Water Environment Federation^a

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Collection Systems Committee

MEMBER ASSOCIATION EXCHANGE

News for Collection Systems Professionals

2018—2nd Quarter Edition

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Need a Monday pick-me-up? Check out #ManholeCoverMonday!

Member Association News



Alabama WEA (AWEA)

AWEA's Annual Conference was held April 7 - 11, 2018 at The Grand Hotel in Point Clear, Alabama. This venue was new to AWEA and was selected to provide more exhibit space and a better conference experience for the attendees. In addition to the amenities of the beautiful new venue, those attending

the conference had an opportunity to participate in the annual golf and fishing tournaments to support AWEA's scholarship program and the annual Stormwater RunOff 5k to benefit undergraduate stormwater research at Auburn University.

This year's conference boasted 70 exhibitors and an attendance of over 400 persons. The technical program involved a Collection Systems tract, which included eight presentations of over 400 persons. focusing completely on collections.

Stephen King of Hazen and Sawyer and Chairman of AWEA's Collection System Committee was inducted into the Golden Manhole Society.



New England WEA (NEWEA)

The NEWEA 2018 Spring Meeting was held in scenic Newport, Rhode Island on **June 3-6**, **2018**. The Collection System session included the **NEWEA** following:

- Pump It, Grind It, Screen It Current Best Practices in Handling Collection System Modern Trash
- Using GIS to Manage and Visualize Sewer System Inspections
- Trenchless and Conventional Technologies Utilized for Installation of 5,550 Linear Feet of 30- and 40-inch Relief Sewer In Connecticut
- The Pipe Work is Done Why Are You Still Here? (Using Sewer Separation to Leave the Neighborhood Better Than We Found It)

The NEWEA CSC Specialty Conference will be held on Monday, September 10, 2018 in Boxborough, Massachusetts. Abstracts are currently being reviewed.

NC AVVVVA-VVEA North Carolina WEA And Annick Water Works Association Weef Associa

If you plan to attend a certification school in 2018, mark your calendars now with the following dates. Details and registration information will be posted online as each school approaches. School information will also be mailed to members in the 2018

- **Western Collections & Distribution School** July 9-13, 2018 in Morganton, NC
- **Western Biological Wastewater Operators School** August 13-17, 2018 in Morganton, NC
- **Western Maintenance Technologist School** August 13-17, 2018 in Morganton, NC
- **Central Collections & Distributions School** Greensboro, NC - Fall date to be determined

For more information and to sign up for a certification school, click here.



Training Catalogs.

WEA of Ontario (WEAO)

The WEF-member association of Ontario (WEAO) held the 47th Annual Technical Symposium and Ontario Pollution Control Equipment

Association (OPCEA) Exhibition on April 15 to 17th in London, Ontario. The 3-day event was a great opportunity to learn and network with wastewater professionals across Ontario, and represents one of our industry's marquee events! Key activities this year included:

- Student Design Competition and Mentorship Social, focusing on Young Professional engagement;
- Over 100 technical papers submitted by industry's leaders, including 4 sessions dedicated to Collections/Conveyance systems and stormwater management;
- The OPCEA Exhibition brings the newest technologies to market with over 120 booths to explore in the exhibition area;
- Operations Challenge, pitting wastewater professionals against one another in a series of high-energy events focused on collection systems, safety, pump maintenance,



Member Association News (continued)

- laboratory and a process control exam;
- Totally Wasted Game Show where teams test their water knowledge; and
- Amazing opportunities to network, including the Icebreaker Reception, Awards Luncheon, OPCEA Tradeshow Reception, and the closing Banquet Dinner.

Collection system topics were varied again this year, presenting case studies on the operation of the City of Montreal's interceptor tunnels, master planning of an east-to-west diversion tunnel in the Region of Peel, optimization of the City of Toronto's new integrated pumping station for wet weather flow, and flood forecasting in Quebec, while also capturing fundamentals such as flow monitoring tricks-of-the-trade, practical use of hydraulic models, risk assessment of climate change, and systemic governance issues in addressing the management of I/I from new construction. All sessions were well attended with lively discussions, demonstrating the top notch quality of the presentations.

Next year's conference is being held in the City of Toronto, and we welcome interest from all prospective authors to join us north of the border to share their collection systems knowledge (contact: weao@weao.org)



WEA of Texas (WEAT)

The 2018 Texas Water Conference was held in San Antonio at the Henry B. Gonzalez Convention Center **April 23 – 26, 2018**. The WEAT Collections Committee met during the conference on Tuesday April 24th. The agenda included several topics of discussion: WEAT Roard Meeting WEF Collection Systems

SAN ANTONIO included several topics of discussion: WEAT Board Meeting, WEF Collection Systems Committee Updates by Jerome Iltis and Mattie Engels, NASSCO discussion by NASSCO liaison to WEAT Kathy Romans, discussion on WEAT Webinar 2019, WET Article, active volunteerism by all committee members and passing the reins to Justin Diviney from long time WEAT Collection Systems Chair Leigh Cerda.

At Texas Water 2018, for the third year in a row, the Collection Systems technical session was a full day of educational presentations. Speakers/topics were selected by the WEAT Collections Committee including: Technology, Talent and Tenacity – Everything you need to succeed with in-house large diameter

main assessments by Michael Mosier from Arlington Water Utilities; A comparison of four types of sewage drop structures through physical modeling by Anthony Margevicius of AECOM; System Treasure Hunt: System study approach to accurate map data by Colin Sutton of Burgess & Niple; Sewer Super Highway: Fast track for large diameter consent decree pipeline by Jeffrey Farnsworth of Kimley-Horn & Associates; Shrinking the difference between the storms we design for and the storms we get by Nick Dons of Trinity River Authority and Mazen Kawasmi of Freese and Nichols; Sewer system storage and utilizing new technologies, a new beginning or same old problems? By Nicholas Anderson and Blayne Johnoson of Stantec Consulting; Saving time and money in wastewater modeling and master planning by Michelle Lacks of Burgess & Niple; The new polymer concrete manholes: breaking down the structures made to not break down by Dean Vria of Garver; Winning the war against wipes by Dave Barkey of JWC Environmental; Wastewater collection systems wet weather calibration methods — a review of methods — RTK vs system response curve by Tom Davies and Brad Pierce of Jacobs Engineering; Dallas wastewater collection system CMOM program by Ron Patel of Dallas Water Utilities.

Awards presented at the conference include inducting Justin Diviney, Puneet Gupta, Chris Hunniford, David Koberlein, Nyla Langford, Gary Sober, Sherri van der Wege and Heather Wootton into the Select Society of Sanitary Sludge Shovelers (5S). The 5S was founded by the Arizona Member Association in 1940 and induction is by selection and on the basis of merit. Within WEAT, induction is based on "Outstanding , meritorious service above and beyond the call of duty". The Sidney L. Allison Award was presented to Mark Perkins who is president and founder of Perkins Engineering Consultants, Inc. for his significant contributions to the Wastewater Collection Systems Industry throughout his 36 years in planning and design of municipal facilities, with the last 20 years focused heavily on odor and corrosion mitigation, including air movement and corrosion control within collection system pipelines and lift stations. He has served on the WEF Odor and Air Quality Committee for 16 years, is a past Chair of the WEAT Odor and Corrosion Knowledge Committee, a Past President of the Fort Worth Branch of the American Society of Civil Engineers, and currently serves as the WEAT North Texas Section President-Elect. This award is given to the engineering, science, and/or operation and maintenance of wastewater collection and pumping stations.

Technical News



IWSFG Announces New Flushable Wipes Specification

The International Water Services Flushability Group (IWSFG) – a group of dedicated water professionals seeking to protect customers by providing clear guidance on what should and shouldn't be flushed down the toilet – released its official Flushability Specifications, in an

its official Flushability Specifications, in an effort to curb the problem of improperly flushed consumer products; a widespread problem that causes countless sewer disruptions and billions of dollars worldwide in maintenance costs every year. These costs are paid for by every day consumers through their utility bills.

The IWSFG Publicly Available Specifications (PAS) were developed in response to evolving challenges and public affairs issues. The PAS address the key aspects of the *International Water Industry Position Statement on Flushability*, signed by more than 250 water organizations worldwide.

The PAS includes conformance to a published Code of Practice for effective labeling and communication of proper disposal methods of hygienic items used in toilet rooms. Many such items, including

wipes, are single use products containing plastic that may be harmful to the marine environment.

The updated PAS, which can be <u>downloaded online</u>, deems a product suitable for flushing down the toilet if it meets five criteria, each of which are connected to exhaustive tests that are detailed in the PAS:

- Environmental protection, including a requirement for no product to contain intentional plastic fibers;
- Toilet and drain line clearance;
- Disintegration, with the test replicating hydraulic forces in sewer pipes;
- Settling and
- Biodisintegration.

Unlike the newly released INDA GD4 guidelines, the PAS underwent two rounds of public comment in order to ensure that the PAS standards were both realistic and accepted worldwide. Critical comments were received by both water and wipes manufacturing organizations.

For more information about the PAS, <u>click here</u>. A big thank you to CSC Member Rob Villee, who was a key contributor to the PAS!



Collection Systems Awards

In each issue we like to recognize professionals and/or utilities in your Member Association (MA) who received a distinguished award in collection systems. Please contact Bri Nakamura at bnakamura@wef.org if you would like to contribute.



L-R: Mike Sims, AWEA President, Steve King, Award Recipient, and Lynn Broaddus, WEF BOT . (Photo: AWEA)

Alabama WEA (AWEA)

Stephen King of Hazen and Sawyer and Chairman of AWEA's Collection System Committee was inducted into the Golden Manhole Society.

WEA of Texas (WEAT)

- **5S Inductees**
 - **Justin Diviney**
 - \Diamond **Puneet Gupta**
 - \Diamond **Chris Hunniford**
 - \Diamond **David Koberlein**
 - \Diamond **Nyla Langford**
 - \Diamond **Gary Sober**
 - \Diamond Sherri van der Wege
 - **Heather Wooton**
- WEAT's equivalent of the Golden MH Award is the **Sidney L.** Allison Award. It is presented annually at the Texas Water WEAT North Texas Section President-elect Conference. **Mark Perkins** is this year's recipient. Mark is the president and founder of Perkins Engineering Consultants, Inc. and has 36 years of experience in planning and design of municipal water and wastewater facilities, focusing his last 20 years heavily on odor and corrosion mitigation in collection systems.



Volunteer Highlight: WEAT's Leigh

Ms. Cerda began her career with the City of Austin, Texas working in the Utility Operations Division as a college intern in 1993. Upon graduation from the University of Texas in 1994 with a B.S. in Civil Engineering, she accepted a full-time position with the city. Ms. Cerda was a

sought-after graduate in the private and public sectors, and chose to continue to work for the City of Austin in the hopes having an impact on the environment in which she lived, moving from graduate engineer level to Division Manager of the Collection Systems Division in 1998. During her time at the city, she became involved with the Water Environment Association of Texas (WEAT) and the Water Environment Federation (WEF) as these organizations would allow her to further her goal of environmental stewardship. She served on the Texas Water Technical Program Committee beginning in 1998 and became Chair of the WEAT Collections Systems Knowledge Committee in 2007. In 2003, she co-chaired the annual WEF Collections System Conference held in Austin, Texas that June. In 2003, she also shifted her career to the private sector, where she has been able to assist various municipalities and districts regionally and nationally to improve their wastewater collection systems. She is considered an

industry expert by her peers in the fields of flow monitoring, condition assessment and rehabilitation.

As WEAT Collection Systems Knowledge Committee Chair, Ms. Cerda revitalized the committee, growing the membership from four persons to over twenty active participants, with a subcommittee structure. With the committee, she has planned, organized, and hosted semiannual webinars designed to educate industry professionals regarding such topics as pump maintenance, hydraulic modeling, force main assessment and inspection, and wastewater flow monitoring. Ms. Cerda also planned and organized a series of very successful conferences on Wastewater Collection Systems mapping, modeling, assessment, monitoring, design, construction, and operation and maintenance, called the "4M's of Collection Systems". These conferences historically have attracted industry expert speakers, and have covered the spectrum of Wastewater Collections Contains and Market Planning and Hardward. Collections Systems topics from Master Planning and Hydraulic Modeling to Innovative Inspection Methods and Operations and Maintenance. These conferences are well attended by technical and operations personnel alike.

Ms. Cerda has distinguished herself as a published author and speaker on the industry conference circuit, having provided more than 100 presentations in her career and authoring articles in industry journals such as Texas WET Magazine and Underground Construction Technology Magazine. In 2006, she began work on a revision of the WEF Manual of Practice No. FD-6, "Existing Sewer Evaluation and Rehabilitation, Third Edition", authoring Chapter 2 of that publication, "Systematic Approach to Evaluation and Rehabilitation, published in January

As monitoring and guiding legislative and regulatory initiatives related to wastewater are a key strategic initiative to WEAT, under Ms. Cerda's direction the Collections Committee supported an effort through three legislative sessions to push for the adoption of a Sanitary Sewer Overflow Bill in Texas that would more effectively monitor and manage sanitary sewer overflows for Texas utilities. In the 84th Texas Legislative Session (2015), Texas Senate Bill 912, resulted in a rule change to create a distinction between the reporting requirements related to unauthorized discharges/spills, creating thresholds for reporting and reducing the burden of reporting to utilities. In the rule writing stage by the Texas Commission on Environmental Quality (TCEQ), the committee reviewed and provided comments to continue to support the process and the final rule adoption, effective June 2016.



WEF Volunteer Service Recognition Award Nominations Due June 30

WEF volunteers are the life-blood of the organization and it is essential we recognize our outstanding volunteers. The WEF Volunteer Service Recognition Award is to recognize a volunteer who has significantly contributed to the successes and achievement of WEF through service in a

WEF committee or HOD. Does this sound like someone you

If so, submit a nomination by June 30, 2018! For more information and submit a nomination, click here.

> Win an award? Know of a stellar WEF Collection System volunteer to highlight?

Share any successes, milestones, events, initiatives, innovations, fun ideas, etc. with all in our collection systems community by emailing a short summary to Bri Nakamura at bnakamura@wef.org



NASSCO News

NASSCO

The University of Texas at Arlington Research Team Found Existing Literature on Chemical Emissions of Styrenated CIPP Non-conclusive



A four-month study on the review of published literature pertaining to chemical emissions of styrene-based resin used in the cured-in-place pipe (CIPP) process found that existing studies do not adequately capture worker exposures or levels in the surrounding areas to which workers or citizens may be exposed. The study started last December and completed on April 6, 2018 by researchers at the University of Texas at Arlington (UTA)'s Center for Underground Infrastructure Research and Education (CUIRE), and the Institute for Underground Infrastructure (IKT) in Germany. The team determined that spatial variation of concentrations, and variations in concentrations with different meteorological conditions, are not well determined.

Most of the steam-cure studies captured temporal variation in emissions, by measuring concentrations before, during and after curing. The studies were less complete in capturing spatial variation in concentrations. Most studies measured styrene around the termination manhole, or inside the manhole or sewer pipe itself. Maximum values at the outlet point and inside the terminal manhole ranged from 20 to 1,070 ppm, which are levels that exceed some exposure limits. However, since workers and certainly the public should not typically enter or stand directly at the termination manhole in the exhaust plume, this information is not very helpful.

At the steam-cured sites, additional field measurements of styrene concentrations surrounding the terminal manhole are needed. Only four of the steam-cure studies measured concentrations at locations surrounding the terminal manhole (at least 3 ft. (1 m) away), not in the manhole itself or in the exhaust plume. On one project, employees walked the construction area periodically but spent most of the time in their work trucks due to the cold weather. Hence, these measurements were likely not typical of worker exposures. Additional worker exposure data should be collected to capture variability in source emission rate, meteorological conditions, and the worker's location with respect to the terminal manhole.

Atmospheric concentrations of compounds are functions of the source emission rate, meteorological conditions, and the receptor location. Since concentrations are expected to vary as a function of distance from the manhole, measuring at few locations gives an incomplete picture. In addition, concentrations are expected to vary with wind speed and wind direction, so measuring on one day does not capture what levels may be under differing meteorological conditions.

These earlier studies also do not adequately capture variations in emission rates from different kinds of pipes (different diameters, lengths, etc.). The overall results of the project at UTA/CUIRE/IKT indicated that the 21 papers reviewed have questionable methodologies, and therefore, the results presented are not conclusive. The researchers recommended additional sampling and data evaluation and analysis as a second phase of this study, as proposed in their final report.

WEF News



The WEF Collection Systems specialty conference is looking for sponsors for 2020 and beyond. In conjuction with your state member association, this national conference could be coming to you. This unique experience provides the opportunity to show off your City and share your knowledge and experience with peers from across the country and internationally. Gather, network, and learn alongside top professionals and experts from around the country who share a common interest in upgrading and improving collection systems. The Host City will assist in planning the conference lead by WEF staff and volunteers. All you need to get started is a letter of interest from your state member association and City officials. If you are interested in hosting a future Collection Systems Conference, please contact Laura Childs for additional information at lchilds@wef.org or (703) 684-2400, extension 7010.

 $\begin{array}{ll} \textbf{Highlight your City} - \textbf{This conference brings international and} \\ \textbf{national attendees and provides the host City an opportunity to} \end{array}$

showcase unique features in the area.

Educational Opportunities — The conference provides a wealth of technical knowledge and educational opportunities, including hands on workshops, technical speaker sessions, mobile sessions with exhibitors, and exhibitors to present new and effective technologies. These sessions provide attendees with innovative ways to manage common problems that all systems experience. In addition, the Host City will have an opportunity to share innovative approaches utilized in managing their collection system.

Networking — The vast group of attendees will provide you with contacts that may provide valuable assistance on current or future efforts to update and improve your system. In addition, there are many social events and opportunities to meet your peers and share information.

FUN — In addition to the education and networking attendees always leave time to enjoy themselves. There are social events and happy ours that allow peers to interact and relax in the host City.





WEF News

CS 2018 Recap—Success and Fun on the Coast!



VWEA, the City of Virginia Beach and the Local Planning Group (LPG) volunteers were gracious hosts of the 2018 WEF Collection Systems Conference from April 8th through April 11th. Lead by Joe Strauch and Kyle Logue, the 2018 conference included nearly 700 attendees from over 40 states and 6 countries. The exhibit hall had over 65 exhibitors, including the

Sewer and Water Art Gallery, a new exhibit of sewer art and oddities from around the region. The conference began on Sunday, April 8th, with two Pre-Conference Workshops (with 80 attendees) which addressed the opportune topics of:

Infiltration and Inflow Modeling for Collection System Utilities and Findings from the Field – How to Evaluate Your I/I Reduction Program's Performance and Report the Results to Your Board

Sunday evening was the VWEA Conference Social – "A Night at Sea" at the Virginia Aquarium & Marine Science Center, a fantastic venue with ocean life, and even mermaids. A couple hundred VWEA members and WEF CS Conference attendees enjoyed the event. Many attendees noted how much they enjoyed the food, drinks, venue, band, and networking. Many thanks should go to the event planners and sponsors. Donations to attend the event raised funds for local charity.

Monday morning's Opening General Session began with heartfelt welcomes by the Conference Chair Joe Strauch and Peter Vanrolleghem representing WEF. Phil Hubbard of Hampton Roads Sanitation District (HRSD) welcomed attendees on behalf of the LPG, Ted Henefin presented on the history of HRSD, and Jeff Holland presented on the iconic Chesapeake Bay Bridge Tunnel.

After a great start, the conference transitioned into high-gear with attendees participating in two types of mobile sessions where 10 exhibitors presented, highlighting collection system technologies, and attending the 59 distinct presentations among 13 different technical sessions.

The Conference included two tours to allow attendees to get outand-about", the first tour to the *Nansemond Treatment Plant – SWIFT Research Center*, and the second tour to the *Bridge Street Pump Station/Coliseum Storage Facility*. The conference tours included approximately 65 attendees.

Many thanks to Joe Strauch and Christy Willson, the CSC Specialty Conference Subcommittee, the VWEA local planning group (led by Kyle Logue, Phil Hubbard and Steve Motley), and WEF staff for putting on another successful conference! And see you all in June 2019 in Indianapolis!!!

Tulsa, Ok. High School Student Wins U.S. Stockholm Jr. Water Prize



Braden Milford has won the 2018 U.S. Stockholm Junior Water Prize (SJWP), the nation's most prestigious youth competition for water-related research.

Milford, a student at Cascia Hall Preparatory School, developed a system using naturally occurring bacteria to remove

heavy metals from contaminated abandoned mine sites. He won \$10,000 and an all-expenses paid trip to Stockholm to represent the United States at the international competition in late August.

Students from 47 states and Puerto Rico competed in the national finals June 16-17 at the University of North Carolina at Charlotte. The Stockholm Junior Water Prize aims to increase students' interest in water issues, research, and careers, as well as to raise awareness about global water challenges. The competition is open to projects focused on improving water quality, water resource management, water protection, and drinking water and wastewater treatment.

The two U.S. runners-up were Anjali Chadha of Kentucky and Michelle Xing of New York, who each received \$1,000. Madeline Kane of Nebraska received the Bjorn von Euler Innovation in Water Scholarship Award from Xylem Inc. Helen Laird received the James L. Condon Recognition for Environmental Stewardship.

In his winning paper, "Designing a Novel Heavy Metal Bioremediation System Utilizing Immobilized Algae Partnered with Heavy Metal Resistant Microbial Isolates Collected From Contaminated Superfund Mine Sites and Identified with a 16S Ribosomal Subunit Analysis," Milford noted that heavy metal contamination is found at nearly every one of the estimated 500,000 abandoned mine sites in the United States. Of these mine sites, 0.003% are actively funded for cleanup by the U.S. Environmental Protection Agency and cost \$300 million annually. Milford used a five-phase approach to address this problem. After identifying areas of heavy metal concentration along streams near abandoned mine sites and taking samples of the water, Milford identified heavy metal-resistant bacteria. He then combined the bacteria with algae to develop a heavy metal remediation system.

For more information on the Stockholm Junior water prize and for a list of state winners, <u>click here</u>.

WEF Hires New NGICP Director



The Water Environment Federation (WEF) has nationally launched a jobs program that provides training and certification in the field of green infrastructure, a fast-growing approach used to reduce stormwater pollution and revitalize communities.

The National Green Infrastructure Certification Program (NGICP) is available nationwide after development of the program by WEF and co-founder DC Water, along with 14 other water utilities, which led to the initial certification of more than 250 individuals, many of whom have secured permanent employment in the field.

NGICP establishes national requirements for working on green infrastructure projects, promotes a skilled green workforce, streamlines the process of connecting qualified talent to indemand jobs, and supports community-based job creation in U.S. cities. The nationwide launch of NGICP offers opportunities to become a certified individual, program partner, trainer, supporter of certifications, and sponsor. NGICP also seeks to work with philanthropic groups to reach under-represented members of the workforce and rural communities.

WEF has named Adriana Caldarelli as director of NGICP. She comes to WEF after 17 years with the New Jersey Department of Environmental Protection working in various water quality-related programs, including wastewater management planning and combined sewer outfall permitting. Much of her work has been focused on green infrastructure and she worked in the state's stormwater management program developing design and performance standards.

For more information about the NGICP program, click here.



WEF News (continued)



SAVE THE DATE— WEFTEC 2018 Best Rate Deadline July 12, 2018!

Hope to see you in New Orleans! This year WEFTEC will be held in New Orleans, Louisiana on **September 29-October 3** at the New Orleans Morial Convention Center.

Registration is now open and register by July 12, 2018 for the best rate! For more information and register, <u>click here</u>.

Need more convincing? Check out some of the amazing Collection Systems technical programming available at WEFTEC, click here.

Join us for the Collection Systems Committee Meeting!

At WEFTEC early? Join us at the Collection Systems Committee (CSC) meeting on **Sunday, September 30, 2018 from 2:00-5:00 PM** to learn more about what the national committee is doing, how to get involved, and network with some cool collection systems pirates (arrghhh!).

Don't miss the Collection Systems Luncheon!

A can't miss event, this year's luncheon, on **Tuesday, October 2, 2018**, features a presentation by Tony Parrott, Executive Director of the Louisville and Jefferson County Metropolitan Sewer District (MSD) in Louisville, Kentucky!

For more information and register for the luncheon, click here.

Did You Know?

Need a Monday pick-me-up? Check out #ManholeCoverMonday!

Move over #ThrowbackThursday and #SelfieSunday, because now we have #ManholeCoverMonday! A growing Twitter trend to start off your week. And these aren't just regular boring manhole covers, recent tweets show manhole covers from all over the world! So if you see a cool manhole cover or just need a Monday pick-me-up, check out #ManholeCoverMonday.

















Keep reading and keep sharing! The WEF CSC Member Association e-Newsletter is going quarterly!

Share any successes, milestones, events, initiatives, innovations, fun ideas, etc. with all in our collection systems community by emailing a short summary to Bri Nakamura at bnakamura@wef.org

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