

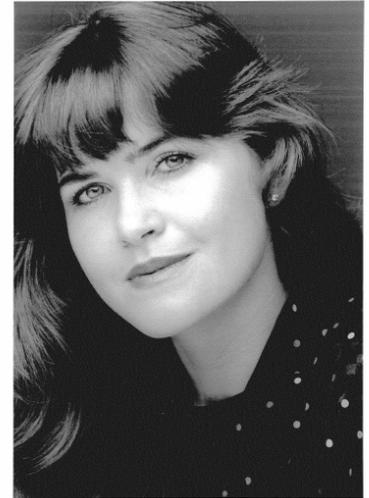
WATER ENVIRONMENT FEDERATION

ARTHUR SIDNEY BEDELL AWARD

...acknowledging extraordinary personal service to the Water Environment Association of Texas. The honoree must be a member of WEAT and should exemplify organizational leadership, administrative service, membership activity, stimulation of technical functions, or similar contributions to WEAT.

Carolyn Ahrens Wieland

Carolyn Ahrens Wieland practices law in the areas of water, environmental law, and government affairs with Booth, Ahrens & Werkenthin, P.C., in Austin, Texas. As a water-law practitioner, she is a frequent speaker and writer on water rights, environmental, and legislative topics, with particular focus on water reuse issues. She has a background of active participation in local, state, national, and international bar organizations, including organizations that emphasize public services as a significant aspect of professionalism. She has held appointed and elected offices that include directorships, chairing a national executive council, various committee chairmanships, conference planning, chairing the editorial board of a national magazine, liaison positions, and representing the United States on the executive council of an international association.



Ms. Ahrens Wieland has been a member of WEAT and WEF for more than 15 years. During that time, she has contributed unstintingly toward the success of the organizations. Her roots in the Water Environment Federation were set first at the local level where she became active and served in numerous capacities in the Central Texas Section of WEAT. She served as Seminar Chair for the Ultimate Project Management Seminar 1994 and the Nutrient Removal Seminar 1995. She participated in the Membership Directory Project and the Membership Survey Project. She served the Section as Vice President and Programs Chair 1992-1993, President-elect 1993-1994, and President 1994-1995.

At the State level of WEAT, Ms. Ahrens Wieland served as Program Chair/Meeting Organizer for the following: Professional Development Series, "Ultimate Project Management Notebook" in Austin 1993; Professional Development Series, "Managing Environmental Compliance – A Strategic Approach" in Corpus Christi 1994; Section Outreach Meeting in San Antonio 1996; and Strategic Planning Meeting in Galveston 1996. She has served as a member of the Nominating Committee 1995-1997, the Water Reuse Resolution Task Force 1997, the Long-Range Planning Committee 1997-2000 (Chair 1996-97), Annual Meeting Programs Committee 1992-2004, Government Affairs Committee since 2004, and Management Review Committee (Member-at-Large 1999-2000 and Member 1995-1999 and again 2002-2003). She was a member of the WEAT Executive Board from 1995 to 2005 and served as Secretary 1995-1999. She was WEAT's Texas Water Forum Representative 2002-2006. She was instrumental in developing the WEAT Leadership Notebook in 1998-1999 and in developing the WEAT Long-Range Plan in 1996-1997. She has been a speaker at Texas Water 1997, Texas Water 2001, and Texas Water 2005. She has also been a featured speaker at the WEAT Professional Development Series in Austin 1993, the WEAT Northeast Section's 2nd Annual Environmental Seminar in Tyler 1997, the North Texas Section of WEAT seminar in 2001, and the San Antonio Section Texas AWWA and WEAT meeting in 2001. She received the WEAT President's Service Award in 2002 in honor of her outstanding dedication, contributions, and service to the Association and the water resources of Texas.

At the National Level, Ms. Ahrens Wieland has served WEF and represented WEAT in numerous capacities. She has represented WEAT at WEF MA Exchange Meetings in 1995, 1997, 1999, 2000, 2001, 2002, 2003, and 2004, and she was a featured speaker on the subject of Long-Range Planning at the 1997 meeting. She participated in WEF Leadership Training in 1995 and 2001. She has served as a member of the WEF Water Reuse Committee since 1999 and a member of the WEF Government Affairs Committee since 2000 (Vice-Chair of the Legislative Subcommittee 2002). She has served as a member of the WEF Constitution and By-

laws Committee 2001, the WEF Nominating Committee 2002, the WEF Board of Directors representing WEAT 2000-2003, and the WEF Board of Trustees 2004-2006. She authored "Water Reuse: Is There a Devil or a Property Right in the Details?" Water Environment & Technology, 2001.

Ms. Ahrens Wieland has a long history of dedication and service to WEAT and WEF. Her outstanding leadership and vision have been instrumental in helping WEAT become the recognized leader among WEF Member Associations.

WATER ENVIRONMENT FEDERATION

OUTSTANDING SERVICE AWARD

...recognizing individuals who have made outstanding contributions to the water environment profession and to the Federation and its Member Associations.

Paul A. Roach, P.E.

Paul A. Roach has over 37 years experience in the water and wastewater industry, solid waste, transit and airport, and bioterrorism projects, including plant operations and management, project and program management for almost \$400 million in facilities upgrades and expansion, and construction management of those.

Mr. Roach graduated in 1970 with a Bachelors Degree in Civil Engineering from Southern Methodist University and immediately went to work for the City of Dallas Water Utilities (DWU). While working for DWU, he earned a Masters Degree in Environmental Science in 1977 from the University of Texas at Dallas.

By 1976, he was Assistant Manager of the DWU Central Wastewater Treatment Plant, responsible for the treatment of approximately 150 MGD of wastewater flows for the utility. He became Manager of both the Central Plant and the DWU Southside WWTP in 1978, the first and youngest person in Dallas to manage both treatment facilities simultaneously. He assumed management of the Southside Plant in 1980. In 1981, he moved over to Project Management in the DWU to oversee nearly \$150 million in expansion and upgrades to the Central WWTP. In 1992, he became Program Manager of the Wastewater Facilities Capital Improvements (FCI) Program, responsible for construction projects totaling almost \$400 million. He retired from DWU in 1997, but returned as a contractor to the FCI program until 1999.



Joining the Dallas engineering firm of Chiang, Patel & Yerby, Inc. as a Senior Project Manager in January of 2000 and moving up to Associate in 2004, Mr. Roach has worked on projects for Dallas Area Rapid Transit, Dallas/Fort Worth Airport, City of Dallas Sanitation Services Department, and Collin County. Currently, he is Construction Services Manager, responsible for overseeing approximately \$150 million in improvements at both the DWU Bachman and East Side Water Treatment Plants.

Mr. Roach has been an active member of the Water Environment Federation (WEF) and WEAT for almost 30 years, serving in a variety of capacities for the organizations. He served as a Director representing WEAT on the WEF Board of Directors and on the WEF Executive Committee. He also served on several other committees, including the Public Education Committee, the Long Range Planning Committee, and Professional Development Committee (Chair).

For WEAT, he served on the steering committee to form the North Texas Section and served as its President in the late 1980's. He also served on several committees including Public Education (Chair), Nomination, Long Range Planning, Program, Ethics Education, and three Local Arrangements Committees for national WEFTEC conferences. He is the current President of WEAT, through the end of Texas Water 2007.

Mr. Roach has received numerous awards through the years, including the WEF Arthur Sidney Bedell Award for Outstanding Service to the Member Association, the WEF Public Education Award, and membership in the Select Society of Sanitary Sludge Shovelers (the 5-S Society). He is also a member of the American Water Works Association and has authored a number of technical papers and presentations.

WATER ENVIRONMENT ASSOCIATION OF TEXAS

PILLARS OF THE PROFESSION AWARD

...honoring an individual who has demonstrated meaningful and substantial contributions toward the improvement of the water environment via a distinguished career in the wastewater or water quality industry. The honoree shall be a person of proven preeminence in the water environment profession whose career has positively impacted the success and growth of these fields within the State of Texas.

Danny F. Vance



Danny F. Vance earned a B.B.A. and an M.B.A. at Sam Houston State University. After serving with the United States Army in Europe, he joined the Trinity River Authority in 1970 where he has held several responsible management positions for over 35 years. Originally an Administrative Assistant to the Regional Manager of the Southern Region, he has since served TRA as General Services Manager; Assistant Regional Manager, Northern Region; Administrative Services Manager; and Regional Manager, Northern Region. During this time, he has been instrumental in creating and directing programs which have produced major improvements to water quality in the Trinity River and has influenced other river authorities and agencies in Texas to emulate the programs which have made the TRA successful in regional water management activities. The longest tenured General Manager of any major river authority in Texas, he has directed the program of water quality, water development, and water reuse as General Manager of the Trinity River Authority since 1979. Directing the creation and/or expansion of five regional wastewater systems in the upper Trinity basin

serving over 40 cities and governmental entities with a service population of over 1.4 million, he has led the Authority's growth to become the largest wholesale provider of wastewater services in Texas, drastically improving the quality of water within the Trinity River. He has directed the development and expansion of a regional water supply system serving five cities in Tarrant County with a present population of over 180,000 as well as the development of the largest urban reuse project in Texas in 1984 with facilities providing reclaimed water to the lakes and canal system in the upscale Las Colinas development in Irving, Texas. He has also directed the development and operation of several rural and small municipal water supply systems in the mid-Trinity basin, providing regionally oriented wholesale services to parties which would have otherwise found it difficult to provide for their own individual needs. He has met the many challenges such as persistent drought conditions, increased demands for services, controversial water resources legislation impacting the Authority, and most recently, damage to the Lake Livingston Dam by Hurricane Rita. Under his leadership, the Authority's wastewater systems have received many state and national awards recognizing their commitment to quality service and protection of the environment.

Mr. Vance is well-known in legislative circles and has been called upon numerous times to give testimony on issues that are important to the water and wastewater industry. He is frequently asked for input concerning environmental matters that support the objectives of WEAT and other water environment organizations. He has served on many Legislative task forces guiding state legislation on water resources and water quality issues. He currently serves on two of the sixteen Regional Planning Groups designated by the Texas State Legislature to prepare water plans for Texas through the year 2060 - the Region C Water Planning Group (Dallas, Tarrant, and 14 other counties) and the Region H Water Planning Group (Harris, Galveston, and 13 other counties). He also provides leadership in the reuse of wastewater by serving as President of the Texas Section of the WaterReuse Association. He has provided leadership in policy and legislative direction on a statewide basis through his activities in the Texas Water Conservation Association, an organization dedicated to improving water resource management. He is a current Board Member on the Association's Board of

Directors and has served the Association as President and member of the Executive Committee as well as several other committees.

Mr. Vance's other professional activities include participation in the National Association of Clean Water Agencies and membership in the government Finance Officers Association. He is the longest tenured agency representative on the Upper Trinity Water Quality Compact, a cooperative group promoting environmental improvements in the Trinity River basin. He has also been instrumental in supporting the mission and objectives of WEF and WEAT. He has promoted professional development among TRA management and staff through encouragement of their support and active participation in WEF, WEAT, and other water resource organizations. Representatives from the Authority have been very active within these organizations by serving in key officer roles and participating in numerous WEAT committees. Mr. Vance is personally supportive of the Authority's Operations Challenge Team. The TRA CReWSers team has won national competitions for two years in a row which has profited not only the Authority but also the reputation of the Texas wastewater industry across the county.

Mr. Vance served as President of the Board of Directors on the Sam Houston State University Alumni Association and served on the Association's Executive Council. He has also served the University's Board of Directors of the Sam Houston State University Development Foundation; served on the Advisory Board for the College of Business Administration at the University; and has been recognized as a distinguished Alumnus of the College of Business Administration, Sam Houston State University.

WATER ENVIRONMENT ASSOCIATION OF TEXAS

WINFIELD S. MAHLIE AWARD

...recognizing a member of WEAT who has made significant contributions to the art and science of wastewater treatment and water pollution control.

Gregg A. Eckhardt



Gregg A. Eckhardt graduated with Honors from The University of Texas at San Antonio where he earned B. A. in English in 1985, B. A. in Geography in 1988, and M. S. in Natural Resources in 1991. He holds Texas Commission on Environmental Quality (TCEQ) level “A” Wastewater Operator Certification, level “C” Waterworks Operator Certification, and is a Registered Environmental Manager. He has over 20 years experience in the water and wastewater treatment industry, from 1985 to 1995 as a Land & Water Resources Consultant with C. Thomas Koch, Inc. and from 1995 to the present as Senior Resource Analyst with the San Antonio Water System. In his current position, he is responsible for analyzing and preparing technical reports, performing statistical and graphical data analysis of treatment processes, and modeling of watersheds and streams. He has a thorough knowledge of all State and Federal regulatory requirements for Stormwater, Pretreatment, water recycling, collection system management, and biosolids management. He has served on the SAWS Council for the Improvements in Action

Incentive Program. He has played a major role in developing the SAWS Treatment Job Family Program which allows employees to advance in grade and salary at their own pace, and he spearheaded nomination efforts that resulted in the SAWS’ Dos Rios Water Recycling Center being awarded EPA’s O & M Excellence Award in 2004. He is considered an expert in operations, public relations, database development, and web applications.

Mr. Eckhardt is an acknowledged authority on the Edwards Aquifer, one of the most prolific artesian aquifers in the world. Extending in a 160 mile long and 5 to 40 mile wide arch-shaped curve through a 12-county area from Bracketville to South Austin, this karst aquifer serves the diverse agricultural, industrial, recreational, and domestic needs of almost 2 million users in south central Texas. To share his expertise and knowledge with the general public and technical sector, he created in 1995 and continues to maintain the Edwards Aquifer Website (<http://www.edwardsaquifer.net>), a repository of general and historical information on the Aquifer and its historical management, regional springs, rivers, lakes, wells, caves, recycling, and weather.

Mr. Eckhardt tirelessly contributes his knowledge to his peers and the industry as a speaker, writer, and authority on current San Antonio area and regional water and wastewater issues. He is frequently contacted by operators, consultants, educational institutions, regulators, students, and other professional colleagues and consultants to share his knowledge and experience in technical and historical knowledge with the Edwards Aquifer Authority, the San Antonio River Authority, and the Texas Water Utilities Association. Using his exceptional collection of historical photographs, news clippings, and reference books on area water resources, he has made multiple presentations on water, wastewater, and recycling at local, state, and national levels that have contributed greatly to public understanding of these essential and controversial topics. He is responsible for a treasure trove of photographs, stories, and observations about the many natural and man-made factors affecting the water supply in the entire San Antonio River Basin. He has researched and archived the historical records, photos, and equipment belonging to SAWS including the discovery and restoration of 1948 laboratory bench sheets of wastewater effluent analyses and construction photos of San Antonio’s first wastewater treatment facility using mules in pre-heavy equipment era. In 2005, he discovered and documented the Lady Justice statue, an early 20th Century landmark water feature that had been residing in a SAWS warehouse for almost 100 years. The statue is currently being professionally restored for display at

the Bexar County Courthouse. He has provided detailed history of south Bexar County's Mitchell Lake for the article "Lost and Found" featured in National Audubon Magazine (March/April 2006). Mitchell Lake served as a huge oxidation pond for San Antonio's raw sewage until treatment plants were built in the 1900's. By the 1980's, this Lake was a super-eutrophic nuisance and source of odors and mosquitoes. It has since been supplied with high quality recycled water from SAWS and has become a world class birding center operated by the National Audubon Society.

He is renowned for his photographic talent, especially for scenes of aquatic systems. His photographs of area water and wastewater treatment facilities and recycled water features have been displayed in such prestigious settings as San Antonio's nationally acclaimed Witte Museum and Austin's Bob Bullock Texas State History Museum, as well as in professional publications such as the cover for Texas *WET* (September 2003). He has been interviewed on television and radio programs where he has delivered important information about our current regional water and wastewater issues and recycling. His interviews include the National Public Radio, Fox News television, and San Antonio's KLRN television.

Mr. Eckhardt has successfully combined two sciences – wastewater treatment computer-based data management and presentation of complex information in an easily understood manner. He has developed easily usable electronic models of area river and aquifer systems that can be used to calculate the hydraulic and organic carrying capacity of local streams, to develop wastewater discharge permit limits, and to predict available recycled water for potential customer contracts. His hydrologic analysis and modeling have been used in numerous scientific reports and studies by students, other scientists, public officials, and other SAWS staff members. He has also developed operator advancement programs and actively supports operator training through a web-based, user-friendly on-line Operation and Maintenance Manual that has been described by even commercial web designers as "state-of-the-art". The manual features established electronic operational and regulatory databases for use by operations, treatment, engineering, technical services, and legal divisions of SAWS as a central repository within SAWS for all regulatory reporting, correspondence, and permits. He provides Utility Calculation Classes and one-on-one mentoring on basic arithmetic for operators and mid-management level staff who have experienced problems passing TCEQ operator certification exams due to difficulties with math problems. He does this training on his own and receives no fees or payment for his services. With his colleagues, he developed an "integrated permit" based on the EPA's model of watershed based permitting. In this integrated permit, all wastewater flows and recycled water for environmental uses for the entire SAWS watershed are combined into one "integrated permit" instead of separate, stand-alone TPDES permits for each facility. This is the first such permit in Texas and one of only the few in the United States. He has been invited to Washington, D.C., on various occasions to meet with U.S. EPA officials regarding implementation of watershed based permitting, one of EPA's national initiatives.

In addition to his professional and public obligations, Mr. Eckhardt provides mentoring and training on water and recycling issues to education endeavors at all levels. He serves on the Advanced Water Treatment Program and the Advisory Council for Northwest Vista College in San Antonio. This college is one of the Alamo Community College District campuses partnering with David Paul, Inc., a nationally recognized water treatment training and consulting firm that provides state-of-the-art equipment and instruction through the Advanced Water Treatment Program. Mr. Eckhardt provides information for the Program to prospective students, reviews curriculum and teaching materials, and provides feedback to instructors. He participates in San Antonio's annual Summer Water Conference where he assists in workshops, field trips, and water and recycling education for educators at all levels. He has provided tours, training, and instructional information on water recycling and wastewater treatment for The University of Texas at San Antonio Prefreshmen Engineering Program (PREP), an academically intense mathematics-based summer enrichment program that identifies achieving middle and high school students with the potential to become scientists or engineers and reinforces their pursuit of these fields. He has mentored a Thailand student pursuing a doctorate degree in environmental science. To further share his knowledge, he has served as an officer in the local TWUA Mission Chapter; as incoming President of the Mission Water Utility Association; as a member of the TCEQ Upper San Antonio River Bacteria TMDL Advisory Group to study affected streams and develop a Total Maximum Daily Load as needed for the San Antonio River Basin; as a volunteer for the TCEQ EnviroMentor Program to help small businesses and local governments comply with state environmental rules; as a member of the Steering Committee for Clean Rivers Program to help move Texas toward comprehensive water

resources planning and management; as Board Member of the Helotes Heritage Association, a 501© (3) non-profit organization of citizens dedicated to preservation of the cultural, environmental, and historical heritage of Helotes and the surrounding area; and as Board Member and producer of the Alamo Area Health News, a public access television broadcast inviting health care professionals to discuss topics important to consumer health care. He has been a member of WEAT and WEF since 1999, is a supporter of the WEAT local San Antonio chapter, and regularly attends chapter meetings and technical presentations. During his years with WEF and WEAT, he has served as a moderator and monitor at various WEAT conferences, a speaker at WEF conferences, and has authored and co-authored technical papers for both WEAT and WEF conferences.

WATER ENVIRONMENT ASSOCIATION OF TEXAS

SIDNEY L. ALLISON AWARD

...presented to a person who has made significant contributions to the engineering, science, and/or operation and maintenance of wastewater collection and pumping stations with the mission to transport wastewater to a treatment plant.

Gopal K. Guthikonda

Mr. Gopal K. Guthikonda holds Bachelor's and Master's degrees in Civil Engineering and is a registered professional engineer in the state of Texas. He has dedicated his entire career to dealing with wastewater issues. He has been a member of the Water Environment Association of Texas since 1985. He is also a member of the Water Environment Federation and the American Society of Civil Engineers. After graduating from Texas Tech University, Mr. Guthikonda started his professional career with the engineering consulting firm, Steger and Bizzell, Inc., in Georgetown, Texas where he helped with the design of wastewater collection systems and small treatment plants.



He joined the City of Austin in 1987 as an Engineering Associate with the Wastewater Treatment Program where he worked on treatment plant projects. As Facility Engineer for the City's treatment plants, Mr. Guthikonda was instrumental in implementing several major plant expansion and improvement projects. He initiated the energy conservation plans for Austin's treatment plants. He served as a member of the Utility's team that studied wastewater nutrient removal technologies, and serves on the Utility's CIP Committee.

In 2001, Mr. Guthikonda was appointed as the Division Manager responsible for the operation, maintenance, and project implementation of Austin's wastewater collection system. He initiated the Austin Clean Water Program (ACWP), Austin's ambitious \$350 million collection system renovation and rehabilitation effort, and is currently serving as its Program Manager. He initiated the "Two-Track Strategy" for the ACWP: the first track provides for the capital improvements, and the second track provides for O&M improvements including the initiation of the CMOM program. He put significant efforts in public information and involvement program to effectively communicate the importance and need for the collection system renewal and operational enhancements to the citizens and interest groups.

As Division Manager of the Collection System Services, Mr. Guthikonda initiated numerous programs to improve operation and maintenance. As part of the CMOM program implementation, he revamped the wastewater emergency response program and significantly reduced the wastewater overflows. Under the CMOM plan, the response time to respond to a wastewater emergency and to investigate the problem is now less than 2 hours for 97% of the calls. Sanitary Sewer Overflows have been reduced by over 43%. He revamped the City's Flow Monitoring program to improve data quality and metering operations, and to use the Infiltration/Inflow and wastewater call reports in prioritizing collection system maintenance. He prioritized and initiated the collection system cyclic maintenance program to perform Sanitary Sewer Evaluation Surveys in-house. He initiated the City's grease control program, root control program, and was instrumental in developing the City's Private Lateral Repair Program.

Mr. Guthikonda has authored many technical papers and made numerous presentations at seminars and conferences, including several presentations at WEF Conferences. He is recognized by his peers at the Austin Water Utility for his efforts to improve employee involvement in decision-making process, and his emphasis on teamwork. His efforts in working closely with the consulting and contracting communities have earned him the respect of his peers.

WATER ENVIRONMENT ASSOCIATION OF TEXAS

EMERGING LEADER AWARD

...presented to a young member of WEAT who has provided outstanding service in support of the Association in the form of committee involvement, recruiting, volunteer time, event participation, or other contributions.

Jennifer (Jennie) T. Almerico, P.E.



Jennie Almerico graduated in 1999 from Texas A&M University with a B.S. in Civil Engineering. After graduation, she worked in the Fort Worth and Houston offices of Kimley-Horn & Associates, Inc. In 2001, she joined Klotz Associates where she worked in the firm's Public Utilities Practice. In this position, she was a key team member on several wastewater and water projects for municipal clients throughout Texas in the planning, design, and construction administration of water and wastewater conveyance and treatment systems. In 2004, she became a licensed professional engineer in the state of Texas. She is currently employed as Division Engineer with the San Jacinto River Authority. She is a recognized leader in the areas of hydraulic analysis and design and water system modeling.

Ms. Almerico has been a member of WEF/WEAT since 2001. Always eager to participate and assist to improve and sustain the WEAT organization, she has been actively involved in WEAT's Southeast Section 9 for the past five years and has served as an officer for the Section in many capacities including Secretary/ Treasurer 2003-2004, President-Elect 2004-2005, and President 2005-2006. Her years of leadership were marked with excellent technical programs at Section meetings, an expansion of the local scholarship fund, and awarding of four scholarships to local universities. As the current Past-President of the Section, she continues to attend Section 9 officer meetings. In 2002, she took the initiative to revive the Section 9 website to provide information to members through an easily accessible media and continues to serve as web master to maintain the site. In 2005, she stepped forward to co-chair the Texas Water 2005 Door Prize Committee. She also served as an integral part of organizing the 2003 joint WEAT/AWWA Southeast Sections involvement in the Science Fair.

In addition, Ms. Almerico is active in several civic and charitable organizations. She has been a volunteer tutor and mentor at Sherwood Elementary School I in the Spring Branch I.S.D., a Sunday school teacher at Saint Helen Catholic Church in Pearland, and a participant in Habitat for Humanity.

Ms. Almerico's insightful leadership, outstanding technical capabilities, and service to the industry exemplify the qualities of a great young professional role model. Her blend of professional work experience, WEAT activities, and her sense of civic duty make her a true leader in our state.

WATER ENVIRONMENT ASSOCIATION OF TEXAS

EXEMPLARY EMPLOYER AWARD

...recognizing a Texas employer who has exhibited company-wide support of and involvement in WEAT and WEF activities, has rendered financial assistance toward employee memberships in WEAT and WEF, has encouraged employee participation in WEAT and WEF activities, and has encouraged technical and professional growth among its employees through participation in WEAT and WEF meetings, seminars, conferences, and publications.

Freese and Nichols, Inc.

With over a century of engineering, architectural and environmental design experience, Freese and Nichols has literally shaped the landscape of the southwestern United States. Freese and Nichols teams have worked on designs for more than 100 water and wastewater treatment plants and 150 reservoirs and dams across Texas. Today, Freese and Nichols boasts expertise in water/wastewater treatment, water/sewer engineering, storm water management, water resources planning, site civil planning, aviation, transportation, and design and program/construction management. The firm has major offices in Austin, Dallas, Fort Worth, Houston, and San Antonio. Freese and Nichols' mission - *"Innovative Approaches...Practical Results...Outstanding Service"*.



The firm was founded in 1894 by Major John B. Hawley, the state's first independent engineer specializing in water and sewer work. Believing that continuing education was essential for a professional engineer, Major Hawley encouraged staff members to pursue their education and offered financial assistance for those employees who did so. Freese and Nichols remains faithful to Major Hawley's philosophy.

Freese and Nichols encourages employees in technical and professional growth through formal company programs. The Career Ladder and Individual Development Plan assist employees in determining career goals. At the beginning of an employee's annual review cycle, the manager and employee work together to set the employee's performance goals for both short term (one year) and long term (3-5 year) career objectives. Together, the employee and manager review the Freese and Nichols Career Ladder which shows the career steps for different career tracks, and the manager assesses the employee's potential. Junior employees may take the Career Assessment to help determine interests in various areas and are assigned to a full range of projects during their first two years to help them better understand their career choices. Based on the results of these discussions and assessments, the manager and employee establish goals for individual development and complete the employee's Individual Development Plan which includes training for the employee in the next year both through outside courses or seminars and the Freese and Nichols University. Established in 2000, Freese and Nichols University offers a formal continuing education program to the firm's employees. Two full-time staff members - a professional development coordinator and a professional development specialist - oversee the development and delivery of high-quality seminars taught by experts in various subject areas, most of whom have advanced degrees including PhD's. Currently over 30 different subjects are offered through Freese and Nichols University. For all P.E. license renewals, the State of Texas requires continuing education consisting of 15 Professional Development Hours (PDH) per year with at least one PDH in the area of professional ethics. Freese and Nichols University Seminars meet this requirement. Each hour of a seminar counts as one PDH. Upon completion of a seminar, each participant receives a certificate as proof and documentation toward satisfying State license renewal requirements. This award-winning internal program has been so successful that it has been expanded to include Freese and Nichols clients.

In keeping with the principles of continuing education and professional growth among its employees, Freese and Nichols has a long-standing commitment to both the Water Environment Federation and the Water Environment Association of Texas. Freese and Nichols has a company policy of encouraging all employees to join WEAT and WEF and pays full dues for WEAT officers and half-dues for members. In some cases,

members' dues are paid in full by the company at the discretion of their group leaders. Twenty-five of the firm's employees are members of the organizations, including the president, president emeritus, chairman emeritus, and every engineer in the Dallas Water/Wastewater Group. Ten of the members are Young Professionals in the under-35 age group. Membership is facilitated with flexible scheduling policies to enable employees to participate in volunteer activities such as committee meetings during working hours upon approval by their supervisors, with time generally charged to the company. Participation in WEAT activities is also supported by complimentary use of company resources such as teleconferencing, video-conferencing, meeting rooms, and print shop as available. For example, Freese and Nichols hosted a Web cast for the WEF program *Novel MBR Technologies for Industrial Wastewater Treatment and Reuse* in May 2006. Employees are encouraged to share information by submitting technical presentations and papers to local, statewide, and national WEAT and WEF forums, and the company allows those employees to use company time for preparation. In developing their papers, employees may take full advantage of all company resources such as the library, computer network, print shop, graphics support, and editorial advice and review. The company underwrites expenses, including meals, travel, accommodations, and registration fees for employees attending WEAT and WEF events that feature technical presentations, papers, and posters by Freese and Nichols employees. To further encourage employee participation in WEAT and WEF printed technical papers and oral presentations, Freese and Nichols sponsors two company-wide awards annually for which only employees who make presentations at WEAT are eligible. Each of the two awards includes a plaque and a cash award of \$1,000. In addition, Freese and Nichols honors one company employee annually with the Robert L. Nichols Award in recognition of contributions to his or her profession. The employee receives both a plaque and a stipend of \$1,000. As witness to the Freese and Nichols emphasis on WEAT activities, the Robert L. Nichols Award criteria specifically mention WEAT participation as an example of professional contribution.

Freese and Nichols has contributed to the leadership of WEF and WEAT. The president emeritus, Robert Nichols, served WEAT as 1962-1963 President and served WEF as 1978-1979 Director. One of the current principals of the firm, Ray Longoria, served on the WEAT Board of Directors as Secretary, Vice-president, President-elect, and 2003-2004 President. Engineer David Jackson currently serves on the WEAT Board of Directors as Parliamentarian. Engineer Trooper Smith co-chairs the WEAT Young Professional Section. The local North Texas Section of WEAT has also benefited in its leadership through Freese and Nichols participation with both David Jackson and Ray Longoria having served as Past-presidents and Tina Hanson serving as the current Secretary. In addition, employees Trooper Smith, David Sloan, and Leonard Ripley have contributed their time and knowledge to NTS as program speakers during regularly scheduled NTS meetings. Freese and Nichols employees have served WEAT and the North Texas Section of WEAT in numerous other capacities as officers, committee members, moderators, specialty conference planners, seminar leaders, Science Fair judges, WEAT magazine contributors, and Stockholm Junior Water Prize leaders.

Freese and Nichols is a proud supporter of the annual WEFTEC conference as well as Texas Water™ and has exhibited at the five most recent Texas Water™ expos. Employee attendance at both conferences is encouraged, and related expenses are underwritten by the firm. Sixteen Freese and Nichols employees attended WEFTEC 2005 in Washington, D.C. , and twenty-two attended WEFTEC 2006 in Dallas. Employees have participated in the conferences as technical presenters, volunteer judges at Operations Challenge competitions, room moderators for sessions, and volunteers for general meeting support with the Local Host Committees. Six Freese and Nichols employees made technical presentations at WEFTEC 2006.

As a final example of the Freese and Nichols commitment to WEAT, the firm is a frequent sponsor of the North Texas Section WEAT dinner meetings, an event sponsor at Texas Water 2007 in Fort Worth, the recurring sponsor of the Operations Challenge Process Event at each Texas Water, and a continuous advertiser in the Texas WE&T magazine.

WATER ENVIRONMENT FEDERATION

WILLIAM D. HATFIELD AWARD

...recognizing operators of wastewater treatment plants for outstanding performance and professionalism.

EDMUND R. MACH

Edmund R. Mach began his career at the Trinity River Authority's Ten Mile Creek Regional Wastewater System (TMCRRS) in 1979 as a Maintenance Mechanic. He was promoted to Operator I in 1980, to Operator II in 1981, Senior Operator in 1982, Chief Operator in 1985, Operations & Maintenance Chief in 1993, and Project Manager in 1997. He has held Class "A" Wastewater Certification since 1989. He has contributed unselfishly with his excellent technical and managerial skills over his 28 years of service with the TMCRRS.



The TMCRRS is a 24 MGD activated sludge treatment plant on a 100-acre plant site near Ferris, Texas. Annual average flow is 16.788 MGD. The System includes 50 miles of major interceptors and trunk lines extending approximately 33 miles from the plant site, one lift station, eight metering stations, a laboratory, three biosolids disposal monofill cells, and an effluent reuse project of 1.0 MGD. On-site surface disposal units for drying sludge occupy approximately 30 acres of land. The TMCRRS serves the five customer cities of Duncanville, DeSoto, Lancaster, Cedar Hill, and Ferris.

In his current position, Mr. Mach is responsible for the preparation and control of the project's annual operation and maintenance budget and \$10.9 million debt. He has a clear understanding of the budgetary and staffing requirements needed to effectively operate and maintain the permitted wastewater facility. He directly supervises a staff of 19 employees including hiring, scheduling, and performance evaluation and assists in cross training staff to provide workforce flexibility to accommodate changes in work practices. He maintains a close working relationship with operations and maintenance personnel, motivating them to perform at maximum ability. He is responsible for and has an in-depth knowledge of the project's operational and maintenance processes. He works closely with consulting engineers and contractor operators in capital improvement efforts and has participated in an erosion study of the TMC interceptor system with Alan Plummer Associates. He has assisted in several coordinated design and construction activities at the plant site and its collection system and has coordinated with TRA management and consultants on all major rehabilitation-related projects or evaluations.

Mr. Mach is committed to a safe working environment and schedules adjustments coordinated through subordinates for a successful and well regarded safety program. Under his direction, TMCRRS has been recognized with the Texas Safety Association's Award of Merit in 1998 and 2003, as well as the Award of Achievement in 2001 in recognition of outstanding service and worthy accomplishments in accident prevention contributing to a safer Texas.

Mr. Mach has demonstrated his commitment to education and professional knowledge by earning an Associate in Applied Science Degree at Navarro College in 1991 and is currently completing requirements for a Bachelor of Science in Business Administration. He has further expanded his technical knowledge through training in several courses approved by the Texas Commission on Environmental Quality including: Wastewater Laboratories, Utilities Management, Vulnerability SCLF Assessment Training Tool, Rules and Regulations of Management, Utilities Safety, Hazardous Waste Operations & Emergency Response Training, and the Pipeline Assessment Certification Program.

Under his management of TMCRWS, the project has received recognition for excellence on several occasions including: the AMSA Silver Award (1994, 1995, and 2001) for recognition of significant level of national pollutant discharge elimination system permit; the AMSA Gold Award (1995, 1996, 1997, 1998, 1999, 2000, 2002, 2003) for recognition of complete and consistent national pollutant discharge elimination system permit compliance; and Peak Performance Award (2004 and 2005) by the National Association of Clean Water Agency.

WATER ENVIRONMENT FEDERATION

QUARTER CENTURY OPERATORS' CLUB MEMBERSHIP

...honoring operators of wastewater treatment plants for service and dedication in a difficult and dangerous field. Members must have been a significant, full-time participant in the water environment industry for a period of 25 years, including at least 10 years actively involved in the day-to-day collections, maintenance, operations, laboratory, or management of a wastewater treatment facility.

Billy W. Dick

Billy W. Dick began his career at City of Navasota, Texas in 1978, as a Meter Reader/ Service Technician and advanced in rank over the next five years to Utilities Superintendent. In 1983, he accepted the position of Director of Public Works for the City of Tomball, Texas. In his seven years with Tomball, he was involved in upgrading the wastewater plant as well as replacement and expansion of various water and wastewater mains, lift stations and natural gas systems. While in Tomball, he earned his Wastewater Treatment Operator "A" and Water Treatment "A" licenses, as well as Class B Solid Waste. In 1990, he moved to the City of Rockport. As current Director of Public Works for the City of Rockport, he is responsible for five departments and 30 employees. He has had many accomplishments in his tenure at Rockport, including upgrading the Wastewater Treatment Plant from 1.5 MGD to 2.5 MGD and acquiring surrounding properties in preparation for future expansion, construction of a large capacity lift station to provide sanitary sewer service to the rapidly expanding northern end of the Live Oak Peninsula, construction of 16" and 24" water lines and a 2.0 MG above ground storage tank to provide greater capacity for the extensive growth of Aransas County, and implementation of wastewater collection system rehabilitation and replacement program.



Mr. Dick has been a member of WEF since 1998. He is a member of American Water Works Association and Texas Water Utilities Association and serves on the Regional Water Planning Group, Region 11.

WATER ENVIRONMENT FEDERATION

GEORGE W. BURKE, JR. AWARD

...acknowledging an active and effective safety program in municipal and industrial wastewater facilities. The facility must have a documented and illustrated safety program and safety record for the preceding calendar year.

Wastewater Lift Station Section El Paso Water Utilities

The El Paso Water Utilities (EPWU) Wastewater Lift Station Section is responsible for maintaining the integrity of the EPWU raw wastewater pump stations located at various sites throughout the City of El Paso. The Section operates and maintains the metering stations throughout the System for all wastewater introduced into the EPWU collection system from Fort Bliss, refineries, and other large volume contributors. The Section utilizes state-of-the-art odor control units at key stations to reduce odor emissions in residential neighborhoods to ensure citizens are not disturbed. The Section employs the latest Supervisory Control and Data Acquisition (SCADA) systems to communicate alarm conditions rapidly to management personnel to ensure a quick and thorough response to emergency situations.

The EPWU wastewater collection system currently consists of approximately 2,231 miles of sanitary sewer lines, ranging in size from six inches to 60 inches in diameter, and 72 Lift Stations and Force Mains. The system is composed of approximately 166 pumps, six compressors, three vacuum pumps, and seven diesel and natural gas generators. The lift stations have pump capacities ranging from 50 to 7,777 gallons per minute per unit and electric motor and control panels ranging from 3 to 350 horsepower per unit.

The 17 employees working for the Lift Station Section are exposed to numerous safety concerns: confined space entry; various chemicals including oxygen; power tools; high voltage; traffic in daily rounds and in areas where the station is located near a roadway; dogs and serpents where the station is located in a non-convention site; etc. One of the primary objectives of the EPWU, in addition to meeting all federal and state environmental regulations, is to provide a safe and enjoyable work environment for all employees. This is accomplished by creating and maintaining safety awareness through the EPWU Safety Division's Safety Program. The EPWU Wastewater Lift Station Section has utilized this extensive and all-inclusive safety program exceptionally well. As a testament to the success of their safety strategies, between August 2005 and August 2006, the EPWU Wastewater Lift Station Section experienced no work related injuries resulting in no man-hours lost due to work related injury.

To maintain safety awareness, the Wastewater Lift Station Section holds meetings once per week for setting safety policies and procedures, discussing possible safety hazards, and assigning safety related projects for completion. To supplement this, other safety training classes such as Driver Safety, First Aid, CPR, Confined Space Entry, etc. are held on a regular basis. To augment the Section in its safety awareness program, the EPWU Safety Division is always available to assist in its safety awareness program and to help implement the company's safety procedures. A few of the numerous Safety Program activities include: preparation of the EPWU Safety Manual, performing safety audits, training and inspections, and preparation of the EPWU Emergency Response Plans and Risk Management Program. The EPWU also has a Wellness Clinic available to provide quick and easy healthcare access to employees. In an effort to promote safety in the field and at the individual water and wastewater treatment plants, the EPWU Safety Division has a Safety Awards Program which provides incentives and rewards for individuals and Sections that perform their work without accident or injury. These incentives include an Individual Annual Safety Award, a Safest Section of the Quarter Award for no lost-time injuries, a Driver Safety Award for one year with no accidents or citations, a \$200 reward for employees who go one calendar year without a lost time accident or injury, and an annual Safety Awards Ceremony with complimentary breakfast and public recognition. The Lift Station Section is an active and enthusiastic participant in all Safety Program efforts.

In addition, the Lift Station Section has been actively pursuing security measures that would prevent hostile actions from persons inside or outside the EPWU, its collection system, and its Lift Stations. Lift Station Section personnel have also participated in several city-wide emergency preparedness drills conducted through the City's Emergency Operations Center.



WATER ENVIRONMENT ASSOCIATION OF TEXAS

MEDAL OF HONOR FOR HEROISM

...recognizing a member of WEAT who has demonstrated exceptional courage and bravery in either his/her personal or professional life to perform an act of heroic behavior toward his/her fellow man or recognizing any Texas resident who has performed an act of heroic behavior while involved in activities related to the water environment field.

Wastewater Collection System Maintenance Section El Paso Water Utilities

The El Paso Water Utilities Wastewater (EPWU) Collection System Maintenance Section is composed of 30 employees, headed by Roberto Priego, Wastewater Collection Maintenance Superintendent. This Section and its personnel demonstrated exceptional courage and bravery during the Flood 2006 in the City of El Paso.

The EPWU Wastewater Collection System Maintenance Section is responsible for the operation and maintenance of the whole wastewater collection system in El Paso. The collection system is comprised of 2,231 miles of sewer lines ranging in size from 6 inches to 60 inches in diameter. The Section has eight hydro-vactors, one bucket machine, one foamer machine, two closed-circuit TV camera units, an air relief valve service truck, and four emergency units with rodders.

In early August 2006, the entire City of El Paso experienced torrential rains for several days that flooded a significant portion of the City. Two storm-water detention basins overflowed due to the excessive amount of rainwater. Customers opened sewer manholes to allow rainwater to drain from their surrounding areas, resulting in a surcharged sewer system with several water and sewer main breaks. The City experienced power surges and power failures. River levels reached maximum capacities. Some areas of the City were evacuated. Numerous calls were received at the Street Department requesting that they pump water to prevent water from damaging property and to save lives.

The Street Department called EPWU for assistance, and EPWU's Wastewater Collection System Maintenance Section responded. Hydro-vactor crews were immediately dispatched to several areas of the City at seventeen separate sites. Working tirelessly in twelve-hour rotating shifts around the clock over a period of eleven consecutive days, the Hydro-vactor crews pumped a total of 1,024 loads of water, the equivalent of 1,536,000 gallons, while other crews tended numerous sewer emergencies and customer concerns throughout the City. Not only did this great effort minimize danger, save lives, and minimize public and private property damage, but it also was accomplished accident-free. These men demonstrated exceptional courage and bravery during this natural disaster in their courageous and faithful actions for their City and its citizens.



WATER ENVIRONMENT ASSOCIATION OF TEXAS

OUTSTANDING MUNICIPAL OPERATOR OF THE YEAR

...presented to a municipal wastewater treatment plant operator in the State of Texas who has demonstrated outstanding professionalism at his/her facility and has performed his/her duties tirelessly and with dedication to the betterment of the water environment.

Steve Price



Steve Price has worked with the management staff at the Trinity River Authority Central Regional Wastewater System (TRA CRWS) for over 24 years. His career with TRA began in 1982 as an Operator Trainee in the solids Handling Division at CRWS. Within thirty days of beginning his employment, he had obtained his “D” Wastewater License. In that same year, he was promoted to Operator 1 and has continued this trend of steady promotions to his present position as Chief Operator in the Liquids Operations Division. He is the longest tenured Chief Operator in Liquids Operations and directly oversees the treatment of wastewater discharged from CRWS. In 2000, his knowledge and skills acquired at TRA and his one thousand-plus certification hours led to his attaining the “A” Wastewater License.

Mr. Price’s role at CRWS has been critical in the daily production of the high quality of effluent water discharged into the Trinity River. He has worked in most areas of the facility, specializing in Solids and Liquids Operations. During the past 13 years, he has been a key player in assisting management in developing the 162 MGD CRWS into one of the premier wastewater treatment plants in the nation. Since 1993, the facility has produced over 62 billion gallons of water treated to a level that has produced 99.5 percent reduction of Total Suspended Solids, Biological Oxygen Demand, and Ammonia Nitrogen. Since 1993, CRWS has achieved thirteen Gold AMSA Awards and two Platinum Awards for no permit violations.

During his twenty-four year tenure, Steve Price has been a part of numerous changes to the entire CRWS facility. He has been an intricate part in the development of the Employee Safety Program and the Emergency Response Team. He has served on the Employee Safety Committee numerous times and has received First Responder and Incident Commander Training, as well. He currently serves as Operations Officer and Initial Incident Commander during plant training exercises for emergencies. He is responsible for emergency response training on shift and has demonstrated his knowledge and talents by volunteering as an instructor for the past five years at the North Central Texas Regional School’s Utility Safety Course.

Mr. Price is one of the two original founding members remaining of the TRA award-winning and current back-to-back National Operations Challenge champion team, the TRA CRWSers. When the team was formed in 1995, he was highly recruited to be a key member of the team due to his background knowledge in Process Operations and his ability to research and find innovative ways to perform his job as Chief Operator. He is a fierce competitor and is the foundation on which the team was built. The TRA CRWSers Team has represented WEAT as the State Champion for nine consecutive years and has placed either second or third overall in Division I for five years prior to their back-to-back Divisional Championship in 2005/2006. During the last two years, Mr. Price and his teammates have been instrumental in re-establishing the WEAT Operational Challenge Program in the state by extending the team’s assistance to other competing teams. For example, he and his team spent one day prior to the WEFTEC 2006 Operations Challenge event assisting the international team from Argentina in preparation for the national challenge events.

In addition to his many professional duties, Mr. Price continues to be a major driving force at CRWS by participating in countless tours for schools and other professional groups who have visited the facility over the years.

WATER ENVIRONMENT ASSOCIATION OF TEXAS

MUNICIPAL WASTEWATER TREATMENT PLANT OF THE YEAR Category 2 (1-15 MGD)

...presented to a municipal wastewater treatment plant in Texas that has consistently exhibited outstanding performance of daily activities beyond the normal call of duty.

Denton Creek Regional Wastewater System Trinity River Authority of Texas



The Trinity River Authority's Denton Creek Regional Wastewater System (TRA DCRWS) is located on a 48-acre tract of land north of Roanoke, Texas. The DCRWS began treating wastewater in 1990 and is currently capable of serving a population of 50,000 people through system components including 25 miles of interceptor pipelines, varying between 15 and 36 inches in diameter, with three major interceptors and a treatment plant capacity of 5 million gallons per day. Providing advanced secondary and tertiary treatment of wastewater, the plant uses three separate activated sludge single-stage nitrification processes followed by effluent filtration and

ultraviolet disinfection. The facility was one of the original facilities in 1990 to use high intensity ultraviolet light instead of chemicals to disinfect wastewater flows. Waste activated sludge from secondary treatment is pumped to two sludge holding tanks for storage, aerobic digestion, and thickening through decanting. The concentrated sludge is pumped from the sludge holding tank to a belt press that squeezes the majority of the water from the sludge which is then stored on a concrete pad for final disposal at a municipal landfill. DCRWS has a total of six Texas Commission on Environmental Quality (TCEQ)-licensed operators on staff: one "A"; two "B"; two "C"; and one "D".

The regional DCRWS system serves Fort Worth, Haslet, Roanoke, Southlake, the Circle T MUD Nos. 1 and 3, Keller, Northlake, Flower Mound, Westlake, and Marshall Creek. The facility receives flows from customer cities with a current average influent flow of 3.431 MGD. Sixty percent of the flow is produced by industrial sources, and 40 percent is municipal wastewater with average daily loadings of 187 BOD, 250 TSS, and 32 mg/l ammonia. Historically, the plant reduces the influent pollutants by more than 99 percent, producing an exceptionally clean and polished effluent that is significantly below limits established by the TCEQ. Included in the service area for the City of Fort Worth are the Intermodal Industrial Facility serving Alliance Airport and the Texas Motor Speedway hosting 2-3 race events per year. Each of the Speedway events spikes the population served by DCRWS by more than 200,000 people with ammonia loadings over 100 mg/l. In 2005, DCRWS partnered with the City of Fort Worth, Texas Motor Speedway, and Alan Plummer Associates to address the uncommonly high ammonia loadings coupled with the dramatic increase in influent the system experiences during NASCAR events held at the Speedway. A strategic plan was devised that resulted in a reduction of ammonia loadings received at the plant from 1,969 pounds in 1997 to 557 pounds in 2005 and to 498 pounds in 2006. Concurrently, the plant's service area is experiencing explosive industrial, commercial, and population growth which is expected to continue. DCRWS has responded to this nonstop growth in the system's service area with continuous expansion of the system's collection system and the plant's treatment capacity. Plans for the next 11.5 MGD expansion are already underway. Final capacity in 2030 is expected to be 30 MGD.

The DCRWS facility's excellent history of compliance with its National Pollution Discharge Elimination System permit is illustrated by awards garnered by the facility from the National Association of Clean Water Agencies (NACWA), formerly AMSA. NACWA honors those agencies achieving 100 percent permit compliance with a Gold Award and those with fewer than five excursions with a Silver Award. Since 1997,

DCRWS has received five Gold Awards and four Silver Awards. DCRWS experienced only two permit excursions in 2004, both due to a rain event dropping more than twelve inches of rain in a single 24-hour period. The plant has experienced only one two-hour peak flow violation with exceeded ammonia limits, but that was when the plant was within six months of completing a 5 MGD expansion that would have handled the flows easily.

DCRWS maintains an excellent safety record with only one lost time related incident in the past seven years. With a limited staff of six Operation & Maintenance employees, the operators at DCRWS work alone much of the time and realize they must rely on themselves to create and maintain a safe work environment. As a result, personal safety is a priority with a tendency to err on the side of caution. To promote safety awareness, to impact behavior, and to promote compliance with safety practices as outlined in the TRA Employee Safety Manual, employees at DCRWS participate in a multi-faceted safety training program from the first day of employment. That training continues throughout the duration of the employee's tenure.

Employees receive an intense three-week orientation that includes all aspects of operating and maintaining a wastewater treatment facility. Employees receive on-going monthly training on various safety topics provided by a Bowen Miellette and Britt loss prevention specialist. In addition, each employee receives individual monthly training, as needed, through a series of videos and pamphlets. An employee Safety Committee, comprised of DCRWS staff and the Project Manager, meets quarterly to address safety related issues. Monthly plant safety inspections are carried out by members of the Committee on a rotating schedule, and reports of potentially unsafe conditions are submitted to project supervision and management for improvements. Limited staff size at DCRWS and the absence of hazardous chemicals preclude the necessity of an established Emergency Response Team at the plant; however, DCRWS Management has met with the Denton County Local Emergency Management Team to discuss possible hazards and potential emergencies that might occur at the facility. Both the Denton County Local Emergency Team and the Roanoke Fire Department have been provided with a map of the plant. The Fire Department performs periodic inspections of the facility. Finally, the Denton County Sheriff Department makes rounds through the facility after hours to serve as a deterrent to mischievous, criminal, or terrorist activities. In recognition of its successful safety program, DCRWS has received eight safety awards.

As a reflection on the DCRWS pursuit of excellence, the plant was chosen by the Water Environment Federation to be one of the Facility Tours at WEFTEC 2006.

WATER ENVIRONMENT ASSOCIATION OF TEXAS

MUNICIPAL WASTEWATER TREATMENT PLANT OF THE YEAR Category 3 (>15 MGD)

...presented to a municipal wastewater treatment plant in Texas that has consistently exhibited outstanding performance of daily activities beyond the normal call of duty.

Southside Wastewater Treatment Plant Dallas Water Utilities

The Southside Wastewater Treatment Plant (SWWTP) serves the City of Dallas as one of the two treatment plants in the City of Dallas wastewater system. With a collection system of more than 4,000 miles of pipes, the system provides services to about 1.25 million customers from the City of Dallas and eleven customer cities and boasts a combined peak flow treatment capacity of over 450 million gallons of wastewater per day. The SWWTP provides wastewater treatment for the eastern portions of the City, but diversion points in the wastewater collection system allow additional flow to be routed to the plant as needed. The SWWTP treatment processes remove over 99% of pollutants from the influent raw wastewater before discharging treated effluent into the Trinity River at a single point of discharge.



Located on approximately 2,800 acres in the floodplain of the Trinity River, the SWWTP is responsible for processing and disposing all of the solids for the City of Dallas including those produced at the plant's sister facility, Dallas's Central Wastewater Treatment Plant. An extensive levee system protects the plant site and several thousand acres of adjoining private property from flooding. The facility is surrounded by a 500-foot buffer zone with a multi-functional linear lake system that is a popular spot for picnicking and fishing. In addition to its park-like beauty, the linear lake system provides storm water storage and conveyance for the adjacent neighborhoods and a high quality wildlife habitat for a diverse population of local and migratory species. Southside has dedicated over 1,000 acres for wildlife habitat and is designated an Audubon facility.

Between the buffer zone and the actual plant site, a slurry wall of bentonite clay has been constructed from the ground surface down to and imbedded into the impervious Taylor Marl formation as protection of groundwater outside the plant boundary. The slurry wall is part of the Southside's state approved leachate collection system which includes twenty-nine groundwater monitoring wells. Although the quality of the plant's storm water is good, all the storm water is collected and fully treated through the wastewater treatment processes prior to discharge. The slurry wall was constructed so that on-site solids disposal facilities could be developed while ensuring state-of-the-art protection of the environment. SWWTP has two types of surface disposal units for solids: a 220-acre solids-only Monofill and approximately 1,100 acres of developed dedicated land disposal fields. The Monofill is surrounded by a second, additional slurry wall to segregate it

from the remaining plant site. Twelve groundwater monitoring wells and four piezometers have been installed surrounding the Monofill to ensure prompt identification if breaches should occur in the slurry wall. Methane gas detectors are also installed at locations surrounding the Monofill for detection of methane gas and for safety purposes. Due to these extensive measures, the Texas Commission on Environmental Quality (TCEQ) recognizes the SWWTP Monofill as a fully lined landfill facility with an approved leachate collection system.

The Southside Plant was initially constructed in 1964 to provide oxidation pond treatment for 3 MGD of raw wastewater. The plant has undergone various expansions and modernizations to reach its current rated average annual capacity of 110 MGD. Presently, the plant is comprised of nine trains of advanced activated sludge treatment, a screening and thickening facility to thicken primary and secondary solids, anaerobic digesters for solids stabilization, and a solids dewatering facility with a capacity of 164 dry tons per day in addition to the above described on-site disposal facilities. As examples of its commitment to excellence in wastewater treatment, Southside has recently competed five new anaerobic digesters with the ability to operate two-phase digestion using two of the digesters in acid mode; a new 120 MG concrete lined peak flow basin to store incoming wastewater during rain events for a total storage capability of 158 MG; construction of a new blower building with four single-stage centrifugal blowers to deliver compressed air to the aeration basins; demolition of surface aerators, modifications to aerations basins, and installation of fine bubble diffusers; replacement of the existing Process Control System to provide significant expansion of system capabilities and a plant-wide fiber optic based network; modifications and improvements to the plant's electrical architecture to provide increased flexibility to meet future energy needs; and miscellaneous improvements to the chlorine and sulfur dioxide buildings. The upcoming 2007 Phase IV expansion design will increase plant capacity an additional 30 MGD. Additional improvements scheduled for the coming year include: construction of a new DLD field; construction of three organic media biofilter cells and improvements to the Solids Screening and Thickening Facility; implementation of a plant wide odor control master plan; a new Dewatering Facility; side stream treatment facilities to treat ammonia rich filtrate from the Dewatering Facility before returning it to the head of the plant; and a lease agreement for the construction and operation of an Energy Recovery Facility that will generate electricity using methane gas from the plant's digesters.

All of the liquid and solids flow processing at SWWTP is monitored and at times controlled by several Supervisory Control and Data Acquisition (SCADA) computer systems. The facility uses other computer systems to maximize personnel efficiency including a Document Referencing System to enable quick and efficient access to electronic versions of Operations and Maintenance Manuals, specifications, etc., as well as the Data Stream Computerized Maintenance Management System to keep track of plant equipment maintenance.

Out of the total 116 filled staff positions at Southside, a team of 43 operators fully certified by the TCEQ handle the day to day operations of the plant. Current plant operators' licenses exceed requirements by TCEQ for plants with capacities above 10 MGD. These personnel are extensively trained and fully equipped to perform all maintenance functions. Because of its excellent operation and maintenance strategy, the SWWTP consistently exceeds stringent permit limits and has not recorded a single compliance violation since 1991. The National Association of Clean Water Agencies (formerly AMSA) has awarded SWWTP with a GOLD certificate (one year's operation without a permit violation) for every year since 1991 and has awarded the plant with a PLATINUM certificate (for five continuous years of operating without a permit violation) in 1997 and again in 2002. Southside was among the first plants ever awarded the PLATINUM certificate. The plant was recognized as the Water Environment Association of Texas Wastewater Treatment Plant of the Year in 2002 and was presented with the Environmental Protection Agency's National Award for Outstanding Wastewater Treatment Facility Operations and Maintenance in 2002.

Both the management and the staff of the Southside WWTP demonstrate pride and dedication in performing daily activities relating to the operation and maintenance of the various challenging processes and systems at the plant, without compromise to their health and safety. Despite tremendous process and infrastructure expansion, the facility reported only 4.1 lost-time accidents per 100 facility employees in 2004-2005 and only 3 lost-time injuries per 100 facility employees in 2005-2006. SWWTP has a unique safety program that requires a special commitment and accountability for every staff member, from managerial to employee level.

Each individual is responsible for creating and preserving a safe environment by participating fully in the development and implementation of various safety programs, attending safety meetings and training, conducting safety audits, and taking a “safety-first” attitude off the plant. Operations and Maintenance employees work at specific assigned locations and as part of their duties must periodically check the work area for safety hazards using the SWWTP Safety Audit checklist to identify potentially unsafe conditions and initiate the process to rectify the problems. Safety meetings and training play an integral part in the plant’s safety program success. Topics on safety and health issues cover a wide variety of hazards and/or safety procedures such as safe chemical handling, compressed gas use and storage, lock/tag out, fire safety, personal protective equipment, respiratory protection, driver safety, use of gas detectors, chemical contaminants, fall hazards, and electrical safety. Meetings and training may be a combination of lecture, video presentations, and hands-on practice. The plant has a safety section with an on-site safety officer, hazardous material technician emergency response team, and well-documented safety programs that include risk Management Plans, emergency safety plans, and an on-site hazardous response team. The safety section keeps historical records of the type and cause of injuries and accidents. The historical records of operating data and annual reports date back over twenty years.

The Dallas Southside WWTP is an active supporter of both WEF and WEAT activities. For the last two years of the WEAT/WEF Operations Challenge competition, the Dallas Southside WWTP “Aqua-techs” team has placed first in the collections and maintenance events at the state level and first in the safety event at the national level for both years. This last year, the team placed second overall in the national competition for Division II and also received the national award for “Best Team to Watch for 2006”. For the 2006 National WEFTEC Conference in Dallas, the Dallas Water Utilities hosted a plant visit of the Southside WWTP, and plant staff welcomed about 80 conference attendees for the tour.

WATER ENVIRONMENT ASSOCIATION OF TEXAS

RONALD B. SIEGER BIOSOLIDS MANAGEMENT AWARD

...presented to a WEAT member(s), an engineering firm, a specific project, a municipality, or a specific municipal or industrial facility that has made significant accomplishments in the field of biosolids technology and management practices within the boundaries of the State of Texas.

Southside Wastewater Treatment Plant Dallas Water Utilities

The City of Dallas wastewater system serves 1.25 million citizens of Dallas and eleven customer cities, with over 4,000 miles of sewer pipelines covering more than 340 square miles. The two treatment plants in the system, Dallas Southside Wastewater Treatment Plant and Central Wastewater Treatment Plant, have a combined liquid treatment capacity of 310 MGD and produce 220 dry-tons per day of biosolids.

Initially constructed in 1964, Southside WWTP is located on approximately 2,800 acres in the floodplain of the Trinity River and serves the Dallas area south of downtown and the southeastern portion of the city. The plant is well maintained and efficiently operated without compromise to the health and safety of the plant staff, public, and environment. It has not recorded a single compliance violation since 1991 and has won numerous awards including the US Environment Protection Agency's (USEPA) National Award for Outstanding Wastewater Treatment Facility Operations and Maintenance.

Though both Southside WWTP and Central WWTP treat wastewater, Southside is responsible for processing and disposing (solids management) of all solids from both plants, resulting in high filtrate flows that necessitate innovative management. Southside performs one of the largest on-site "cradle-to-grave" processing and management of biosolids in the United States. The processing involves solids thickening in centrifuges and gravity belts, solids stabilization in the only two-phase acid/gas anaerobic digesters in Texas, solids dewatering in belt filter presses, and an innovative ammonia-reduction treatment process for filtrate from the solids dewatering process. The "cradle-to-grave" biosolids management includes the complete disposal of all solids in an environmentally safe manner in on-site biosolids-only landfill (Monofill) and/or Dedicated Land Disposal (DLD) fields. The entire plant site, including the 220-acre Monofill and the 1,100-acre DLD fields, is surrounded by and completely isolated from the immediate environment by bentonite slurry walls and the natural geologic Taylor Marl formation underlying the plant site. In essence, the plant site is in a "bathtub". Since any wastewater solids or storm water that enters the facility ultimately never leaves the facility without full treatment, Southside has no solids loading limits on its solids disposal operation and no stormwater permit is required.

Significant technological improvement has been achieved through the implementation of two-phase, mesophilic, acid/gas anaerobic digestion of process solids. The digestion reduces the odor and bacterial levels in the sludge feed, reduces the amount of solids, and results in Class B stabilized solids. This stabilization method produces increased quantities of methane gas as a byproduct and is the most economic option for stabilization. As a result of full stabilization of all biosolids, no odor complaint has been recorded at the plant since May 2005. Though anaerobic digestion is the most prevalent stabilization technique, these two-phase acid/gas anaerobic digesters are the first in Texas and one of the few in the nation. Two-phase digestion is labeled innovative technology by the USEPA.

Since October 2005, Southside has practiced the innovative treatment of ammonia-rich dewatering filtrate through full-scale pilot testing. This process involves treating the ammonia-rich filtrate in a separate process comprised of aerated tanks utilizing nitrifying bacteria in a process similar to conventional activated sludge nitrification. A significant technology improvement successfully tested and demonstrated at the operational level, this treatment process solves the major obstacle of a single plant processing sludge transferred from multiple treatment plants. No plant of the size of Dallas Southside WWTP, anywhere in the world, has implemented such a full scale piloting of dewatering filtrate.

Public acceptance of plant activities has been achieved through the participation of the City of Dallas in the National Biosolids Partnership and ISO 14001. These organizations provide a framework for the establishment of an Environmental Management System, specific to Biosolids Management, that ensures good housekeeping practices relative to biosolids processing, transport, and disposal. In addition, public acceptance has been gained from the transformation of the 500-foot buffer zone surrounding the plant into a linear lake system for the storage of storm water, as well as for fishing, picnicking, and recreation activities open to the public. Other efforts include the use of the facility as an endangered species research facility, a bird sanctuary open to birding enthusiasts, and facility tours for schools as well as for local, regional, and national organizations. The best indication of public acceptance is the complete cessation, since May 2005, of odor complaints regarding Southside's operation.

All solids management concepts and technologies employed at the Southside WWTP implement recommendations outlined in Southside's Residual Management Master Plan, coauthored in 1985 and updated in 1994 by Ronald B. Sieger.