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LRGV-TPDES Storm Water Task Force Board of Directors

Jose Hinojosa, REM, Chair

General Manager

Santa Cruz Irrigation District #15



Melissa Gonzales, Vice-Chair

Special Projects Director

City of Alamo

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STORMWATER
CONFERENCE

Lower Rio Grande Valley 23rd Annual Water Quality Management & Planning Conference

Program

May 13 - 21, 2021

Virtual



RESEARCH, APPLIED TECHNOLOGY, EDUCATION AND SERVICE, INC. (RATES)

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Amber LaFountain
*Project Manager–
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Deanna LeVrier
*Program Manager–
R.A.T.E.S.*



LRGV TPDES Stormwater Task Force
 P.O. Box 697
 Edinburg TX 78540
 (956) 609-9060

May 13, 2021

Greetings,

On behalf of the LRGV TPDES Stormwater Task Force, along with RATES/RGV and our partners, welcome to the 23rd Annual *Lower Rio Grande Valley Water Quality Management & Planning Conference*. The Task Force is pleased to lead the planning and delivery of this annual event.

Our conference focuses on research topics germane to South Texas and the U.S.-Mexico border region. It is our goal to develop team-based and research inspired programs to train and educate our future engineers. Working with our partners, we have brought together representatives from academia, private industries, environmental groups, research communities and state and federal agencies to be a part of a team exchanging ideas concerning environmental and engineering issues impacting coastal and semi-arid regions and the Rio Grande Valley, and transferring that information to the decision makers and stakeholders who influence the economic, social and physical infrastructure along the border region.

It is our hope that this conference serves as a platform for discussing sustainability issues that are both important and relevant to the Lower Rio Grande Valley. This year the conference includes topics on the Lower Laguna Madre Estuary Program, the Lower Laguna Madre & Port of Brownsville Watershed Protection Plan, low impact development, stormwater runoff flow reduction strategies, RESTORE, academia research topics, and many other interesting themes. **Our 2021 conference is pleased to announce that event topics will highlight planning, updates and working sessions associated with the recently formed Lower Laguna Madre Estuary Program.** We hope you consider participating in this event and hope you have an enjoyable and stimulating time at the conference.

Sincerely,

Jose Hinojosa, Chair

May 13-14 & 17-18 – Pre-Conference Activities United States Army Corps of Engineers (USACE) – Unsteady Flow Analysis Using HEC-RAS		
		VIRTUAL
8:00 – 5:00	Course I	<p style="text-align: center;">HEC – RAS Course Brian Hall – Instructor USACE</p> <p>This course is intended to provide participants with the knowledge to effectively utilize the HEC-RAS software to analyze hydraulic conditions that require one-dimensional unsteady flow modeling.</p> <p style="text-align: center;">Schedule Start time: 0900 CT End time: 1700 CT Break: 1230-1330 CT Instructor Brian M. Hall, P.E., U.S. Army Corps of Engineers Wesley A. Crosby, P.E., U.S. Army Corps of Engineers</p> <p style="text-align: center;">Day 1 River Mechanics and Introduction to Unsteady Flow Equations Overview of Unsteady Flow Modeling with HECRAS Using HEC-DSS Data with HEC-RAS Data Requirements for Unsteady Flow Models Pre-Processing Geometric Data</p> <p style="text-align: center;">Day 2 Boundary and Initial Conditions Overview of Model Output Basic Unsteady Flow Modeling Bridges and Culverts</p> <p style="text-align: center;">Day 3 Inline and Lateral Hydraulic Structures Storage Areas and Storage Area Connections Calibration of Unsteady Flow Models</p> <p style="text-align: center;">Day 4 Common Model Stability Problems Advanced Features for Unsteady Flow</p>
	Course I	
	Course I	

Conference begins.	
Wednesday, May 19, 2021	
<i>Plenary – Welcome, Conference Themes, Technical Sessions</i>	
7:00-8:30am	VIRTUAL
Plenary Group Session 0	Stormwater 0 – Plenary, Welcome, and Keynote Chair: Andrew N.S. Ernest, Ph.D., P.E., BCEE, D.WRE Research Applied Technology, Education Vice-Chair: Jose Hinojosa, Santa Cruz Irrigation District #15, Chairperson Lower Rio Grande Valley TPDES Storm Water Task Force
9:00 – 9:05	<i>“Welcome”</i> José Hinojosa, REM General Manager Santa Cruz Irrigation District #15 Chairperson LRGV TPDES Stormwater Task Force
9:05 – 9:15	<i>“Welcome”</i> Andrew N.S. Ernest, Ph.D., P.E., BCEE, D.WRE CEO & President Research, Applied Technology, Education and Service, Inc. (RATES) Potsdam, NY/Edinburg, TX Edinburg, TX/Brownsville, TX
9:15 – 9:30	<i>“The LRGV Stormwater TPDES Task Force – History and Beyond”</i> Andrew N.S. Ernest, Ph.D., P.E., BCEE, D.WRE CEO & President Research, Applied Technology, Education and Service, Inc. (RATES) Potsdam, NY/Edinburg, TX
9:30 – 9:50	<i>“LRGV Studies Utilizing CDBG-DR/CDBG-MIT Funds”</i> Colleen Jones, PhD – GLO-CLDR Director of Studies, Research, & Development Shonda Mace – GLO-CDR Planner Texas General Land Office
9:50 – 10:10	<i>“2018 Drainage Bond Referendum Program”</i> Raul E. Sesin, P.E., CFM District General Manager Hidalgo County Drainage District No. 1
10:10 – 10:30	<i>“Characterization and Modeling of Compound Flooding: Introducing Texas Integrated Flooding Framework (TIF) Planning Project”</i> Amin Kiaghadi, Ph.D. Coastal Flood Modeler Texas Water Development Board
10:30 – 11:00 Plenary Session	KEYNOTE SPEAKER Kathleen Jackson Texas Water Development Board Austin, Texas
11:00 – 11:20	<i>“Flood Infrastructure Fund (FIF) and Regional Flood Planning Group Update”</i> Reem J. Zoun, P.E., CFM Director, Flood Planning Texas Water Development Board

Wednesday, May 19, 2021	
<i>Plenary – Welcome, Conference Themes, Technical Sessions</i>	
11:20 – 11:40	<i>“Flood Activity Updates from TWDB”</i> Saul Nuccitelli II, P.E., CFM Director, Flood Science and Community Assistance Texas Water Development Board
11:40 – 12:00	<i>“TxDOT Projects”</i> Pedro Alvarez, P.E. Pharr District Engineer Texas Department of Transportation (TxDOT)
12:00 – 12:30	KEYNOTE SPEAKER Sid Miller Texas Department of Agriculture Commissioner Austin, Texas
Break 12:30 – 1:00	Lunch Break
Group Session I	VIRTUAL
	Stormwater I – Stormwater Management Chair: Melissa Gonzales, Special Projects Director, City of Alamo Vice Chair: Ernesto Solis, Title, City of Alamo
1:00 – 1:30	<i>“Phase II Small MS4 General Permit (Permit No. TXR040000)”</i> Alyssa Cook Environmental Permit Specialist Texas Commission on Environmental Quality
1:30 – 2:00	<i>“Multi-Sector General Permit (TXR050000)”</i> Macayla Coleman Environmental Permit Specialist III Texas Commission on Environmental Quality
2:00 – 2:30	<i>“Construction General Permit (TXR150000)”</i> Rebecca Villalba and Dante Fekete Team Leader of Stormwater Team/Environmental Permit Specialist Texas Commission on Environmental Quality
Group Session II	VIRTUAL
	Stormwater II-Stormwater Topics Chair: Megan Meidel, Stormwater Manager, City of Combes Vice Chair: Kimberly Diaz, Title, City of San Juan
2:30 – 2:50	<i>“Development of a Cyberinfrastructure for Assessment of the Lower Rio Grande Valley North and Central Watersheds Characteristics”</i> Linda Navarro Graduate Research Student The University of Texas Rio Grande Valley
2:50 – 3:10	<i>“Real-Time Hydrological Monitoring to Estimate Flow and Pollutant Loads in Brownsville Ship Channel, South Texas”</i> Ivan Santos; Ahmed Mahmoud, Ph.D.; Abdoul Oubeidillah, Ph.D., Andrew Ernest, Ph.D. P.E. The University of Texas Rio Grande Valley – Civil Engineering

Wednesday, May 19, 2021	
<i>Plenary – Welcome, Conference Themes, Technical Sessions</i>	
Group Session II	VIRTUAL
	Stormwater II-Stormwater Topics Chair: Megan Meidel, Stormwater Manager, City of Combes Vice Chair: Kimberly Diaz, Title, City of San Juan
3:10 – 3:30	<i>“Achieving Social Equity through Stormwater, Science, and a Digital Revolution”</i> Jason Yoho Chief Commercial Officer 2 nd Nature Water END OF DAY ONE

Thursday, May 20, 2021	
<i>Keynote Speaker, Technical Sessions</i>	
Group Session III	VIRTUAL
	Stormwater III – General Stormwater Topics Chair: Deanna LeVrier, Program Manager, RATES Vice Chair: Jodi Lees, Chief Financial Officer, RATES
9:00 – 9:20	<i>“REON: The RATES River and Estuary Observatory Network”</i> William Kirkey, Ph.D. Research Engineer Research, Applied Technology, Education and Service
9:20 – 9:40	<i>“Emergency Evacuation Navigation System Development for the LRG Valley</i> Jungseok Ho, Ph.D., P.E. Department Chair and Associate Professor The University of Texas Rio Grande Valley – Civil Engineering Department
9:40 – 10:00	<i>“City of Harlingen Flood Protection Study – A Regional Collaboration”</i> Andy Vigstol, P.E., SIT City Engineer City of Harlingen
10:00 – 10:30	KEYNOTE SPEAKER Earl Lott Deputy Director TCEQ Austin, Texas
Group Session IV	VIRTUAL
	Stormwater IV – General Stormwater Topics Chair: Velinda Reyes, Office of Commissioner Ellie Torres, Hidalgo County Vice Chair: Roy Jimenez, Chief Building Official, City of Donna
10:30 – 10:50	<i>“LRGVDC – Preparing for Regional Flood Planning”</i> Derek Katznelson Program Specialist I LRGVDC
10:50 – 11:10	<i>“Lower Rio Grande Valley: Regional Watershed Projects”</i> Christopher Fuller, Ph.D. Chief of Operations Research, Applied Technology, Education and Service
11:10 – 11:30	<i>“Grants: Funding for Flood Management Projects”</i> Raul E. Sesin, P.E., CFM District General Manager Hidalgo County Drainage District No. 1

Thursday, May 20, 2021 <i>Keynote Speaker, Technical Sessions</i>	
Group Session V	VIRTUAL
	Stormwater V – Stormwater Topics Chair: Raul Garcia, Title, City of Los Fresnos Vice Chair: Cleo Longoria, Title, City of San Benito
11:30 – 11:50	<i>“Deepwater Horizon NRDA Projects”</i> Doug Jacobson Deepwater Horizon NRDA Trustee Environmental Protection Agency
11:50 – 12:10	<i>“Hurricane Storm Surge Flood Modeling”</i> Cesar Davila., Jungseok Ho, Ph.D., P.E & Dongchul Kim, Ph.D. The University of Texas Rio Grande Valley
LUNCH BREAK	
Group Session VI	VIRTUAL
	Stormwater VI –USACE Chair: Augusto Sanchez Gonzlez, Title, Cameron County Vice Chair: Jeff Underwood, City Manager, City of Alton
1:00 – 1:30	<i>“USACE Projects, Collaborations, and Partnering – Galveston District”</i> Corragio Maglio, P.E. Branch Chief U.S. Army Corps of Engineers Galveston District
1:30 – 2:00	<i>“Continuing Authorities Program and Planning Assistance to States Overview”</i> Reuben Trevino CAP and PAS Program Manager U.S. Army Corps of Engineers Galveston District

Thursday, May 20, 2021 <i>Conference Themes, Technical Sessions, Keynote Speaker</i>	
Group Session VII	VIRTUAL
	Stormwater VII – General Topics Chair: David De La Fuente, Stormwater Specialist, City of Edinburg Vice Chair: Monica Rodriguez, Title, City of Mercedes
2:00 – 2:20	<i>“Digital Transformation is Revolutionizing Stormwater Programs: How to Be Ready for Changes Ahead”</i> Michelle Tanner Senior Scientist and Customer Success 2 nd NATURE Software
2:20 – 2:40	<i>“LLM Salinity Transportation Modeling”</i> Martin Flores, Nazaru Fatameh, Ph.D. & Jungwoo Lee, Ph.D. The University of Texas Rio Grande Valley/Texas Water Development Board
END OF DAY TWO	

Friday, May 22, 2021 (Separate Registration required)
Lower Laguna Madre Estuary Partnership: Board of Directors Meeting
Welcome, Guest Speakers

LLMEP Group Session I 10:00 – 1:00	<p style="text-align: center;">Virtual</p> <p style="text-align: center;">Chair: Andrew N.S. Ernest, Ph.D., P.E., BCEE, D.WRE The University of Texas Rio Grande Valley</p>
	<p><i>Call Meeting to Order</i></p> <p><i>Introduction of Board of Directors/Guests</i></p> <p><i>LLMEP Board of Directors Meeting</i></p> <p>Adjourn</p>

Members of the LRGV TPDES Stormwater Task Force
Founded in 1998



City of Alamo
 Taskforce Representatives
 Melissa Gonzales
 Ernesto Solis
www.alamotexas.org



City of Edcouch
 Taskforce Representatives
 Victor Hugo De La Cruz
 Manuel Hernandez



City of La Villa
 Taskforce Representatives
 David Alaniz
www.cityoflavilla.org



City of San Benito
 Taskforce Representatives
 Bernard Rodriguez
 Cleo Longoria
www.cityofsanbenito.com



City of Los Fresnos
 Taskforce Representatives
 Raul Garcia
 Agustin Lopez Jr.
www.cityoflosfresnos.com



Santa Cruz Irrigation District # 15
 Taskforce Representatives
 Jose Hinojosa
www.scid15.com



City of Alton
 Taskforce Representatives
 Jeff Underwood
www.alton-tx.gov



City of Elsa
 Taskforce Representatives
 J.J. Ybarra
 Delmira Yanez
www.cityofelsa.net



City of Mission
 Taskforce Representatives
 Abel Bocanegra
www.missiontexas.us



City of South Padre Island
 Taskforce Representatives
 Carlos Sanchez
www.southpadre.com



City of Brownsville
 Taskforce Representatives
 Carol Vasquez
www.cob.us



City of Edinburg
 Taskforce Representatives
 Robert Valenzuela
 David De La Fuente
www.cityofedinburg.com



City of Mercedes
 Taskforce Representatives
 Monica Rodriguez
www.cityofmercedes.com



Town of Combes
 Taskforce Representatives
 Megan Meidel
www.townofcombes.com



City of Harlingen
 Taskforce Representatives
 Xavier Cervantes
 Jose Aceves
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City of Palmview
 Taskforce Representatives
 Rudy Flores
www.cityofpalmview.com



City of Weslaco
 Taskforce Representatives
 Peter Hermida
www.weslacotx.gov



Cameron County

Cameron County
 Taskforce Representatives
 Benjamin Worsham, P.E.
 Augusto Sanchez Gonzalez
www.co.cameron.tx.us



Hidalgo County Pct. 1
 Taskforce Representatives
 Saul Garcia
www.hidalgocounty.us



City of Palmhurst
 Taskforce Representatives
 Lupe Garcia
 Gino Cruz
www.cityofpalmhursttx.com



Willacy County
 Taskforce Representatives
 Honorable Eduardo Gonzalez
www.co.willacy.tx.us



Cameron County DD#1
 Taskforce Representatives
 Albert Barreda
 Veronica Martinez
 Patricia Rodriguez
 Cammy Penrod
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Hidalgo County Pct. 4
 Taskforce Representatives
 Velinda Reyes
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City of Primera
 Taskforce Representatives
 Celina Gonzales
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City of Donna
 Taskforce Representatives
 Roy Jimenez
 Daniel Ramirez
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City of La Feria
 Taskforce Representatives
 Jaime Sandoval
 Juan Ortiz
www.cityoflaferia.com



City of San Juan
 Taskforce Representatives
 Kimberly Diaz
www.cityofsanjuantexas.com



City of La Joya
 Taskforce Representatives
 Isidro Venecia
www.cityoflajoya.com

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Scheibe Consulting, LLC Firm

Scheibe Consulting is a full-service Civil Engineering firm located in Central Texas. Our firm provides services throughout Texas, with on-going and past project experience specifically in the Lower Rio Grande Valley. Our firm focuses on providing water resources and stormwater related services to public and private clients. Our firm has staff with hands on expertise in the use of advance hydraulic analysis software packages, including the use of HEC-RAS (Steady, Unsteady, 2D), HEC-HMS, HEC-SSP, HEC-FDA, FEMA-BCA, InfoWorks ICM 2D, XP-SWMM 2D, PC-SWMM 2D, EPA-SWMM, and RMA 2D. Our staff also has extensive expertise in coastal surge, wave, and tidal circulation modeling specific to the Laguna Madre and the Gulf of Mexico. Our staff has hands-on experience with local Cameron County stormwater modeling projects and understands the complex nature of modeling in flat terrain. Our experts have local experience with the use of adjusted SCS peaking factors to calibrate local hydrologic models and our staff has worked on local projects and/or has on-going efforts to implement projects specific to CCDD #5, CCDD #3, CCDD #1, Willacy County, Starr County, Hidalgo County, US Army Corps of Engineers, and the USFWS. Our modeling staff also has years of practical design and construction experience related to drainage improvements, including: Regional Detention Facilities, Regional Water Quality Facilities, Streambank Stabilization/Restoration Projects, Diversion Channels, Levees, Dams, Concrete lined Channels, stormsewer systems, pump stations, coastal breakwaters, and roadway projects. Having a modeling staff with experience in 2D applications who also understand the design and construction level issues makes our team very unique. Our firm includes a group of highly skilled professionals that are very hands-on, ensuring that our clients receive a service from skilled senior staff that are focused on quality and professionalism.

www.scheibeconsulting.com

Bronze



City of Los Fresnos

The area which is now home to present day Los Fresnos is not unknown to history. In fact, this area along the Rio Grande River and the Gulf of Mexico played a significant role in both the US-Mexican War and the American Civil War. The plain of Palo Alto (tall timber) just five miles south of town was the site of the opening battle of the war between the U.S. and Mexico in 1846. In 1907 Lon C. Hill, Jr. bought 14,232 acres and parceled them into lots. This eventually evolved into the layout of the original town site of "modern" Los Fresnos which was finally developed in 1915.

www.cityoflosfresnos.com



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Melden & Hunt, Inc. was founded in Edinburg, Texas in 1947 as a full-service consulting, engineering and surveying firm. Melden & Hunt, Inc. has become the engineering and surveying firm in the Rio Grande Valley and South Texas, offering the most diverse array of services available to anyone in the region.

www.meldenandhunt.com

Keynote Speakers



Kathleen Jackson (May 19)
Texas Water Development Board

Kathleen Jackson was reappointed to the Texas Water Development Board by Governor Greg Abbott on March 9, 2017. She was appointed to the Board by Governor Rick Perry on March 18, 2014. Jackson has a diverse background representing agricultural, environmental, industrial, and wholesale-supply interests, which includes developing and implementing water management strategies for Southeast Texas. As a registered professional engineer, Jackson served as public affairs manager for one of the world's largest petroleum and petrochemical producers.



Sid Miller (May 20)
Texas Agriculture Commissioner

An eighth generation Texas farmer and rancher, Sid Miller is the 12th Commissioner of the Texas Department of Agriculture (TDA). He has devoted his life to promoting Texas agriculture, rural communities and the great state of Texas. Born in De Leon, Texas, in September 1955, Sid Miller graduated with honors from Tarleton State University in Stephenville with a Bachelor of Science in Vocational Ag Education. A recognized community leader, Miller was first elected to the House of Representatives in 2000. He quickly earned a reputation as a staunch defender of Texas agriculture, constitutional freedoms and individual liberties for all Texans.

Earl Lott (May 20)
Texas Commission on Environmental Quality

Earl began his career with TCEQ in 1995 as an Engineering Specialist in the Petroleum Storage Tank Division. Since that time, he went on to serve in several key management roles with the agency including: Team Leader of the Agriculture Team in the Water Quality Division, Manager of the Water Utilities and Districts Section, and Assistant Deputy in the Office of Permitting, Registration, and Remediation. He served as Director of the Waste Permits Division for over 12 years. Some of his core accomplishments with the agency include: successfully representing the agency on several before the legislature on key bills, leading the implementation of the federal standards for coal combustion residuals in Texas, spearheading efforts to streamline permit processing time frames, and successfully negotiating options with EPA to allow used tires to be used as fuel in cement kilns. Earl holds a Bachelor of Science Degree in Agriculture Business from Texas State University. He grew up part of a fourth-generation ranching family where he learned the meaning of hard work and learned to have a sincere love and appreciation for natural resources.

Partners



**US Army Corps
of Engineers**

Regulatory Speakers



J. Douglas Jacobson

Gulf of Mexico Program Coordinator
National Estuary Programs Coordinator
EPA Region 6, Dallas, TX

J. Douglas Jacobson has a B.A. from The University of Texas at Austin and a J.D. from St. Mary's University in San Antonio. He works for the U.S. Environmental Protection Agency Region 6 in Dallas as the Gulf of Mexico Program Coordinator, representative to the Gulf of Mexico Alliance, and Regional Program Manager for the three National Estuary Programs located in Region 6. Mr. Jacobson works on many other coastal policy issues, including the Deepwater Horizon Oil Spill recovery. He is EPA's representative on the Texas's NRDA Trustee Implementation Group and is a member of EPA's RESTORE team. He co-lead FEMA's Long-Term Disaster Recovery Planning Team for Hurricane Ike. Prior to joining EPA, Mr. Jacobson worked for the cattle industry and was as a Legislative Assistant in the U.S. Senate.



Rebecca L. Villalba

Team Leader of the Stormwater Team
Texas Commission on Environmental Quality

Rebecca L. Villalba has been working at the TCEQ since August 1996 in the Water Quality Division. In her current position, as the Team Leader of the Stormwater Team, she supervises permit writers that implement the Texas Pollutant Discharge Elimination System (TPDES) stormwater (construction, industrial, and municipal) and quarry programs and oversees the stormwater processing center. Ms. Villalba was the Team Leader for the combined Stormwater & Pretreatment Team for over six years (2011-2018) supervising staff implementing the TPDES pretreatment and stormwater programs. Previously, as a senior pretreatment coordinator, she performed pretreatment program audits, industrial categorical determinations, reviewed municipal permit applications and drafted permits, and reviewed program modifications to include local limits calculations. She is a TCEQ Aspiring Leaders Program alumni and has participated in the TCEQ's partnership efforts with the Mexican government related to the pretreatment program by providing training and technical assistance. In 2001, Ms. Villalba completed the Environmental Management Systems (EMS) Lead Auditor Training Course and for over 10 years represented the Water Quality Division in the team implementing the TCEQ's EMS program. Ms. Villalba has a Bachelor of Science degree in Chemistry with Chemical Engineering and Spanish minors from the University of Houston. Prior to joining the TCEQ, she worked at an international chemical company in the area of industrial waste management and at NASA-Johnson Space Center in the water laboratory supporting the Space Shuttle and Space Station water disinfection projects.

RATES Board Members



Andrew Ernest, Ph.D., P.E., BCEE, D.WRE, Edinburg, TX *Professor – Civil Engineering, UTRGV*

Dr. Andrew Ernest has accumulated over 20 years of professional experience in Environmental and Water Resource Engineering and awarded over \$20 million in grants and contracts throughout his career. Ernest has more than 100 publications in his name, including more than 40 masters' theses he has supervised. His research focuses at the nexus of environmental informatics and water resource capacity development. Ernest bases his research efforts around his interest in investigating the role of innovation, entrepreneurship and engineering service in stimulating effort-based economies as a mechanism for promoting capacity development and sustainability.



Javier Guerrero, MS., E.I.T., Edinburg, TX *Director of Water Studies – Civil Engineering, UTRGV*

Founded, Lower Rio Grande Valley (LRGV) TPDES Stormwater Task Force – Facilitates the organization of a coalition of 25 local governments. Project topics: Stormwater management, non-point source pollution, watershed protection, estuary program initiatives, and flood drainage initiatives; 1998 Founded, LRGV Sports Complex and Municipal Parks Environmental Council – Coalition of 16 local governments represented by Parks and Rec Directors. Project topics: Low Impact Development and Green Infrastructure planning and implementation; 2014 Founded, Lower Laguna Madre Estuary Program Partnership. Project is in the planning stages, strategic fund development funded by the Texas General Land Office, encompasses 6 counties; 2015 Developed of a Regional Watershed based Stormwater Management Plan pursuant to the Texas Commission on Environmental Quality's (TCEQ's) TPDES MS4 program. The plan was adopted by 21 MS4s in the LRGV; 2010 Founded, LRGV Low Impact Development Outreach, Education and Research Demonstration Site program. Comprised of over thirty (30) Best Management Practice (BMP) demonstration facilities located at 11 sites throughout the Lower Laguna Madre Watershed. B.S. Engineering Technology, Structural Analysis and Design, University of Houston-Downtown; M.S. Environmental Engineering, Texas A&M University-Kingsville.



Dave Bonner, Ph.D., Potsdam, NY

Dave Bonner received a B.A. in Physics and B.S. in Mathematics from Statue University of New York at Pittsburgh. He then pursued an M.A. in Mathematics from Wayne State University in Detroit, MI. and a M.S. in Mathematics from State University of New York Albany. He received his Doctorate from State University of New York at Albany. He currently the President and CEO of Adirondack Area Network.



Talissa Altes, MD *Radiologist – Columbia, MO*

Dr. Talissa Altes is a radiologist in Columbia, Missouri and is affiliated with multiple hospitals in the area, including Harry S. Truman Memorial Veterans Hospital and University of Missouri Health Care-Columbia. She received her medical degree from University of Washington School of Medicine and has been in practice for more than 20 years.



Jeffrey Lape
U.S. Environmental Protection Agency – Washington D.C.
 Jeffrey Lape is recognized as a national leader and expert on Federal water programs and policies. Mr. Lape has served in the Senior Executive Service for 15 years and is a national expert in watershed restoration, protection, and partnerships. Mr. Lape has extensive experiences implementing water resource protection programs at the Federal, State and Local levels of government and in the private sector.



Hollis Rutledge
President and Owner of Hollis Rutledge and Associates – Mission, TX
 Mr. Rutledge has over thirty-six years of experience in management methods & practices in both public and private sectors of the economy. Mr. Rutledge has extensive expertise in all aspects of public works projects including: Financing methods, rules & regulations, government building and bridge permits zoning, real estate & economic development, marketing, governmental relations, - federal, state, & local.

RATES Staff



Patrick M. O'Brien, P.M.P
Chief Operating Officer – R.A.T.E.S.

Patrick M. O'Brien graduated with his Bachelor of Technology in Civil and Environmental Engineering Technology from the State University of New York at Canton. He later received his Master of Professional Studies in Geospatial Science from the State University of New York at Potsdam. He currently serves as Chief Operating Officer for Research, Applied Technology, Education and Service, Inc.



Jodi E. Lees
Chief Financial Officer – R.A.T.E.S.

Jodi E. Lees received her B.B.A. in Accounting from Texas A&M University-Kingsville. Since 2018, she serves as Chief Financial Officer for Research, Applied Technology, Education and Service.



Amber LaFountain
New York States Projects Coordinator – R.A.T.E.S.

Amber Rae La Fountain graduated from the State University of New York at Potsdam with a B.S. in Business Administration. She later received her Master of Business Administration in Accounting from the American Military University. Since this year, she serves as the New York State Projects Coordinator for Research, Applied Technology, Education and Service, Inc.



Chris Fuller
Chief of Research – R.A.T.E.S.

Dr. Fuller first obtained his B.S. in Biology at Texas A&M University-College Station. He then continued his education, graduating from Texas A&M University-Kingsville with a M.S. in Environmental Engineering. Lastly, receiving his Ph.D. in Civil Engineering from Texas A&M University-College Station. Since this year, he is serving as Chief of Research for Research, Applied Technology, Education and Service, Inc.



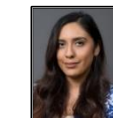
William D. Kirkey, Ph.D.
Research Engineer – R.A.T.E.S.

Dr. Kirkey received his B.S. and M.S. in Electrical Engineering from The State University of New York Buffalo State. He then obtained his Ph.D. in Engineering Science from Clarkson University. Since 2018, he is currently a Research Engineer for Research, Applied Technology, Education and Service, Inc.



Pete Kirkey
Research Technician – R.A.T.E.S.

Pete Kirkey earned his bachelor's degree in Computer Science SUNY Buffalo. Pete Kirkey is currently the Research Technician for Research, Applied Technology, Education and Service, Inc.



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THE LOWER RIO GRANDE VALLEY TPDES STORMWATER TASK FORCE



The LRGV TPDES Stormwater Task Force. In 1998, founded by Andrew Ernest and Javier Guerrero, a coalition of thirteen (13) Lower Rio Grande Valley (LRGV) local governments joined to form the LRGV TPDES (Texas Pollutant Discharge Elimination System) Stormwater Task Force (TASK FORCE) in a joint effort to develop a proactive regional approach to comply with the TPDES Phase II Municipal Separate Stormwater Sewer System (MS4) rules. The Task Force developed a regional stormwater management plan (SWMP) adopted by the membership. The SWMP includes Best Management Practices (BMPs) that are required as part of the six (6) Minimum Control Measures (MCMs) of the State's TPDES program. **Today the TASK FORCE is comprised of seventeen (17) local governments sharing one regional SWMP.**

Organization and Mission of the LRGV TPDES Stormwater Task Force. The TASK FORCE project idea was born from a 1998 local stormwater brainstorming round table held in La Feria, Texas. Several preliminary meetings continued at various cities until the coalition was formally organized. Local government officials and qualified professionals representing various communities in the LRGV region attended these meetings. The group agreed to develop a way to achieve a regional SWMP to comply with the TPDES regulations. The group formalized the organization by contractually empowering TAMUK to facilitate the group and by developing a system of by-laws that included election of board members and officers.

The TASK FORCE uses a unique, collaborative regional approach to involve various levels of government, including the Texas Commission on Environmental Quality (TCEQ) and the Environmental Protection Agency (EPA), in developing cost-effective solutions that will achieve compliance with the TPDES rules. The TASK FORCE project embodies the spirit of the mutually beneficial relationships between local governments and embellishes this relationship with academia and regulators. After nineteen (19) years, although the impact of this organization has translated into a regional collaboration movement not seen anywhere else in the State, the overall impact of this organization has yet to be fully realized. The primary goal of the TASK FORCE project in 1998 was to develop and implement a regional SWMP to comply with Phase II regulations. In 2002, TASK FORCE participants began entering into local government interlocal agreements with TAMUK, which outlined the desire to address stormwater quality issues on a regional basis and named TAMUK as its facilitator. In executing these interlocal agreements, emphasis was placed on developing programs that study existing successful programs, addressing community goals, providing technical assistance and training, and promoting regional approaches.

In 2006, the TASK FORCE modified its mission to include stormwater quality management approaches to address broader water quality and watershed issues, particularly those associated with the Arroyo Colorado Watershed Partnership (ACWP), a local Total Maximum Daily Load (TMDL)-related organization. The TASK FORCE project has already enjoyed side benefits of increased communication and cooperation and created a collaborative process for discussing water quality issues in the LRGV's four-county region. In addition, this collaboration and others like it, has enabled the participating communities to successfully secure many grant funding opportunities since the TASK FORCE's inception. Academic researchers and faculty provided facilitation and management assistance for the TASK FORCE project, initiating this effort through a National Science Foundation (NSF) grant, other grants, and from annual membership fees collected from the member-local-governments. The funds provide resources for staff to facilitate the group's efforts in formulating TASK FORCE project goals and developing TASK FORCE programs. Funds, in part, are also used to host workshops, expert panel discussions, conferences, seminars and training sessions.

In 2008, during a TASK FORCE meeting held in Mission, TX, the organization formed several committees: ordinance, grant, scholarship, outreach, training, housekeeping, construction, and others. The TASK FORCE worked closely with the committees in developing the SWMPs by responding to recommendations and suggestions posed by these committees. Recently, these committees have been replaced with work groups which now work with researchers in facilitating the organization and implementing the SWMPs. One key workgroup, responsible for luring millions of dollars' worth of grant funding to the Valley, is the Low Impact Development (LID) workgroup. The LRGV LID Outreach, Education and Demonstration program is a highly regarded project in the region that resulted from collaboration efforts within this workgroup.

New Paradigm. The new stormwater paradigm presents many questions to local governments in the LRGV. What is a stormwater management program, what will it cost, who will fund the program, is it needed, and how much will it cost? The TASK FORCE realizes a regional program is a key part of a successful regional storm water program. But regulators and academia do not have a firm grasp of the costs associated with developing and implementing such a program. Although the average citizen often takes for granted the services municipalities provide, the stormwater services are nonetheless expected. The region now requires that local governments provide a stormwater runoff pollution protection service. This new paradigm requires the development of infrastructure and funding strategies to support providing this service.

Storm Water Quality is Now a Municipal Responsibility. This is not the first-time local governments have been confronted with environmental water quality regulations that affect the manner that cities allocate funds. TMDL regulations recently started developing new performance measures for local governments, and LRGV communities have become very familiar with the Arroyo Colorado TMDL studies. Based on these studies, the drafters of the Arroyo Colorado Watershed Protection Plan (ACWPP), which included members of the Task Force, concluded that urban stormwater runoff is contributing to the impairment of the Arroyo Colorado. Thus, the timing of the formation of the Task Force could not have been better. Local governments typically tend to procrastinate when it comes to addressing non- mandated environmental issues, usually because of lack of resources and lack of expertise and understanding rather than due to a non-proactive attitude. Still, finding funds to implement a regional SWMP program is a huge responsibility for any local government. Cost effectiveness and revenue potential were major considerations for our local governments when developing this Task Force.

In the LRGV, the communities share similar demographics and similar environmental concerns. Most residents live in low- or fixed-income households and cannot afford to pay fees to support the environmental-related requirements. Thus, there is a strong case for any type of collaboration that would keep costs down. In the LRGV, each community is contiguous to other communities, with some cities bordered by four (4) other cities. Thus, the LRGV appears as one urbanized metropolitan region. Although all these communities experience similar TPDES stormwater problems, none had in place a TPDES stormwater program or related ordinance. Since the creation of the TASK FORCE, stormwater tasks were generally viewed as "add-on" responsibilities for departments and staff that have other primary responsibilities. To varying degrees, with the exception of McAllen and Brownsville, the communities had existing staff (such as sanitary sewer, code enforcement, or road department personnel) handling stormwater operations, maintenance, regulation and enforcement. None of the communities could maintain a person, much less a department, to handle stormwater administration, planning, design, and engineering; water quality planning and monitoring; and capital improvements and expenditures. The regional approach taken by the TASK FORCE allows the LRGV communities to share these responsibilities, which results in a much more cost-effective program for addressing stormwater issues. Also realized in time, the TASK FORCE network provides a vitally important link to these small communities when new employees take on storm water related duties after key employee turnover. **The TASK FORCE project will recognize its twentieth (20th) year of existence in 2018, and the organization is determined to continue evolving and to continue strengthening its partnership in the future.**

Transition from TAMUK to The University of Texas Rio Grande Valley (UTRGV). In September 2016, the TASK FORCE decided to move its operation from TAMUK to UTRGV, a move that will be complete by July 2017. Moving the operation to a more local venue assures daily availability of resources and support to the TASK FORCE from the College of Engineering & Computer Science, the Civil Engineering Department and the UT System. With locations in Brownsville and Edinburg, UTRGV is poised to assist the TASK FORCE to achieve higher levels of success.

Transition from UTRGV to RATES/RGV. In January 2019, at its annual retreat, the TASK FORCE opted to pursue becoming a non-profit agency promoting not only its compliance requirements, but education, research and community engagement. RATES, Inc., an existing research institute, founded in 2005, and the TASK FORCE agreed to merge and become RATES, Inc. dba RATES/RGV. Today, RATES/RGV is becoming a rapidly growing research institute in the Lower Rio Grande Valley that looks forward to promoting educational events, awarding scholarships and providing much needed professional training.