Residuals and Biosolids Conference 2017
The Future of Biosolids and Bioenergy

April 8-11, 2017
Washington State Convention Center
Seattle, Washington, USA

This conference is held by the Water Environment Federation in cooperation with the Pacific Northwest Clean Water Association and Northwest Biosolids.
Sunday, April 9, 2017
9:00 AM – 10:00 AM

Detailed information on the Opening General Session will be provided shortly.
Featured Mobile Session (Held on the exhibition floor)

Sunday, April 9, 2017
10:45 AM – 12:15 PM

Mobile session presentation details will be provided in February.
Session 1: Facilities Operation

Sunday, April 9, 2017
10:45 AM – 12:15 PM

01A 10:45 AM  Understanding the Role of Mixing and Viscosity in Rapid Volume Expansion Due to Gas Holdup in Anaerobic Digesters
Nick Bartek, Matthew Higgins, Bucknell University; Sudhir Murthy, DC Water; Steven Beightol, Bucknell University; Ahmed Al-Omari, DC Water

01B 11:15 AM  Quantification of Struvite Content of Biosolids is Necessary to Avoid Bias in the Assessment of Digester and Dewaterability Performance
Christopher Wilson, Hampton Roads Sanitation District; Wendell Khunjar, Hazen and Sawyer; Alexandria Gagnon, Hampton Roads Sanitation District; Ron Latimer, Hazen and Sawyer

01C 11:45 AM  Driving Operational Improvement through the Use of Dashboards: A Regional Biosolids Pelletizing Facility Perspective
Amber Batson, CDM Smith; Nathan Mayer, Raymond Schauer, Solid Waste Authority of Palm Beach County

Alternate  The Trials and Tribulations of Commissioning a Large Biosolids Facility; An Operational Perspective
Kenneth Schnaars, Brown & Caldwell
Session 2: Anaerobic Digestion Pretreatment

Sunday, April 9, 2017
1:30 PM – 4:45 PM

02A  1:30 PM  Optimising THP - The Intermediate Thermal Hydrolysis Process
Ester Rus, Aurelien Perrault, Nick Mills, Achame Shana, Thames Water; Paul Nilsen, CAMBI

02B  2:00 PM  Solubilization of Organics Due to Thermal Hydrolysis Pretreatment Leading to Stable Mesophilic Anaerobic Digestion
Manisha Berde, Domenec Jolis, San Francisco Public Utilities Commission

02C  2:30 PM  Does Operation at Increased Ammonia Concentration Impact Hydrolysis Rates?
Baoqiang Li, The George Washington University; Adrian Romero, DC Water; Elizabeth Manning, The George Washington University; Matthew Higgins, Bucknell University; Ahmed Al-Omari, Sudhir Murthy, DC Water; Rumana Riffat, The George Washington University; Haydée Clippeleir, DC Water

3:00 PM  Networking Break

02D  3:45 PM  Are Thermal Hydrolysis Digesters Robust Because of Their Unique Microbial Communities?
Joshua Mah, John Novak, Virginia Tech

02E  4:15 PM  Free Nitrous Acid Pretreatment of Thickened Waste Activated Sludge Improves Anaerobic Degradability
Elsayed Elbeshbishy, Frances Okoye, Ryerson University; Dang Ho, Siva Sarathy, Trojan Technologies; Wayne Parker, University of Waterloo
Session 2: Anaerobic Digestion Pretreatment (Continued)

Sunday, April 9, 2017
1:30 PM – 4:45 PM

Alternate 1  Thermal Hydrolysis Reduces Carbon Footprint and Operating Costs
William Barber, Cambi, Inc.

Alternate 2  Batch Vs. Continuous Thermal Hydrolysis: Which Is Right for You?
Sudhakar Viswanathan, Chris Thomson, Rich Dimassimo, Robert Clay, Veolia Water Technologies; Dr. Jongmin Kim, University of Texas Rio Grande Valley; Dr. Nicholas Landes, Freese and Nichols
Session 3: Nutrient Management

Sunday, April 9, 2017
1:30 PM – 4:45 PM

03A 1:30 PM  Status on Post Digestion Phosphorus Recovery - Date from Eight Airprex® Pilot Test in the US
Gerhard Forstner, CNP Technology Water and Biosolids Corp

03B 1:40 PM  Pilot-scale Evaluation of Airprex for Digestate Treatment
Blair Wisdom, Brad Van Anderson, Isaac Avila, Troy Gottschalk, Kurt Carson, Liam Cavanaugh, Metro Wastewater Reclamation District

03C 2:05 PM  Enhanced Dewatering with Struvite Recovery: Pilot Testing of AirPrex® Technology at Miami’s South District WWTP
Brian Stitt, Terry Goss, AECOM; Manual Moncholi, Miami Dade WASD; Mohammad Abu-Orf, (formerly) AECOM

2:30 PM  Facilitated Discussion

3:00 PM  Networking Break

03D 3:45 PM  Construction and Startup Lessons of the Rocky Mountain Region’s First Anammox Sidestream Centrate Treatment System
Matt Gough, HDR; Tom Dingeman, Sean Cooney, City of Geeley

03E 4:15 PM  Nutrient Recovery from (Digested) Residuals: Towards a Generic Roadmap for Setting Up an Optimal Treatment Train
Céline Vaneecckaute, Université Laval; Evangelina Belia, Primodal Inc.; Filip Tack, Erik Meers, Ghent University; Peter Vanrolleghem, Université Lava
Session 3: Nutrient Management (Continued)

Sunday, April 9, 2017
1:30 PM – 4:45 PM

Alternate 1  Utilization of Municipal Waste and Biosolids as Sources of Phosphorus for Land Restoration Projects
Principal Mdolo, Lilongwe University of Agriculture and Natural Resources

Alternate 2  Extractive Nutrient Recovery is a Viable Nutrient Control Alternative for Water Resource Recovery Facilities
Wendell Khunjar, Hazen & Sawyer PC
Session 4: Biosolids Planning Around THP

Sunday, April 9, 2017
1:30 PM – 3:00 PM

04A 1:30 PM  Selection of a Thermal Hydrolysis Process for The City of Calgary’s Bonnybrook Wastewater Treatment Plant
Jennifer Peters, Kim Fries, CH2M; Kari MacDonald, The City of Calgary; Ryan Roberts, Stantec Consulting

04B 2:00 PM  Reinventing Your Biosolids Management Program and Unlocking Resource Recovery with Thermal Hydrolysis - The City of Raleigh’s Journey
C M. Bullard, Amy Hanna, Hazen & Sawyer; Greg Knight, Kent Lackey, Black and Veatch; Perry Schaefer, Brennan Buckley, Brown & Caldwell; T. J. Lynch, Aaron Brower, City of Raleigh

04C 2:30 PM  A Commitment to Improving the Odors of DC Water Biosolids Leads to Improved Acceptance
Bill Brower, DC Water; Al Razik, Maryland Environmental Service; Christopher Peot, DC Water

Alternate 1  The Ultimate Combination of Sustainable Biosolids Treatment Technologies
Dale Gabel, CH2M

Poster  Developing a Large-scale CAMBI Biosolids Marketing and Distribution Program
Ronald Alexander, R Alexander Associates Inc.; Chris Peot, DC Water
Session 5: Biosolids Management and Planning

Sunday, April 9, 2017
1:30 PM – 3:00 PM

05A  1:30 PM  Business Case Concept Portfolio Supporting a 90 dtpd Biosolids Reuse Program
       Alicia Gilley, Steve Rogowski, Metro Wastewater Reclamation District

05B  2:00 PM  Biosolids on Trial
       James Slaughter, Beveridge & Diamond PC

05C  2:30 PM  Creating Cost-Effective Centralized Solids Management
       Perry Schafer, Natalie Sierra, Steve Wilson, Brown and Caldwell

Alternate  Low-Cost, Low-Tech Biosolids Treatment Options
           Christa Meingast, Eric Seagren, Jennifer Becker, Michigan Technological University

Poster  Bay Area Biosolids to Energy Coalition The SF Bay Area's Regional Approach to Biosolids Management
        Sarah Deslauriers, Bay Area Biosolids to Energy Coalition
Session 6: Biosolids Products for Treatment

Sunday, April 9, 2017
3:45 PM – 4:45 PM

06A  3:45 PM  Biosolids Products for Bioretention Systems
         Sally Brown, Julia Jay, University of Washington

06B  4:15 PM  Biosolids Reuse: Continuous Flow-Through Column Testing of Biosolids-Derived Biochar to Sorb Micropollutants
         Lee Kimbell, Anna Avila, Yiran Tong, Brooke Mayer, Patrick McNamara, Marquette University
Session 7: Biosolids Science and Microconstituents

Sunday, April 9, 2017
3:45 PM – 4:45 PM

07A 3:45 PM  Trace Organic Contaminants in Biosolids: Recent Survey, Risk Analysis and Communication Tools
Kate Kurtz, Roberta King, Ashley Mihle, King County; Sally Brown, University of Washington; Mark Cullington, Heather Brunelle, Laura Kennedy, Dana Devin-Clarke, Kennedy/Jenks Consultants; Maile Lono-Batura, Northwest Biosolids

07B 4:15 PM  PBDEs in Class a Biosolids Produced from Thermal Hydrolysis and Anaerobic Digestion Processes
Xuanzhao Wang, Natasha Andrade, Alba Torrents, University of Maryland, College Park; Mark Ramirez, Chris Peot, DC Water

Alternate  Hydrothermal Processes for Simultaneous Bioenergy Recovery and Destruction of Bioactive Microconstituents from Biosolids
Young Hwan Shin, University of Illinois; Lance Schideman, Illinois Sustainable Technology Center; Yuanhui Zhang, Peng Zhang, Michael Plewa, University of Illinois
Session 8: Thermal Processes

Monday, April 10, 2017
8:30 AM – 11:45 AM

08A  8:30 AM  Can Autocatalytic Pyrolysis of Wastewater Biosolids be Energy Neutral and Generate Value-added Products?
Zhongzhe Liu, Simcha Singer, Daniel Zitomer, Patrick McNamara, Marquette University

08B  9:00 AM  Gasification for Biosolids Disposal and Power Generation
Jeff Snyder, PHG Energy

08C  9:30 AM  Innovative Technology Reduces Mercury Emissions to Keep Ohio’s Sewage Sludge Incinerators Hot and Costs Cool
Scott Reed, Black & Veatch; Robin Rupe, Northeast Ohio Regional Sewer District; Sara Cramer, Metropolitan Sewer District of Greater Cincinnati; Connor Smith, Black & Veatch; Gustavo Queiroz, U.S. EPA

10:00 AM  Networking Break

08D  10:45 AM  Energy Recovery from Thermal Oxidation of Wastewater Solids: Triple Bottom Line Evaluation
Anna Munson, James Welp, Webster Hoener, Black & Veatch; Robert Dominak, Friar Consulting

08E  11:15 AM  Sewage Sludge Gasification as an Alternative to Incineration
Andrew Jones, GV Jones & Associates Inc.

Alternate  Duffin Creek and Cleveland Experience – New fluid bed sewage sludge incinerators equipped with state of the art equipment and steam turbine
Euan Ferguson, York Region; Brad Dobson, Duffin Creek Water Pollution Control Plant; Dan Hancock, Tom Shively, Tom Vasel Southerly Wastewater Treatment Center; Ky Dangtran, Levent Takmaz, SUEZ
Session 9: Anaerobic Digestion

Monday, April 10, 2017
8:30 AM – 11:45 AM

09A  8:30 AM  Can Hydrolysis Limitation Be Overcome Through Understanding the Impact of Physics in Anaerobic Digestion?
Elizabeth Manning, Adrian Romero, Baoqiang Li, The George Washington University; Ahmed Al-Omari, DC Water; Matthew Higgins, Bucknell University; Rumana Riffat, The George Washington University; Sudhir Murthy, Haydee De Clippeleir, DC Water

09B  9:00 AM  Application of Rapid Volume Expansion Research to Full-Scale Design
Steven Krugel, Brown and Caldwell

09C  9:30 AM  Making Room for Energy Neutrality
Michael Theodoulou, Nicholas Bonkoski, Dorian Harrison, GE Power

10:00 AM  Networking Break

09D  10:45 AM  Application of Rheological Data for Non-Newtonian Biosolids; The Use of “Differential Viscosity” for Mixing Simulation and System Calculations of Non-Newtonian Biosolids
Marilyn Pine, Kent Keeran, Glenn Dorsch, Vaughan Co., Inc.

09E  11:15 AM  Digester Cover Selection and Safety: Balancing Risk and Reward
Matthew Williams, John Maley, HDR; Benjamin Miller, Clark Construction

Alternate 1  Parameters Influencing Anaerobic Digestion of Sewage Sludge
Stefano Giacalone, Peter Winter, Thames Water; Stephen Smith, Imperial College London

Alternate 2  Extracting Energy from Sludge in UK: Recent Experience
Keith Panter, Ebcor Ltd
Session 10: Dewatering

Monday, April 10, 2017
8:30 AM – 11:45 AM

10A  8:30 AM  Innovative Biosolids Conditioning Ahead of Belt Filter Presses to Improve Dewatering Performance
John Rickermann, CH2M; Charles Volk, Lehigh County Authority

10B  9:00 AM  Development of a Laboratory Based Method to Predict Dewaterability
Zwelani Ngwenya, Matthew Higgins, Steven Beightol, Bucknell University; Sudhir Murthy, DC Water

10C  9:30 AM  Paradigm Shift if Dewatering Operations Moved to the Center of the Plant Universe
William Wehner, Murthy Kasi, Mario Benisch, HDR; Anthony Perriera, City of Boise; James Wodrich, HDR

10D  10:45 AM  Dewatering Biosolids at two Biological Nutrient Removal Plants with a Volute Press
Rickey Schultz, HDR

10E  11:15 AM  Using a Long Term Piloting Program to Establish Performance Criteria at Miami’s South District WWTP
Charles Goss, Brian Stitt, AECOM; Manuel Moncholí, Miami-Dade Water and Sewer Department; Mohammad Abu-Orf, formerly AECOM

Alternate 1  Reducing Dewatering Costs: Case Studies of Successful Optimization
Rashi Gupta, Steve Walker, Carollo Engineers; Mike Brehm, Bryan Stevenson, Ken Tagney, Matthew Verosik, Eastern Municipal Water District

Alternate 2  Screw Press Maximum Dewaterability and Energy Consumption
Harald Neumann, Dieter Weinert, Edward Fritz, Huber Technology
Session 11: Bioenergy and Energy Management I: Cogeneration

Monday, April 10, 2017
8:30 AM – 11:45 AM

11A  8:30 AM  Challenges and Opportunities for Approaching Net Zero Energy and Improving Resiliency of a Unique Solids Handling Facility in California
Dan Frost, Nitin Goel, Central Contra Costa Sanitary District; Peter Burrowes, Irina Lukicheva, Summer Bundy, CH2M; Jamie Pigott, Carollo Engineers

11B  9:00 AM  State of the Art Review of Digester Gas Treatment and Upgrading Technologies
Christine Polo, Jay Kemp, Greg Knight, Dave Long, Black & Veatch; Kevin Jankowski, Cary Solberg, Milwaukee Metropolitan Sewerage District

11C  9:30 AM  From Biogas to Boiler Fuel: Cleaning Up Digester Gas Biologically at a Large Scale
Melissa Woo, Engin Guven, Samir Mathur, CDM Smith; Tom Jacobs, Trinity River Authority

10:00 AM  Networking Break

11D  10:45 AM  To Treat or Not to Treat Post Combustion Exhaust
Jason Wiser, Brown and Caldwell

11E  11:15 AM  Evaluation of Biogas to Energy Options for Edmonton’s Gold Bar Wastewater Treatment Plant
Nicholas Szoke, Stantec; Alfredo Suarez, EPCOR Gold Bar Wastewater Treatment Plant

Alternate  Stirling Engine Co-Gen: Gas Scrubbing Not Required
Brian Mitchell, Michael Moe, WesTech Engineering Inc.
Session 12: Bioenergy and Energy Management II: Biomethane

Monday, April 10, 2017
1:30 PM – 4:45 PM

12A  1:30 PM  Update on Biogas Upgrading Project for City of Portland
Jeremy Holland, HDR; Paul Suto, Vu Han, Muriel Gueissaz-Teufel, City of Portland, Bureau of Environmental Services

12B  2:00 PM  A Greener Future for the City of Raleigh Turning Biosolids into Vehicle Fuel
Greg Knight, Black & Veatch; Michael Bullard, Hazen & Sawyer; Kent Lackey, Christine Polo, Jay Kemp, Black & Veatch; Aaron Brower, TJ Lynch, City of Raleigh

12C  2:30 PM  What’s The Best Use of Your Digester Gas? Well, It Depends...
Ian McKelvey, Eron Jacobson, Peter Zemke, Brown and Caldwell; John Smyth, King County

3:00 PM  Networking Break

12D  3:45 PM  Biogas Testing: Critical Techniques to Minimize Capital and Operating Costs
Jeremy Holland, HDR; Sherman Chao, Analytical Solutions, Inc.; Vu Han, Paul Suto, City of Portland, Bureau of Environmental Services

12E  4:15 PM  Next Generation Resource Recovery: Co-Digestion to Renewable Natural Gas (RNG) Pipeline Injection at the Des Moines WRF
Dustin Craig, CDM Smith; Larry Hare, Wastewater Reclamation Authority; Laurel Schaich, CDM Smith

Alternate 1  Converting Biogas into Energy and Vehicle Fuel
Adam Klaas, Unison Solutions, Inc.

Alternate 2  Power or Fuel: Renewable Natural Gas a Feasible Alternative
Trung Le, Joseph Marino, Trent Montemayor, Greeley and Hansen
Session 13: Thermal / Thermochemical Hydrolysis Processes

Monday, April 10, 2017
1:30 PM – 4:45 PM

13A  1:30 PM  Using Thermo-Chemically Hydrolyzed Biosolids for Co-digestion
Joshua Registe, Josh Perez, Jeanette Brown, Manhattan College; George Nakhla, Western University, Ontario, Robert Sharp, Manhattan College; Ajay Singh, Lystek

13B  2:00 PM  Kenosha’s Energy-Optimized Resource Recovery System
Joseph Hughes, Centrisys Corporation; Dr. -Ing Andreas Duennebeil, PONDUS Verfahrenstechnik GmbH

13C  2:30 PM  Impact of Thermo-Chemical Hydrolysis On Sludge Viscosity, Floc Morphology, and Dewaterability
Peiyu Tan, Centrisys Corporation, Zhongtian Li, CNP-Technology Water and Biosolids Corporation

3:00 PM  Networking Break

13D  3:45 PM  The Sludge Ozonation for Different Types of Mixed Liquor Under High and Low Ph Conditions by A Plug-flow Reactor
Xiaoyu Zheng, Eric Hall, University of British Columbia

13E  4:15 PM  A Tale of Two Cities: How Climate, Drivers, and Budget Affect Thermal Hydrolysis Design
Thomas Nangle, Kristina Warren, CDM Smith
Session 14: Biosolids Facility Planning

Monday, April 10, 2017
1:30 PM – 4:45 PM

14A 1:30 PM  Planning Your Class A Biosolids Program: Design Considerations and Lessons Learned in Pierce County, Washington
Melissa Newell, Pierce County Public Works

14B 2:00 PM  Beginning A Complete Renewal of San Jose’s Biosolids Processing Facilities
Adam Ross, Brown and Caldwell; Mariana Chavez-Vazquez, City of San Jose; Lloyd Slezak, Brown and Caldwell

14C 2:30 PM  Sustainable and Cost Effective Biosolids Management Planning at OCSD
Daniel Buhrmaster, James Clark, Black & Veatch; Tom Chapman, Natalie Sierra, Brown and Caldwell; Sharon Yin, Tom Meregillano, Orange County Sanitation District

3:00 PM  Networking Break

14D 3:45 PM  Comprehensive Biosolids and Bioenergy Planning at the City of San Mateo WWTP
Cameron Clark, Irina Lukicheva, Anna James, Kathy Rosinski, CH2M; Cathi Zammit, City of San Mateo, California; Dave Parry, CH2M

14E 4:15 PM  Biosolids Trends in Tennessee: A Roadmap for The Future?
Robert Odette, State of Tennessee
Session 14: Biosolids Facility Planning (Continued)

Monday, April 10, 2017
1:30 PM – 4:45 PM

Alternate 1  
A Big Picture Approach to Addressing Multiple Improvement Triggers for both Short- and Long-term Multi-Facility Master Planning  
Vera Gouchev, Paul Knowles, Robert Sharp, Matthew Van Horne, Emanuel Psaltakis, Hazen and Sawyer; Thomas Lauro, Westchester County, New York Department of Environmental Facilities

Poster  
Detailed Market Analysis Helps Focus Capital Decisions for Orange County Sanitation District  
Natalie Sierra, Brown and Caldwell; Ron Alexander, RAA; Steve Wilson, Brown and Caldwell; Tom Meregillano, Sharon Yin, Deirdre Bingman, Jeff Mohr, Orange County Sanitation District; Dan Buhrmaster, Black and Veatch

Session 15: Thermal Hydrolysis- Dewatering
Monday, April 10, 2017
1:30 PM – 3:00 PM

15A  1:30 PM   Mechanistically Understanding the Dewatering Fundamentals: Impact of Biological Systems & Thermal Hydrolysis on Cake TS & Polymer Demand
Mahmudul Hasan, The George Washington University; Qi Zhang, Ghent University; Rumana Riffat, The George Washington University; Ahmed Al-Omari, Sudhir Murthy, DC Water; Matthew Higgins, Bucknell University; Haydee De Clippeleir, DC Water

15B  2:00 PM   Effect of Phosphorus Release and Thermal Hydrolysis Pretreatment on the Dewatering Properties of a Bio-P Biosolid in Anaerobic Digestion
Jeffrey Nicholson, Virginia Tech/ HRSD; Steven Beightol, Matthew Higgins, Bucknell University; Charles Bott, Hampton Roads Sanitation District

15C  2:30 PM   The Role of Soluble P, Iron Dosing and Eps on THP-Ad Dewatering Performance
Ester Rus, Paul Fountain, Nick Mills, Achame Shana, Thames Water; Obinna Molokwu, Manocher Asaadi, AD Technologies
Session 16: Codigestion: The Latest Information You Should Know

Monday, April 10, 2017
3:45 PM – 4:45 PM

This panel discussion will share the latest information to consider when implementing a codigestion program. Attendees will gain a better understanding of recent developments and experience on this rapidly changing and expanding aspect of resource recovery at wastewater treatment plants.

The panel, which includes specialists in the field of codigestion, will cover the following key issues: external drivers, material sourcing and contracts, material receiving and pre-treatment, digestion, biogas handling, nutrient management, dewatering, energy production, and numerous operational considerations. The moderator will take the panel through each of these areas, while facilitating an interactive discussion with the audience.

Panel Participants
Ganesh Rajagopalan, Kennedy/Jenks Consultants
Greg Chung, West Yost Associates
Joerg Blischke, Black & Veatch
Chris Muller, Brown & Caldwell
Alicia Chakrabarti, East Bay Municipal Water District
Session 17: Beneficial Use

Tuesday, April 11, 2017
8:30 AM – 11:15 AM

17A 8:30 AM  Development of Kodiak Alaska's Successful Composting Program
Todd Williams, CH2M; Mark Kozak, City of Kodiak; Lori Aldrich, Alaska Department of Environmental Conservation; Bud Alto, Floyd Damron, CH2M

17B 9:00 AM  Using Lime to Beneficially Manage Wastewater Treatment Plant Residuals: A Review and Assessment of the Practice for Producing an Exceptional Quality Product
James Smith Jr, Independent Environmental Consultant

17C 9:30 AM  Producing High Value Carbon Products from Municipal Solids Generated from Chemically Enhanced Primary Treatment
Wendell Khunjar, Hazen & Sawyer PC

10:00 AM  Networking Break

17D 10:15 AM  Class B Land Application to Dryland Wheat: A Long-term, Highly Successful Public-private Partnership
Jake Finlinson, King County; Dave Ruud, Boulder Park, Inc.; Andrew Bary, Craig Cogger, Washington State University

17E 10:45 AM  Biosolids for Urban Agriculture
Sally Brown, University of Washington; Kristen McIvor, Pierce County Conservation District; Jake Finlinson, King County; Dave Ruud, Boulder Park, Inc.; Andrew Bary, Craig Cogger, Washington State University
Session 17: Beneficial Use (Continued)

Tuesday, April 11, 2017
8:30 AM – 11:15 AM

Alternate 1  The Effect of Solids Retention Time, pH & Mixing Intensity on Glycerol & Biodiesel Waste Fermentation in Semi-Continuous Side-stream Prefermenters
Marzieh Ghasemi, Andrew Randall, University of Central Florida

Alternate 2  Long-term Impacts of Biosolids Application On Soil Quality and Plant Species Composition At The Ok Ranch, Jesmond, BC
Emma Avery, Maja Krzic, University of British Columbia; Brian Wallace, Reg Newman, BC Ministry of Forests, Lands, and Natural Resource Operations

Poster  Vermicomposting of Biosolids and Beneficial Reuse - New Zealand Commercial Case Studies from 4 Communities over 8 Years!
Max Morley, Michael Quintern, Noke Limited - MyNOKE
Session 18: Biosolids Marketing and Communication

Tuesday, April 11, 2017
8:30 AM – 11:15 AM

18A 8:30 AM  Know What You Don’t Know - Using Social Media and Market Research to Inform Loop Communication Strategies
Ashley Mihle, King County Wastewater Treatment Division

18B 9:00 AM  Class "A" Part Two: After Achieving Class A Status, Our Path to Building a Sustainable Class A Program
Shannon Ostendorff, Scott Thompson, City of Bend; Mark Cullington, Kennedy/Jenks Consultants; Tim Truax, City of Bend; Sally Brown, University of Washington

18C 9:30 AM  A Strong Network: The Growing Success of Biosolids Groups in North America
Maile Lono-Batura, Northwest Biosolids; Ned Beecher, North East Biosolids & Residuals Association

10:00 AM  Networking Break

18D 10:15 AM  Not All Dryer Products Are Created Equal
Lisa Boudeman, Trudy Johnston, Material Matters

18E 10:45 AM  Merging Innovation and Resource Recovery into Daily Operations
Manon Fisher, San Francisco Public Utilities Commission; Natalie Sierra, Brown and Caldwell; Ben Jordan, Individual Consultant; Karri Ving, Wastewater Enterprise

Alternate 1  Communicating Biosolids: A Social Science Research Update
Ned Beecher, North East Biosolids & Residuals Association
Recognizing wastewater and related solids as both an organic resource and a significant user of electricity, the DOE is pursuing two related tracks of R&D and technical assistance. Along with manure, food wastes, and other organic sources, municipal sludges are a valuable feedstock for the production of biofuels, bioproducts, and biopower. Over the last 18 months, the DOE has developed a comprehensive resource assessment that both quantifies and locates potential sources of these feedstocks, with an eye towards developing distributed conversion strategies. As part of this overall effort, the DOE and the Pacific Northwest National Laboratory contributed to a WE&RF project that resulted in the production of high-quality renewable diesel from municipal sludges. Additionally, the DOE has launched a wastewater “accelerator” program, and has ramped up its efforts to provide technical assistance and programmatic support to enhance the energy efficiency of water resource recovery facilities. This session will describe these efforts in more detail, and give participants an opportunity to interact with DOE and national lab personnel on these topics.
Session 20: Codigestion

Tuesday, April 11, 2017
8:30 AM – 11:15 AM

20A  8:30 AM  Codigester Feeding Pattern Drives Long-chain Fatty Acid Degradation Kinetics and Microbial Community Structure
Ryan Ziels, David Beck, H. David Stensel, University of Washington

20B  9:00 AM  Resource Recovery Cooperative for the Security of Consistent, High Quality Codigestion Feedstock
David McNeil, City of Tempe Water Management

20C  9:30 AM  Codigestion Study Helps Turn Industrial Pre-Treatment Problem to Renewable Energy Benefit
Scott Hardy, Hazen & Sawyer; David Ornelas, El Paso Water Utility; Spyros Pavalostathis, Georgia Institute of Technology; Edward Keenan, Brandt Miller, Michelle Brown, Chamindra Dassanayake, Hazen and Sawyer

10:00 AM  Networking Break

20D  10:15 AM  Effects of Biosolids Addition and Alkalinity Sources on High-Solids Anaerobic Co-digestion of Food Waste and Green Waste
Phillip Dixon, Paula Bittencourt, Bethany Loya, Meng Wang, Sarina Ergas, University of South Florida

20E  10:45 AM  Lifting the Fog from FOG Receiving
Rashi Gupta, Daniel Meacham, Phil Parkins, Carollo Engineers; Travis Peacock, Anthony Montoya, Albuquerque Bernalillo County Water Utility Authority

Alternate 1  How much can I digest? A Review of Process Loading Limits for Co-digestion and their Implications for Planning and Operations
Christopher Muller, John Willis, Perry Schafer, Steve Krugel, Tim Mills, Adam Ross, Thomas Chapman, Brown and Caldwell

Alternate 2  Synergistic Effects of Codigesting Preprocessed Food Waste Slurry
Michael Keleman, InSinkErator; Mingu Kim, Mohammad Chowdhury, George Nakhla, Western University