

## U.S. Environmental Protection Agency Region 6

## Capacity, Management, Operation & Maintenance (CMOM) Workshop

Ballroom A
Austin Convention Center
500 East Cesar Chavez Street
Austin, Texas 78701

### Day 1 Monday, August 19, 2019

	112011411,11118110112,12012
10:00 AM – 10:30 AM	Welcoming Remarks: Rick Coronado, P.E., Assistant Director, Austin Water, City of Austin, TX Heather Cooke, President, Water Environment Association of Texas, Austin, TX Susan M. Jablonski, P.E., Area Director, Central Texas Area, Office of Compliance and Enforcement, Texas Commission on Environmental Quality, Austin, TX Rachel Matthews, Enforcement Officer, Water Enforcement Branch, Compliance Assurance and Enforcement Division, U.S. EPA Region 6, Dallas, TX
10:30 AM – 11:00 AM	<b>Keynote Speaker</b> – "Sanitary Sewer Overflow Enforcement – A National Perspective" – Loren Denton, Chief, Municipal Enforcement Branch, Water Enforcement Division, U.S. EPA Headquarters, Washington, D.C.
11:00 A.M. – 11:30 AM	"Sanitary Sewer Overflows and Significant Non-Compliance (SNC): EPA Region 6 Perspective" – Rachel Matthews, U.S. EPA Region 6, Dallas, TX
11:30 AM – 12:00 Noon	"TCEQ's Sanitary Sewer Overflow Initiative" – Anne Ruthstrom, Texas Commission on Environmental Quality, Austin, TX
12:00 Noon – 1:00 PM	<b>Luncheon Speaker</b> – "Texas Board of Professional Engineers – Professional Practice Ethics: Board Updates" – Virginia Essary, Texas Board of Professional Engineers, Austin, TX
1:00 PM – 1:45 PM	"Getting It Done: SAWS Condition Rehab Program" – Christopher Jackson, P.E. and Cristina Brantley, P.E., San Antonio Water System, San Antonio, TX
1:45 PM – 2:30 PM	"The Journey to Becoming a Digital Utility: Houston Water Perspective with a Specific Focus on CMOM" – Fazle Rabbi, P.E., CFM and Pratistha Pradhan, D.Eng., P.E., CFM, Houston Water, City of Houston, TX
2:30 PM – 3:15 PM	"National Water Sector Pipeline Infrastructure Database – PIPEiD" – Sunil Sinha, Ph.D., Virginia Tech, Blacksburg, VA
3:15 PM – 3:30 PM	Networking Break
3:30 PM – 4:15 PM	"Odor Control Evaluation and Mitigation in Collection Systems" – Richard Pope, P.E. and Marcela Sion, P.E., Hazen and Sawyer, New York, NY and Austin, TX
4:15 PM – 5:00 PM	"Wastewater System Challenges in Beaumont, Texas" – Joseph G. Majdalani, D. Eng., P.E., City of Beaumont, TX
5:00 PM – 5:30 PM	Panel Discussion and Questions and Answers – Raj Bhattarai, Austin Water, Moderator
5:30 PM	Adjourn



# U.S. Environmental Protection Agency Region 6 Capacity, Management, Operation & Maintenance (CMOM) Workshop

Ballroom A
Austin Convention Center
500 East Cesar Chavez Street
Austin, Texas 78701

#### Day 2 Tuesday, August 20, 2019

Water District" – Jenna Covington, P.E., North Texas Municipal Water District Wylie, TX  8:45 AM – 9:30 AM  "Asset Management Drives Effective Maintenance" – John D'Antoni, D.Eng., Black & Veatch, Houston, TX  "The 4th Industrial Revolution and Changing Asset Management Requirements Gage Muckleroy, P.E., BCEE, GHD, Bowie, MD  10:15 AM – 10:30 AM  Networking Break  "Full of Gold (FOG): Identifying Value Added Initiatives for Fats, Oil, and G. Waste Streams" – Joel J. Ducoste, Ph.D., BCEEM, North Carolina State Univ. Raleigh, NC  11:15 AM – 12:00 Noon  "City of Houston Strategic Hierarchy Categorization Identification & Prioriti Program (SHCIP)" – Jack Canfield and Shannon Dunne, Houston Water, City Houston, TX  12:00 Noon – 1:00 PM  Luncheon Speaker – "Peak Flow Management" – Hazem Gheith, Ph.D., P.E. Arcadis, Columbus, OH  "Persistence Pays Off: Long-Term Flow Monitoring and Hydraulic Modeling Smith, P.E., Austin Water, Austin, TX  1:30 PM – 2:00 PM  "A Comprehensive Criticality-Based Prioritization Approach for Wastewater Collection Pipeline Rehabilitation in the City of Austin's Fort Upper and Tow. Basins" – Aldo Sotelo, P.E., Stantec, Austin, TX  2:00 PM. – 2:30 PM  "SAWS Inflow Reduction Program" – Kevin Taylor and Matthew Schorsch, S Antonio Water System, San Antonio, TX  "Keys to a Successful Flow Monitoring Project" – Jim Caruso, Hach Compan Loveland, CO  3:00 PM – 3:30 PM  Panel Discussion and Questions and Answers – Raj Bhattarai, Austin Water, Moderator		
Black & Veatch, Houston, TX  "The 4th Industrial Revolution and Changing Asset Management Requirements Gage Muckleroy, P.E., BCEE, GHD, Bowie, MD  10:15 AM – 10:30 AM  Networking Break  "Full of Gold (FOG): Identifying Value Added Initiatives for Fats, Oil, and Gowaste Streams" – Joel J. Ducoste, Ph.D., BCEEM, North Carolina State Universaliegh, NC  "City of Houston Strategic Hierarchy Categorization Identification & Priorititian Program (SHCIP)" – Jack Canfield and Shannon Dunne, Houston Water, City Houston, TX  12:00 Noon – 1:00 PM  Luncheon Speaker – "Peak Flow Management" – Hazem Gheith, Ph.D., P.E. Arcadis, Columbus, OH  "Persistence Pays Off: Long-Term Flow Monitoring and Hydraulic Modeling Smith, P.E., Austin Water, Austin, TX  1:30 PM – 2:00 PM  "A Comprehensive Criticality-Based Prioritization Approach for Wastewater Collection Pipeline Rehabilitation in the City of Austin's Fort Upper and Town Basins" – Aldo Sotelo, P.E., Stantec, Austin, TX  2:00 PM. – 2:30 PM  "SAWS Inflow Reduction Program" – Kevin Taylor and Matthew Schorsch, SAntonio Water System, San Antonio, TX  "Keys to a Successful Flow Monitoring Project" – Jim Caruso, Hach Compan Loveland, CO  3:00 PM – 3:30 PM  Panel Discussion and Questions and Answers – Raj Bhattarai, Austin Water, Moderator	8:00 AM – 8:45 AM	"Regional Collaboration and CMOM Implementation with North Texas Municipal Water District" – Jenna Covington, P.E., North Texas Municipal Water District, Wylie, TX
Gage Muckleroy, P.E., BCEE, GHD, Bowie, MD  10:15 AM — 10:30 AM  Networking Break  "Full of Gold (FOG): Identifying Value Added Initiatives for Fats, Oil, and Gowaste Streams" — Joel J. Ducoste, Ph.D., BCEEM, North Carolina State Universal Raleigh, NC  11:15 AM — 12:00 Noon  "City of Houston Strategic Hierarchy Categorization Identification & Prioritith Program (SHCIP)" — Jack Canfield and Shannon Dunne, Houston Water, City Houston, TX  12:00 Noon — 1:00 PM  Luncheon Speaker — "Peak Flow Management" — Hazem Gheith, Ph.D., P.E. Arcadis, Columbus, OH  1:00 PM — 1:30 PM  "Persistence Pays Off: Long-Term Flow Monitoring and Hydraulic Modeling Smith, P.E., Austin Water, Austin, TX  1:30 PM — 2:00 PM  "A Comprehensive Criticality-Based Prioritization Approach for Wastewater Collection Pipeline Rehabilitation in the City of Austin's Fort Upper and Town Basins" — Aldo Sotelo, P.E., Stantec, Austin, TX  2:00 PM.— 2:30 PM  "SAWS Inflow Reduction Program" — Kevin Taylor and Matthew Schorsch, S Antonio Water System, San Antonio, TX  2:30 PM — 3:00 PM  "Keys to a Successful Flow Monitoring Project" — Jim Caruso, Hach Compan Loveland, CO  3:00 PM — 3:30 PM  Panel Discussion and Questions and Answers — Raj Bhattarai, Austin Water, Moderator	8:45 AM – 9:30 AM	"Asset Management Drives Effective Maintenance" – John D'Antoni, D.Eng., P.E., Black & Veatch, Houston, TX
10:30 AM – 11:15 AM  "Full of Gold (FOG): Identifying Value Added Initiatives for Fats, Oil, and Gold (Waste Streams" – Joel J. Ducoste, Ph.D., BCEEM, North Carolina State Universal Raleigh, NC  11:15 AM – 12:00 Noon  "City of Houston Strategic Hierarchy Categorization Identification & Prioriti. Program (SHCIP)" – Jack Canfield and Shannon Dunne, Houston Water, City Houston, TX  12:00 Noon – 1:00 PM  Luncheon Speaker – "Peak Flow Management" – Hazem Gheith, Ph.D., P.E. Arcadis, Columbus, OH  1:00 PM – 1:30 PM  "Persistence Pays Off: Long-Term Flow Monitoring and Hydraulic Modeling Smith, P.E., Austin Water, Austin, TX  1:30 PM – 2:00 PM  "A Comprehensive Criticality-Based Prioritization Approach for Wastewater Collection Pipeline Rehabilitation in the City of Austin's Fort Upper and Town Basins" – Aldo Sotelo, P.E., Stantec, Austin, TX  2:00 PM. – 2:30 PM  "SAWS Inflow Reduction Program" – Kevin Taylor and Matthew Schorsch, S Antonio Water System, San Antonio, TX  "Keys to a Successful Flow Monitoring Project" – Jim Caruso, Hach Compan Loveland, CO  3:00 PM – 3:30 PM  Panel Discussion and Questions and Answers – Raj Bhattarai, Austin Water, Moderator	9:30 AM – 10:15 AM	"The 4 <sup>th</sup> Industrial Revolution and Changing Asset Management Requirements" Gage Muckleroy, P.E., BCEE, GHD, Bowie, MD
Waste Streams" – Joel J. Ducoste, Ph.D., BCEEM, North Carolina State Universaleigh, NC  11:15 AM – 12:00 Noon  "City of Houston Strategic Hierarchy Categorization Identification & Prioriti Program (SHCIP)" – Jack Canfield and Shannon Dunne, Houston Water, City Houston, TX  12:00 Noon – 1:00 PM  Luncheon Speaker – "Peak Flow Management" – Hazem Gheith, Ph.D., P.E. Arcadis, Columbus, OH  1:00 PM – 1:30 PM  "Persistence Pays Off: Long-Term Flow Monitoring and Hydraulic Modeling Smith, P.E., Austin Water, Austin, TX  1:30 PM – 2:00 PM  "A Comprehensive Criticality-Based Prioritization Approach for Wastewater Collection Pipeline Rehabilitation in the City of Austin's Fort Upper and Town Basins" – Aldo Sotelo, P.E., Stantec, Austin, TX  2:00 PM. – 2:30 PM  "SAWS Inflow Reduction Program" – Kevin Taylor and Matthew Schorsch, S Antonio Water System, San Antonio, TX  2:30 PM – 3:00 PM  "Keys to a Successful Flow Monitoring Project" – Jim Caruso, Hach Compan Loveland, CO  3:00 PM – 3:30 PM  Panel Discussion and Questions and Answers – Raj Bhattarai, Austin Water, Moderator	10:15 AM – 10:30 AM	Networking Break
Program (SHCIP)" – Jack Canfield and Shannon Dunne, Houston Water, City Houston, TX  12:00 Noon – 1:00 PM  Luncheon Speaker – "Peak Flow Management" – Hazem Gheith, Ph.D., P.E. Arcadis, Columbus, OH  1:00 PM – 1:30 PM  "Persistence Pays Off: Long-Term Flow Monitoring and Hydraulic Modeling Smith, P.E., Austin Water, Austin, TX  1:30 PM – 2:00 PM  "A Comprehensive Criticality-Based Prioritization Approach for Wastewater Collection Pipeline Rehabilitation in the City of Austin's Fort Upper and Town Basins" – Aldo Sotelo, P.E., Stantec, Austin, TX  2:00 PM. – 2:30 PM  "SAWS Inflow Reduction Program" – Kevin Taylor and Matthew Schorsch, S Antonio Water System, San Antonio, TX  2:30 PM – 3:00 PM  "Keys to a Successful Flow Monitoring Project" – Jim Caruso, Hach Compan Loveland, CO  3:00 PM – 3:30 PM  Panel Discussion and Questions and Answers – Raj Bhattarai, Austin Water, Moderator	10:30 AM – 11:15 AM	"Full of Gold (FOG): Identifying Value Added Initiatives for Fats, Oil, and Grease Waste Streams" – Joel J. Ducoste, Ph.D., BCEEM, North Carolina State University, Raleigh, NC
Arcadis, Columbus, OH  1:00 PM – 1:30 PM  "Persistence Pays Off: Long-Term Flow Monitoring and Hydraulic Modeling Smith, P.E., Austin Water, Austin, TX  1:30 PM – 2:00 PM  "A Comprehensive Criticality-Based Prioritization Approach for Wastewater Collection Pipeline Rehabilitation in the City of Austin's Fort Upper and Town Basins" – Aldo Sotelo, P.E., Stantec, Austin, TX  2:00 PM. – 2:30 PM  "SAWS Inflow Reduction Program" – Kevin Taylor and Matthew Schorsch, S Antonio Water System, San Antonio, TX  2:30 PM – 3:00 PM  "Keys to a Successful Flow Monitoring Project" – Jim Caruso, Hach Compan Loveland, CO  3:00 PM – 3:30 PM  Panel Discussion and Questions and Answers – Raj Bhattarai, Austin Water, Moderator	11:15 AM – 12:00 Noon	"City of Houston Strategic Hierarchy Categorization Identification & Prioritization Program (SHCIP)" – Jack Canfield and Shannon Dunne, Houston Water, City of Houston, TX
Smith, P.E., Austin Water, Austin, TX  1:30 PM – 2:00 PM  "A Comprehensive Criticality-Based Prioritization Approach for Wastewater Collection Pipeline Rehabilitation in the City of Austin's Fort Upper and Town Basins" – Aldo Sotelo, P.E., Stantec, Austin, TX  2:00 PM. – 2:30 PM  "SAWS Inflow Reduction Program" – Kevin Taylor and Matthew Schorsch, S Antonio Water System, San Antonio, TX  2:30 PM – 3:00 PM  "Keys to a Successful Flow Monitoring Project" – Jim Caruso, Hach Compan Loveland, CO  3:00 PM – 3:30 PM  Panel Discussion and Questions and Answers – Raj Bhattarai, Austin Water, Moderator	12:00 Noon – 1:00 PM	<b>Luncheon Speaker</b> – "Peak Flow Management" – Hazem Gheith, Ph.D., P.E., Arcadis, Columbus, OH
Collection Pipeline Rehabilitation in the City of Austin's Fort Upper and Town Basins" – Aldo Sotelo, P.E., Stantec, Austin, TX  2:00 PM. – 2:30 PM  "SAWS Inflow Reduction Program" – Kevin Taylor and Matthew Schorsch, S Antonio Water System, San Antonio, TX  2:30 PM – 3:00 PM  "Keys to a Successful Flow Monitoring Project" – Jim Caruso, Hach Compan Loveland, CO  3:00 PM – 3:30 PM  Panel Discussion and Questions and Answers – Raj Bhattarai, Austin Water, Moderator	1:00 PM – 1:30 PM	"Persistence Pays Off: Long-Term Flow Monitoring and Hydraulic Modeling" – Joe Smith, P.E., Austin Water, Austin, TX
Antonio Water System, San Antonio, TX  2:30 PM – 3:00 PM  "Keys to a Successful Flow Monitoring Project" – Jim Caruso, Hach Compan Loveland, CO  3:00 PM – 3:30 PM  Panel Discussion and Questions and Answers – Raj Bhattarai, Austin Water, Moderator	1:30 PM – 2:00 PM	Collection Pipeline Rehabilitation in the City of Austin's Fort Upper and Town Lake
Loveland, CO  3:00 PM – 3:30 PM  Panel Discussion and Questions and Answers – Raj Bhattarai, Austin Water, Moderator	2:00 PM. – 2:30 PM	"SAWS Inflow Reduction Program" – Kevin Taylor and Matthew Schorsch, San Antonio Water System, San Antonio, TX
Moderator	2:30 PM – 3:00 PM	"Keys to a Successful Flow Monitoring Project" – Jim Caruso, Hach Company, Loveland, CO
3:30 PM Adjourn	3:00 PM – 3:30 PM	~
· · · · · · · · · · · · · · · · ·	3:30 PM	Adjourn