Contact Information

Research, Applied Technology, Education and Services (RATES) – Research and Education Institute

<u>Rio Grande Valley</u> P.O. Box 697 Edinburg TX 78540 (956) 609-9060 conference@ratesrgv.org <u>New York State</u> P.O. Box 843 Potsdam, NY 13676 315-261-4369

Lower Rio Grande Valley-TPDES Storm Water Task Force

<u>Headquarters:</u> 1390 West Expressway 77 San Benito, TX 78586 (956) 609-9060 conference@ratesrgv.org



LRGV-TPDES Storm Water Task Force Board of Directors

Jose Hinojosa, REM, Chair General Manager Santa Cruz Irrigation District #15

Jose Figueroa, Vice-Chair Public Works Director City of Mercedes



Zenaida Guerrero, BSAE, MS, Secretary Graduate Engineer City of Weslaco

RATES and RATES/RGV are 501(c)(3) Not-for-Profits chartered in Texas and formed to promote and coordinate the collaborative and cooperative use of technology by and among colleges, high schools, community school districts, public and school libraries, health care facilities, government offices, businesses, health and educational professionals other educational and community services organizations and community residents for the benefit of the collaborating organizations, their clients, and community residents of the Rio Grande Valley.





Lower Rio Grande Valley 21st Annual Water Quality Management & Planning Conference

Program

May 19 - 25, 2019

Pearl Hotel and Resort South Padre Island, Texas www.pearlsouthpadre.com



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

RATES BOARD MEMBERS

OUR FOUNDER





Talissa Altes

Andrew Ernest

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RATES OFFICERS AND STAFF





Dave Bonner

CF0

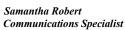
Patrick O'Brien *C00*

Jodi Lees, CFO Amber La Fountain **Project Manager**





Peter Kirkey. **Research Technician**



LRGV TPDES STORMWATER TASK FORCE STAFF



Dr. William Kirkey

Lead research Engineer





Augusto Sanchez Gonzalez, MS, CFM Researcher

Ahmed Mahmoud, Ph.D. Researcher



The Late President and CEO of RATES August 26,1955 - March 27, 2019

Jim Bonner incorporated RATES in Texas on February 8th, 2005. The non-profit was formed to promote and coordinate the collaborative and cooperative use of technology by and among colleges, highschools, community school districts, public and school libraries, health care facilities, government offices, businesses, health and educational professionals other educational and community services organizations and community residents. Jim returned to his home state of New York and ran RATES from Potsdam, N.Y. for over a dozen years. In 2018, Jim and two of his fellow Board Members, Javier Guerrero and Andrew Ernest, created the RATES dba RATES/RGV to provide these services to the Rio Grande Valley. The Stormwater Task Force began at Texas A&M Kingsville, then moved to UTRGV, is now is part of RATES/RGV and will continue to serve the Rio Grande Valley for many years to come.

Jim started his career in academics at SUNY Plattsburg before accepting a position at Texas A&M University in College Station, where he would eventually become a Full Professor. Jim served as the Director of the Conrad Blucher Institute at Texas A&M, Director of SERF (Shoreline Environmental Research Facility) in Corpus Christi, Director of Research at the Clarkson University's Beacon Institute for Rivers and Estuaries in New York State, and as the late President/CEO of RATES (Research Applied Technology Education and Service, Inc.).

Jim lost a long battle with cancer which he fought valiantly for at least six years. Jim's vision, drive and charm will be sorely missed by his fellow Board Members, colleagues', staff, friends, current and former students and of course his family, as well as by the many entities he has worked with over the years. May our brother, friend and mentor rest in peace.

Deanna M. LeVrier **Program Manager**



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

May 19, 2019

Greetings,

On behalf of the LRGV TPDES Stormwater Task Force, along with RATES/RGV and our partners, welcome to the 21st 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 2019 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,

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Jose Hinojosa, Chair

Sunday, May 19, 2019 – Pre-Conference Activities

United States Army Corps of Engineers (USACE) – HEC-RAS Modeling Course

Modeling C	ourse	
7:30 AM		FOYER
		Registration
8:00 - 5:00		SAND DUNES A
	Course	HEC – RAS Course
	1	Brian Hall – Instructor
		USACE

Monday, May 20, 2019 – Pre-Conference Activities

United States Army Corps of Engineers (USACE) – HEC-RAS Modeling Course and NPDES Stormwater Municipal Inspection

Certification Course.

7:30-8:00		FO	YER
		Regist	ration
8:00-5:00	Course I	SAND DUNES A	SAND DUNES C
	and Course II	HEC-RAS Course Brian Hall – Instructor USACE	NPDES Course Paul E. Davis – Instructor NPDES

Tuesday, May 21, 2019 - Pre-Conference Activities

United States Army Corps of Engineers (USACE) – HEC-RAS Modeling Course, NPDES Stormwater Municipal Inspection Certification Course, and Grants Workshop

7:30-8:00			FOYER	
			Registration	
8:00-12:00		SAND DUNES D	SAND DUNES A	SAND DUNES C
		"Where to Find Funding for your Project - Grants Workshop"		
	Course I,	facilitated by		
	Course II	Adele Cardenas- Malott, P.E.	HEC-RAS Course	NPDES Course Paul E. Davis –
	and	USEPA, Dallas, TX Senior Policy Advisor	Brian Hall – Instructor	Instructor NPDES
	Course III	& Zuleika K. Morales-	USACE	
		Romero		
		San Antonio Field Office Director		
		U.S. Department of		
		Housing and Urban Development		

	tes Army Co	19 – Pre-Conference Acti orps of Engineers (USACE, water Municipal Inspectio) – HEC-RAS Modeling
12:00-1:00		SAND DUN	ES A, B, C, D
	Lunch	José Hino General Manager, Santa Ci	<i>come"</i> josa, REM uz Irrigation District #15 & ES Stormwater Task Force
		Andrew Ernes Board N	
	Keynote Speaker	Research, Applied Technology, Edu Potsdam, NY/	acation and Service, Inc. (RATES)
1:00-5:00	Course 1	SAND DUNES B	SAND DUNES C
	and Course 2	HEC-RAS Course Brian Hall – Instructor USACE	NPDES Course Paul E. Davis – Instructor NPDES
6:00-7:00		FO	YER
	Evening	Conference Ea	rly Registration
5:30-7:30	Events	SAIL	FISH
		RATES, INC. PLA	NNING MEETING
6:30-7:30			BOARD ROOM
7 20 0 00		e e	Volunteer Meeting
7:30-9:00	Dinner	BEACHSIDE BAR AND GRILI	2 – THE PEARL RESTAURANT
	Dimiti	EDA/T LE /DA7	
Conference		EPA/Task Force/RA1	ES Networking Event
Plenary –	e begins. ay, May 22,	2019 <i>Conference Themes, Technic</i>	cal Sessions
Wednesda	e begins. ay, May 22,	2019 Conference Themes, Technic SAND DUNES A, B,	cal Sessions
Wednesda Plenary – V	e begins. y, May 22, Welcome, C Stormwate Ph.D., F	2019 Conference Themes, Technic SAND DUNES A, B, Breakfast er 0 – Plenary, Welcome, and Keyn P.E., BCEE, D.WRE The University Jose Hinojosa, Santa Cruz Irrigation Rio Grande Valley TPDES Storm	cal Sessions C, D ote Chair: Andrew N.S. Ernest, of Texas Rio Grande Valley District #15, Chairperson Lower
Wednesda Plenary – 7 7:00-8:30am Plenary Group Session 0	e begins. y, May 22, Welcome, C Stormwate Ph.D., F	2019 <i>Conference Themes, Technic</i> SAND DUNES A, B, Breakfast er 0 – Plenary, Welcome, and Keyn P.E., BCEE, D.WRE The University Jose Hinojosa, Santa Cruz Irrigation	cal Sessions C, D ote Chair: Andrew N.S. Ernest, of Texas Rio Grande Valley District #15, Chairperson Lower Water Task Force
Wednesda Plenary – 7 7:00-8:30am Plenary Group Session 0 8:00-10:00 am	e begins. y, May 22, Welcome, C Stormwate Ph.D., F	2019 Conference Themes, Technic SAND DUNES A, B, Breakfast er 0 – Plenary, Welcome, and Keyn P.E., BCEE, D.WRE The University Jose Hinojosa, Santa Cruz Irrigation Rio Grande Valley TPDES Storm <i>"Welcome"</i> José Hinojosa, RE General Manage Santa Cruz Irrigation Dis	cal Sessions C, D ote Chair: Andrew N.S. Ernest, of Texas Rio Grande Valley District #15, Chairperson Lower Water Task Force CM r trict #15 water Task Force Ph.D. artment ande Valley
Wednesda Plenary 7:00-8:30am Plenary Group Session 0 8:00-10:00 am 8:00-8:05	e begins. y, May 22, Welcome, C Stormwate Ph.D., I Vice-Chair: "The	2019 Conference Themes, Technic SAND DUNES A, B, Breakfast er 0 – Plenary, Welcome, and Keyn P.E., BCEE, D.WRE The University Jose Hinojosa, Santa Cruz Irrigation Rio Grande Valley TPDES Storm <i>"Welcome"</i> José Hinojosa, RE General Manage Santa Cruz Irrigation Dis Chairperson LRGV TPDES Storm <i>"Welcome"</i> Jungseok Ho, P.E., I Incoming Chair Civil Engineering Depa University of Texas-Rio Gra-	cal Sessions C, D ote Chair: Andrew N.S. Ernest, of Texas Rio Grande Valley District #15, Chairperson Lower Water Task Force M r trict #15 hwater Task Force Ph.D. artment ande Valley ille, TX ce – History and Beyond'' , BCEE, D.WRE

Group (cont.)	"Overview of A	SCE Activities"	
Session 0	Humberto	Lopez, P.E.	
8:30-8:40		W Chapter	
	Lower Rio Gra	nde Valley, TX	
	"Overview of the 2019 Small MS4 G	General Permit (TXR040000) and	
	Stormwater Management 1	Program Preparation"	
8:40-9:10		L. Villalba Team Leader	
		Environmental Quality	
		n, TX	
	"USEPA Region 6 Wa	tter Division Updates"	
		Cardenas	
0.10.0.20	USEPA I		
9:10-9:30		icy Advisor Is, TX	
	KATHLEEN	N JACKSON	
Plenary		velopment Board	
Keynote		Member	
9:30 am	Austi	n, TX	
Break	FO	YER	
10:00-10:15	Networking Coffee Br	eak, Exhibits and Posters	
10:15–11:00	SAIL FISH	WHITE MARLIN	
Focus Group (separate		Roundtable	
registration	STORMWATER 101 – Decision-Making for Executives and	KATHLEEN JACKSON Texas Water Development Board	
required)	Elected Officials	Board Member	
	Workshop by NPDES Inc.	Austin, TX	
		(by invitation only)	
Group Session I		ES A, B, C, D	
10:15-12:00	Stormwater I – Storn Chair: David Salinas, Utility		
	Vice Chair: Robert Valenzuela, Stor		
	"Texas Department of Transportation	n's Role in Stormwater Management"	
	Pedro Alvarez, P.E., District Engineer		
		t of Transportation	
	Phar	r, TX	
		nts: An Innovative and Sustainable	
		agement Strategy"	
		Ph.D., P.E., LEED - Civil Engineering	
		Jniversity	
		ont, TX	
	"Overview of the Stormwater Constru		
	Macayla	Coleman	
	Macayla Environmental		

	ny, May 22, 2019 (cont.) <i>ynote Speaker, Technical Sessions</i>
Lunch	SAND DUNES A, B, C, D
12:00-1:00	MC: Name
	Jose Hinojosa, Santa Cruz Irrigation District #15
	General Manager Chairperson LRGV TPDES Storm Water Task Force
Keynote Speaker	SID MILLER
эреакег	Texas Department of Agriculture Commissioner
	Austin, TX
Group	SAND DUNES A, B, C, D
Session II 1:00-3:00	Stormwater II-Stormwater Topics Chair: Megan Meidel, Stormwater Manager, Town of Combes
	Vice Chair: Robert Escobar, City Planner, City of San Juan
	"A Call to Arms – Responding to Flooding in the Rio Grande Valley (June 2018)" Alan Stanton, P.E. – Halff Associates
	Josh Logan P.E. – Halff Associates
	Jeff Underwood – City Manager, City of Alton
	"Creative Consulting – Common Sense Solutions to the Most
	Common Stormwater Issues"
	Charles "Dude" Hall
	Regional Environmental Manager
	Raba-Kistner Consultants, Inc.
	McAllen, TX
	"NPS Program in Coastal Texas"
	Jason Pinchback
	Manager, Water Resources Program Texas General Land Office
	Austin, TX
Break	FOYER
3:00-3:15	Networking Coffee Break, Exhibits and Posters
Group	
Session III	SAND DUNES A, B, C, D Stormwater III – General and Funding Topics
3:15-500	Chair: Velinda Reyes, Office of Commissioner Ellie Torres, Hidalgo County
	Vice Chair: Zenaida Guerrero, AEBS, MS, Engineer I, City of Weslaco
	"Watershed Based Resource Planning and Barriers to Effective
	Implementation of Watershed Protection Plans" Mike Bira
	NPS Program Manager
	U.S. Environmental Protection Agency
	Dallas, TX
	"Opportunity Zones - New White House Initiative"
	Adele Cardenas-Malott, P.E.
	USEPA Region 6
	Senior Policy Advisor Dallas. TX
	Danas, 1A

Wednesda	y, May 22, 2019 (cont.)
Dinner, Ne	tworking and Technical Sessions
Group (cont.) Session III 3:15-500	"The First 'One Water' School in Texas" Nick Dornak Director of Watershed Services The Meadows Center for Water and the Environment at Texas State University San Marcos, TX
Social	BEACHSIDE BAR AND GRILL – THE PEARL RESTAURANT
5:00-6:00	Networking/Fellowship
	Sponsored by Hollis Rutledge & Associates, Inc.
Dinner	MC: Deanna Gomez LeVrier
6:00-8:30	Program Manager LRGV TPDES Stormwater Task Force
Keynote	HONORABLE ERNEST ALISEDA
Speaker	Former Board of Regents The University of Texas System
• •	May 23, 2019
5	e Themes, Technical Sessions, Keynote Speaker
7:00-noon	FOYER
	Registration
7:00-830am	SAND DUNES A, B, C, D
9	Breakfast
Group Session IV	SAND DUNES C
8:00-10:00	Stormwater IV – Stormwater Regulatory Topics Chair: Patrick O'Brien, COO, RATES, Inc., Potsdam, NY Vice Chair: Bernard Rodriguez, Director, Planning & Development, City of San Benito
	"EPA Ag Initiatives and Waters of the United States (WOTUS) Update" Randall Rush USEPA Region 6 Agriculture Policy Advisor
	Dallas, TX
	"TCEQ TPDES Multi Sector Permit Program" Rebecca L. Villalba Stormwater Team Leader
	Texas Commission on Environmental Quality Austin, TX
	"New Designs for Low-Cost Submersible Optical Water – Quality Sensors" Bill Kirkey Research Engineer
	Research, Applied Technology, Education and Service, Inc. (RATES) Colton, NY
Break 10:00-10:15	FOYER
10.00 10.15	Networking Coffee Break, Exhibits and Posters

Thursday, N	May 23, 2019 (cont.)
Conference 2	Themes, Technical Sessions, Keynote Speaker
Group	SAND DUNES C
Session V 10:15-12:00	Stormwater V – Watershed Protection Topics Chair: Velinda Reyes, Office of Commissioner Ellie Torres, Hidalgo County Vice Chair: Zenaida Guerrero, AEBS, MS, Engineer I, City of Weslaco
	"Watershed Protection Plans in the Lower Rio Grande Valley" Tim Cawthon NPS Project Manager Texas Commission on Environmental Quality, Austin, TX
	"Feral Hogs: History of Introduction in US, and Challenges to Watershed and Water Quality Management" Adrian Chavarria Environmental Engineer/Project Manager U.S. Environmental Protection Agency, Dallas, TX
	"Texas Stream Team Ripirian Bull's Eye Evaluation Citizen Scientist Training Program" Alexander Neal Water Resource Specialist The Meadows Center for Water and The Environment at Texas State University San Marcos, TX
Lunch	SAND DUNES A, B, C, D
12:00-1:00	MC: Name Jose Hinojosa, Santa Cruz Irrigation District #15 General Manager
	Chairperson LRGV TPDES Storm Water Task Force
Keynote Speaker	GLENN HEGAR
Бреакс	Comptroller of Public Accounts
Crown	Austin, TX
Group Session VI	SAND DUNES C Stormwater VI – Water Topics
1:00-3:00	Chair: Melisa Gonzales, Project Manager City of Alamo Vice Chair: Miriam Cepeda, Governmental Affairs, City of Edinburg
	"Dune Development on the Mississippi Gulf Coast: Planning Challenges & Resilience Benefits" Michelle Culver
	Natural Resource Specialist, Texas General Land Office Austin, Texas
	"Utilizing Geographic Information Systems for Regional Watershed-Based Planning"
	Tim Cawthon NPS Program Manager
	Texas Commission on Environmental Quality Austin, TX
	"Update on Hidalgo County Northern & Central Watershed Protection Plan Project funded by the TCEQ NPS Clean Water Act Chapter 319 Program" Ahmed Mahmoud, Ph.D. Watershed Coordinator
	University of Texas-Rio Grande Valley Edinburg, TX

	Themes, Technical Sessions, Keynote Speaker
Break 3:00-3:15	FOYER
3.00-3.13	Networking Coffee Break, Exhibits and Posters
3:15-5:00 pm	SAND DUNES C
	Stormwater V– Public Works Chair: Paolina Vega, P.E., County Engineer Cameron County Vice Chair: Henerakle Educate Congress Willow County Commissioner
	Vice Chair: Honorable Eduardo Gonzales, Willacy County Commissioner
	"Remediation of Urban compacted Soils to Improve Turfgrass Establishment and Infiltration" Jihoon Kang, Ph.D.
	Assistant Professor
	The University of Texas Rio Grande Valley Edinburg, TX
	"Texas Coastal Zone and Lower Rio Grande Valley On-Site Sewage Facility Geodatabase" Gabriele Bonaiti, Ph.D.
	Extension Program Specialist TAMU
	College Station, TX
	"Funding Non-Traditional Projects Utilizing Clean Water State Revolving Fund and Other Federal Regulation's Eligibilities"
	Salvador Gandara Community Infrastructure Section U.S. Environmental Protection Agency
a	Dallas, TX
Social 7:00-10:00 pm	THE PEARL RESORT OUTDOOR PATIO
1	LUAU – Networking and Social Sponsored by Hollis Rutledge and Associates, Inc.
	Music by Pearl Resort DJ
Friday. May	y 24, 2019 (cont.)
• ·	Final Activities
Lunch	SAND DUNES A, B, C, D
12:00-1:00	Undergraduate Poster Awards
	Graduate Poster Awards
	High School Awards
	Scholarship Presentations
Focus Group	Planning Meeting
1:30 - 2:30	(by invitation only)
	"Lower Rio Grande Valley Water and Wastewater Laboratory and Training Facility"
	TSTC, EEDC, Cameron County, RATES/RGV and TWC
	2 Day Weekend Giveaway – Pearl Hotel and Resort (3 pm)

United States Army Corps of Engineers Science and Engineering Collaborative 2019: Symposium Themes, Technical Sessions Guest Speakers, Key Topics and Keynote Speakers

7:00-9:00am	FOYER
	Registration
7:00-8:30am	SAND DUNES A, B
	Breakfast
USACE	SAND DUNES A, B
Group Session I 9:00 – 10:00	USACE Symposium I – Plenary: Intros, Overview & Landscape Assessment Chair: Andrew N.S. Ernest, Ph.D., P.E., BCEE, D.WRE UTRGV Vice-Chair: Jose Hinojosa, Santa Cruz Irrigation District #15, Chairperson Lower Rio Grande Valley TPDES Storm Water Task Force
	Welcome & Introductions. Andrew Ernest, Ph.D., P.E. Professor of Civil Engineering, UTRGV
	"USACE Watershed Assessments: Objectives. Process & Example" Dr. Edmond J. Russo Jr. Deputy District Engineer, Programs and Project Management Galveston District, USACE
	 "Section 7001 of WRRDA 2014, Currently open through August 16. Report to Congress on Future Water Resources Development. Identifying large, regional projects for potential congressional authorization" Lisa Mairs Program Manager for planning assistance to the States (PAS) and Continuing Authority Program (CAP) Galveston District, USACE
D 1	 "Synopsis of LRGV Water Roles, Responsibilities, Issues & Opportunities" (Presentation by LRGVDC and Discussion) Lower Rio Grande Valley Development Council. Ron Garza, Executive Director Cameron County, David A. Garza, Commissioner, Precinct 3 Hidalgo County, David L. Fuentes, Commissioner, Precinct 1 Hidalgo County, Ellie Torres, Commissioner, Precinct 4 Willacy County, Eduardo Gonzales, Commissioner, Precinct 4
Break 10:00-10:15	FOYER
	Networking Coffee Break, Exhibits and Posters
USACE Group Session II 10:15-12:00	SAND DUNES A, B USACE Symposium II – Overview & Technical Sessions Chair: Andrew N.S. Ernest, Ph.D., P.E., BCEE, D.WRE UTRGV Vice-Chair: Jose Hinojosa, Santa Cruz Irrigation District #15, Chairperson Lower Rio Grande Valley TPDES Storm Water Task Force
	"State Water Resource Management Programs, Examples & Opportunities for the LRGV Agency Leadership. (Program Staff from relevant Agencies to participate in Day 2 Local Issues Breakouts & Bringing It Together Regionally Brainstorming Sessions to connect need with Opportunities)"
	Texas Water Development Board Kathleen Jackson Board Member Austin, TX

United States Army Corps of Engineers Science and Engineering Collaborative 2019: Symposium Themes, Technical Sessions Guest Speakers, Key Topics and Keynote Speakers

USACE (cont.)	Texas General Land Office
Group	Jet Hav
Session II	Deputy Director of Integration
10:15-12:00	Community Development and Revitalization
	Texas General Land Office
	Tyler Payne
	Research, Training and Development.
	United States Environmental Protection Agency
	Adele Cardenas-Malott
	Senior Policy Advisor
Lunch	SAND DUNES A, B, C, D
12:00-1:00	MC: Name
	Jose Hinojosa, Santa Cruz Irrigation District #15
	General Manager, Chairperson LRGV TPDES Storm Water Task Force
	General Manager, Champerson EKOV TEDES Storm Water Task Force
	GLENN HEGAR
	Comptroller of Public Accounts
	Austin, TX
No. or	Austin, 17A
USACE	SAND DUNES A, B
Group Session III	USACE Symposium III – LRGV Hydrology, Drainage & Flood Management
	Chair: Andrew N.S. Ernest, Ph.D., P.E., BCEE, D.WRE UTRGV
1:00-3:00 pm	Vice-Chair: Jose Hinojosa, Santa Cruz Irrigation District #15, Chairperson
	Lower Rio Grande Valley TPDES Storm Water Task Force
	, ,
	Jungseok Ho, Ph.D., P.E.
	Associate Professor, UTRGV
	,
	Augusto Sanchez-Gonzalez,
	Director of Estuary Program, Cameron County
	Abdoul Oubeidillah,
	Assistant Professor, UTRGV
	Hidalgo County Drainage District #1. Raul E. Sesin. P.E., General Manager
	Cameron County Drainage District #1. Albert Barreda, Chief of Operations General Manager
	Willacy County Drainage District #1. Paul Greenhill, District Manager; Anna Aldridge, Hanson Engineering
	River & Estuary Observation Network. Christopher Fuller, Ph.D., Research, Applied,
	Technology, Education and Service, Inc.
	Opportunities for Leveraging Private Sector Investments. General Introduction to
	LNG and the Annova Project
	Maribel Guerrero, MPA
	Alderwoman, Town of Rancho Viejo & President Bermudez & Associates, LLC
	Public Relations Specialist, ANNOVA LNG
Break	FOYER
3:00-3:15	-
	Networking Coffee Break, Exhibits and Posters

Collaborative 2019: Symposium Themes, Technical Sessions

Welcome, (Suest Speakers, Key Topics and Keynote Speakers SAND DUNES A, B
USACE Group	SAND DUNES A, B
Session IV 3:15-5:00	USACE Symposium IV – Federal Water Resource Management Programs, Tool & Technology Available for Addressing Issues Chair: Andrew N.S. Ernest, Ph.D., P.E., BCEE, D.WRE UTRGV Vice-Chair: Jose Hinojosa, Santa Cruz Irrigation District #15, Chairperson Loure Riso Granda Vellay, TPDES Starm Water Took Foreign
	Lower Rio Grande Valley TPDES Storm Water Task Force U.S. Housing and Urban Development - Zuleika Morales Ramos
riday, May	2 USHUD Field Office Director, San Antonio, TX
elcome, Gi	a U.S. Army Engineer Research & Development Center (ERDC) Tools -Elissa Yeates USACE, Galveston, TX
LMEP roup ssion I	Federal Emergency Management Agency - Michael Ku Long Term Mitigation Advisor, Austin, TX
30: 9:00 am	Federal Emergency Management Agency - Tesse Kofahl Group Supervisor Integrated Recovery Coordination, Austin, TX
	US Geological Survey (USGS) - Kristine Blickenstaff, P.E., Branch Chief-North Texas Program, Fort Worth, TX
	National Weather Service (NWS) - Barry Goldsmith Warning Coordination Hydrologist, Brownsville, Lower Rio Grande Valley, TX
	Walking Coordination Hydrologist, Drownsvine, Dower Rio Grande Vaney, HY
Social	THE PEARL RESORT OUTDOOR PATIO
Social 7:00-10:00 pn	THE PEARL RESORT OUTDOOR PATIO LUAU
7:00-10:00 pn	THE PEARL RESORT OUTDOOR PATIO LUAU Image: Comparison of the second secon
7:00-10:00 pn	THE PEARL RESORT OUTDOOR PATIO LUAU - NetWorking and Social Sponsored by Holling Ruffenge and Associates, Inc. Music by Pearl Resort DJ (ay 24, 2019 (Separate Registration required)
7:00-10:00 pm Friday, M United Sta	THE PEARL RESORT OUTDOOR PATIO LUAU IN NEW WIND and Social Sponsored by Holine Relitered and Social Music by Pearl Resort DJ Tay 24, 2019 (Separate Registration required) tes Army Corps of Engineers Science and Engineering
7:00-10:00 pn Friday, M United Sta Collabora	THE PEARL RESORT OUTDOOR PATIO LUAU Event Wolfging and Social Sponsored by Holis Rund Holige and Associates, Inc. Music by Pearl Resort DJ Music by Pearl Resort DJ (ay 24, 2019 (Separate Registration required) Ites Army Corps of Engineers Science and Engineering tive 2019: Symposium Themes, Technical Sessions Ites Sessions
7:00-10:00 pn Friday, M United Sta Collabora	THE PEARL RESORT OUTDOOR PATIO LUAU IN NEW WIND and Social Sponsored by Holine Relitered and Social Music by Pearl Resort DJ Tay 24, 2019 (Separate Registration required) tes Army Corps of Engineers Science and Engineering
7:00-10:00 pn Friday, M United Sta Collabora Welcome,	THE PEARL RESORT OUTDOOR PATIO LUAU The Resort OUTDOOR PATIO LUAU The Resort OUTDOOR PATIO Sponsored by Holling Ruffenge and Social Sponsored by Holling Ruffenge and Associates, Inc. Music by Pearl Resort DJ Colspan="2">Colspan="2" Colspan="2"
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7:00-10:00 pm Friday, N United Sta Collabora <u>Welcome</u> , 7:00-9:00am	THE PEARL RESORT OUTDOOR PATIO LUAU The Resort OUTDOOR PATIO LUAU The Resort OUTDOOR PATIO LUAU The Resort OUTDOOR PATIO Sponsored by Holling Ruffenge and Social Sponsored by Holling Ruffenge and Associates, Inc. Music by Pearl Resort DJ Itay 24, 2019 (Separate Registration required) tes Army Corps of Engineers Science and Engineering tive 2019: Symposium Themes, Technical Sessions Guest Speakers, Kev Topics and Kevnote Speakers FOYER Out of Mean of Hogram Hogram Hogram Manager National Estuary Program Register Hogram Manager SAND DUNES A, B
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Friday, May 24, 2019 (Separate Registration required) United States Army Corps of Engineers Science and Engineering Collaborative 2019: Symposium Themes, Technical Sessions Guest Speakers, Key Topics and Keynote Speakers

Break 10:00-10:15	FOYER
10.00-10.15	Networking Coffee Break, Exhibits and Posters
USACE Group	SAND DUNES A, B
Session VI	USACE Symposium VI – Issue Prioritization, Formulation & Steps Forward
10:15-12:00	Chair: Andrew N.S. Ernest, Ph.D., P.E., BCEE, D.WRE UTRGV Vice-Chair: Jose Hinojosa, Santa Cruz Irrigation District #15, Chairperson Lower Rio Grande Valley TPDES Storm Water Task Force
	Local Issues Breakouts: Synopsis of Issues, Projects, Needs at an Urban-Level that can be Integrated to Refine the Regional Need, Connections with State & Federal Opportunities Are There Local Projects/Needs That Can Be Addressed Short-Term? Are There Local Projects/Needs That Are Best Rolled into a Larger, Regional Initiative?
	 a. Hidalgo County (USACE facilitator) HCDD#1 Edinburg Mercedes Pharr Weslaco Cameron County (USACE facilitator) CCDD#1 Brownsville

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



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

City of Brownsville Taskforce Representatives TBA www.cob.us

Town of Combes Taskforce Representatives Megan Meidel

Lonnie Bearden www.townofcombes.com

Cameron County Taskforce Representatives Paolina Vega, P.E. Iris Cantu

Raul Gomez www.co.cameron.tx.us

Cameron County DD#1 Taskforce Representatives Albert Barreda Hector Lerma Veronica Martinez www.ccdd1.org

City of Donna Taskforce Representatives Roy Jimenez Daniel Ramirez www.cityofdonna.org



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

City of Edinburg EDINBURG Taskforce Representatives Robert Valenzuela www.cityofedinburg.com



P4

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

Hidalgo County Pct. 4 Taskforce Representatives Velinda Reyes www.hidalgocounty.us



City of La Feria Taskforce Representatives Jaime Sandoval Juan Ortiz www.cityoflaferia.com



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



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



COMBES

Cameron County







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

City of Palmhurst

Palmhurst is located in southern Hidalgo County at 26°15'3"N 98°18'27"W (26.250924, -98.307607).^[4] It is bordered to the north by Alton, to the west by West Sharyland, to the south by Mission, and to the east by McAllen. Downtown McAllen is 8 miles (13 km) to the southeast, and the Rio Grande, the international border with Mexico, is 7 miles (11 km) to the south. Texas State Highway 107 is the main road through the city. www.cityofpalmhursttx.com

Urban Infrastructure Group, Inc.

Urban Infrastructure Group, Inc. (UIG) is a Rio Grande Valley based engineering consulting firm focused on meeting the goals of improving failing infrastructure and planning future development. We work with county and municipal planners, utility providers, as well as residential and commercial developers for the design and construction of infrastructure projects. Our engineers use the latest technology and best management practices to provide sustainable engineering solutions. www.iugtexas.com



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Halff Associates is a unique regional consulting firm that has provided full-service engineering, architecture, and related services for decades. We are committed to continually investing in our employees, fostering a culture of collaboration, and delivering unwaveringly high-quality result for our clients. Our passion is providing smarter solutions with a distinctly human touch for everyone we serve. www.halff.com

HOGAN Consultants, Inc. have been involved in many comprehensive

regulations, and reviews, and others. We have completed planning and design projects for many cities in Texas including Alamo, Alton, Brownsville, Raymondville, San Benito, San Juan, Port Isabel, Lyford, Pharr, Mercedes, Harlingen, McAllen, Laguna Vista, Indian Lake,

development studies that have included various planning and design

elements such as population projections, land-use, thoroughfares, landfills, waterworks and sanitary sewerage systems, storm drainage, central business district, parks and recreation, zoning, subdivision

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



City of Mission Taskforce Representatives Juan De La Garza www.missiontexas.us



City of Mercedes Taskforce Representatives Sergio Zavala Jose Figueroa www.citvofmercedes.com



Taskforce Representatives Rudy Flores Urban Infrastrwww.cityofpalmview.com Group, Inc.

() PALMHURST

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City of Primera Taskforce Representatives Veronica Flores www.cityofprimera.com



City of San Juan Taskforce Representatives David Salinas www.cityofsanjuantexas.com

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City of Palmview



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City of Weslaco Taskforce Representatives

Zenaida Guerrero www.weslacotx.gov

Honorable Eduardo Gonzalez www.co.willacy.tx.us

City of San Benito

Bernard Rodriguez

Cleo Longoria

District #15

Jose Hinojosa

www.scid15.com

Taskforce Representatives

www.cityofsanbenito.com

Santa Cruz Irrigation

Taskforce Representatives









Exhibitors



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Department of Civil Engineering





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City of Palmhurst

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at 26°15′3″N 98°18′27″W (26.250924, -98.307607).^[4] It is bordered to the north by Alton, to the west by West Sharyland, to the south by Mission, and to the east by McAllen. Downtown McAllen is 8 miles (13 km) to the southeast, and the Rio Grande, the international border with Mexico, is 7 miles (11 km) to the south. Texas State Highway 107 is the main road through the city.



www.cityofpalmhursttx.com

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Keynote Speakers



Kathleen Jackson (May 22 and May 23) 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 22) 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.











Keynote Speakers



Jayne Harkins, P.E. (May 24) USIBWC Commissioner

Jayne Harkins was appointed U.S. Commissioner of the International Boundary and Water Commission, United States and Mexico, by President Donald J. Trump in 2018. As Commissioner, she serves as head of the U.S. Section of the Commission, overseeing personnel in twelve offices along the U.S.-Mexico border and in Washington, DC. The Commission is responsible for applying the boundary and water treaties between the two countries. It operates and maintains various infrastructure projects along the U.S.-Mexico border, including international storage dams, hydroelectric power plants, flood control levees, wastewater treatment plants.



Julian Alvarez III (May 24) Commissioner Representing Labor

Julian Alvarez III is the Commissioner Representing Labor of the Texas Workforce Commission. Gov. Greg Abbott reappointed him to the three-member Commission on March 7, 2017. His Commission appointment expires February 1, 2023. As Labor Commissioner, Julian Alvarez represents the interests of more than 13 million Texas workers with respect to TWC services and ensures that their concerns are considered in all Commission actions.

Regulatory Speakers



Adele Cardenas Malott, P.E., Chemical Engineer Senior Policy Advisor, EPA Region 6, Dallas, TX

THE RIGHT CHOIC

Senior Policy Advisor to Water Quality Protection Division Director, specializing in US/Mexico activities along the Rio Grande. Providing support for the Regional Administrator's Healthy Urban Water Initiative (HUWI), Urban Waters Federal Partnership and Strong Cities Strong Communities initiatives under the White House Commission for Environmental Quality and the Domestic Policy Council as the Region 6 lead coordinating in the Water Quality Division. I am the EPA representative for the Federal Coordinating Committee for the Rio Grande coordinated by former Congressman Reyes. Provide support to Deputy Regional Administrator in identifying and researching potential new innovative technologies and potential applications for use in Region 6 programs. Was the Regional representative for the Collaboration Practioners Network and liaison for the Regional Innovations Committee. I have over 27 years with the Environmental Protection Agency and approximately 3 years of Industrial experience. Always pursuing opportunities to manage and provide scientific and engineering support to the Agency in more innovative manners with cross media application and energy savings where possible. Continue to provide input in new policy which impacts not only federal implementation but transferability to States and neighboring countries that benefit everyone impacted by environmental regulation. Continue to provide input toward community outreach in more innovation manners as well as incorporate University and local community leaders in developing site-specific creative centers available in multiple languages if necessary. Continue to coordinate with outside parties' available resources not utilized by EPA in an innovative fashion. I possess a non-traditional use of my engineering skills to share science and new technologies in a creative means that involves all persons who may be touched by EPA programs across the country. I believe that I have the necessary qualifications and experience to successfully meet the new challenges brought about by the revolutionary changes in the field of science and engineering to fulfill the many opportunity at EPA. Graduate from Texas A&I University with a Bachelor of Science in Chemical Engineering 1986. A registered Professional Engineer in the State of Texas. A Life Member of the Society of Women Engineers and Past National Board Member of SWE.

J. Douglas Jacobson



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

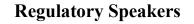
J. Douglas Jacobson has a B.A. from The University of Texas at Austin and a J.D. from St. Mary's University in San Antonio. He works for the U.S. Environmental Protection Agency Region 6 in Dallas as the Gulf of Mexico Program Coordinator, representative to the Gulf of Mexico Alliance, and Regional Program 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 coled 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.



Salvador Gandara

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

Salvador Gandara is a Project Officer with over 12 years of experience in the position with the Environmental Protection Agency, Region 6. Mr. Gandara works with water and wastewater infrastructure grantees, New Mexico and Texas State agency representatives as well as being involved with the North American Development Bank (NADB) on the U.S./Mexico Border Program. Prior to being Project Officer, Mr. Gandara worked as Environmental Engineer in the National Pollution Elimination Discharge System (NPDES) and the U.S./Mexico Border Infrastructure Programs. Mr. Gandara has over 25 years of experience with the U.S. Federal Government. Mr. Gandara received his Bachelor of Science in Civil Engineering from the University of Texas in El Paso (UTEP) in 1993.





Randy Rush Agriculture Policy Advisor U.S. EPA - Region 6

Dallas, TX Analysis of EPA policy in conjunction with agro-environmental issues facing states and commodity organizations. Water quality, nonpoint source.



Rebecca L. Villalba Water Quality Division Texas Commission on Environmental Quality

Since July 2011, Rebecca L. Villalba is the Team Leader for the Stormwater & Pretreatment Team. She has been working at the TCEQ since August 1996 in the Wastewater Permitting Section of the Water Quality Division. In her current position, she is responsible for supervising pretreatment coordinators and permit writers that implement the pretreatment, stormwater (construction, industrial, and municipal), and quarry programs and their associated permitting activities and overseeing the stormwater processing center.

Ms. Villalba's prior position was Sr. Pretreatment Coordinator in the Stormwater & Pretreatment Team providing oversight for numerous Texas Pollutant Discharge Elimination System (TPDES) pretreatment programs. Her oversight activities included performing pretreatment program audits, industrial user categorical determinations, reviewing publicly owned treatment works (POTW) permit applications for appropriate pretreatment requirements, reviewing pretreatment program modifications to include technically based local limits calculations, and drafting POTW permits. She is a TCEQ Aspiring Leaders Program alumni (class of 2010-2012) and has participated in the TCEQ's Border Initiative and partnership efforts with the Mexican government related to the pretreatment program providing training and technical assistance. In 2001, Ms. Villalba completed the five-day Environmental Management Systems (EMS) Lead Auditor Training Course and for over 10 years represented the Water Quality Division in the EMS team involved in developing and implementing the TCEQ's EMS program. Ms. Villalba has a B.S. 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 solid and hazardous waste management and at NASA-Johnson Space Center in the water laboratory conducting experiments and research to support the Space Shuttle and Space Station water disinfection projects.



Tim Cawthon Natural Resources Specialist NPS Program, Austin, TX Texas Commission on Environmental Quality

Graduated from Baylor University in 2004 with degree in Geography and minor in Environmental Studies. Graduated from Texas State University with Master of Science in Geography with a focus on Fluvial Geomorphology. Thesis was studying channel change and large woody debris on the San Antonio River. Have worked as a project manager for TCEQ NPS Team for over 4 years and have managed projects in the Lower Rio Grande Valley for over four years.



Jason Pinchback

Water Resource Program Manager Texas General Land Office

Jason Pinchback is the Water Resources Program manager at the Texas General Land Office. His main duties focus on the Texas Coastal Nonpoint Source Pollution program, Texas Beach Watch, and the Texas Coastal Ocean Observation Network. Jason's career in water resources began as a volunteer water quality monitor while still in high school. Since then, his work on watershed characterization, stakeholder processes, water policy, and surface/groundwater interactions aims to identify real-world solutions for natural resource management challenges. Jason earned a BS and Masters of Applied Geography from Texas State

University. Besides his amazing wife and family, Jason's other passions focus on permaculture, aquaponics, rainwater harvesting, camping, water fun, and playing

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 (TCEO'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







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

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.

THE LOWER RIO GRANDE VALLEYTPDES STORMWATER TASK FORCE

Stormwater

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 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

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.