

## Contact Information

**The University of Texas – Rio Grande Valley  
Civil Engineering Department**

---

Edinburg Campus:

EACSB 1.202  
1201 West University Drive  
Edinburg TX 78539  
(956) 665-3038

[cive@utrgv.edu](mailto:cive@utrgv.edu)

Brownsville Campus:

SET B 1.334  
One West University Boulevard  
Brownsville, TX 78520  
(956) 882-6605

---

**The University of Texas – Rio Grande Valley  
College of Engineering & Computer Science**

Edinburg Campus:

EENGR 1.294  
1201 West University Drive  
Edinburg TX 78539  
(956) 665-3510

[coec@utrgv.edu](mailto:coec@utrgv.edu)

Brownsville Campus:

SET B 1.334  
One West University Boulevard  
Brownsville, TX 78520  
(956) 882-6605

**Lower Rio Grande Valley-TPDES Storm Water Task Force**

Edinburg Campus:

EACSB 1.202  
1201 West University Drive  
Edinburg TX 78539  
(956) 665-3038

[LRGVswtf@utrgv.edu](mailto:LRGVswtf@utrgv.edu)



*The University of Texas-Rio Grande Valley is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools (1866 Southern Lane, Decatur, Georgia 33033-4097: Telephone number 404-679-4501) to award bachelor's, master's and doctoral degrees.*



*Lower Rio Grande Valley*

# 19 Annual Water Quality Management & Planning Conference

## Program

**May 23 - 27, 2017**

**Isla Grand Resort  
South Padre Island, Texas**

[www.islagrand.com](http://www.islagrand.com)



May 23, 2017

Greetings,

On behalf of The University of Texas-Rio Grande Valley (UTRGV), along with the Lower Rio Grande Valley Texas Pollutant Discharge Elimination System (TPDES) Storm Water Task Force and our partners, welcome to the 19<sup>th</sup> Annual *Lower Rio Grande Valley Water Quality Management & Planning Conference*. UTRGV is pleased to lead the planning and delivery of the annual event.

UTRGV 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 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 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 2017 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,



**Andrew N.S. Ernest, Ph.D., P.E., BCEE, D.WRE**  
 Civil Engineering Department  
 Professor & Chair  
[Andrew.ernest@utrgv.edu](mailto:Andrew.ernest@utrgv.edu)



Sincerely,



**Javier Guerrero, E.I.T., MS**  
 Civil Engineering Department  
 Director of Water Studies  
[Javier.guerrero@utrgv.edu](mailto:Javier.guerrero@utrgv.edu)




## Conference Schedule

**Tuesday, May 23, 2017 – Grant Workshop, TFMA Course and Exam**  
**Separate registration required. Must join TFMA to sit in during Exam.**



7:30am-9:00		<b>Registration</b>
8:00am-12:00	<b>Course I</b>	<b>NAUTILUS</b>
		<b>“Federal and State Funding Grant Workshop”</b> facilitated by <b>Adele Cardenas-Malott, P.E.</b> Senior Policy Advisor & <b>Curry Jones</b> Chief, State and Tribal Programs Section EPA, Region 6, Dallas, TX
8:30am-12:00	<b>Course II</b>	<b>SUNDIAL</b>
		<b>Floodplain Management Review Course</b> Thomas W. Mountz, PE, D.WRE, CFM Project Manager - Water Resources Texas Floodplain Management Association (TFMA) 6 CECs/6 PDU
12 noon – 12:30 pm	<b>Keynote Speaker</b>	<b>MAJESTIC</b> <b>ROYAL</b>
		<b>MC: Joe Hinojosa</b> General Manager Santa Cruz Irrigation District #15
		<b>Kathleen Jackson, Board Member</b> <b>Texas Water Development Board</b>
1:00pm-3:00pm	<b>Course I</b>	<b>NAUTILUS</b>
		<b>“Federal and State Funding Grant Workshop”</b> facilitated by <b>Adele Cardenas-Malott, P.E.</b> Senior Policy Advisor & <b>Curry Jones</b> Chief, State and Tribal Programs Section EPA, Region 6, Dallas, TX
1:00pm - 4:30	<b>Course II</b>	<b>SUNDIAL</b>
		<b>Floodplain Management Review Course</b> Thomas W. Mountz, PE, D.WRE, CFM Project Manager - Water Resources Texas Floodplain Management Association (TFMA) 6 CECs/6 PDU
5:30pm – 8:00		<b>CFM Exam</b> Register at <a href="http://www.tfma.org">www.tfma.org</a> <b>FOYER</b> Exhibitor setup (2 <sup>nd</sup> Floor)

<b>Tuesday, May 23, 2017 – Pre-Conference Activities</b>		
6–7:00 pm	Registration	<b>PALM GRAND BALLROOM RECEPTION AREA (2nd Floor)</b>
		Early Registration, 2 <sup>nd</sup> floor
6:00 pm	Meeting	Conference Room (1 <sup>st</sup> Floor)
		High School Track – Volunteer Meeting
7:30 pm	Dinner	<b>WINDJAMMER’S BEACHFRONT CAFÉ (2<sup>nd</sup> Floor)</b>
		<b>EPA/UTRGV FACULTY/STAFF/TASK FORCE DINNER</b>
<b>Conference begins.</b>		
<b>Wednesday, May 24, 2017 – Plenary – Conference Themes</b>		
<b>Welcome, Guest Speakers, Key Topics and Plenary Keynote</b>		
7:00 – 8:30 am	FOYER	
	Breakfast	
Group Session 0 8:00-10:15	ROYAL	MAJESTIC
	<b>Stormwater 0 – Plenary, Welcome, and Keynote</b> Chair: Andrew N.S. Ernest, Ph.D., P.E., BCEE, D.WRE Vice-Chair: Jose Hinojosa, Santa Cruz Irrigation District #15, Chairperson Lower Rio Grande Valley TPDES Storm Water Task Force <i>“Welcome”</i> <b>Andrew N.S. Ernest, Ph.D., P.E., BCEE, D.WRE</b> Civil Engineering Department College of Engineering & Computer Science The University of Texas Rio Grande Valley Edinburg, TX/Brownsville, TX  <i>“The LRGV Stormwater TPDES Task Force – History and Beyond”</i> <b>José Hinojosa, REM</b> General Manager Santa Cruz Irrigation District #15 & Chairperson <b>LRGV Texas Pollutant Discharge Elimination System Stormwater Task Force</b> <b>Founded 1998</b>  <i>“Texas Floodplain Management Association Initiatives”</i> <b>Thomas W. Mountz, PE, D.WRE, CFM</b> Sr. Project Manager - Water Resources - RPS Klotz Associates Texas Floodplain Management Association (TFMA) State Board of Directors – Treasurer Austin, Texas 78735  <i>“TCEQ Water Quality Division Update”</i> <b>Rebecca Villalba</b> Team Leader, Stormwater & Pretreatment Team Water Quality Division Texas Commission on Environmental Quality (TCEQ) Austin, TX	
Plenary Welcome 8:00-8:10		
Plenary Theme Speaker 8:10-8:20		
Plenary Guest 8:20-8:35		
Plenary Conference Theme Speaker 8:35-8:55		

Plenary Guest Speaker 8:55-9:05	<i>“Serving the Civil Engineering Community through ASCE”</i> <b>Dora Marin-Robles, P.E.</b> American Society of Civil Engineers Newsletter Editor, ASCE RGV Branch & 1st Year Director at Large, ASCE TX Section	
	Plenary Guests 9:05-9:20	<i>“ASCE’s Grand Challenge”</i> <b>Craig B. Thompson, P.E.</b> ASCE Texas Section President Vice President/Principal, Hanson Professional Services Naismith   Hanson Corpus Christi, TX
Plenary Conference Theme Speaker 9:20-9:40		<i>“Region 6 Water Priorities at EPA”</i> <b>David Garcia</b> Assistant Director Water Quality Protection Division EPA Region 6, Dallas, TX
	Plenary Keynote 9:40-10:05	<i>“Financing Improvements with Stormwater Fees”</i> <b>Jorge A. Garza</b> Senior Managing Director Estrada Hinojosa & Co., Inc. Dallas, TX
Break 10:00-10:15		FOYER
	Networking Coffee Break, Exhibits and Posters	
Group Session I 10:15-12:15	ROYAL	MAJESTIC
	<b>Stormwater Ia –TPDES, NPDES and Stormwater Management</b> Chair: Ernesto Solis, Stormwater Specialist, City of Alamo Vice Chair: Juan De La Garza, Stormwater Manager, City of Mission	<b>Stormwater Ib – Advanced Topics</b> Chair: Paolina Vega, P.E., County Engineer, Cameron County Vice Chair: Jungseok Ho, Ph.D. Civil Engineering, UTRGV
	<i>“National and Regional Outstanding Examples of Long Term Stormwater Management and Integrated Planning Frameworks”</i> <b>Nelly Smith</b> Municipal Stormwater Coordinator EPA Region 6, Permits and Technical Assistance Section NPDES Permits & TMDLs Branch	<i>“Historical and Recent Characteristics of Freshwater Inflow and Salinity in the Lower Laguna Madre and Rio Grande Estuaries”</i> <b>Caimee A. Schoenbaechler</b> Manager & <b>Evan L. Turner, Ph.D.</b> <i>Coastal Scientist</i> Bays and Estuaries Program/Texas Water Development Board Austin, TX

	<p>“Small MS4 General Permit – 2018 Renewal Update” <b>Rebecca Villalba</b> Team Leader Stormwater &amp; Pretreatment Team Water Quality Division TCEQ Austin, TX</p> <p>“City of Laredo Discharge Detection and Elimination (IDD&amp;E) Program for TPDES Compliance” <b>Ivan Santoyo</b> Engineering Associate I City of Laredo Environmental Engineering Department Laredo, TX</p> 	<p>“Improving runoff simulation for sub-watersheds in the Lower Laguna Madre: an assessment of the need to incorporate land use-land cover information in rainfall-runoff model calibration” <b>D. Nelun Fernando, Ph.D., CTCM</b> Hydrologist Surface Water   Bays &amp; Estuaries Water Science and Conservation Austin, TX</p> <p>“Project CRAWFISH: a water-smart, integrated vegetable garden and aquaculture system maintained with harvested rainwater and HVAC condensate” <b>Christopher A. Gabler, Ph.D.</b> Assistant Professor School of Earth, Environmental, and Marine Sciences University of Texas Rio Grande Valley Brownsville, TX</p> <p>“Biochars as a filter media for removing lead and arsenic in water” <b>Jihoon (James) Kang, Ph.D.</b> Assistant Professor School of Earth, Environmental and Marine Sciences The University of Texas-Rio Grande Valley</p>
<b>Special Event</b>	<b>BOARDROOM</b>	
<b>11 am – 12:00</b>	<b>Task Force Roundtable with Commissioner Sid Miller (by invitation only)</b>	
<b>12:15-1:15 Lunch</b>	<b>BALLROOM</b>	
	<b>MC: Joe Hinojosa</b> General Manager Santa Cruz Irrigation District #15	
<b>12:15-12:45 Keynote Speaker</b>	<b>Sid Miller</b> Texas Department of Agriculture Commissioner	
<b>Group Session II 1:15-3:00</b>	<b>ROYAL</b>	<b>MAJESTIC</b>
	<b>Stormwater IIa – Environmental Topics</b> Chair: Raul Gomez, Administrative Assistant to the Honorable David Garza, Cameron County Commissioner Vice Chair: Craig Gonzales, P.E., Principal Urban Infrastructure, Inc., Donna, TX	<b>Stormwater IIb – Stormwater/MS4 Topics</b> Chair: Martino Trevino, Project Manager, City of Brownsville Vice Chair: Robert Escobar, City Planner, City of Donna

	<p>“General Introduction to LNG and the Annova Project” <b>Maribel B. Guerrero</b> Alderwoman, Town of Rancho Viejo &amp; President Bermudez &amp; Associates, LLC Town of Rancho Viejo, TX</p> <p>“Legal and practical issues associated with using Lower Rio Grande Irrigation surface water rights for industrial purposes, and possible solutions” <b>Emily Rogers, Attorney</b> Bickerstaff Heath Delgado Acosta LLP Austin, TX</p> <p>“Volunteer Monitoring in the United States” <b>Mike Bira</b> EPA NPS Program U.S. Environmental Protection Agency Region 6, Dallas, TX</p>	<p>“Construction General Permit – 2018 Renewal Update” <b>Lindsay Garza</b> Environmental Permit Specialist III Stormwater &amp; Pretreatment Team Water Quality Division Texas Commission on Environmental Quality (TCEQ)/Austin, TX</p> <p>“How Technology is Changing the Face of Compliance” <b>Ty Garmon</b> CBI Systems LJA Engineering, Inc. &amp; <b>George Culver</b> Director of GIS LJA Engineering, Inc. &amp; <b>Andrew Demers</b> President, StormwaterONE Meriden, Connecticut</p> <p>“Stormwater Infrastructure Inspections and Overall Design Service Life” <b>Brad McCollum</b> Engineered Products Manager Advanced Drainage Systems San Antonio, TX</p>
<b>Break 3:00-3:15</b>	<b>FOYER</b>	
	<b>Networking Coffee Break, Exhibits and Posters</b>	
<b>Group Session III 3:15-5:00</b>	<b>ROYAL</b>	<b>MAJESTIC</b>
	<b>Stormwater III – Panel Discussion</b> Chair: Andrew N.S. Ernest, Ph.D., P.E., BCEE, D.WRE Civil Engineering Department College of Engineering & Computer Science UTRGV, Edinburg, TX Vice Chair: Fred Bell, City Planner, City of San Benito	
	<b>“TEXAS WATER DEVELOPMENT BOARD FINANCING: DEMYSTIFIED”</b> <b>PRESENTERS:</b>	
	<b>David Mendez, Attorney</b> Principal Bickerstaff Heath Delgado Acosta LLP Austin, TX & <b>Mark Evans</b> Statewide Outreach Team Lead Texas Water Development Board Austin, TX &	

	<p><b>Keith Kindle, PE</b> Chief Operating Officer Enprotec / Hibbs &amp; Todd, Inc. (eHT) Granbury, Texas &amp; <b>Ben J. Rosenberg</b> Managing Director - Public Finance U.S. Capital Advisors LLC Austin, Texas</p>				
<b>Social</b> 6:00-6:30	<b>PALM GRAND BALLROOM</b>				
<b>Dinner</b> 6:30-8:30	<p><b>Networking/Fellowship</b></p> <p><b>“Engineering Education, Technology Development and New Initiatives in the Valley”</b></p> <p><i>“Critical Infrastructures: The Key to Transforming the RGV to Provide a Path to a Better Life for All”</i></p> <p><b>MC: Alexander Domijan, Ph.D.</b> Dean College of Engineering &amp; Computer Science The University of Texas Rio Grande Valley Edinburg, TX/Brownsville, TX</p> <p><i>“South Texas College’s STEM Initiatives and Leadership in the Rio Grande Valley”</i></p> <p><b>Ali Esmaeili, Ph.D.</b> Dean of Math, Science, and Bachelor’s Degree Programs South Texas College McAllen, TX</p> <div style="display: flex; justify-content: space-around; align-items: center;">   </div>				
<b>Thursday, May 25, 2017 - Environmental &amp; Emergency Response</b>					
<b>7:00 - 8:30</b>	<b>FOYER</b>				
	<b>Breakfast</b>				
<b>Group Session IV</b> 8:00-10:00	<table border="1" style="width: 100%;"> <tr> <td style="width: 50%; text-align: center;"><b>ROYAL</b></td> <td style="width: 50%; text-align: center;"><b>MAJESTIC</b></td> </tr> <tr> <td colspan="2" style="text-align: center;"> <p><b>Stormwater IV – General Topics</b> Chair: Xavier Cervantes, AICP, City Planner, City of San Juan Vice Chair: Mardoqueo Hinojosa, P.E., City Engineer, City of Weslaco</p> <p><i>“Best Water Management Practices: City and federal approaches and perspectives”</i></p> <p><b>Laura E. Gómez Rodríguez</b> Community Liaison for Federal Interagency Initiatives USEPA, Dallas, TX</p> <p><i>“Lower Laguna Madre – are we ready for another Hurricane Katrina”</i></p> <p><b>Jungseok Ho, P.E., Ph.D.</b> Associate Chairperson Civil Engineering Department The University of Texas-Rio Grande Valley, Edinburg, TX</p> </td> </tr> </table>	<b>ROYAL</b>	<b>MAJESTIC</b>	<p><b>Stormwater IV – General Topics</b> Chair: Xavier Cervantes, AICP, City Planner, City of San Juan Vice Chair: Mardoqueo Hinojosa, P.E., City Engineer, City of Weslaco</p> <p><i>“Best Water Management Practices: City and federal approaches and perspectives”</i></p> <p><b>Laura E. Gómez Rodríguez</b> Community Liaison for Federal Interagency Initiatives USEPA, Dallas, TX</p> <p><i>“Lower Laguna Madre – are we ready for another Hurricane Katrina”</i></p> <p><b>Jungseok Ho, P.E., Ph.D.</b> Associate Chairperson Civil Engineering Department The University of Texas-Rio Grande Valley, Edinburg, TX</p>	
<b>ROYAL</b>	<b>MAJESTIC</b>				
<p><b>Stormwater IV – General Topics</b> Chair: Xavier Cervantes, AICP, City Planner, City of San Juan Vice Chair: Mardoqueo Hinojosa, P.E., City Engineer, City of Weslaco</p> <p><i>“Best Water Management Practices: City and federal approaches and perspectives”</i></p> <p><b>Laura E. Gómez Rodríguez</b> Community Liaison for Federal Interagency Initiatives USEPA, Dallas, TX</p> <p><i>“Lower Laguna Madre – are we ready for another Hurricane Katrina”</i></p> <p><b>Jungseok Ho, P.E., Ph.D.</b> Associate Chairperson Civil Engineering Department The University of Texas-Rio Grande Valley, Edinburg, TX</p>					

	<p><i>“Monitoring, Modeling, and Decision Making: Making it Work”</i></p> <p><b>Mike Bira</b> EPA NPS Program EPA Region 6, Dallas, TX</p> <p><i>“The legal and practical requirements for permitting return flows and groundwater and surface water-based Effluent”</i></p> <p><b>Emily Rogers, Attorney</b> Bickerstaff Heath Delgado Acosta LLP Austin, TX</p>	
<b>Break</b> 10:00-10:15	<b>FOYER</b>	
	<b>Networking Coffee Break, Exhibits and Posters</b>	
<b>Group Session V</b> 10:15-12:15	<b>ROYAL</b>	<b>MAJESTIC</b>
	<p><b>Stormwater V– Estuary and Watershed Topics</b> Chair: Paula Rodriguez, City Planning and Community Development Director, City of La Feria Vice Chair: Raul Garcia, Stormwater Manager City of Los Fresnos</p>	
	<p><i>“EPA’s Role in Support for Sustainable Agriculture”</i></p> <p><b>Randy Rush</b> Policy Advisor - Agriculture U.S. EPA - Region 6 Dallas, TX</p> <p><i>“Trash Free Texas”</i></p> <p><b>J. Douglas Jacobson</b> U.S.EPA, Region 6 Program Manager, National Estuary Program Regional Coordinator, Gulf of Mexico Program Natural Resource Damage Assessment, EPA Trustee Texas Representative Gulf of Mexico Alliance Marine Debris Team Co-Chair Dallas, TX</p> <p><i>“Texas State Soil and Water Conservation Board Water Quality Management Plan Program”</i></p> <p><b>Brian Koch</b> Texas State Soil and Water Conservation Board Regional Watershed Coordinator Wharton, TX</p> <p><i>“Lower Laguna Madre &amp; Brownsville Ship Channel Watershed Characterization Study”</i></p> <p><b>Tim Cawthon</b> NPS Project Manager Texas Commission on Environmental Quality NPS Program, Austin, TX &amp; <b>Jude Benavides, Ph.D.</b> Associate Professor The University of Texas Rio Grande Valley School of Earth, Environmental, and Marine Sciences</p>	

<b>Lunch</b> 12:15-1:15 pm	<b>SABAL</b>	<b>PARADISE</b>
	<b>MC: Joe E. Vega</b> Cameron County Parks and Rec Department Director Former Mayor, City of Port Isabel	
<b>12:15-12:45 pm</b> <b>Keynote Speaker</b>	<b>Toby Baker</b> <b>Commissioner</b> <b>TCEQ, Austin, TX</b>	
	<b>ROYAL</b>	<b>MAJESTIC</b>
<b>Group Session VI</b> 1:15-3:15 pm	<b>Stormwater VI – Stormwater Topics</b> Chair: Daniel Tijerina, City Manager, City of Mercedes Vice Chair: Robert Valenzuela, Stormwater Manager, City of Edinburg	
	<i>“Field Evaluation of Bioretention Hydrology and Pollutant Loads Reductions in South Texas”</i> <b>Ahmed Refaat</b> Ph.D. Candidate Environmental Engineering Department Texas A&M University-Kingsville, Kingsville, TX	
	<i>“TPDES Construction Management at the City of Laredo”</i> <b>Ivan Santoyo</b> Engineering Associate I City of Laredo Environmental Engineering Department Laredo, TX	
	<i>“Stormwater Management as a Community Asset: Transforming a Necessity into an Amenity”</i> <b>Hugo Colón</b> Landscape Designer Design Workshop Houston, TX	
<b>Break</b> 3:15-3:30 pm	<b>FOYER</b> <b>Networking Coffee Break, Exhibits and Posters</b>	
<b>3:00-3:30 pm</b>	<b>NAUTILUS</b>	
	<b>POSTER WINNER ANNOUNCEMENTS</b>	
<b>Group Session VII</b> 3:30-5:00 pm	<b>ROYAL</b>	<b>MAJESTIC</b>
	<b>Stormwater VII – Panel Discussion</b> Chair: Andrew N.S. Ernest, Ph.D., P.E., BCEE, D.WRE Civil Engineering Department/College of Engineering & Computer Science UTRGV, Edinburg, TX Vice Chair: Fred Bell, City Planner, City of San Benito	

**Flood Forecasting, Resiliency & Response**  
**Rapid translation of advances in monitoring & forecasting technology into lifesaving operational tools**

**Workshop 1:**  
*“State of the Science, Resiliency and Response”*

**Harry Evans**  
 Center for Research on Water Resources, University of Texas  
 Austin Fire Department (Retired)  
 Texas Flood Response Project

**John O’Vale**  
 District Coordinator, Field Response Section  
 Texas Division of Emergency Management

**Jay Franklin**  
 Infrastructure Manager, Community Development and Revitalization,  
 Texas General Land Office. The Texas General Land Office Community  
 Development and Revitalization Program

**Workshop 2:**  
*“Perspective from the Trenches”*

**Doug Fowler**  
 Fire Chief  
 City of South Padre Island, TX

**Jude Benavides, Ph.D.**  
 Associate Professor  
 The University of Texas Rio Grande Valley  
 School of Earth, Environmental, and Marine Sciences

**Tony Pena**  
 Region III State Coordinator  
 Texas Division of Emergency Management

**Pilar Rodriguez, P.E.**  
 Executive Director  
 Hidalgo County Regional Mobility Authority

**Ricardo Saldana**  
 Emergency Management Coordinator  
 Hidalgo County Office of Emergency Management

-----  
**Workshop 3:**  
**OPEN DISCUSSION**  
**AUDIENCE PARTICIPATION ENCOURAGED**  
 -----

*“Where do we go from here?”*  
**Andrew N.S. Ernest, Ph.D., P.E., BCEE, D.WRE**  
 Civil Engineering Department  
 College of Engineering & Computer Science  
 UTRGV, Edinburg, TX

	KEY LARGO ROOM	FIRST FLOOR
<b>Alumni Social</b> 5:30 – 8:00 pm	<b>1st Annual UTRGV Engineering Alumni Social</b>	
	<b>Alumni Social</b> MC: Julissa Flores, Assistant Dean College of Engineering & Computer Science The University of Texas Rio Grande Valley Guest Speaker: University of Texas System Regent Ernest Aliseda	
<b>8:00 -10:00 pm</b>	<b>QUARTERDECK BAR</b> <b>Hammerhead Deck</b>	
	<b>Luau Outdoor Party – Food and Music</b>	
<b>Friday, May 26, 2017 – Lower Laguna Madre Estuary Program Strategic Planning</b>		
<b>8:00 am-10:15</b>	<b>MAJESTIC</b>	
	<b>Estuary Program I – Topic</b> Chair: Augusto Sanchez-Gonzales, MS, CFM Director of Estuary, Environmental and Special Projects UTRGV/Cameron County Vice Chair: Iris Cantu, Assistant County Engineer Cameron County	
	<i>“Seasonal and inter-annual variations in evapotranspiration of Arundo donax, water-using weed in the arid southwestern US”</i> <b>Alexis Racelis, Ph.D.</b> The University of Texas Rio Grande Valley School of Earth, Environmental, and Marine Sciences	
	<i>“Lower Laguna Madre Water Quality”</i> <b>Tim Cawthon</b> Nonpoint Source Program Texas Commission on Environmental Quality Austin, TX	
<i>“Role of the Texas State Soil and Water Conservation Board as a State Agency Representative on the NEPs Implementation Subcommittees, Specifically Water and Sediment Quality”</i> <b>Brian Koch</b> Texas State Soil and Water Conservation Board Regional Watershed Coordinator Wharton, TX		
<i>“Bacterial Source Tracking in Stormwater”</i> <b>Calista Guthrie Mills</b> Physical Scientist U.S. EPA Gulf of Mexico Program Gulfport, MS Corpus Christi, TX		

<b>Break</b> 10:00-10:30 am	<b>FOYER</b>
	<b>Networking Coffee Break, Exhibits and Posters</b>
<b>10:00 am-12:00 pm</b>	<b>ROYAL</b>
	<i>“What the Lower Rio Grande Valley region needs from UTRGV, a local government’s perspective”</i> <b>TASK FORCE/UTRGV ROUND TABLE</b> <b>By invitation only</b>
<b>10:30 am-12:30 pm</b>	<b>MAJESTIC</b>
	<b>Estuary II – Topic</b> Chair: Jose Figueroa, Stormwater Manager, City of Brownsville Vice Chair: Roy Jimenez, Stormwater Manager, City of Donna <i>“Texas Stream Team”</i> <b>Stacey Haddad</b> Graduate Research Assistant Texas Stream Team/San Marcos, Texas
	<i>“Corporate Partnerships - Success Stories”</i> <b>Ray Allen</b> Executive Director Coastal Bend Bay and Estuary Program Corpus Christi, TX
	<i>“Urban Green Infrastructure – An initiative for the U.S. -Mexico Border Region”</i> <b>Joaquín Marruffo Ruiz, MEP</b> Environmental Programs Manager Border Environment Cooperation Commission El Paso TX, Ciudad Juarez, Mexico
<b>12:30-2:00 pm</b>	<i>“Beyond sea-level rise: impacts of climate change on coastal ecosystems in south Texas”</i> <b>Christopher A. Gabler, Ph.D.</b> Assistant Professor School of Earth, Environmental, and Marine Sciences The University of Texas Rio Grande Valley Brownsville, TX
	<b>Working Lunch</b> <i>“Development of the Lower Laguna Madre Estuary Program Strategic Plan - Discussion of the Work Done to Date, from Jan 2017-May 2017, 5 years of planning (2013-2017), and the Future”</i> <b>Augusto Sanchez-Gonzales, MS, CFM</b> Director of Estuary, Environmental and Special Projects The University of Texas Rio Grande Valley/Cameron County San Benito, TX
<b>2:00</b>	<b>End of Conference</b>
<b>Saturday, May 27, 2017 (7 am-12 noon)– Laguna Madre Tour (Charter Boat) – Hosted by Lower Laguna Madre Estuary Program – For more information, please sign up at the Registration Table between May 23 and May 26.</b>	
<b>Saturday, May 27, 2017 (7 pm) – Social, Fish Fry – Beach side of Resort.</b>	

**NOTES**

**Members of the LRGV TPDES Stormwater Task Force  
Founded in 1998**



Cameron County





## Partners



## Sponsors

### GOLD SPONSORS

**SCS ENGINEERS**



### SILVER SPONSOR



MELDEN & HUNT, INC.  
CONSULTANTS • ENGINEERS • SURVEYORS

**ESTRADA • HINOJOSA**  
INVESTMENT BANKERS



**L&G Engineering**  
Transportation Consultants



### BRONZE SPONSORS



### Exhibitors



# Office of the Dean



**Alexander Domijan**  
**College of Engineering & Computer Science**  
**The University of Texas Rio Grande Valley**

Dr. Alexander Domijan is the Dean of the College of Engineering and Computer Science at the University of Texas Rio Grande Valley, and is a Professor of Electrical Engineering. The CECS has 3000 students (1 in 10 UTRGV students is an engineering major) and is spread over the 150-mile-wide Rio Grande Valley serving a combined border population in the USA and Mexico of 3.5 million people. Dr. Domijan received his B.S. in electrical engineering from the University of Miami, M.E. in electric power engineering from the Rensselaer Polytechnic Institute, and Ph.D. in electrical engineering from the University of Texas at Arlington.



**David F. Garcia, P.E., Deputy Director**  
Water Quality Protection Division  
EPA Region 6, Dallas, TX



David Garcia serves as the Deputy Director for the Water Quality Protection Division at EPA's Region 6 office in Dallas, Texas. His responsibility includes protecting and preserving the aquatic ecosystems and water resources of Arkansas, Louisiana, New Mexico, Oklahoma, and Texas, as well as the tribal lands located within our Region. Prior to this position, David served as Acting Director for the Multimedia, Planning and Permitting Division and Acting Deputy Assistant Regional Administrator in the Region's Management Division. David has 25 years of work experience in various environmental programs with the EPA where the majority of his experience resides implementing the Clean Air Act in the air permitting and enforcement programs. He has a degree in Civil Engineering and graduated from the University of Texas at Arlington. David enjoys his job and is a strong proponent of the environment who promotes compliance with Federal environmental regulations.



**Nelly Smith**  
Municipal Stormwater Coordinator  
Permits and Technical Assistance Section  
NPDES Permits and TMDLs Branch, EPA Region 6



Nelly Smith has a master's degree in Chemical Engineering from the *University of South Alabama*. Nelly worked for the *Alabama Department of Environmental Management (ADEM)* as a Remedial Project Manager for both the Superfund and the Resource Conservation Recovery Act (RCRA) programs for five years. Since 2006, she has worked for the *Environmental Protection Agency (EPA) Region 6* in the Water Quality Standard, Non-point Source, and the National Pollutant Discharge Elimination System (NPDES)/Stormwater management programs. She is leading a watershed based permit project in the Middle Rio Grande, New Mexico initiated by the EPA Head Quarter - Office of Water. She is currently the Municipal Stormwater Coordinator for EPA Region 6.



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

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 Practitioners 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.

## Cardenas, Adele (Cont.)

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 co-led 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.



**Curry Jones**  
Chief of the State and Tribal Program Section  
EPA Region 6, Dallas, TX

Mr. Curry Jones is Chief of the State and Tribal Program Section for the United States Environmental Protection Agency (EPA), Region 6 office in Dallas, Texas. In this capacity, Mr. Jones provides funding to states and tribes to fund water quality planning, monitoring, modeling and implementation necessary to restore water quality. Over the past 20 years, Mr. Jones has served as both a water quality modeler, and a regional TMDL program manager for EPA's Southeastern Regional Office (Atlanta, Georgia) and EPA's Pacific Northwestern Office (Seattle, Washington). Mr. Jones received his Bachelors of Science degree in Biology from Wiley College, and his Masters of Science Degree in Public Health from the University of Washington School of Public Health and Community Medicine.



**Mike Bira**  
NPS Program Manager  
EPA Region 6, Dallas, TX



Mike Bira is an Environmental Scientist with the US Environmental Protection Agency, currently serving as the Manager for the Nonpoint Source Program in Texas. Over his 30 year career with EPA, Mike has been deeply involved in various water quality programs focusing on watershed assessment, citizen-science based monitoring, development of numeric criteria for nutrients, and environmental education. Prior to joining EPA, Mike was a Field Biologist for the Texas Water Commission, where he developed and carried out a surface water quality sampling program and inspected wastewater treatment facilities. Mike holds a BS in Marine Biology/Chemistry from the University of Tampa, and an MS in Aquatic Biology from Southwest Texas State University – San Marcos.



**Laura Gomez Rodriguez**  
Community Liaison for Federal Interagency Initiatives  
EPA Region 6, Dallas, TX



Ms. Gomez Rodriguez is a Community Liaison for Federal Interagency Initiatives, and formerly led the White House federal inter-agency effort Strong Cities, Strong Communities (SC2) Initiative supporting the City of Brownsville. Her role is to improve federal inter-agency coordination in order to support local governments and communities which are in distress within areas of affordable housing, environment, infrastructure, education, social services, and public health.



**Calista Guthrie Mills**  
Physical Scientist  
U.S. EPA Gulf of Mexico Program  
Gulfport MS

Calista Mills is a physical scientist with the USEPA. She started with the agency in 2013 working in the wetlands regulatory program in Region 4. Calista recently transferred to the USEPA's Gulf of Mexico Program in Gulfport, MS where she is a member of the Science Team and focuses on lab and field work that supports partnerships. She has a MS in Geosciences from Mississippi State University.



**Randy Rush**  
Policy Advisor - Agriculture  
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.



**Lindsay Garza**  
Environmental Permit Specialist III  
Stormwater & Pretreatment Team  
Water Quality Division  
Texas Commission on Environmental Quality

Lindsay has been working with TCEQ's Stormwater and Pretreatment Team since November 2011, as an intern and then full-time team member since September 2012. As an Environmental Permit Specialist III, she is responsible for various tasks including reviewing municipal annual reports, providing customer service, and drafting individual stormwater discharge permits under the Texas Pollutant Discharge Elimination System (TPDES). Lindsay earned a BS in Environmental Science and Policy, with a concentration in Biology, from St. Edward's University in Austin, Texas. She is currently pursuing her MAG in Resources and Environmental Studies from Texas State University in San Marcos, Texas. As an intern with TCEQ, both through the Mickey Leland Program and Texas State's Graduate Partnership Program, Lindsay gained knowledge and experience in Texas law and policy, as well as TPDES permit processes and regulations.



**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.



**Brian Koch**  
Texas State Soil and Water Conservation Board  
Regional Watershed Coordinator

Brian Koch received his Bachelor of Science Degree in Range and Wildlife Management from Texas A&M University Kingsville in 2003. After a short stint in the commercial nursery business, Brian joined the Texas State Soil and Water Conservation Board in 2005 as the Regional Watershed Coordinator serving TSSWCBs Wharton Regional Office service area covering 47 counties in Southeast and South Central Texas. As Regional Watershed Coordinator, Brian has aided in the development and implementation of several WPPs and TMDL I-plans, including; Plum Creek, Geronimo Creek, Mill Creek, Cedar Bayou, Double Bayou, Bacteria Implementation Group, Mission and Aransas Rivers, and Upper San Antonio River, and is currently assisting and has assisted in development and implementation of several more. Brian also represents the agency on the Coastal Coordination Advisory Council, Galveston Bay Estuary Program, and Coastal Bend Bays and Estuaries Program, and assists with the TSSWCB's Water Quality Management Plan Program.



**Mark Evans**  
Statewide Outreach Team Lead  
Texas Water Development Board  
Austin, TX

Mark serves as the Texas Water Development Board (TWDB) subject matter expert for the CWSRF program by providing knowledge and services on program administration, state and federal laws, legislation, rules, and regulations pertaining to the program. Mark specializes in outreach and education on all TWDB financial assistance programs as well. He also manages the intended use plan (IUP) process for the CWSRF program including developing the solicitation package and preparing the draft IUP for the U.S. Environmental Protection Agency and Board approval. Prior to becoming the CWSRF Program Coordinator, Mark served for four years as the TWDB Project Lead over all CWSRF projects overseeing and directing cross-functional project teams in analyzing, closing, and overseeing the construction of CWSRF projects. Mark received his Bachelor of Business Administration in Finance from the University of Texas at Austin.

**Caimee Schoenbaechler**

Manager Development Board Bays & Estuaries Program  
Texas Water Development Board

Caimee Schoenbaechler, Coastal Ecologist, has nine years of scientific work experience in coastal and marine ecosystems and is passionate about bridging the gap between environmental science, management, and policy. Her role at the TWDB is to evaluate the environmental flow needs of Texas estuaries while providing technical and administrative support to scientists, stakeholders, and resource managers across the state who are working to maintain productive estuaries. She is a Certified Ecologist accredited by the Ecological Society of America, and is an active member of the Coastal and Estuarine Research Federation. She received a Bachelor of Science degree in Ecology from The University of Texas at Austin and a Master's degree in Environmental management from Duke University.

**Nelun Fernando, Ph.D.**

Hydrologist/ Bays & Estuaries Program  
Texas Water Development Board  
Austin, TX

Dr. Nelun Fernando is a Hydrologist in the Bays and Estuaries Program at the Texas Water Development Board (TWDB). She is passionate about promoting science for decision making in water management and about tailoring research products that match user needs. She is responsible for compiling coastal freshwater inflow datasets, for determining the best methodologies for the simulation of runoff in ungauged coastal sub-watersheds, and for providing improved seasonal forecasts of May-July rainfall over Texas.

**Evan L. Turner, Ph.D.**

Coastal Scientist  
Bays and Estuaries Program/Texas Water Development Board  
Austin, TX

**Jorge A. Garza**

Senior Managing Director, Dallas  
Estrada Hinojosa & Co., Inc. Board of Directors

Mr. Garza is a Senior Managing Director of Estrada Hinojosa. His current duties include management responsibilities for business development in the Firm's regional offices, including personnel efforts in Chicago, Miami, New York, and San Diego. He's also actively involved in providing investment banking services to clients such as Chicago Transit Authority, Texas Department of Transportation, Dallas Area Rapid Transit, and the Brownsville Public Utilities Board. He has developed financial expertise in water utilities, public power, airports, toll facilities, convention and sports facilities, resource recovery, renewable energy, and public-private partnerships.

Mr. Garza also bring the advantage of a 41-year banking career including over 25 years on Wall Street. His experience includes serving as Director in the Public Finance department at Citigroup Corporate and Investment Bank; Managing Director at Dean Witter Reynolds, Inc. in New York; Senior Vice President at Dillon Read & Co., Inc. in Dallas; Vice President at First Southwest Company in Dallas and San Antonio; Banking Officer at RepublicBank Dallas N.A.; and Vice President at Hidalgo Savings & Loan Association in Edinburg, Texas. Mr. Garza is fluent in Spanish.

**Texas Agriculture Commissioner Sid Miller**



Sid Miller is serving as the 12<sup>th</sup> Texas Commissioner of Agriculture, with his first term beginning in January 2015. Commissioner Miller brings a wealth of knowledge to the Texas Department of Agriculture. He is recognized as one of the state's most dynamic and effective conservative leaders, as well as one of the state's staunchest defenders of constitutional freedoms. During his six terms as a member of the Texas House of Representatives, Commissioner Miller brought his real world agricultural experience to the table. He's your everyday man who's made a difference in his community and for the Lone Star State by working as a small businessman, community leader, school teacher, agriculturist and former school board member. In every aspect of his work, Commissioner Miller has proven his convictions in being pro-business and pro-job creation.

As the leader of the Texas Department of Agriculture, Commissioner Miller is working to safeguard water resources to ensure access for farmers and ranchers, as well as fighting to secure our nation's porous border with Mexico. A true Texan through-and-through, Commissioner Miller is focused on promoting the best Texas-grown and Texas-made products through the GO TEXAN program. Additionally, Commissioner Miller will push for polices to continue growing the Texas economy and creating jobs. Commissioner Miller was born in De Leon, Texas, and is an avid rodeo and horseshow participant who holds nine World Championships. He is a graduate of Tarleton State University in Stephenville, where he received a Bachelor of Science in Vocational Agriculture Education. Commissioner Miller maintains close ties to Stephenville, where he owns and operates a nursery business. Commissioner Miller and his wife, Debra, have been married for 36 years. The Millers have two sons and two grandchildren.

**Toby Baker, TCEQ Commissioner**



Along with his two fellow full-time commissioners, Baker establishes overall agency direction and policy, and makes final determinations on contested permitting and enforcement matters. Baker also serves as Governor Abbott's appointee to the Gulf Coast Ecosystem Restoration Council, represents Texas as the chair on the Gulf of Mexico Alliance Management Team, and serves on the Coastal Land Advisory Board.

Prior to his appointment, Baker was a policy and budget advisor on energy, natural resources and agriculture issues for the Governor's Office, where he was also the liaison between the office and members of the Legislature, constituents, the Railroad Commission of Texas, the TCEQ, the Texas Parks and Wildlife Department, the Texas Department of Agriculture, and the Texas Animal Health Commission. He is a past natural resource policy advisor to Sen. Craig Estes, and the former director and clerk of the Texas Senate Subcommittee on Agriculture, Rural Affairs and Coastal Resources. Baker received a bachelor's degree from Texas A&M University, where he was a member of the Corps of Cadets, and a Master of Public Service and Administration from the Texas A&M George Bush School of Government and Public Service. He is also a graduate of the National Outdoor Leadership School and the Governor's Executive Development Program at the University of Texas LBJ School of Public Affairs.

**Kathleen Jackson, Texas Water Development Board, Director**



Kathleen Jackson was appointed to the Texas Water Development Board by Governor Rick Perry effective March 18, 2014, and appointed to a new term by Governor Greg Abbott effective December 15, 2015. 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.

Additionally, she was involved in production agriculture with her late husband, who ran a cattle operation and farmed rice. She served as a past member of the Lower Neches Valley Authority Board of Directors, the Texas Water Conservation Association, and participated on the Sabine and Neches Rivers Bay and Estuary Environmental Flows Assessment Program Stakeholders Committee. She is also a board member and past president of the Lamar Institute of Technology Foundation, a sustaining member of the Junior League of Beaumont, a member of the Texas Farm Bureau, past president of the American Cancer Society of North Jefferson County, and a past board member of Junior Achievement of the Golden Triangle. Jackson received a bachelor's degree in chemical engineering from North Carolina State University. Jackson has three children, sixth-generation Texans, who all reside and work in Texas.

## NOTES

### FLOOD FORECASTING, RESILIENCY & RESPONSE

Rapid translation of advances in monitoring & forecasting technology into lifesaving operational tools

May 25, 2017

3:15-5:00pm, Isla Grand Hotel, South Padre Island

a workshop of



#### 19<sup>th</sup> Annual Rio Grande Valley Water Management & Planning Conference

Admission is Free to All First Responders with Valid ID

#### 1. PURPOSE

Approximately two thirds of all federal disaster declarations involve flooding. Flooding, its response and relief, is the single most costly form of natural disaster in the United States. In addition to the immediate loss of human life, including that of first responders, floods devastate homes and businesses, and can destroy regional economies. Improving on the ability to forecast in real-time the potential pathways and impacts of active storms can have a huge impact on the ability of first responders to save lives, including their own, protect vital assets, and improve community resilience. The purpose of this panel is to discuss new tools and technologies available for forecasting, response, and resiliency planning available to communities in the Rio Grande Valley, and to foster a dialogue between the scientists, engineers, responders and planners to secure our region.

#### 2. PANEL



- **3:00- 3:30pm: State of the Science, Resiliency and Response**
  - Harry Evans, Center for Research on Water Resources, University of Texas, Austin Fire Department (Retired). *Texas Flood Response Project*
  - John O'Valle, District Coordinator, Field Response Section, Texas Division of Emergency Management
  - Jay Franklin, Infrastructure Manager, Community Development and Revitalization, Texas General Land Office. *The Texas General Land Office Community Development and Revitalization Program*
- **3:30-4:00pm: Perspective from the Trenches**
  - Doug Fowler, Fire Chief, City of South Padre Island
  - Jude Benavides, Associate Professor, University of Texas Rio Grande Valley
  - Tony Pena, Region III State Coordinator, Texas Division of Emergency Management
  - Pilar Rodriguez, Executive Director, Hidalgo County Regional Mobility Authority
  - Ricardo Saldana, Emergency Management Coordinator, Hidalgo County Office of Emergency Management
- **4:00-4:20pm: Open discussion**
  - Audience Participation
- **4:20-4:30pm: Wrap-up – Where do we go from here?**

Andrew N.S. Ernest, Ph.D., P.E., BCEE, D.WRE, Chair, Civil Engineering, University of Texas Rio Grande Valley

# UTRGV 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 (20<sup>th</sup>) 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.