BIOSOLIDS

Beyond a Movement

OCTOBER 15 - 16, 2017 | PORTLAND, OREGON

NORTHWEST BIOSOLIDS

Unearthing Sustainable Solutions

SUNDAY October 15

Opening Session

12:00 PM	Registration
1:00 PM	Northwest Biosolids Kickoff Meeting
2:15 PM	BREAK

Righting Regulations

MOD: Jake Finlinson, King County, WA

2:30 PM	Fundamentals of Perfluorochemicals (PFCs)
2:45 PM	Proactive Position on Molybdenum/PFASs
3:00 PM	Protecting Beneficial Use: Biosolids Law Update 2017
3:30 PM	Proactive Partnerships for Biosolids in California
4:00 PM	Phosphorus Regulations
4:15 PM	Phosphorus in Practice: Biosolids Land Application Considerations
4:30 PM	BREAK
4:45 PM	Regulations Panel & Roundtable Discussion — **MOD:** Dan Thompson, City of Tacoma-TAGRO
6:00 PM	Vendor Social Hour
7:00 PM	NW Biosolids 30th Anniversary Banquet

MONDAY October 16

7:30 AM	BREAKFAST

Opening Session

8:30 AM	Northwest Biosolids Welcome & Awards Presentation
9:15 AM	Biosolids: Beyond a Movement, Beyond Borders
9:45 AM	BREAK

Infusing Our Infrastructure

MOD: Karri Ving, San Fransisco Public Utilities

10:15 AM	Community Sustainability Rooted in Our Infrastructure
10:45 AM	Community Take Back of Wastewater & Biosolids Beneficial Reuse: A Wastewater Utility Gets Into the Composting Business
11:15 AM	A Community Garden Uprising | Growing the Tacoma Way: Harvest Pierce County's Approach to Engaging Community in Agriculture
11:45 AM	Reimagining our City Habitats: Tapping the Power of Nature to Thrive in Cities
12:15 PM	LUNCH

See a Need, Fill a Need

MOD: Melissa Newell, Pierce County Planning & Public Works

1:30 PM	Answering the Call for Class A
2:00 PM	Spec'd for a Spectacular Fit: Using Compost Specifications to Guide a Biosolids Blending Program
2:30 PM	A New Market for Biosolids
3:00 PM	BREAK

Building Community Partnerships

MOD: Tressa Nicholas, Idaho Dept. of Env. Quality

3:15 PM	An Alternative Viewpoint
3:45 PM	Answers to Common Biosolids Questions
4:15 PM	Community Engagement | CitySoil Farm: A Giving and Learning Garden at the Poo Factory
4:45 PM	CONFERENCE ADJOURNS
5:30 PM	NORTHWEST BIOSOLIDS BRIDGE CRAWL

Background pattern adapted from by visnezh (Freepik).

SUNDAY October 15

Northwest Biosolids Kickoff Meeting

1:00 PM

Join our opening meeting to learn more about Northwest Biosolids during this unique networking forum. This interactive meeting will include highlights, projects on the horizon and an opportunity to share challenges and query the collective network in the room on potential solutions.

Break

2:15 PM

Righting Regulations

MODERATOR: Jake Finlinson, King County, WA

Fundamentals of Perfluorochemicals (PFCs)

2:30 PM | *Dr. Ian Pepper, University of Arizona, National Science Foundation Water & Environmental Technology Center (WEST)*

PFCs are a family of manufactured chemicals used to make products that resist heat, oil, grease and water. Consumer products that contain PFCs include textiles, leather, baking and sandwich papers, and cleaning agents. PFCs such as perfluoroctane sulfonate (PFOS) and perfluoroctanic acid (PFOA) are routinely found in biosolids and are considered to be emerging contaminants that pose potential adverse effects on environmental and human health. In this presentation, we will document what we know about PFCs, what we don't know, and the relevance of biosolids as a human exposure route for PFCs via land application.

DR. IAN PEPPER *is a Professor at the University of Arizona, Director of the University's National Science Foundation* ***W****ater &* ***E****nvironmental* ***T****echnology Center (WET), and Co-Director of the new* ***W****ater &* ***E****nergy* ***S****ustainable* ***T****echnology Center (WEST). He is an environmental microbiologist whose research has focused on the fate and transport of pathogens in air, water, soils and wastes. More recently he developed the University of Arizona's Real-Time Sensor Laboratory. His expertise has been recognized by membership on six National Academy of Science Committees. He is a Fellow of the American Association for the Advancement of Science, the American Academy of Microbiology, the Soil Science Society of America, and the American Society of Agronomy. He is also a Board Certified Environmental Scientist within the American Academy of Environmental Engineers and Scientists. He is the author or co-author of eight textbooks, 40 book chapters and over 160 peer-review journal articles.*

Proactive Position on Molybdenum/PFASs

2:45 PM | *Ned Beecher, North East Biosolids & Residuals Association (NEBRA)*

In the past three years, NEBRA has focused on critical biosolids hot topics dramatically affecting our members. First, we held a science workshop that convinced Massachusetts state regulators that their archaic, pre-503 standard for molybdenum (Mo) concentrations in biosolids was unsupportable; they revised it upward to 40 mg/kg. This year, we have led efforts to push back on accusations and regulations about per- and polyfluorinated alkyl substances (PFAS) in biosolids and wastewater. We're righting regulations as best we can.

Since 1998, **NED BEECHER** *has been Executive Director of NEBRA, tracking research, legislation, and regulations, and providing information to members and the public. NEBRA advances best practices and sustainability in biosolids recycling. Ned has led projects and authored articles, papers, and book chapters on biosolids management in the Northeast, eastern Canada, and around North America. He received the New England Water Environment Association (NEWEA) Biosolids Management Award for 2015 and has an MS in Resource Management from Antioch University and a BA in Geology from Amherst College. He has two adult children and lives and gardens (using biosolids) with his wife, Chris Clyne, MS, APRN, in Tamworth, NH.*

Protecting Beneficial Use: Biosolids Law Update 2017

3:00 PM | *Jimmy Slaughter, Beveridge & Diamond*

This presentation will review recent and ongoing controversies and court cases regarding biosolids, including claims of injury from biosolids and local restrictions and bans. Regulatory and scientific issues regarding trace compounds in biosolids like PFOA and PFOS will also be discussed. The presenter, Jimmy Slaughter of Beveridge & Diamond, is a trial lawyer who has spent most of his career defending beneficial use of biosolids.

JIMMY SLAUGHTER *is a litigator who has devoted most of his 25 year career to defending biosolids recycling in federal and state trial and appellate courts across the country. His recent accomplishments include representing the City of Los Angeles in a successful trial that struck down a biosolids ban, winning a unanimous decision from the Pennsylvania Supreme Court that biosolids are protected under the state Right to Farm Act, and representing NorthWest Biosolids in the Washington Court of Appeals case that struck down the Wahkiakum County Class B ban. Jimmy is a partner with Beveridge & Diamond in Washington, DC and began his career as a judicial law clerk on the U.S. Court of Appeals, Fourth Circuit. Jimmy graduated from Yale College and Columbia Law School.*

Proactive Partnerships for Biosolids in California

3:30 PM | *Karri Ving, San Francisco Public Utilities Commission (SFPUC) and Greg Kester, California Association of Sanitation Agencies (CASA)*

Karri and Greg will present a brief overview of legislative and policy mandates and objectives which intend to mitigate climate change and for which the wastewater sector can help achieve. These include diverting organics from landfills, producing more renewable energy, reducing CO_2 emissions, reducing the carbon intensity of transportation fuel, increased recycling, and building healthy soils. Opportunities and challenges will be articulated which must be addressed in order for the wastewater sector to collaborate proactively with the state.

As the Resource Recovery and Pollution Prevention Manager for San Francisco's Wastewater Enterprise, **KARRI VING** *has over 10 years experience upcycling urban organics into fuels, power and soil amendments. She chairs the Water Environment Federation's Biofuel Task Force as well as the Science and Research Workgroup for the California Association of Sanitation Agencies. Over the past several months Karri has worked with other Bay Area agencies to develop the Bay Area Biosolids Coalition as the trusted forum within the region for biosolids innovation, best management practices and sustained research. Karri has a background in restaurant management, marine diesel mechanics, environmental campaigning and received her baccalaureate degree in Politics from Oberlin College.*

GREG KESTER *serves as both the technical and programmatic contact for CASA members and conduit for emerging issues on state and federal level on all biosolids, renewable energy, recycled water, and related issues. He works closely with local, state and federal authorities as well as the private sector on biosolids management, climate change mitigation, energy optimization, and management options. Lead conduit of information for emerging technologies and markets for biosolids management and renewable energy opportunities. Prior to joining CASA, Greg served as the state biosolids coordinator for the Wisconsin Department of Natural Resources. He represented all states in the nation, by their election, to USEPA on all biosolids issues. He served on the National Academy of Sciences Committee which evaluated federal biosolids regulations and produced the 2002 report: Biosolids Applied to Land: Advancing Standards and Practices.*

Phosphorus Regulations

4:00 PM | *Ned Beecher, North East Biosolids & Residuals Association*

Phosphorus (P) is the third major issue NEBRA is addressing. State regulations to reduce the use of P fertilizer are spilling over onto biosolids and compost products and could sorely curtail markets. We need to write regulations – or best practice guidance at least – to stave off this onslaught!

Phosphorus in Practice: Biosolids Land Application Considerations

4:15 PM | *Andy Bary, Washington State University-Puyallup*

This presentation will discuss the dynamics of using biosolids for crop production. Particular emphasis will be given to phosphorus management as it pertains to National Resource Conservation Service, Conservation Stewardship Program. I will cover the basics of phosphorus in soils. The phosphorus index will be covered as a tool for proper phosphorus management on dry land wheat biosolids sites.

ANDY BARY *is a soil scientist and has worked for Washington State University for more than 30 years. He conducts research and educational programing in biosolids management, composting, compost usage, organic cropping systems, nutrient management, and soil science. He has a master's degree from Washington State University.*

Break

4:30 PM

Regulations Panel & Roundtable

4:45 PM | **PANEL MODERATOR:** Dan Thompson, City of Tacoma-TAGRO

Hear from representatives from around the region on some of the regulations opportunities and challenges facing biosolids professionals. The roundtable portion will encourage an interactive Q & A session with participants.

Celebrating 30 Years of BioFest

Vendor Greeting & Social Hour

6:00 PM

Northwest Biosolids 30th Anniversary Banquet

7:00 PM

The banquet will feature a full dinner, hosted beverages and entertainment to commemorate 30 years of unearthing sustainable solutions in the Pacific Northwest.

NW Biosolids Wins 2017 Green Globe Award

Protecting our environment and leading the region in supporting wastes to resources is just part of what Northwest Biosolids does. This week, we were honored to receive recognition for this work. On April 17th, Northwest Biosolids accepted a 2017 Green Globe award as a *"Leader in Supporting Waste to Resources"*, presented by one of our very first Northwest Biosolids members—King County. Northwest Biosolids was recognized for their support, which has helped the Pacific Northwest beneficially use 88% of our biosolids each year compared to 60% nationally. Northwest Biosolids was at the table with many of our region's most innovative environmental leaders, all working to protect our natural environment and create a more sustainable future.



Dave Hufford (above left), Pete Machno (above center) and Mike Van Ham (above right).

Biosolids**TRAILBLAZERS**

This year marks the 30th anniversary of Northwest Biosolids and Biofest. Careful demonstration of the beneficial use of biosolids here in the Pacific Northwest, paved the way for biosolids programs across the country. Our strength comes from the community that we have built and that strength has deemed us leaders in the industry.

As we look to the future it is important to recognize the individuals and programs that helped start and build this organization. This organization started thanks to the courage, forethought and understanding of the importance in building a community of program managers. **DAVE HUFFORD** of Tacoma and **PETE MACHNO** of King County were two of the founding fathers of this organization that helped lead the formation of our regional biosolids network.

Early on, it was recognized that good science had to form the basis of good programs. Northwest Biosolids partnered with two leading academic institutions and two leaders to establish research programs that are still active today. **CRAIG COGGER** of Washington State University and **CHUCK HENRY** at University of Washington carried that banner for decades. Northwest Biosolids still relies on research to provide answers and options.

The organization also understood that farmers, respected in their regions, would be the best advocates for land application. In Douglas County **LEROY THOMPSON**, **LARRY GLESSNER** and **GARY POOLE** started the Boulder Park dryland wheat program that now serves over 30 municipalities and 100 farmers. In Yakima, **TED DURFEY** with Natural Selection Farms recognized the value of biosolids to restore his soils and started a land application and composting program that continues to this day.

LeRoy Thompson, Larry Glessner and Gary Poole (below).

Craig Cogger (above left) and Chuck Henry (above right).

We were also fortunate to be led by good advisors, both north and south. Many municipalities rely on consultants to augment their staff and bring new insights and perspectives. **MIKE VAN HAM** started the premiere residuals research and operational management firm in British Columbia in 1989. Stakeholder consultation, research driven program recommendations and his focus on long-term vision has helped to keep biosolids in BC on high ground ever since. **STEVE WILSON** from Brown and Caldwell started his career off by developing the original biosolids regulatory guidance for Oregon. He has worked to demonstrate what a successful biosolids program looks like, how important it is to be present in your network and the true value of biosolids.

Many of the people today can trace their biosolids roots back to these founding fathers—those mentioned previously and too many others to name. A second generation of farmers have taken up the charge to continue land application. **CHELSEA DURFEY** and **BRIAN CAMPBELL** are just two examples. Former students of Craig and Chuck have gone on to consult, regulate and manage biosolids programs in Washington, Oregon and British Columbia.

Our challenges today include many things that those founding fathers never considered. New opportunities and new contaminants are part of our daily tasks. Northwest Biosolids, the foundation that was built to support biosolids, has also grown and changed. Together we are facing the future. **AND THE FUTURE, MY FRIENDS, LOOKS BRIGHT!**

Steve Wilson (below left) and Ted Durfey (below right).

MONDAY October 16

Breakfast
7:30 AM

Northwest Biosolids Welcome & Awards Presentation
8:30 AM

Biosolids: Beyond a Movement, Beyond Borders
9:15 AM | *JR Inman, Northwest Cascade*

JR will take us on a trip to the developing countries he has had the opportunity to invent infrastructure from the ground up where centralized collection and treatment is not a realistic possibility. This journey was made possible by the Gates Foundation's Reinvent the Toilet program.

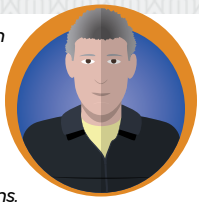
J.R. INMAN *has worked with Northwest Cascade Inc / FloHawks Plumbing & Septic for over 39 years. He has performed work and managed the service plumbing, septic pumping group for 26 years. JR is licensed in a dozen counties in Washington State as a Pumper, Operation and Maintenance Specialist and Septic Installer, also Manages a Septic / Wastewater treatment plant and concrete batch plant. JR has served on many different boards including National On-Site Wastewater Recycling Association & Northwest Biosolids Management Association. JR is also Past President of Washington On-Site Sewage Association and is a certified instructor for On-Site education.*

Break
9:45 AM

Infusing Our Infrastructure
MODERATOR: Karri Ving, San Francisco Public Utilities

Community Sustainability Rooted in Our Infrastructure
10:15 AM | *Rhys Roth, Center for Sustainable Infrastructure*

A history-making revolution in the water sector is brewing, and the Pacific Northwest can lead the way in developing cost-effective, integrated systems to supply, purify, and manage water that are among the most sustainable and resilient in the world. Rhys' presentation will highlight a new report that shows how—"A Northwest Vision for 2040 Water Infrastructure." And he will reflect on the role that Biosolids can play in the future of innovative, integrated strategies that optimize the community value generated by our infrastructure investments.



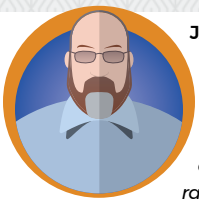
RHYS ROTH *is Director of the Center for Sustainable Infrastructure (CSI) at The Evergreen State College which is helping to bring innovation, new tools, and sustainability excellence to infrastructure planning and investment in the Pacific Northwest. Rhys authored CSI's influential inaugural report, Infrastructure Crisis, Sustainable Solutions and the first two installments in the '5 Big Goals for 2040' CSI report series: Rewiring the Northwest's Energy Infrastructure and A Northwest Vision for 2040 Water Infrastructure. Prior to founding CSI, Rhys co-founded and helped lead for over 15 years the non-profit group Climate Solutions. Rhys earned a Masters in Environmental Studies in 1990 from The Evergreen State College.*

Community Take Back of Wastewater & Biosolids Beneficial Reuse: A Wastewater Utility Gets Into the Composting Business

10:45 AM | *Gene Connell and Jason Duffin, Missoula Wastewater Division*

The Missoula Wastewater Division operates a 12 MGD advanced biological nutrient removal facility for a community of 72,000 people. The Wastewater Treatment Facility has had a beneficial relationship with a private composting facility since the mid-seventies. Recently, the composting facility was offered up for sale and the wastewater utility, recognizing a golden opportunity, jumped on it. With the purchase of this facility, Missoula is securing this beneficial reuse well into the future. Missoula is moving forward with a significant capital improvement project to modernize the composting process, eliminate odor and replace aging equipment.

GENE CONNELL *has been with the Missoula Wastewater Division for 26 years. He started in 1991 as a Plant Operator and is now the Facility Operations Manager. Gene was born and raised in Missoula, Montana. Early employment included being a Chrome Plating Supervisor and Hazardous Waste Specialist. In 2005 he was awarded the Montana Water Environment Federation Operators Award. He is a proud father of two and grandfather of three.*

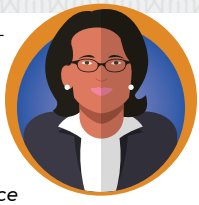


JASON DUFFIN *spent nine years in the construction industry. Then in 2005, EKO Compost was a natural fit. With 12 years at the composting facility and now as Compost Supervisor for the City of Missoula he still loves to go to work every day. Jason thoroughly appreciates having an active part in sustainability and what it means for the community.Born and raised in Missoula, Montana, Jason is happily engaged to a wonderful woman and is excited to be the father of four awesome kids ranging from 6 to 16 years old.*

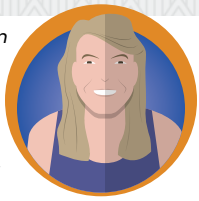
A Community Garden Uprising | Growing the Tacoma Way: Harvest Pierce County's Approach to Engaging Community in Agriculture

11:15 AM | *Marilyn Strickland, Mayor, City of Tacoma and Kristen McIvor, Harvest Pierce County*

Come hear about the growth of Harvest Pierce County, an urban agriculture program serving Tacoma and Pierce County, WA. The program supports over 80 community gardens, orchards and small farms that enjoy a wonderful relationship with local providers of biosolids (Tagro), and compost (Cascade Compost). Over 2,800 cubic yards of recycled organic matter was delivered to these garden spaces in 2016—improving soil for the gardeners and building relationships between the agencies and the over 3,000 volunteers engaged in the program. This innovative partnership has many positive ripple effects for municipal systems, community health, and the environment.



MARILYN STRICKLAND *is serving her second term as Mayor of Tacoma. Her pro-growth agenda focuses on creating family-wage jobs by improving education and workforce training, promoting entrepreneurship, investing in transportation and attracting international investment. Born in Seoul, she is a graduate of the University of Washington and holds an MBA from Clark-Atlanta University. Prior to elected office, she worked in both the private and public sectors. Mayor Strickland's regional and national board leadership includes Sound Transit, the U.S. Conference of Mayors and the Democratic Mayors Association. Strickland has appeared on Meet the Press, National Public Radio and is a trustee with the Urban Land Institute. She has been recognized by the National League of Cities Women in Municipal Government for outstanding local leadership and was recognized as the 2015 Washington Trade Hero by the Washington Council on International Trade.*



KRISTEN MCIVOR *is the director of Harvest Pierce County, the urban agriculture program of the Pierce Conservation District – supporting over 80 active community gardens and orchards, a gleaning program and a volunteer-run farm. She has been working to develop sustainable food systems in Tacoma, WA since 2006 and received her PhD in Forest Resources from the University of Washington in 2011.In addition to her work with community gardens, her career has focused improving urban soil for agriculture through recycling of organic residuals.*

Reimagining our City Habitats: Tapping the Power of Nature to Thrive in Cities

11:45 AM | *Jessie Israel, The Nature Conservancy*

The paths we walk to our front door, the blocks our kids play on, the breathtaking cityscapes, the parks where we gather—these are the result of our human nature. So why do we often think of nature as separate? By bringing more nature into our cities and towns, we can support thriving human communities with cleaner water, cleaner air, and healthier people with stronger connections to one another. Right here in the Pacific Northwest, we are using the power of nature to solve big environmental problems, like polluted stormwater runoff. We are building rain gardens to slow the flow of water and filter polluted runoff naturally. We are planting trees to filter our water, clean our air, and support human well-being. It's time to accelerate solutions to the biggest water pollution problem in urban areas across Puget Sound. City Habitats is composed of organizations and individuals choosing to re-imagine our habitat as good for clean water and good for healthy communities. We are coalescing around a common vision to save the quality of life we all treasure. Some of our greatest successes come from bridging traditional divides, finding unlikely partners and supporting community-driven solutions to get things done. Join us!

JESSIE ISRAEL *is the Puget Sound Conservation Director for The Nature Conservancy, focused on making our cities more resilient and livable by developingnatural solutions to stormwater and pollution.Jessie has spent more than a decade working with King County, where she has lead teams whose work represents the future of how organizations can best serve the needs of people and the environment in urban areas.Most recently she has been the Resource Recovery Section Manager for King County Wastewater Utility and, prior to that, the Business Development & Partnership Section Manager for King County Parks.*

Lunch

12:15 PM

See a Need, Fill a Need

MODERATOR: Melissa Newell, Pierce County Planning & Public Works

Answering the Call for Class A

1:30 PM | *Jim Dunbar, Lystek International*

Northern California has historically relied on a multitude of options in the management of wastewater generated Class B biosolids: from land application, to landfill beneficial reuse, to composting, and including disposal. The San Francisco Bay Area has been making a concerted effort in looking for a regional and responsible management of its biosolids for over 10 years. A coalition of over 20 agencies has banded together to research and encourage development of innovative technologies for this purpose. The result has been genuine interest from the private sector but no project has been brought to development.

Lystek International had developed a patented technology for the treatment of biosolids to a Class A biofertilizer that was gaining success in eastern Canada. The Lystek management team saw that California offered unique opportunities in this area. By entering into a public-private partnership with the Fairfield-Suisun Sewer District (FSSD),

Lystek was able to satisfy the goals of the Bay Area coalition and meet its internal objectives of a sustainable business enterprise.

This presentation will outline the Bay Area coalition history and the efforts of Lystek in meeting the needs of the market in California. Greg Baatrup, General Manager of FSSD, will provide a perspective from the wastewater industry as part of the presentation.

JIM DUNBAR *is the General Manager for California operations at Lystek International. Jim is a graduate of the University of Notre Dame (BSCE) and St. Xavier University (MBA) and a Professional Engineer with more than 25 years' experience in the management of solid waste and treatment of liquid wastes in the United States and Europe. Lystek is a Canadian-based firm (six existing plants) specializing in providing solutions to biosolids and organics management. Lystek opened its first-in-the-US biosolids processing facility in Fairfield, Solano County, California in 2016. This Northern California regional facility has a processing capacity of over 150,000 wet tons annually, and will produce a USEPA Class A-EQ biofertilizer. The Fairfield facility will serve San Francisco Bay area wastewater facilities and be a center of research for Lystek in the development of new end-user products.*

Spec'd for a Spectacular Fit: Using Compost Specifications to Guide a Biosolids Blending Program

2:00 PM | *Ryan Batjiaka, University of Washington*

The San Francisco Public Utilities Commission is transitioning to Class A biosolids production at its Oceanside treatment plant. One of the potential end uses for this material would be to blend it with other materials to create a product like Tagro. But what other materials should be mixed with the biosolids and how should the resulting blends be evaluated? This University of Washington project looked at using common compost specifications as a way to assess blended biosolids soil amendments created with materials sourced from the San Francisco Bay Area. Both odor and plant growth response were examined to see how compost specifications could predict problems in these areas.

RYAN BATJIAKA *is a master's student at the University of Washington studying soil science. Previously he worked for a compost company and has experience in both agriculture and landscaping. He believes strongly in the necessity of returning organic matter to soils in order to meet the environmental challenges we will be facing in the coming decades.*

A New Market for Biosolids

2:30 PM | *Ezra Carlson, University of Washington*

Growing cannabis is often done in potting mixes with proprietarynutrient formulas that are used for one crop, scooped out of their beds and disposed of. While these formulas claim their own magic, it islikely that the magic we know in biosolids can equal or surpass them.

The solid waste division in Tacoma is currently accepting spent growingmedium from a production facility. We are testing different mixes of theTagro and Soundgro biosolids and the spent growing material using cherry tomatoes as a surrogate for cannabis. The goal is to create a system of recycling spent cannabis growing medium, that produces higher performing soil using a renewable resource that is readily available.

EZRA CARLSON *hails from northern California's Humboldt County where he has witnessed first hand both the good and bad methods and practices utilized in marijuana production. He is in his last quarter at the University ofWashington, working on his capstone project with Sally Brown. He was amember of the UW Crew team, rowing in the Men's Varsity 8 for three years. Postgraduation, he plans to start a marijuana production company in Washington built around sustainable, carbon neutral, and environmentally friendly business and farming practices.*

Break
3:00 PM

Building Community Partnerships
MODERATOR: Tressa Nicholas, Idaho Department of Environmental Quality

An Alternative Viewpoint
3:15 PM | *Rebecca Singer, King County*

Learn more about understanding alternative viewpoints to furthering biosolids recycling. Specifically, what key elements or traits exist for individuals or organizations that are unsupportive of biosolids. Join a discussion on when to respond to opposition and how to engage in meaningful conversations.

REBECCA SINGER *is the Resource Recovery Section Manager for King County. Prior to her new roll, she was the Loop Biosoldis Program Supervisor. Rebecca also worked for the Department of Ecology as the Statewide Biosolids Coordinator for Washington. Rebecca has several years of experience working with multiple Ecology programs, local health departments, other utilities, elected officials, and the public to develop and maintain effective relationships within the biosolids community. Rebecca developed her expertise and practical management approach to soils, biosolids, and reclaimed water through M.S. in Environmental and Forest Sciences from the University of Washington, plus several years' experience as a research and teaching assistant. Rebecca has been active in NW Biosolids for the past seven years and is currently co-chair of the conference committee.*

Answers to Common Biosolids Questions
3:45 PM | *Sally Brown, University of Washington*

Science may be the gold standard but the language of science requires translation to be useful for communication. Our reliance on science in a vacuum and scientific language has shown the old adage about sticks and stones to be false. This talk will give some useful tips on translating science on biosolids for a general audience.

SALLY BROWN *is a research associate professor at the School of Environmental and Forest Sciences at the University of Washington. She received her MS and PhD from the University of Maryland working with Dr. Rufus Chaney on long-term metal availability in biosolids amended soils. Dr. Brown is a Fellow in the Soil Science Society of America and was a two term member of the National Academy of Science Committee on Soil Science. She has been awarded the Clean Water Act Research Prize from US EPA for her work on biosolids. She writes a monthly column for BioCycle Magazine.*

Community Engagement | CitySoil Farm: A Giving and Learning Garden at the Poo Factory

4:15 PM | *Fedora Williams, CitySoil Farm, Renton, WA*

A who, what, when, where, why, and how to create and manage a farm at a treatment plant. A teaser—it takes a village. Learn how this unique community partnership has seeded a new movement in sustainable food initiatives and diverse stakeholders working towards a common goal.

FEDORA WILLIAMS *is a career photographer and fifth-generation farmer. Born in Kansas, and raised all over the western U.S., Fedora has been living, gardening, and exploring the Seattle area since 2003. She has been working at CitySoil Farm located at Wastewater Treatment Plant South in Renton, Washington since Spring of 2016. She is now the coordinator of the project. When she's not farming, you can find Fedora backpacking through the Pacific NW forests, making art, rowing the Duwamish River, and BBQing in her backyard.*

Conference Adjourns

4:45 PM

Northwest Biosolids Bridge Crawl

5:30 PM

BioFest wouldn't be complete without our traditional Fun Run/Walk, so be sure to pack comfortable soles and cross the bridge to our Monday evening gathering across the river from the hotel at Warehouse 23. An opportunity to stretch your legs after a full day of sessions and enjoy appetizers and beverages at the finish line.

About Northwest Biosolids

In 1987, wastewater utilities across the Pacific Northwest banded together to create a unified regional voice for biosolids recycling.

The Clean Water Act, passed in 1972, required full solids treatment, leading to an influx of treated solids and multiple rules regulating their use. While the national biosolids regulation was released in 1994 following a rigorous risk assessment, there continued to be conflicting local rules and opinions that led to confusing biosolids programs and rate-payers over the most responsible and productive use for biosolids. In 1993, Northwest Biosolids incorporated as the first regional biosolids association in the United States with a hefty charge to research the flood of questions laid out before utilities and their communities:

"What is in biosolids?"

"How do treatment methods effect biosolids?"

"When and where is it safe to use?"

"Are there benefits to using biosolids?"

"What happens to contaminants in biosolids?"

"What are the best markets for biosolids?"

The organization began pooling resources to partner with local universities to fund research projects that helped answer these questions. This access to research allowed Northwest Biosolids to have an informed voice in regulations development and outreach to our communities. For nearly 30 years, this model of a regional biosolids network has helped to shape regulations, inform best management practices and share practical answers to biosolids use in our region.

CONFERENCE Committee

Committee Co-chairs

SALLY BROWN University of Washington

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Planning Committee

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MARK CULLINGTON Kennedy/Jenks Consultants

DAN EBERHARDT City of Tacoma-TAGRO

JAKE FINLINSON King County

KATE KURTZ King County

MAILE LONO-BATURA Northwest Biosolids

JANET McLOUGHLIN WSU Conference Management

MELISSA NEWELL Pierce County Planning & Public Works

DAN THOMPSON City of Tacoma-TAGRO

WHAT to WEAR

BioFest maintains a relaxed atmosphere. October weather in the Pacific Northwest is often warm and sunny, with the occasional cold rainy day. We suggest you pack casual, comfortable, versatile clothing. Don't forget appropriate clothing and shoes for the **Bridge Crawl** after sessions conclude Monday evening.

POSTER Presentations

Make the most of your break and listen in on our **pop-up poster presentations** hosted during selected conference breaks. You'll learn about some of the Northwest Biosolids funded research happening at our local **university partners**.

VENDORExhibition

Vendor and agency exhibits will be featured at the **Vendor Exposition** on Sunday and Monday evenings and will remain on display throughout the conference in the Ballroom.

Northwest BioIsolids members and **subscriber members** may display products and equipment at a reduced rate of **$100** (person staffing the exhibits must still pay for their conference registrations).

Non-members will be charged an exhibitor fee of **$550** in addition to the conference registration fees. If you are not yet a member and would like to become one and display at a reduced rate, please visit **www.nwbiosolids.org/membership.htm** to apply for membership.

Anyone interested in displaying products or equipment at the conference must complete the **Vendor Exhibit Registration Form** available online at **cm.wsu.edu/biosolids17**. You may also call WSU Conference Management (Puyallup Office) at 253-445-4629 to register your exhibit.

Exhibit space will be assigned on a first-come, first-served basis. NW Biosolids member agencies and subscriber companies will be given first preference.

BIOFESTSponsorships

Would your company or organization like to support BioFest 2017 (Biosolids: Beyond a Movement) as a conference sponsor? Sponsorships are available at **Seed ($300)**, **Sprout ($700)** and **Spruce ($1,200)** levels. Sponsoring organizations will have their logos displayed on the conference website, program and on the main presentation screen during breaks, and complimentary conference registration (Sprout and Spruce). Visit **cm.wsu.edu/ehome/biosolids17/sponsorship/** for details.

CONTINUINGEducation

Continuing Education Units (CEUs) will be offered for both wastewater and health certification. If you plan to earn CEU's collect your CEU card(s) at the registration desk when you arrive. You must attend a full session block (AM or PM) to obtain credit and must get your card stamped at the registration desk following each session. CEUs will be applied for through Washington and Oregon award agencies. Contact **Northwest Biosolids** at **206-477-5565** or **info@nwbiosolids.org** for more information about academic credit.

SCHOLARSHIPS

NW Biosolids scholarships covering the conference registration fee are available to biosolids professionals, students, regulators, and others requiring assistance. To apply, please visit the conference website at **cm.wsu.edu/biosolids17** for an online application form.

NORTHWEST BIOSOLIDS
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