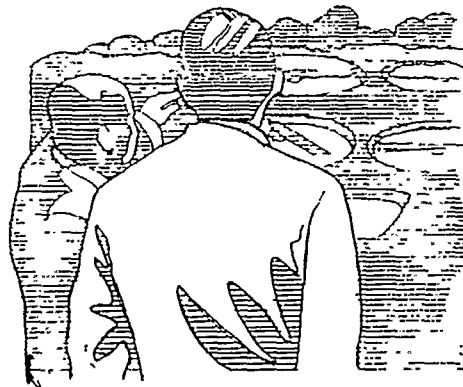
Donald M. Waters

What causes service line and plumbing corrosion? More importantly, what can be done to prevent corrosion? Waters answers these questions with special emphasis on electrical grounding.

4. **The Effect of pH on Corrosion Control, Chemical Treatment Disinfection and THM Formation**

Thomas F. Flynn

Flynn examines the effectiveness of using the Langelier stability pH satisfaction approach to corrosion control and questions whether this approach produces compromises. This presentation provides the newest information about this question and also studies the intricate relationships among corrosion control, disinfection and THM formation.





Session 18 WATER UTILITY COUNCIL

It's no secret that one of the strongest forces shaping your future is the regulatory environment. And it's imperative that you keep abreast of the most important legislative trends that affect you.

The Water Utility Council discusses the important topics in the water industry today. You get the most informed and up-to-date overview of today's and tomorrow's regulatory direction.

Session 19 RESEARCH DIVISION

Session 20 INTERNATIONAL AFFAIRS II

The same problems that face many developing countries today will face rural North America tomorrow. This stimulating international forum examines distribution systems in several developing countries. These small systems, with less than 5,000 water users, provide an excellent way to learn the dos and don'ts of future small systems design and implementation.

Afternoon

Session 21

PROTECTION FOR YOUR FUTURE

• Distribution Division

Co-Chairmen: *George O. Muller, Stanley R. Saylor*

1. Pump Station and Distribution System Maintenance Management *Rachel S. Smith*

Every maintenance program looks at tomorrow. Here's a chance for you to learn more about effective, forward-looking maintenance programs. In part one, Smith demonstrates maintenance procedures for pumping stations, gate valves and fire hydrants. Part two covers current maintenance management evaluation, up-to-date record-keeping systems and the use of computers in maintenance management.

2. Internal Joint Sealing *Joseph L. Gerlt*

Internal joint sealing—a new technology—is one of the latest ways of saving public money in the United States. The metropolitan utilities district of Omaha, Nebraska, used this modern European technology to seal 400 joints, at a savings of about \$450,000 under the cost of external joint sealing. Gerlt gives the details of the cost-effective project so that you may apply internal joint-sealing technology in your maintenance programs.

3. Concrete Lining Operations for Bi-County Tunnel East *Frank Hartz*

Tomorrow's needs must be planned today, as shown by the Washington Suburban Sanitary Commission's Bi-County water tunnel to serve future needs of the growing Washington, D.C., metropolitan area. Learn the details of current concrete lining construction techniques used to build this 33,000-foot tunnel under the Washington Capitol Beltway.

4. Design and Installation of PVC Pressure Pipe *David L. Eckstein*

Attend this informative presentation and learn the basic concepts of pressure design and installation of PVC pipe.

5. Cement Mortar Lining of Cast-Iron Pipe *Troy F. Stroud*

To prevent tuberculation in unlined cast-iron pipe installed before the turn of the century, thousands of miles of cement-mortar linings have been installed since the 1920s. How have these lined pipes held up? And what is the most current information about maintaining them? Stroud discusses the historical, current and future issues involved and the technical and environmental factors that affect future decisions.



Session 22

ENERGY COST EFFECTIVENESS

• Management Division

Co-Chairmen: *Wayne H. Abbott, Jr., William H. Miller*

1. Practices for Energy Cost Reduction through Operational Changes *Harold F. Reheis*

The cost of electricity has increased more than 400 percent in the last 10 years and will continue its rise. Reheis tells how energy costs for water systems can be significantly reduced without expensive capital investments. He focuses on the results of five energy conservation studies (7-54MGD capacity) where simple operational changes reduced annual energy costs by 16 percent. Reheis presents practical examples for effective water storage, selection of the most efficient pumps, use of power demand controls and selection of optimum rate schedules. He also gives case studies that document annual energy savings of up to 17 percent.

2. High Efficiency Motors *Jeptha A. Wade, Jr.*

An electric motor exchange program and an incentive rebate can cut energy costs and provide dollar savings.

3. Energy Cost Savings through Computer Coordination *Roger E. Proza*

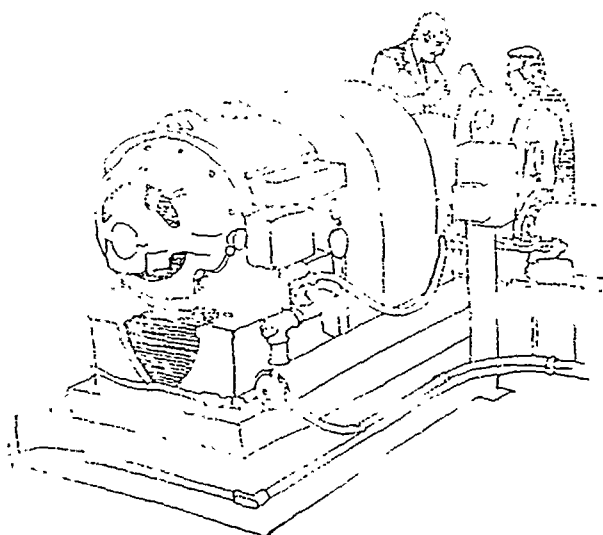
Computers will play an increasingly important role in controlling water utility costs in the future. Proza traces the development of Dallas's advanced system. The documented efficiencies generated by this continually updated system are important to any water utility's future.

4. Elevated Storage vs. Peak Hour Pumping *Bruce S. Aptowicz*

Pumping and elevated storage facilities allow for off-peak hour pumping. That could cut tomorrow's energy costs significantly. Learn how in this informative session.

5. Future Electrical Rate Designs *John O. Sillin*

What factors will affect pricing on electric components in the future and what is the impact on future rate structures? Sillin gives the latest look at tomorrow's electricity costs.



**Session 23****WATER RIGHTS OR WATER WRONGS**

- Resources Division

Co-Chairmen: *Charles B. Carroll, Jr., Kenneth R. Wright*

1. New Water Rights Initiation in Western States
R.J. Moses

Even though water is in short supply in many western states, new water rights are being established by means of water exchanges and plans for augmentation. Learn how state water officials' wide range of permit-granting options are being used to create these new water rights—and how that could affect your tomorrow.

2. Administration of Instream Water Rights
Frank J. Trelease, III

Laws regulating instream flow, an issue of growing importance, vary widely throughout the United States. Trelease examines these laws and presents methods to maximize use of the resulting water flows.

3. *Water Rights: Municipal Water Rights vs. Irrigation*
Richard N. DeVries

4. State and Federal Orders
Stanley Barnes

5. Surface Water Groundwater Conflicts in Hawaii
Williamson B. C. Chang

Chang examines two recent Hawaii Supreme Court decisions to illustrate a balance between competing demands. The court must be flexible in an era of anxiety about water availability, yet the legal system demands permanent results. This presentation demonstrates the balance between the need for and the cost of change and attempts to establish legal and economic criteria for judicial change in water law in the future.

Session 24**CONTROL OF SOURCE WATER QUALITY**

- Water Quality Division

Co-Chairmen: *Alan A. Stevens, James M. Symons*

Session 25**RESEARCH DIVISION**

THURSDAY, JUNE 14, 1984

Morning**Session 26****CHALLENGES OF CONSTRUCTION CONTRACT ADMINISTRATION**

- Engineering & Construction Division

Co-Chairmen: *Richard S. Gabrielse, Jephtha A. Wade, Jr.*

In today's climate of seemingly constant litigation, contract administration procedure has become more and more complex. This session examines alternative water industry contract administration viewpoints and procedures. They could prove very valuable for your contracts—now and in the future.

1. Recurrent Problems in Administering Construction Contracts
2. Using Utility Engineering Staff for Construction Contract Administration
3. Using a Consulting Engineer for Construction Contract Administration
4. Using Construction Management for Contract Administration





Session 27
GROUNDWATER DEVELOPMENT, TEXAS
STYLE

• Resources Division

Co-Chairmen: *Thomas J. Buchanan, Frank G. Honeycutt*

1. Projected Effects of Groundwater Development on the Ogallala Aquifer in South Texas

Richard R. Luckey

Luckey presents the latest results of a U.S. Geological Survey aquifer model of the southern high plains of Texas.

2. Projected Effects of Ogallala Aquifer Depletion on the Agricultural Economy of the High Plains of Texas

Joe B. Harris, Benjamin B. Turner, Jr.

Harris and Turner combine findings from the recent six-state High Plains-Ogallala Aquifer Regional Resources study with other recent government studies on the same area. The studies document the latest conclusions about the area including the Ogallala Aquifer's finite water supply and its present susceptibility to overdraft, the lack of economical substitutes for the region's water and emerging technologies for local water supply augmentation. These new technologies are vital to the area's future agricultural economy.

3. San Antonio Water Supply from the Edwards Aquifer

Thomas P. Fox

The Edwards Aquifer is one of the most productive aquifers in the southwestern United States. The first aquifer to be designated a sole source, it provides high-quality water to more than one million people for municipal, industrial, agricultural and recreational purposes. Fox's presentation emphasizes newly combined surface and groundwater use management programs that are valuable models for managers in similar situations.

4. Is Houston Really Sinking?

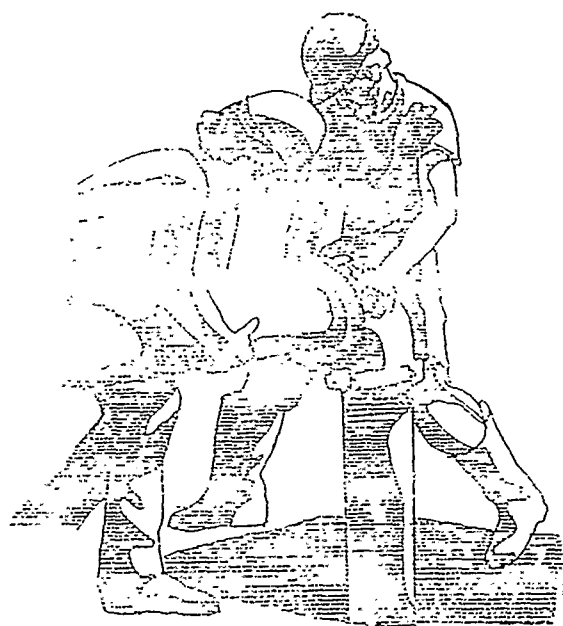
Ronald Neighbors

Session 28
CONTROL OF DISTRIBUTED WATER
QUALITY

Co-Chairmen: *Robert J. McCall, Harold E. Pearson*

Deterioration of water quality in your distribution system can be a serious problem if not properly controlled. This session emphasizes the need for control in the distribution system.

Session 29
RESEARCH DIVISION



FROM _____

**1984 AWWA
Annual Conference
Registration**

Ameri
6666 W
Denver,



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SERVICES

Message Center

A message center will be open during the entire conference (located in the corridor between the registration area and the East Exhibit Hall at the Dallas Convention Center).

The telephone number is (214) 658-7116.

You can find this number in the official conference program, the conference issue of *Journal AWWA* and in *Mainstream*. Leave this number with those who might need to reach you while you are attending the conference.

Official Airline and Car Rental

AWWA has named American Airlines as the official airline and Hertz Rent-A-Car as the official car rental agency for the 1984 annual conference. For details about special discounts, please see page 30.

Shuttle Buses

For your convenience, AWWA provides complimentary shuttle bus service. Specially marked buses will operate on specific routes between official hotels and the Dallas Convention

Center during daytime hours Sunday, June 10 through Thursday, June 14.

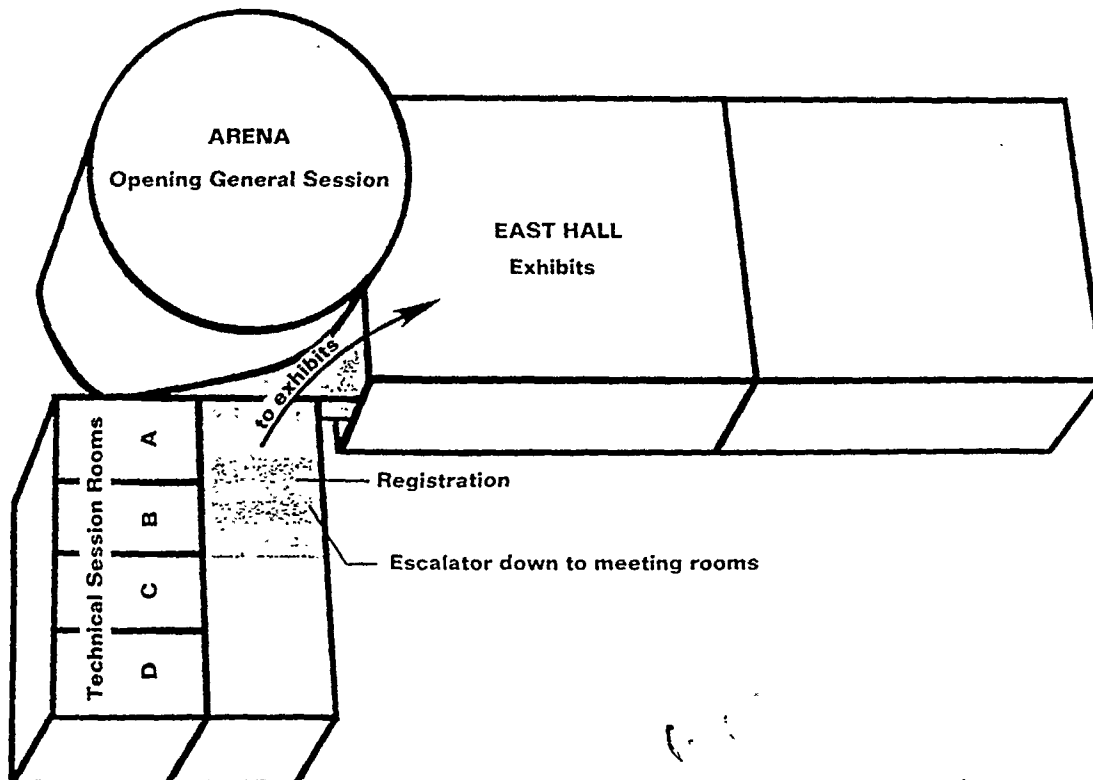
Limited shuttle service is available during evening hours for those who wish to travel to activities in the various hotels.

Transportation is also provided for facility tours, golf and tennis tournaments, Fun Night (Dallasfest) and the annual banquet.

International Visitors Hospitality Center

The AWWA International Affairs Committee maintains a hospitality center for the convenience of attendees from outside the United States. The hospitality center will be located at the Dallas Convention Center near the AWWA registration area. It is open from 11:00 a.m. to 5:00 p.m. on Sunday, June 10, and from 8:30 a.m. to 5:00 p.m. Monday through Wednesday, June 11-13. Light refreshments, information and general assistance are available. Additionally, our international delegates are invited to attend the international visitors reception on Tuesday evening, June 12. Further information is available at the International Visitors Hospitality Center.

Dallas Convention Center





CONFERENCE ACTIVITIES

Recommended Dress

Dallas's average June temperature is 80.6 degrees F., so plan to take along plenty of summer-weight clothing.

The annual banquet on Wednesday evening is the only convention activity calling for coats and ties for men and semi-formal dresses for ladies.

Dress for technical sessions and Monday night's Dallasfest will be casual and informal.

Although it varies from restaurant to restaurant, generally speaking, dress codes are more relaxed in Dallas than in other parts of the country, so don't worry about packing a lot of dress clothes.

PROFESSIONAL SESSIONS

Thursday, June 14, 1984

AWWA professional development sessions offer an excellent opportunity to increase your communication and decision-making skills. This year AWWA offers two unique, no-cost sessions. Don't miss it!

The World of Communications

This informative seminar, led by a well-known Southern Methodist University professor, gives you insight into successful communicating in your everyday life. It also provides a better understanding of today's media.

The Process of Problem Solving and Decision Making

Knowing your goals and limits is the focus of this informative presentation, led by a noted Dallas counselor. You learn to use your analytical skills and to successfully solve problems and make decisions.

FUN NIGHT

Dallasfest Fun Night

Monday, June 11, 1984 6:00 p.m.-9:00 p.m.

Dallas City Hall Plaza

\$20, adults

\$12, children under 12 years old

The perfect way to experience the flavor of Dallas and at the same time to renew acquaintances with industry colleagues, Dallasfest is a celebration of the rich cultural diversity that makes Dallas what it is today.

Look for the Dallasfest banner in the colorful plaza of the Dallas City Hall. Once you walk in, the fun really begins.

In the grassy areas around the plaza, you can choose from five cultural expressions of Dallas. You'll probably want to experience them all!

"The Old West"

This area, which features a cowboy and Indian flavor, showcases a strolling guitarist, stage coach and covered wagon rides, armadillo races and real western food.

"Mexico and Spain"

A very colorful area, "Mexico and Spain" features strolling mariachis, a jalapeno-pepper-eating contest and palate pleasures from south of the border.

"The Old South"

Experience the graciousness of the Old South near the beautiful pond along the plaza. Listen to the famous Levee singers while you enjoy country-fried chicken and vegetables.

"France"

Relax in the French ambiance while mimes entertain throughout the evening. Enjoy the most delectable of a variety of French delicacies.

"Germany"

In the festive atmosphere of a German beer garden, listen to a lively polka band while munching on tasty German food.

Best of all, enjoy the hospitality of your colleagues in this unique cultural atmosphere. All in all, this adds up to quite a night of fun.

**YOU WON'T WANT TO MISS
DALLASFEST!**

ANNUAL BANQUET

Wednesday June 13, 1984

\$35

Plan to enjoy a very special evening in the Chantilly Ballroom of the beautiful Loews Anatole hotel. Following the ceremonial passing of the gavel from AWWA President William O. Lynch to President-Elect William H. Richardson, music and entertainment will make this banquet an exciting and memorable evening.



SPOUSE PROGRAM

In keeping with the rest of the Dallas conference, the spouse program this year is better than ever—more tours, more selection and more fun. Whether you want a Dallas shopping spree, a taste of the Old West or just want to find out all there is to know about the “*Dallas*” TV show, you can really discover Dallas through the AWWA spouse program. Register now for several outstanding programs.

Monday, June 11, 1984

“Even J.R. Loves Dallas” 12:30 p.m.–4:00 p.m.

See the celebrity side of Big D that even J.R. can love. During this whirlwind tour of the city, your guides point out locales seen on the “*Dallas*” television series. En route to Southfork Ranch for a picture stop, you’ll enjoy browsing through a delightful western store full of handmade hats, boots, belts and more. Throughout the program, guides give commentary on the relationship between “*Dallas*” the TV show and Dallas the city.

Price per person: \$14.00

“Discover Dallas” 1:00 p.m.–4:00 p.m.

A perfect beginning to a Dallas visit, this three-hour guided tour provides an overview of the entire city and glimpse into the spirit and determination of dynamic Big D. The tour includes the Kennedy Memorial and assassination site, Thanks-Giving Square, the Reunion project, City Hall, Farmer’s Market, the Market complex and Southern Methodist University.

Price per person: \$13.00

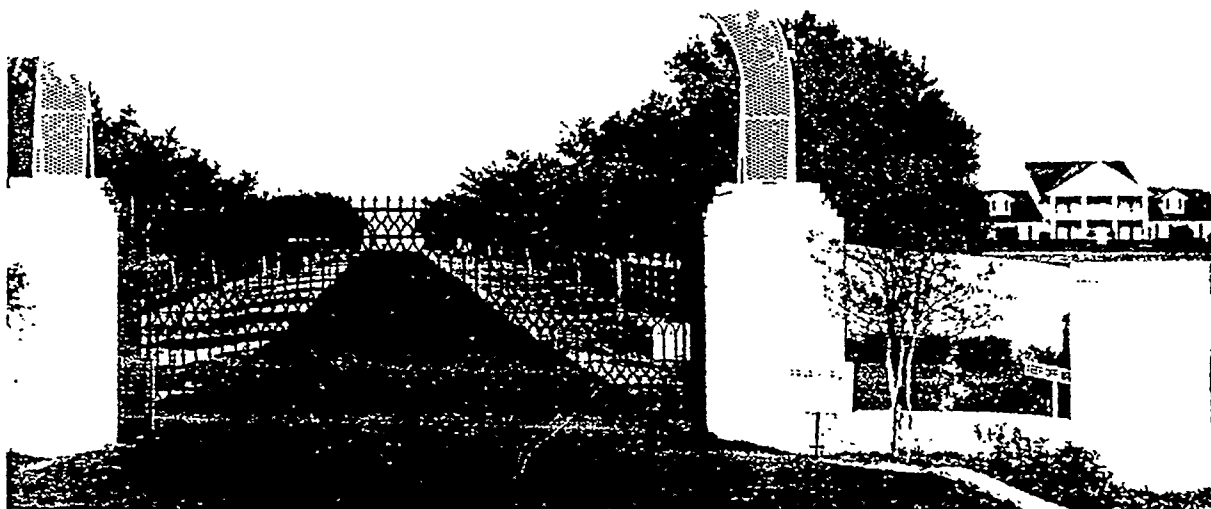
Tuesday, June 12, 1984

“Tour of Dallas Homes” 9:00 a.m.–Noon

Throughout its history, Dallas has been known for its magnificent private homes. This unique tour offers you the rare opportunity to visit three outstanding homes normally open only to family and friends. The tour is highlighted by a wine reception in one of the homes.

Price per person: \$18.00

SF
SOUTHFORK RANCH





"Fashionably Dallas" 12:30 p.m.-3:30 p.m.

The exciting world of Dallas fashion is featured in this delightful program. Enjoy a private luncheon in the Fashion Theatre of the fabulous Dallas Apparel Mart, followed by an innovative fashion show and seminar entitled "Accessorizing—The Total Concept." Dallas experts in the field of fashion show you how to use accessories, color, makeup and perfumes to complement your total look. Afterwards, you can shop in the Apparel Mart and purchase some of the marvelous accessories at discounted prices. Price per person: \$30.00

"Where the West Begins" 1:00 p.m.-4:30 p.m.

The legendary Old West is alive and well in neighboring Fort Worth. This exciting tour takes you to the renovated Fort Worth Cattle Exchange where cattle auctions still take place. Take your time and mosey down wooden sidewalks, shoot the breeze with real cowboys and browse through western stores full of handmade items. This program also features a tour of the world-famous Amon Carter Museum of Western Art. Price per person: \$15.00

"Antique & Unique" 1:30 p.m.-4:00 p.m.

If you're intrigued by treasures both antique and unique, a visit to "antique row" in Dallas's Oak Lawn area is a must. An antique consultant acquaints you with the area and may even drop some hints about bargains. Your guides are available to assist with personal shopping suggestions. Price per person: \$12.00

Wednesday, June 13, 1984

"Dallas Heritage Tour" 9:30 a.m.-12:30 p.m.

Although Dallas is recognized mainly by its modern architecture, the city has a remarkable heritage. Learn about historic Dallas on this nostalgic three-hour tour that takes you to Old City Park, where you'll experience the atmosphere of a Texas town 100 years ago. You also visit an elegant historic estate on the shores of White Rock Lake. Price per person: \$16.00

"Shopping Dallas Style" 10:00 a.m.-2:00 p.m.

To natives and visitors alike, Dallas is a shopper's paradise! This personalized shopping spree includes a visit to the new and exciting Galleria, the home of Saks Fifth Avenue, Marshall Field's, Tiffany's, Charles Jourdan and many other famous stores. Your guide is available throughout the day for shopping tips and suggestions for lunch on your own. Price per person: \$12.00

"Art About Town" 10:00 a.m.-4:00 p.m.

Even those who don't normally think of themselves as "arty" will find this tour an entertaining experience. The tour includes a private tour of the fabulous new Dallas Museum of Art, lunch at the museum's Gallery Buffet, a stop at two delightful art galleries and a visit to the quaint, innovative crafts compound, Olla Podrida. Price per person: \$28.00

"Tour of Dallas Homes"—1:00 p.m.-4:00 p.m.

(A repeat of Tuesday's fabulous tour of private homes.) Price per person: \$18.00



**Spouse Seminars**

Wednesday, June 13, 1984

9:00 a.m.-10:00 a.m.;

10:30 a.m.-12:00 Noon

For \$5 attend one or both sessions.

"New Insights into Meaningful Living"

9:00 a.m.-10:00 a.m.

Have you wanted to set personal priorities but didn't know where to start? Then plan to attend this seminar. Fred Smith, noted author and lecturer, tells you how to set personal priorities, how to get the most out of your family life and how to attain emotional stability. As a former business consultant, Fred Smith consulted for large national firms, including Mobil, Genesco and Caterpillar.

"Living Better But Feeling Worse—The Nutrition Connection" 10:30 a.m.-Noon

Don Mannerberg, M.D.

In this informative seminar, Don Mannerberg, M.D., a nationally honored internist will bridge the information gap between medical practice and nutrition. Dr. Mannerberg specializes in nutrition and preventive medicine and has a broad insight into the relationship between medicine, nutrition and exercise. His presentation is both interesting and rewarding, whether you are a novice on the subject of nutrition or whether you are the proverbial "health nut." He answers the question, "why do so many doctors seem to have so little faith in nutrition?" He will also field questions from the audience.

Sports and Recreation

The AWWA golf tournament has become a regular feature of AWWA's annual conference and this year is no exception!

One of Dallas's most challenging courses has been selected to host this year's golf tournament. Tournament entry fee includes transportation to the club, greens fees, golf cart rental, club handling and food. Club and shoe rental is also available.

Those interested in participating in this activity are invited to obtain further information from:

Jerry McGranahan, Chairman Sports/Recreation Committee

c/o Dallas Water Utilities

2861-C Municipal Street

Dallas, Texas 75215

Information on other sports and recreational activities (tennis, jogging, exercise facilities and open golf play) are available from the local host committee at the sports/recreation booth near the registration area in the Dallas Convention Center.



Meeting Saver Fares Available When You Fly American to Dallas

Call 800-433-1790
(Texas residents call 800-792-1160)

Save money on airline travel to this year's conference by booking your flight with American Airlines, the official carrier for the 1984 AWWA conference. You may also want to take advantage of AWWA's post conference trip to the World's Fair in New Orleans.

As the official car rental agency, HERTZ Rent-A-Car is also offering special discounts to AWWA attendees.

Call American Airlines's Meeting Services Desk Monday through Friday 8:30 a.m. to 5:00 p.m. (Dallas time) direct at 800-433-1790* and identify yourself with the code "STAR No. S6837" to purchase airline tickets, reserve a rental car or arrange for the post conference trip to New Orleans. *Texas residents call 800-792-1160

AWWA Star File No. S6837

Special arrangements have been made with American Airlines to make available special conference fares equal to 1) any American special promotional fare for which passengers qualify, or 2) the BE70 Super Saver fare with the minimum stay waived, whichever is lower, in effect the date the tickets are purchased. Special fare tickets are available only when you call the unlisted toll-free number and give AWWA's star file number S6837. You will then qualify for a drawing at a special exhibitor-sponsored luncheon, Tues., June 12. Prizes are two free round trip tickets on American Airlines.

Further Information:

Travel may commence no earlier than June 8, 1984 and must be completed on or before June 16, 1984.

No minimum stay or specific travel days are required.

If you do not live in a city serviced by American, call the special toll-free number to see what connections are available to an American route, or take advantage of any special airfares which become available in your area.

The table below shows sample fares from selected departure cities, compared to the regular fare. **THESE ARE SAMPLE FARES ONLY** and further savings may be available when you are actually ticketed. **EARLY** purchase of tickets is suggested to avoid future increases.

Sample Fares		
<i>Departure City</i>	<i>Reg. Coach Fare*</i>	<i>Discount Fare*</i>
New York	\$648	\$370
Detroit	572	329
Boston	700	469
San Francisco	680	399
Los Angeles	626	399
Chicago	496	328
Denver	444	329

* Note: Sample fares shown are current as of November 1, 1983 and are subject to change.

AA American Airlines



Post Conference Tour—New Orleans World's Fair

Following the annual conference, AWWA members can take advantage of an optional three-day/two-night post convention tour to the New Orleans World's Fair.

The World's Fair theme is "World of Rivers: Fresh Water-Source of Life." In addition to enjoying this event you will have the opportunity to visit one of America's most exciting cities. The food, the people, the atmosphere are not to be missed.

Listed below are two options for this tour:

OPTION 1—New Orleans World's Fair—three-days/two-nights.

Depart Dallas on Friday, June 15, 1984

Accommodations—Royal Orleans Hotel

Room and board (three-days/two-nights) \$133.00

Round trip transfers (airport to hotel to airport) \$12.00

One-day ticket to the World's Fair \$15.00

Round-trip airfare (Dallas-New Orleans-Dallas) \$160.00*

Depart New Orleans on Sunday, June 17, 1984

The Royal Orleans, a traditional Vieux Carre-style hotel, is located in the heart of the French Quarter and antique district. It features several elegant restaurants and lounges and is only minutes away from the New Orleans International Airport.

OPTION #2—New Orleans World's Fair—three-days/two-nights

Depart Dallas on Friday, June 15, 1984

Accommodations—The Monteleone Hotel

Room and board (three-days/two-nights) \$123.00

Round trip transfers (airport to hotel to airport) \$12.00

One-day ticket to the World's Fair \$15.00

Round-trip airfare (Dallas-New Orleans-Dallas) \$160.00*

Depart New Orleans on Sunday, June 17, 1984

A Mediterranean-style hotel, The Monteleone is located in the heart of New Orleans's French Quarter.

*Airfares subject to change



DALLAS

The City of Tomorrow Today

In keeping with the AWWA conference theme, Dallas is truly a city of tomorrow. Most travelers start the Dallas experience when they arrive at the Dallas/Fort Worth Airport, largest in the United States. This futuristic engineering accomplishment epitomizes the fact that Dallas is a city on the move.

And Dallas is so far ahead in its planning—and implementation—that the people of Dallas like to think of their city as the “unconventional” convention city. They welcome you with warm hospitality, superb convention facilities and first-class entertainment.

State-of-the-Art Facilities

Like the airport, the new Dallas convention center is a marvel of modern design and construction. Because it was designed specifically with the attendee in mind, it greatly augments the convenience and productivity of any conference. (Perhaps that is why the Republican party chose to hold the 1984 Republican national convention there.)

Dallas is also first in clean, modern hotels located close to convention facilities. These hotels feature dining in all price ranges, fine shops and entertainment. Of course, convenient transportation among convention and hotel sites is always available.

First Class Entertainment by Day . . .

When Dallas boasts of first class entertainment, they emphasize the word “first.” By day, Dallas

features Fair Park, home of the Dallas Aquarium, the Texas Hall of State Museum, the garden center and numerous other fascinating sites. If you want to catch a great view of this progressive city, take a trip to the observation deck atop Reunion Tower. And there are many attractions away from downtown including Six Flags Over Texas—the 200-acre entertainment capital of Texas, and Sandy Lake Park. Dallas has been described as a shopper’s paradise. Big name stores fill the downtown area. And large, modern shopping centers are minutes away in outlying areas.

Dallas is constantly modernizing its finest entertainment facilities. The new arts district will house the Dallas Museum of Fine Arts, the Symphony Hall and small art galleries and specialty shops. And the City of Dallas is hosting the international art exhibit where internationally renowned sculptures and other works of art are right at the convention center.

. . . And By Night

Dallas also lives up to its reputation for first class entertainment after dark. The Fairmont Hotel’s Venetian Room regularly hosts name entertainers. Other hotels, clubs and nightspots provide every type of entertainment imaginable from ballrooms to discos. A 25-minute trip to The Stockyard in neighboring Fort Worth provides a wealth of entertainment for the younger singles crowds.

Dallas—the city of tomorrow today is an exciting place to be June 10-14! The people of Dallas sincerely look forward to being your gracious hosts. And so do the forward-looking people of the American Water Works Association. *See you in Dallas!*





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