	Track A	Track B	Track C	Track D	Track E	Track F	Track G	Track H	Track I
	PD1	PD2	PD3	CAS1	CAS2	CR1	CR2	MD	MD
Track Chair	Mark Poppe	Nathan Cobler	Dan Atambo	Karem Carpio	Harshit Shukla	Ron Mick	Aric Farnsworth	Alan Swartz	Samantha OFarrell
Session Title	A1 - Water Quality and Modeling	B1 - Transmission Main Challenges	C1 - Innovations in Utility Detection	D1 - CIP - Asset Management	E1 - Proactive Condition Assessment	F1 - Renewing and Rehabilitating Water Systems	G1 - Rehab Smarts: Bid Strategies, Risks, and Innovation	H1 - Innovative Solutions for Complex Sewer Challenges	I1 - Smart Infrastructure Systems
Moderator	Luis Leon	Brent Hauser	Madhuri Arjun	Keith Bushdiecker	Collin Hayes	Brent Keil	Juan Rosales Aguado	Maria Contreras	Jennifer Baldwin
10:30 am to 12:00 pm	107 - Integrating Hydraulic Modeling and Proxy-Based Analysis for Risk-Based Valve Prioritization in Water Networks	83 - Segment C in Focus: Tackling the Toughest Stretch of GPWC's Transmission Main	104 - Finding Pipelines by Not Finding Them - Negative Verification of Large Diameter Pipelines on Large Projects	284 - Shining Superior Sunlight on Water Transmission Main Integrity in Thunder Bay	156 - Bridging Immediate Needs and Future Risks: A Case Study in Large-Diameter Pipeline Management	358 - Over- Deflected Steel Pipe is a Bracing Effort	16 - Geopolymer or not Geopolymer… that is the Question! Large Diameter Sewer Rehab with Geopolymer Mortar and or CIPP Trenchless Technology Options.	330 - When the Force isn't with You: Utilizing Innovative Force Main Design Approaches for Lift Stations in Developing Areas	70 - Critical Branch Search in an Interdependent Energy and Gas Pipeline Network using Reinforcement Learning
Authors	Arash Azizi, Himan Hojat Jalali, Mohsen Shahandashti	Kevin Alvarado	Tom Bodera	Justin Hebner, Bill Jappy, Joshua Daniels	Sepideh Yazdekhasti, Greta Vladeanu, Vennila Durai, Harpreet Singh	Tammy Cleys	Scott Naiva	Natalie Cronk, Jack Earney	Nof Yasir, Di Wu, Ying Huang
	220 - Model-aided Pipeline Design: Leveraging Advanced Modeling Techniques to Balance and Blend Two Raw Water Sources	44 - Under Pressure: Replacing a Critical Transmission Main Beneath a Bustling Boulevard	18 - Alignment and Equipment Recovery During Challenging Trenchless Construction	118 - Driving CIP Decisions Using Risk at DWSD	159 - Proactive Approach to Take for PCCPs with Uncertain Defects	259 - Full-Scale Tests for Pipeline Mitigation at Fault Crossings Using Geobuffer	142 - Data-Driven Bid Review in Municipal Contracting: A Case Study of Baltimore's Water Main Replacement Program	65 - Engineering and Executing a High-Stakes 84" Sewer Outfall Hot Tap at Sand Island Wastewater Treatment Plant	41 - Underground Innovation: Integrating Trenchless Technology into Smart City Framework
Authors	Darpan Chorghe, Adam Maughn, Jimmy Sibert	Joshua Starling, Antonia Kopp, Alia Johnson, Arjen Bootsma	Sam Wilbur, Tennyson Muindi	Christopher Pawlowski, Erika Campbell	Shaoqing Ge	Javad Mirzaei, Ali Fathi, Ali Imanpour	Muhammad Tak, Rupak Karki	Scott Jennings, Samuel Ariaratnam	Rasoul Abbas
	252 - Hydraulic Evaluation for Long-Term Storage Planning	31 - Designing on the Fly - A Large Diameter Transmission Main through a Congested Urban Community	20 - Drone Based Digital Twins: Surface and Underground	210 - Enhancing PCCP Asset Integrity Management with Vibroacoustic Testing – Multi Utility Trials Comparing with Electromagnetic Inspections	197 - Proactive Pipeline Management: A Data-Centric Strategy for Failure Prevention	168 - Effect of CIPP Rehabilitation on Seismic Resilience of Water Pipeline Systems	143 - In-house 66-inch Sewer Rehab Saves Time and Money	166 - Going Backward to Go Forward: Using Clay Pipe for Sewers	320 - LLM-Augmented Dynamic Database for Pipeline Hazard and Risk Management
Authors	Annie Cashon, Corrie Kissner, David Ecklund	Sarah King	Adam Zeciri	Cameron White, John Norton, Rabia Mady, Damon Cunningham, Anna Lee, David Espinosa, Sebastien Perrier	Mohina Sharma, Harpreet Singh, Carley Williamson, Bryan Johnson	Seyed Mahmoudreza Yadollahi, Kalyan Piratla	Jerimy Borchardt, Dan Pruden, Jeremy Snyder	Anthony Vecchio	Hui Wang, Kiranmayee Madhusudhan

Session Title Moderator	A2 - Data Driven Water Planning Susanne Lockhart	B2 - Trenchless Solutions Matt Gaughan	C2 - Geotechnical Insights for Pipelines Joselito Felipe	D2 - Electro Magnetic Inspection Diego Calderon	E2 - Utilities PCCP Condition Assessment Christine Ellenberger	F2 - Renewing and Rehabilitating Water Systems Salar Bavili Nezhad	G2 - Rehab Under Pressure: Valves, Easements, Mains Deanna Martin	H2 - Digital Intelligence for Resilient Water Infrastructure Amin Tehrani	I2 - Cathodic Protection and Interference Mitigation Victor Nataly
1:30 pm to 3:00 pm	141 - From Pipes to Power BI: How Data Transformed Baltimore's Water Main Replacement Program	72 - Outfall and Intake Solutions — A Comparative Study on Trenchless Applications for Environmentally Sensitive Areas	57 - Using Geophysical Techniques to Understand the Impacts of GeoHazards on Existing and Proposed Buried Infrastructure	33 - Advancing Condition Assessment of Buried Municipal Metallic Pipelines Using Contactless Magnetic Inspection Technology (CMIT)	172 - A Leak Aligned with Wire Breaks—History Nearly Repeated Itself - A Data-Driven Condition Assessment of Baltimore's 42-Inch Fullerton PCCP Water Main	180 - Big Valves, Tight Spaces - Integrating Large-Diameter Valves in Existing Vaults	139 - Releasing Seized Valves without Replacement - Technology Introduction with Case Studies	27 - Digital Transformation in Pipeline Delivery: Integrating BIM, UAVs, and AI-Driven Dashboards for Large-Scale Wastewater Infrastructure in Saudi Arabia	19 - Telluric Effects on Cathodic Protection System of Cross-country Pipeline – Analysis of Pipeline A
Authors	Mike Marsjanik, Tarnisha Bailey, Muhammad Tak	Bradley Marin	Eric Cross	Chukwuma Onuoha, Divine Nnamdi	Vennila Durai, Harpreet Singh	Ahmed Hussein, José Aldrete, Andy Stanton	Randy Lusk	Cem Cesur	Manish Mauta
	74 - From Expansion to Optimization: Integrating Rehabilitation Strategies into Regional Water Planning	54 - Tunnels, Karst, and Community: Delivering the SAWS W9 Sewer Project	68 - Aligning Expectations Underground: A Guide to Geotechnical Baseline Reports in Trenchless Projects	163 - Maximizing a Planned Outage to Pilot Multiple Electromagnetic Technologies	200 - Advancing Pipeline Resilience Through Continuous Monitoring and Targeted Interventions	209 - A 704-MGD Balancing Act: Modernizing Critical Transmission Infrastructure While Maintaining Operability	55 - Defying Engineering Limits: Installing an 84-inch sewer within mere feet of existing infrastructure	352 - Ontology-Based Semantic Model for Pipe Condition and Risk Assessment	297 - Current Matters: Design and Maintenance of Cathodic Protection Systems on Pipelines
Authors	Sami Sweis	Nathan Cobler, Matthew Wallin, Greg Blackburn	Sara Doran, Paul Headland	Scott Jauch, Chris Garrett, Ad Shatat, Aimée Conroy, Frank Dubasik	Mohina Sharma, Romel Tiruneh, Carley Williamson, Lynne Putnam, Brandon Friedland	Andrew Richardson	Donald Lange, Geleany Morales-Carrero	Man Liang	Paula Aguilar, Chandler Carpenter, Jason Montgomery, Brian Eynon
	157 - Turning Data into Action: A Case Study in Strategic Pipeline Management Planning	233 - The Price of Repairing the Wrong Pipe: An Innovative Method for Identifying Pipes for Rehabilitation	296 - Planning to Construction: Fresno Downtown Water and Wastewater Infrastructure Improvements	313 - Risk-Informed Assessment and Rehabilitation of High-Consequence-of-Failure DIP Water Main	232 - How Good Planning Led to a Successful (But Boring) Inspection of a 120-inch PCCP Water Main in Michigan	356 - Pressure Pipe Pigging - What Are Municipalities Missing Out On?	217 - Analytical Evaluation of Basalt Fiber Reinforced Polymer Wire for Prestressing in Prestressed Concrete Cylinder Pipes	266 - Beyond Averages: AI-Assisted Statistical Modeling for Utility Depth Discrepancy Analysis in Texas Cities	109 - Distribution Power Line Impacts on Pipeline AC Interference Levels: Field Cases and Identification Strategies
Authors	Greta Vladeanu, Sepideh Yazdekhasti, Dave Heikkila, Heather Edwards	Jane Burnett, Jared Svagera, Olivia Olsztyn-Budry, Jody Caldwell	Matthew Sarabia	Robin Kumar, Piyush Garg, Murat Engindeniz, Kevin Weeks, Troy Bontrager	Jane Burnett, Russell Deason, Olivia Olsztyn-Budry, Jody Caldwell	Kristopher Embry, Tony Conn	Abdoslam Il Abdly, Ainas El Fakry	Xi Xie, Joseph Murphy	Ali Jinnah

Session Title Moderator	A3 - Building Smarter, Stronger Infrastructure Richard Mielke	B3 -Large Diameter Pipe Design Alan Garri	C3 - Lifecycle Strategies for Water Systems Khalid Kaddoura	D3 - Sewer Matt Gallagher	E3 - Sewer Condition Assessment Xudong Fan	F3 - Collaborative Delivery Project Discussions Megan Campbell	G3 - Geohazard-Resilient Pipelines: From Canyon to Coast Julian Pesqueira	H3 - Pipelines of Progress: Tackling Water Quality and Reuse with Bold Engineering Peter Brask	I3 - Strategies and Insights for Managing Internal Corrosion Tim Taylor
4:00 pm to 5:30 pm	178 - Optimizing a 40 mile, 84-inch pipeline alignment in Greater Los Angeles: Oh Boy!	262 - Enhancing Regional Resilience Through the Design of 42-Inch Water Transmission Main	225 - Life Cycle Cost Analysis of Corrosion Control for Ductile Iron Water Mains	308 - Condition Assessment as a Roadmap to Predictive Pipeline Stewardship	42 - Advances and Emerging Trends in Collection System Inspection Technologies	306 - DC Water Design-Build Success Extends Service Life of 175-Year Old Sewer	305 - Replacement of Large Force Main Along Heavy Landslide Area	125 - California's Largest Agricultural Water Recycling Program: Insights from the Elk Grove Transmission Pipeline Project	298 - Tracking Two Decades of Corrosion Progression: Lessons from the Northern Pipeline
Authors	Andy Stanton, Kimberly Wilson, Lane Pagano, Hedieh Esfahani, Chao Sheu Wong	William Fisher	Michael Szeliga, Samual Thomas, Lou Taylor	Berk Uslu, Sunil Sinha	Himan Hojat Jalali, Nimee Tiwari, Dima Shammout	Anna Pridmore, Yonas Kidanemariam, Susaye Douglas, Shikui-Steve Bian	Cecilia Dominguez, Anthony Munoz	John Spalding, Matt Carpenter	Ali Alavi, Long Joseph
	247 - Building a Smarter Sewer: Southgate's Path to Data-Driven Infrastructure Improvements	304 - Challenges to Replacing a 72-inch PCCP in a Suburban Area	264 - Risk-informed Life Cycle Analysis of Water Distribution Systems	301 - Large-Diameter Wastewater Aerial Crossing Pipe: Condition Assessment and Repair Recommendations	130 - Distributed Temperature Sensing for Locating Significant Sources of I/I In Sanitary Sewer Systems	196 - Lake Macatawa 3,200LF Crossing Condition Assessment and Rehabilitation	212 - Alpine Aqueduct Reach 1 Risk & Resiliency Project	314 - Successful Conveyance Approaches for Surface Water Augmentation	37 - Microbially Induced Corrosion in Wastewater Systems
Authors	Annie Cashon	Jonathan Shirk, Courtney Jalbert	Julker Nayen Rafi, Ram Krishna Mazumder	Mitchell Sawtelle, Amin Tehrani, Scott Hoelzle, Adam Maughn	Andy Lukas	Andy Bremner	Christopher Elison	Casey Casey Raines, Pedro Alvarez	Tom LaRue
	206 - Pipe Dreams: How Hydraulic Modeling Informed the Design of a 50-Mile Transmission System in Colorado	249 - 19th Century Ditch Finally Gets Closure: Designing the Palmdale Ditch Conversion Project	263 - Future-Proofing Water Infrastructure: Lifecycle Design of Steel Water Pipe	124 - Machine Learning Based Risk Profiling of Sewer Pipelines Using Limited Asset Attributes A Comparative Study of Miami and Tampa	151 - Historic Combined Sewer Severe Invert Loss, Imminent Failure Grade, Structural Integrity Maintained	248 - Collaborative Delivery of the Lake Ralph Hall Raw Water Pipeline: Managing Risk, Procurement, and Technical Complexity	79 - Challenge Accepted: Trenchless Rehabilitation of Large Diameter Water Supply Pipeline Systems with Limited Access, Difficult Alignments and Complex Configurations	292 - Gravity at Work: Tackling Water Quality with 120 Miles of Innovation	251 - Interceptor Integrity: A Regional Approach to Mitigating Sewer Odors and Corrosion for Over 100 miles of Large Diameter Interceptor Sewer
Authors	Doug Ashworth	Eric Neill, Jerimy Borchardt	Caelan March	Shima Zare, Mohammad Najafi, Arash Azizi	Tanner Adair	Jessica Osborn	Jeff Maier	Amy Hribar	Steven Graziano, Jason Matteo, Bill Desing, Steve Roberts

Session Title	A4 - Design Challenges and Control Strategy	B4 - Pipeline Design Decisions	C4 - Seismic Resilience in Water Systems	D4 - PCCP Forecasting and Monitoring	E4 - Water and Sewer Condition Assessment	F4 - Wastewater Rehabilitation Concepts	G4 - Straight Outta Detroit	H4 -Workforce Challenges and Solutions Networking Breakfast and Workshop	I4 - Risk, Standards, and Accuracy in Existing Utility Infrastructure
Moderator	Jeffrey Shoaf	James Bryan	Adam Maughn	Becca Wright	Shaoqing Ge	Bhavani Chowdary Chimata	Shelby Warchesik	Anna Pridmore	Johnathan Jackson
9:00 am to 10:30 am	193 - Field Verification of Surge Control Strategies in a Large-Scale Raw Water Conveyance System	360 - Mouth of The Duwamish Combined Sewer Overflow (MDCSO)	140 - Achieving Redundancy and Seismic Resiliency for Conjunctive Management of a Critical Regional Water Supply System	126 - Time-Dependent Failure Forecasting of Prestressed Concrete Cylinder Pipes: A Case Study of GLWA's 24 Mile Line	34 - Pump Station Pipeline Inspections Using Rope Access	50 - A State-of-the-Art Review of Advancements in Sewer Pipe Rehabilitation Technologies	121 - North Interceptor East Arm (NI-EA): Constructability and Performance of Liners in Large-Diameter Sewers – Initial Phase of a Pilot Study	290 - Workforce Challenges and Solutions Networking Breakfast and Workshop	224 - Analysis of the Impact of ASCE 38-22 And 75-22 Adoption on Utility Damage Across States in the USA Using DIRT Data
Authors	Mohammad Islam	Andrew Zea, Daniel Johnson, Patrick White	Jerimy Borchardt, Jeremy Williams	Salman Khalid, Sherif El-Tawil, Graham Bell, John Norton, Curt Wolf	Kevin Weeks, Justin Burt	Dima Shammout, Nimee Tiwari, Himan Hojat Jalali	Saju Sachidanandan, Joel Brown, Joel Schanne	Anna Pridmore, Cecilia Dean, Krystal Strassman	Maria Julia Ribeiro, Roy Sturgill, James Anspach
	276 - Complexities of GLWA's 14 Mile Transmission Loop - System Operation and New Designs	218 - Implementing a Parallel Interceptor…Copy and Paste, Right?!?!	146 - Enhancing the Seismic Resilience of Buried Water Pipelines Through Advanced Analysis and Design	111 - Factors Affecting Detection of PCCP Wire Breaks Using DFOS, Acoustic Emission, and Hydrophonic Systems	49 - Protecting Buried Treasure: Pipeline Condition Assessment Program Methodology and Implementation	235 - Replacement of Pile Supported Sewers, Sanitary Sewer Asset Management in Action	81 - Gordie Howe International Bridge Sewer Repair and Strengthening	290 - Workforce Challenges and Solutions Networking Breakfast and Workshop	213 - Estimated Risks of Out-of-Service Utilities to Project Delivery
Authors	Ravi Ravisangar, Thomas Gossiaux, Peter Fromm, Anthony Troy, David Nitz	Daniel Huffines, Devan Ruiz, Kaylee Waldo	Abu Hena Muntakim, Kenny Farrow, Chris Rossiter, Bobby Virdi	Yousif Alsendi, Christopher Eamon, Mike Hooper, Pelumi Ayanwale-Cole	Lindsey Carranza, Ryan Christensen	James Surhigh, Chris Ross	David Keaffaber, Jacob Jenkins	Anna Pridmore, Cecilia Dean, Krystal Strassman	Edgar Kraus, Harshit Shukla
	294 - Return of the Flows – High Pressure Discharge to Atmosphere	183 - Design and Construction of the Wickson Creek Special Utility District 9 Miles of 34-inch DR13.5 HDPE Transmission Main	185 - Engineering Resilient Water Systems: Integrating Material Transition and Seismic Design Strategies	192 - 3D Image Analysis for Non-Contact Leak Detection of Water Pipeline by Hoop Strain Parameter	123 - Performing Condition Assessments works for Water and Sewer Pipelines to build a CIP replacement program	275 - CMAR and Technology-Driven Construction Management for Underground Utility Rehabilitation at GLWA's 1,7000 MGD Water Resource Recovery Facility	53 - City of Hamilton - Woodward Greenhill 2250mm (90 in.) Emergency Repair	290 - Workforce Challenges and Solutions Networking Breakfast and Workshop	221 - Benchmarking Positional Accuracy of Low-Cost GNSS Antennas Under Controlled Conditions
Authors	Kyle LeBrasse, Mitchell Bailey, Woosuk (Woo) Cha	Ryan Ruiz, Kyle Eppler, David Stanley, Hunter Krolczyk, Alan Ambler	Sarah Merrill	Yuto Takahashi, Taiki Hagiwara, Tetsuya Suzuki, Tomohiro Kitanohara, Jun Honma	Ismail Ezzeddine, Nkechi Chieke	Jim Broz, Lillian Lantis, Greg Marker, Kelvin Esselink	Michael Zantingh, Harry Krinas, Kevin Bainbridge	Anna Pridmore, Cecilia Dean, Krystal Strassman	Harshit Shukla, Jenny Naranjo, Luke Cooper

Session Title	A5 - Navigating Complex Underground Challenges	B5 - Managing Pipeline Separation Challenges	C5 - Pipeline Deflection and Soil Interaction	D5 - AI and Machine Learning for Pipeline Systems	E5 - Asset Management	F5 - A Review of Trenchless Methods	G5 - Wet Zone Work: Pipeline Projects near Water	H5 - Trenchless and Beyond: Innovative Approaches for Major Pipeline Projects	I5 - Connecting Communities: Innovative Approaches to Regional Water Pipeline Infrastructure
Moderator	Steve Roberts	Alexandria Isabel Gonzalez Vasquez	Jeff LeBlanc	Blen Jimma	Ikram Efaz	Steve Friedman	Ryan Pearson	Daniel Applegate	Tiffany Ashforth
2:00 pm to 3:30 pm	334 - We Can't Go Over It, We Can't Go Through It, We Have to Go Under It	239 - Close But No Collapse: Pipeline Separations in the Austin Light Rail Project	25 - Effect of Creep in Estimating Deflection of Buried HDPE Pipe	93 - Multi-Modal Machine Learning for PVC Sewer Pipe Condition Assessment	13 - From Fragmented Outputs to Consistent Scoring: A Unified Approach to Water Pipeline Condition Assessment	270 - Trenchless CFRP Reinforcement: Enhancing Resilience of Aging PCCP Infrastructure in the GLWA 24-Mile Road Water Transmission Main	128 - Rehabilitation of the City of Winnipeg's Century Old Branch I Aqueduct Underdrain	214 - Application and Analysis of Integrated Sea-to-Sea Horizontal Directional Drilling Technology for Subsea Pipelines: A Case Study of the H-Y Crude Oil Pipeline Project	319 - Installation of New 7.5-mile Transmission Main for the To'Hajiilee Navajo Nation Community from the Albuquerque Bernalillo County Water Utility Authority Using HDPE
Authors	Philip Wheat	Hunter Hanson	Chris Ampfer	Mohsen Mohammadagha	Khalid Kaddoura, Rabia Mady, Bradley Marin	John Ford, Michael D'Agostini	Adam Braun, Nathan Kehler, Bryan Kipp, Jessica McCombe, Ken Dyck	Bohong Wang, Yungen He, Zhipeng Yu, Hongfang Lu	Alan Ambler, George Mihalik, Erik Elizondo, Mike Rocco
	325 - Precision Under Pressure: Realigning 36'' PVC in Congested, Environmentally Sensitive Terrain	364 - East Jefferson Avenue Water Main Replacement	101 - Where's the Breaking Point? A Case Study Comparing Flexible Pipe Deflection Calculations to Field Observations	198 - Machine Learning Framework for Safety Assessment of Hydrogen-Blended Pipeline Infrastructure Under Complex Defect Conditions	138 - Water Pipe Performance in the Detroit Water and Sewerage Department	120 - Advancing Single-Pass Microtunneling with AWWA C300 and FRP-Lined Concrete Jacking Pipe Solutions	45 - A Shockingly Fishy Story - Crossing Marine Creek Lake with an Inverted Siphon	277 - Fort Lauderdale Prospect Lake Water Transmission Line	331 - Shiringamazu, Peru Remote Village 8+ Kilometer Small Diameter Water Pipe Installation Project with Engineer's Without Borders and the Alliance for PE Pipe
Authors	Starr Alfonso	HsingHua Chu	Ben Stephens	Hongfang Lu, Bohong Wang, Qiankun Wang	Brian Dara, Jim O'Dowd	Sanaz Ghalambor, Carl Pitzer	Leah Hodge, Drake Carmen	Daniel Davila, Vincent Locigno	Alan Ambler, Angeline Cione, Peter Dyke, Don Lieu, Sanghavi Kavin
	303 - Protecting Critical Wastewater Infrastructure During Large-Diameter Shaft Installation for Bridge Foundations in Urban Corridors	170 - Playing Nice in the Sandbox: Minimum Separation of Two Flexible Pipes in the Same Corridor	136 - Advancing soil-structure interaction models for buried pipelines subject to ground movement	127 - AI-Driven Acoustic Signal Classification for Enhanced PCCP Wire Break Detection	361 - City of Ottawa's Lessons Learned from Forensic Investigation of PCCP	6 - Quality Management for Large Diameter Tunnel Pipe Installation for the Integrated Pipeline Project in Texas	311 - Balancing Act: DC Water Addresses Emergent Force Main Repair while Minimizing Downtime	73 - A Practical Guide to Trenchless Planning & Method Selection for Large-Diameter Pipelines	253 - Challenges Designing/Constructing a Northern 125-mile Pipeline for the Red River Valley Water Supply Project
Authors	Benjamin McCray	Rachel Keatley, Mike Gossett	Hailey-Rae Rose, Brad Wham	Sherif El-Tawil, Salman Khalid, Graham Bell, John Norton, Curt Wolf	Peter Nardini	Matt Gaughan, kalyani chowdary vemulapalli, Charles Cameron, Shelbi Johnson, Kurt Sanders, Shelly Hattan, Ed Weaver	Anna Pridmore, Ryu Suzuki, Yonas Kidanemariam, Christopher Garrett, Alex Yee, Jenna Manuszak, Pono Hanson, James Ball, Rob Hilton, Rasko Ojdrovic	Elliot Simcock, Sara Doran, Guadalupe Monge Fabian	Mark Funston, Kurt Ronnekamp, Kip Kovar

Session Title Moderator	A6 - Modeling for Sewer Optimization Natalie Cronk	B6 - Force Mains Ehsanul Kabir	C6 - Groundwater Challenges Sarenna Moore	D6 - Vibroacoustic Testing Brogan Tyler	E6 - Seismic Richard Nichols	F6 - Water System Analysis and Repairs Ryan Rembert	G6 - No Room, No Time, No Problem Hunter Hanson	H6 - From Wildfires to Welding: Strategies for Uninterrupted Energy Delivery Jaime Ordonez	I6 - Ethics in Engineering Anna Pridmore
4:30 pm to 5:30 pm	229 - Building Models the Right Way: Lessons from DWSD's All-Pipe Sewer System	345 - Microtunneling towards resilience – G.T.L. Redundant Force Main Case Study	175 - Beyond the Bid: The Case for Baseline Dewatering in Linear Pipeline Design	205 - Vibroacoustic Assessment of AC Pipelines: Brabant Water's Pilot Compares Inline UT to Vibroacoustic Testing	11 - Performance Verification of 38-Year-Old HRDIP Joints	84 - AWWA Steel Ring Flanges: Design and Analysis	145 - Installing 4 Miles of 24-Inch Pipeline in an Arterial Corridor to Santa Cruz with 6-hour Workday Constraints	92 - Keeping the Lights On, Food Cooking and Factories Producing Using In Service Welding to Enable Uninterrupted Flow During Pipeline Modification or Repair	291 - Ethics in Engineering
Authors	Esther Kaufman, Erika Campbell	Luis Torres	Ryan Brong	Cameron White, Sebastien Perrier, David Claassen, Roel Diemel, Vanessa van Rossum	Takaaki Kagawa, Kazuma Harada	Sinjon Bradberry	Jonathon Marshall, Jill Shankel	Charles Herckis	Anna Pridmore
	322 - From Overflow to Optimization: Smart Sewer Strategies for Meeting EPA Mandates	286 - Enhancing Economic Growth in Muskegon County, MI with 17-mile Force Main	307 - Between a Rock and a Wet Place: When Groundwater Drowns the Budget	288 - Addison's Story: How Vibroacoustics Changed the Capital Plan	309 - Structural Analysis of the Cedar River Pipeline (CRPL) System in Renton, Washington	22 - CCTV of Pressurized Water Mains? Why This Is Now an Important Tool in the Water Industry Condition Assessment Toolbox!	115 - Against the Clock and the Canyon: SDCWA's Innovative CFRP Renewal of Large-Diameter PCCP	199 - Modeling Wildfire-Induced Thermal Risk to Above-Ground Gas Infrastructure Under Future Climate Scenarios	291 - Ethics in Engineering
Authors	Joseph Kamalesh, Brad Clark	Stephen Boros, Steve Taplin, Mark Prein	Brett Holzapfel, Kyle LeBrasse	Stephen Jeffus	Joshua Yung, Joseph Ortiz	Mike App	Garret Toombs, Jason Gornall	Ezra Jampole, Jacob West, Nathaniel Levine, Abid Kemal, Mark Menesses	Anna Pridmore

Session Title Moderator	A7 - Capital Planning for Complex Projects Michael Woods	B7 - Innovations in Pipeline Delivery Ben Stephens	C7 - Design Methodlogy Benjamin McCray	D7 - Inspection and Experimental Assessment Julie Hansen	E7 - Water Condition Asessment Adam Braun	F7 - Advances in Rehabilitation Technologies for Water and Wastewater Jonathon Marshall	G7 - Urban Pipe Projects: Resilience Meets Reality Jessica Boland	H7 - Pipelines Under Pressure: Engineering for Ground Movement and Risk Eelhard Meneses	I7 - Solutions for Complex Water Infrastructure Challenges Stephen Nuss
8:00 am to 9:30 am	12 - Gordie Howe International Bridge Utility Works: Project Insights and Key Challenges	46 - Water Main Mania: Looping a New 25-Mile Transmission Line Through Metro Atlanta	59 - Pipeline Seismic Design Fundamentals for Transient Ground Motions and Permanent Ground Deformation Demands	144 - Development of an Inspection Attachment for Cleaning PIGs for Internal Pipeline Integrity Assessment	169 - Keeping the Mary Rhodes Pipeline Running Like New	245 - Replacing Asbestos Cement Pipe via EPA approved Close Tolerance Pipe Slurrification (CTPS) method	30 - Design and analysis of a retrofit steel liner inside a 69-inch RCP where it crosses a liquefaction zone	91 - The Analysis of Pipe Elbows and Tees when Designing Geohazard Ressistant Steel Pipe (GRSP) Subjected to Significant Ground Displacement	47 - 4D Puzzle: Design-Build Delivery with 3D Utility Modeling
Authors	Daniel Pimentel	Joshua Starling, Antonia Kopp, Marco Orlando, Alia Johnson, Arjen Bootsma	Mike Britch, Mark Havekost	Samuel Ajayi, Xingyu Wang, Ying Huang	Russell Deason, Jerry Snead, Nicholas Winkelmann	Carlos Morales	Michael McReynolds, Mahmoud Hachem, Brittany Sorenson, Kelly Stevens	George Varelis, Brent Keil, Richard Mielke, Spyros Karamanos	Leah Hodge, Tylor Bottorff, Jared Jeffries
	95 - Optimization of the Jubail to Buraydah Water Transmission System: A Life Cycle Cost Minimization Study	153 - Enhancing Water Transmission System Resiliency with Flexible Project Delivery and Cost-Effective Solutions: 96-inch Drinking Water Transmission Main Relocation	103 - Designing for Seismic Resilience: A System-Level Approach to Pipeline Performance in Seismically Active Regions	181 - Axial Performance and Seismic Resilience of PVC Pipelines: Experimental Testing and Field Data Correlations	256 - Condition Assessment of the Garland Main Tunnel for Water Transmission Main Rehabilitation-Comprehensive Inspection and Findings for Pipeline Infrastructure Renewal	201 - From Pilot to Proven: SIPP Pipe Rehabilitation as a Value-Based Solution for New Jersey American Water	302 - Fort Lauderdale's 60-Inch Redundant Effluent Force Main: Big Pipe, Bigger Challenges	250 - Prescriptive Approach to Design Buried Pipelines for Connection Force Demand due to Transient and Permanent Ground Deformations	310 - In the Deep End – Condition Assessment, Rehabilitation and Renewal along Shorelines
Authors	Adel Aboujaoude	Steve Roberts, Corey Brecht, Jason Matteo, Jeff Yakel, Kerilyn Paris	Kyle Couture, Mike Britch	Muhammet Ceylan, Brad Wham, Cory Ihnotic	Brian Gombos, Jason Kenyon	Bree Doverspike, David Adams, Jason Newman	Shari Ramirez, Freddy Betancourt, Gabrielle Bork	Sri Rajah	David Scott
	108 - One Line, Eight Voices: A Shared Journey in Planning and Design of a Regional Water Line	155 - Implementing a PMIS for Managing an $80M/year Water and Sewer Pipeline Replacement Program	38 - How Pipeline Material Selection Can Affect Future Water Quality Concerns and Regulatory Issues	195 - Nondestructive Measurement Using Digital Image Correlation for Pipeline Leak Detection Under Transient Flow Conditions	300 - Internal Condition Assessment of Water Main Distribution Systems – Integrating Water Quality, Hydraulic and Material Assessment Knowledge	339 - Sensing Technologies for Trenchless Pipeline Construction: A Systematic Review and Integration Framework Development	119 - Challenges with Accelerated Schedule for George R Brown Expansion Project	58 - Addressing Differential Settlement to Safeguard Critical Services in the Largest Municipal Water Collaborative Delivery Project	208 - Small Pipes, Big Impact: How Progressive Design-Build Transformed Water Main Renewal
Authors	Melissa Mack, Anh Boyd	Gary Friedman, Veronica Cliett	Roy Mundy	Taiki Hagiwara, Yuto Takahashi, Tetsuya Suzuki	Chris Macey, Quirien Muylwyk	Mehdi Torbat Esfahani, Nazanin Basiri, Ibukun Awolusi	Leo Bartos	David Briggs, Randy Rogers	Burak Kaynak

Session Title Moderator	A8 - Planning Under Pressure Andy Stanton	B8 - Engineering Pipelines for Success Kylie Pelzer	C8 - Material Testing for Pipelines Amir Tabesh	D8 - Emerging Technology Olena Lytvyn	E8 - Ferrous Pipe Assessment Berk Uslu	F8 - Linings and Coatings Analysis and Practice Jonathan Shirk	G8 - CIPP Compatibility Mitchell Bailey	H8 - Managing Big Dollars and Big Pipes: Cost, Risk, and Reliability in Major Conveyance Projects Christopher Haeckler	I8 - Advancing Safety and Quality in Underground Infrastructure Sara Doran
10:00 am to 11:30 am	77 - Planning for Pressure: Evaluating Infrastructure Vulnerability and Policy Gaps in High-Density Urban Growth	268 - Don't Forget the Shear! A "Twist" in Pipeline Design	340 - Design Methodology Fatigue Using Long-term Cyclic Laboratory Testing for Molecularly Oriented Polyvinyl Chloride	187 - Beyond the Video Feed: Building Digital Twins with AUV-Based Machine Vision for Pipeline Condition Assessment	97 - Failure Mechanisms of Bar-Wrapped Pipe: Evaluating Local Cylinder Corrosion through Nonlinear FEA with intact bars	40 - Developing Isotherms for Adsorbent Candidates for a New Activated Carbon System to Remove Styrene from Hot Air Cured, Cured-in-Place Pipe Processing	129 - Interface Condition Effects on Axial Capacity of Trenchless-Repaired Pipes	32 - A Complex Program – Managing a $1B CIP & Construction Challenges with Large-Diameter Water Lines	362 - Understanding Confined Space Risk in the Underground Infrastructure Industry
Authors	Karem Carpio	Firat Sever	Kawalpreet Kaur, Mohammad Najafi, Richard Nichols, Ehsan Rajaie, Farhad Daneshgar	Alberto Lopez, Kristof Richmond, Vickie Siegel, Christopher Flesher, Tyler Haden, Miriam Alexander, Blythe Towal, Brad Chisum	Ikram Efaz, Masood Hajali, Ashan McNealy	Kaleel Rahaim, Ben Magbanua	Sina Senji, Brad Wham, Shideh Dashti	Mackrena Ramos, Melissa Mack, Panduranga Kuruva	Dennis Pivin
	131 - Delivering Infrastructure in Motion: A Case Study in Adaptability	190 - Form Meets Function: 30-Inch Water Transmission Main on Architectural Bridge	261 - Enhancing Pipeline Project Delivery through Early Manufacturer Engagement in QBS Frameworks	110 - Evaluation of an Advanced Distributed Fiber Optic Approach for PCCP Wire Break Detection	35 - No Compromise Pipeline Integrity—HDPE Liners and Remote Field Testing in Practice	211 - Close-Fit Lining: Anything but a Cookie Cutter Solution	347 - Managing Utilities Challenges in Large-Scale Sewer Infrastructure: The Fairbank Silverthorn Case Study	167 - Balancing Cost, Risk, and Reliability in Large Diameter Pipeline Capital Projects	148 - Site Monitoring and Emissions Testing to Ensure Community Safety for CIPP Sewer and Water Pipe Renewal
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	343 - Feasibility to Flow - WASD Water Main Case Study	90 - The Use of AWWA M11 for Crotch Plate Design	351 - Uniform Interpretation Method for Pipelines under Transverse Loading	80 - The New Era: Selecting Assessment Tools	52 - Legacy Risks in Wastewater Infrastructure: Understanding and Managing Invert Corrosion in Ductile Iron Rising Mains	85 - Revisiting Polyurethane Coatings: Establishing Design Life for Potable Water Mains	152 - Emergency Repair of an Egg-Shaped Brick Sewer with Tapered Liner	257 - Designing Large-Diameter Conveyance Systems for Constructability and Operations	114 - Raising the Bar on Pipeline Renewal Quality Management at DWSD
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