

# Maine Water Environment NEWS

1-800-452-8786



August 2019 • Summer

A Publication of the Maine Water Environment Association

## President's Corner

By Stacy Thompson, Saco WRRD



Time flies, when you're having fun! As I sit here, it amazes me how true this statement is considering how it's already August! I've been having a wonderful time being the President of MEWEA and networking with so many remarkable people throughout New England. Of course, there have been challenges... especially since March 22<sup>nd</sup>. The folks in this Association have truly helped me along and have been nothing but encouraging. I'm humbled and honored to have been given this opportunity. So, thank you!

The Annual MEWEA Fall Convention is upon us 😊 I can't thank all of you who are involved in coordinating this event enough... maybe some extra beverage tickets? If you haven't signed up yet, I encourage you to do

so. The Personnel Advancement Committee has put together a great program, including a mini PFAS Summit on the Friday of the Convention. As always, the Convention will kick off with the annual golf tournament which is being held at the Rockland Country Club. If you want to see someone (me) lose an enormous amount of golf balls, you should play! Along with all the sessions and networking, there will also be a corn-hole tournament on Thursday night. To register, visit: [www.mewea.org](http://www.mewea.org). I hope to see you all at Point Lookout!

I want to congratulate MEWEA's Ops Challenge team for qualifying for WEFTEC 2019 being held in Chicago. I will always have fond memories of being on the team and am glad I have remained friends with my teammates...yes, even you Alex! Going forward, I wish them the best of luck and thanks to Rob Pontau for filling a vacant spot on the team so quickly!

If there is ever anything you want mentioned in a president's message, feel free to email me at [sthompson@sacomaine.org](mailto:sthompson@sacomaine.org) and I will include it. Thanks...and onto fall (that hurt to type)!

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**Have you Joined the "Maine Water Professionals Discussion Forum" on Facebook?**

Get your questions answered and help answer questions.

<https://www.facebook.com/groups/778718278939822/>

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[www.mewea.org](http://www.mewea.org)

## Upcoming Executive Committee Meeting Dates:

October 18th  
Brunswick Sewer District



## Ops Challenge

Force Maine, representing MEWEA at the New England Water Environment Association Operations Challenge completion June 3 and 4, 2019 is excited to announce we have secured our spot on the NEWEA contingent of three teams to go on to Chicago to compete in the international championships at WEFTEC. Our team trained hard for this and were able to take third place overall, following the amazingly talented Connecticut Franken Foggers and Ocean State Alliance.

Force Maine 2019 is a relatively new Team, with rookie Dan Munsey of Brunswick Sewer District joining Captain Riley Cobb of Saco Water Resource Recovery Dept., Shelby Carver from Kennebunk Sewer District and Nate Melanson of the Lewiston Auburn WPCA. We have travelled twice to Warwick RI to train for the regionals, and plan to travel back there later this summer to hone our skills before WEFTEC. We appreciate all the support of MEWEA members, including those sponsoring the annual Golf Tournament and additional donations of equipment from Team EJP. We also want to thank Brunswick Sewer District and Saco Water Resource Recovery Dept. for hosting weekly practice sessions this Spring. We are also

very grateful to all NEWEA members also sponsoring our trip to WEFTEC.

Hope to see many of you in Chicago!

The MEWEA Treatment Plant Ops Committee would like to add to this that we are very proud of the team's commitment to carrying on the Ops Challenge tradition. Maine is one of the only New England states that has consistently been represented by a team for over a decade. We hope to keep this going into the future but we need your help. Despite being one of the best ways to further the careers and knowledge of operators, it has been a constant battle to find people who are willing to make the commitment to being on the team. Do you or someone you know want to get involved either as a team member, coach, or event volunteer? Let us know! Our hope is that as more and more people see the success of the career paths of past participants and what fun they have getting there, the interest will grow and more and more people will want to be a part of it. If you are interested and want to get your name on the list of future participants, or if you just want to learn more about Ops Challenge, contact the TPO Committee chair at [alex.buechner@biddefordmaine.org](mailto:alex.buechner@biddefordmaine.org).

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**Website:** [www.mewea.org](http://www.mewea.org)

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# Update on the Governor's Task Force on PFAS

Jeff McBurnie, MEWEA Residuals Management Committee

Established on March 9<sup>th</sup>, the Maine PFAS Task Force has been working diligently to identify priorities and strategies to address concerns related to potential public health and environmental impacts from exposure to perfluoroalkyl substances (PFAS). Your MEWEA representatives on this task force are Andre Brousseau from Sanford SD, representing wastewater operators interests and Jeff McBurnie from Casella Organics, representing biosolids management interests. Other members of the task force include representatives from an environmental advocacy group, the pulp and paper industry, public drinking water professionals, public health professionals, and regulatory designees from the Departments of Environmental Protection; Health and Human Services; Agriculture, Conservation and Forestry; and Defense, Veterans and Emergency Management. The Task Force is chaired and facilitated by Dr. Meredith Tipton.

Its first meeting on May 22<sup>nd</sup> was primarily an introductory, goal setting meeting with PFAS status presentations by the regulatory representatives or their designees. The next two meetings (6/26 and 7/29) were more substantive, with the individual stakeholders working to define the priorities for their specific organizations or agencies. The overall intent was to help the task force focus on areas of highest concern/importance, in an effort to optimize the use of the State's limited resources. The primary topics for discussion were the need for land application as a method of

biosolids management and alternatives should this beneficial use option be eliminated; addressing data gaps that impact the development of strategies; regulation of PFAS as either a category of compounds or as individual chemicals; and assistance, either actions or resources, that the State should be requesting from the Federal government. Currently under discussion for consideration is the elimination of land application of biosolids as a management option, despite it being a small component of the issue and the fact that there has been no link to responsible biosolids recycling and any health or environmental problems in Maine.

At its next meeting on August 28<sup>th</sup>, the task force will begin the process of building the framework for its report to the Governor, due in December. The group will work to find consensus on recommendations to include in this report.

The Task Force meetings are held at the Augusta Civic Center and are scheduled from 1 – 5 PM. Public input is solicited and accepted at all meetings. The meetings are open to the public and are accessible by live streaming.

More detail can be found at <https://maine.gov/pfastaskforce/>.



## EMERGING CONTAMINANT / PFAS ANALYSIS

As accurately monitoring PFAS and all emerging contaminants has become a rising priority for Maine and across the U.S., SGS has emerged as the industry leader in laboratory analysis. SGS laboratories around North America are both state and DoD certified to perform drinking and ground water, soils, sediments, tissue and biosolids, as well as serum analysis (accredited by ISO 17025 by CALA).

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# Guide to Brewery Discharges



## WHAT YOU NEED TO KNOW ABOUT BREWERY WASTEWATER

Breweries and distilleries are popping up all over the State in cities and rural communities alike. According to the Maine Brewer's Guild the number of active breweries in the State has almost doubled since 2010. Growth is expected to continue for the foreseeable future, especially in smaller towns and rural areas. Industry growth is great for the local economy and is encouraged but communities must be prepared for potential impacts. The following information will help your community understand the impact that brewery and distillery operations have on wastewater collection and treatment systems.

### HOW MUCH AND WHAT'S IN IT?

Breweries typically generate between 5-8 gallons of wastewater per gallon of beer produced. This wastewater source is from the production process and cleaning/sanitizing operations. Because of the ingredients used to produce beer and other beverages, highly concentrated pollutants are in the wastewater, much higher than levels typically found in domestic sewage.

Consider that a typical household generates between 100-200 gallons per day of wastewater with a BOD of about 200 mg/l. The impact of brewery wastewater becomes more obvious when comparing brewery BOD to household BOD. For example, a brewery that produces about 1,000 bbl of beer annually, will generate up to 1,000 gallons/day of wastewater. With a BOD (strength) of about 3,000 mg/l, this brewery discharge is equivalent to about 50 homes.

Parameter	Raw Wastewater	Treated Wastewater
Water to Beer	4-10 liter/liter	Same
Wastewater to Beer Ratio	1.3-2 liter/liter lower than water to beer ratio	Same
Biochemical Oxygen Demand (BOD)	600-5,000 mg/l	100-400 mg/l
Chemical Oxygen Demand (COD)	1,800-5,500 mg/l	
Nitrogen	30-100 mg/l	
Phosphorus	3-12 mg/l	
pH	3-12	6-9
Total Suspended Solids (TSS)	200-1,500 mg/l	50-500 mg/l

### Main Areas Of Wastewater Generation

SOURCE	OPERATION	CHARACTERISTICS
Mash Tun	Rinsing	Cellulose, sugars, amino acids. ~3,000 ppm BOD
Lauter Tun	Rinsing	Cellulose, sugars, spent grain. SS ~3,000 ppm, BOD ~10,000 ppm
Spent Grain	Last running and washing	Cellulose, nitrogenous material. Very high in SS (~30,000 ppm). Up to 100,000 ppm BOD
Boil Kettle	Dewatering	Nitrogenous residue. BOD ~2,000 ppm
Whirlpool	Rinsing spent hops and hot trub	Proteins, sludge and wort. High in SS (~35,000 ppm). BOD ~85,000 ppm
Fermenters	Rinsing	Yeast SS ~6,000 ppm, BOD up to 100,000 ppm
Storage tanks	Rinsing	Beer, yeast, protein. High SS (~4,000 ppm). BOD ~80,000 ppm
Filtration	Cleaning, start up, end of filtration, leaks during filtration	Excessive SS (up to 60,000 ppm). Beer, yeast, proteins. BOD up to 135,000 ppm
Beer spills	Waste, flushing etc	1,000 ppm BOD
Bottle washer	Discharges from bottle washer operation	High pH due to chemical used. Also high SS and BOD, especially thru load of paper pulp.
Keg washer	Discharges from keg washing operations	Low in SS (~400 ppm). Higher BOD.
Miscellaneous	Discharged cleaning and sanitation materials. Floor washina. flushina water. boiler blow-down etc.	Relatively low on SS and BOD. Problem is pH due to chemicals beina used.

### QUICK FACTS

- 1 gal of beer = 5-8 gal of wastewater
- Brewery BOD = 2,000-3,000 mg/L
- Cleaning Ops generate high pH wastewater and can contain high levels of phosphorus
- Many brewing operations utilize septic systems – know the hauler!
- You can find much more information on the [MeWEA Pretreatment Committee web page](http://www.mewea.org), including FACT sheets you can give to your local breweries.

[www.mewea.org](http://www.mewea.org)

**A BREWERY IS MOVING IN...** Here is a tool you can use to collect important information on your brewery dischargers.

Company Name: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Website: \_\_\_\_\_  
 POC Name: \_\_\_\_\_  
 POC Email: \_\_\_\_\_  
 POC Phone: \_\_\_\_\_

SEWER (Y/N)	
SEPTIC (Y/N)	
If Septic - Hauler Name	
RESTAURANT (Y/N)	

DOMESTIC INFORMATION	
# OF EMPLOYEES	
# OF TOILETS	
# OF SINKS	

BASE PRODUCTION INFORMATION	
ANNUAL GALLONS OF PRODUCT PRODUCED (est.)	
HOURS OF OPERATION	
DAYS PER WEEK IN PRODUCTION	

FACILITY INFORMATION	
COMPANY OWNED OR LEASED? IF LEASED PROVIDE OWNER CONTACT INFORMATION	
SANITARY SEWER SEPARATE FROM PROCESS DISCHARGE?	
SAMPLING POINT LOCATION FOR SANITARY & PROCESS	
FLOOR DRAINS: QTY, LOCATIONS, SANITARY/PROCESS, PRIMARY USE DESCRIPTION	
FACILITY SQUARE FOOTAGE <i>Break out each type of space separately: Production floor, Office, Shipping/Receiving, Retail, Break Room, Maintenance Areas, Chemical Storage, etc.</i>	

PROCESS INFORMATION	
PRODUCT BEING PRODUCED	
DESCRIBE THE CLEANING AND SANITIZING OPERATION. <i>INCLUDE TYPICAL DAY/TIME, TYPES OF CHEMICALS, LOCATION</i>	
TANK DESCRIPTION <i>CAPACITY, USE, OVERFLOW AND DRAINING DISCHARGE LOCATION</i>	
INDUSTRIAL WASTEWATER TREATMENT PROCESS DESCRIPTION	



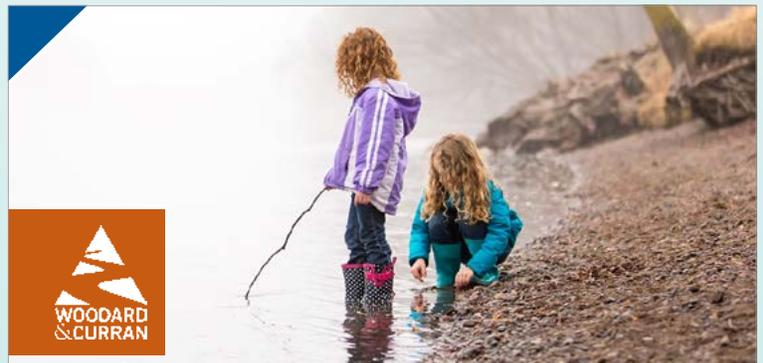
While helping the town of Brunswick to unclog a drain in the Meadowbrook neighborhood, Collection and Pumping system operator **Jim Sonia** discovered some brook trout swimming in a manhole. He knew they were hungry because when he dropped a beetle down the manhole, one of the trout instantly gobbled it up. Being the ingenious operator that he is, Jim located a driveway marker to use as a pole. He pulled apart some nylon twill to make a line and managed to locate a hook in his truck (because everyone has a fishing hook kicking around with their loose change, right?). He then dug up a worm and then proceeded to drop his contraption down the hole. It didn't take long to "reel" in this nice brook trout. 🐟



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**COMMITMENT & INTEGRITY DRIVE RESULTS**

The **Young Professionals Committee** has been picking up steam throughout 2019 with many new faces attending meetings and events. The May YP committee meeting held at Wright Pierce in Portland had a record 13 attendees with the majority being first time participants. The May meeting acted as a reset for the YP committee with a turnover of the committee chair position and an eager group of new members. The meeting focused on an overview of MEWEA and how YPs impact and assist the organizations goals, with the hope of getting all new members engaged in the committee. The Ted Berry Company graciously hosted the YP committee at their Livermore headquarters for the July meeting. The regular scheduled committee meeting was followed by a tour of the Ted Berry facility and equipment. The Ted Berry Co. also sponsored dinner and drinks for the committee, thanks for treating us so well! I think everyone left the July meeting having learned a lot and filled with delicious pizza from Calzolaio Pasta Company in Wilton.

Upcoming events for the YP Committee include the Lewiston/ Auburn After Hours Paddle Event, Vendor Raffle at the Fall Convention, Biddeford Poo & Brew with NEWEA, Coastal Clean Up Event in the Portland Area, and more. Just a reminder all of the YP Committee sponsored events are open to the full MEWEA membership, and we want you to come! Keep and eye out on the MEWEA social media pages and the Presidents Message for more specific information on upcoming events. If you are interested in learning more about the YP Committee, getting involved in the group, or even just getting your email on the YP email list, please reach out to Max Kenney (Committee Chair) at [Mkenney@woodardcurran.com](mailto:Mkenney@woodardcurran.com).

For those of you who are management level and want to get your newer staff more engaged in the industry, encourage them to attend a meeting or event! Below are some photos from the July committee meeting at Ted Berry.



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This is your newsletter – if you have news you would like to pass along or an opinion to express that would be of interest to the membership of MEWEA, we are always interested in receiving material and will make every effort to incorporate your submissions.

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# Maine Water Environment **NEWS**

## August 2019 ISSUE

*please circulate and share with your colleagues*



[www.mewea.org](http://www.mewea.org)