

# Maine Water Environment NEWS

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A Publication of the Maine Water Environment Association

## President's Corner

By Paula Drouin, MEWEA President

Admittedly, I am not a winter person. My LAWPCA co-workers who attempted to teach me to ski in preparation for the annual MEWEA/NHWPCA Ski Day can attest to that (it wasn't pretty!). Ski day ended up being a day with freezing rain, so I used that as an excuse to stay in the lodge! But, spring is finally here and summer will soon be upon us. I look forward to warm-weather activities (like Paddle After Hours in Auburn on 8/2) and connecting with more of you.

A couple of things I am working on right now:

- Moving the monthly Executive Committee meeting to new locations. I'm looking to hold the August 17<sup>th</sup> meeting in Millinocket and the October 19<sup>th</sup> meeting Down East, probably in Ellsworth. Final locations will be posted to the association calendar: <https://www.mewea.org/event-calendar/>. Anyone interested in learning more about MEWEA is strongly encouraged to attend.
- Making final revisions to the Association Administrative guide. One large addition is Standard Operating Procedures (SOPs) for the various tasks our volunteer members do. This way, it will be much easier for new people to come on board and help. And, we have a new committee to add, which is exciting! Treatment Plant Operators Committee will take the place of Operations Challenge (Ops challenge will still be part of the committee). I hope operators will take advantage of this opportunity to connect with one another.
- Ordering a new display for the MEWEA exhibitor booth. With the approval of the new mission statement, I will be ordering a new display, tablecloths, and other items that might be useful at the various events we attend. If there handouts that you think should be made available at events (either internally to other members or externally to the public), please let me know.



Stacy Thompson, Shiloh LeFreniere, Senator Susan Collins, Allison Fisher, Paula Drouin, Mac Richardson

While in D.C. last month as part of the National Water Policy Fly-In, we got this photo after meeting with Senator Collins:

I've been sending out a President's message about every other week so that members can stay informed about what I am up to. If there are items you think are important for me to include, please let me know. As always, do not hesitate to reach out to me with any questions.

## 2018 Officers

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\*For a complete Board Listing, please visit the MEWEA website at:

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

## Upcoming Executive Committee Meeting Dates:

**Apr. 12** – Executive Board Meeting/Strategic Planning Session - Four Points Sheraton, Bangor

# Announcements

## Technology and Innovation Summit.

We are excited to announce an upcoming summit. The event is being co-sponsored by Maine Water Environment Association, Maine Water Utilities Association Maine and Rural Water Association. It is scheduled for October 18, 2018 in Augusta, Maine.

This event is being developed as a specialty conference focused on advanced technology and innovation already being used or being introduced to the water, wastewater and stormwater utilities.

This will be a full day event from 7:30 AM- 4:30 PM. We will have a limited trade show with vendors invited to display. The vendors that would like to demonstrate their service or product will be scheduled to do so in 1/2 hour increments. In addition to the demonstrations 1 hour technical presentations will be scheduled. There will be two 1 hour classes in the morning and two 1 hour classes scheduled in the afternoon. Training contact hours will be secured and offered for all training classes and demonstrations for all licensed operators.

If you have interest in being a presenter for one of our technical sessions, securing a booth and or providing a demonstration please contact the Maine Water Utilities Association office.

## Young Professionals Committee

Maine Water Environment Association and Maine Water Utilities Association have combined their Young Professional Committees. The associations feels this will strengthen the goals and objectives for both committees. It will also enhance the opportunity for every engaged young profession to meet many other professionals looking to build professional relationships with peers.

If you have any interest in joining the committee or finding more about what they do please reach out to the Committee Chair - Michael A. Guethle ([michael.guethle@wright-pierce.com](mailto:michael.guethle@wright-pierce.com)).

## Northern Maine Community College (NMCC) Announces New Water Treatment Technology (WTT) Program starting Fall 2018

Northern Maine Community College in Presque Isle is announcing a new Water Treatment Technology Program will start in the fall of 2019. It is no surprise to anyone managing a water treatment and distribution system or a wastewater treatment and collection system that good qualified employees have become increasingly hard to find. It has been many years since there has been a certificate program or an associate' degree program in Maine or even in New England. All of this may come as good news to high school seniors and others looking to find good, stable employment that is rewarding and challenging.

The program will be directed by John Belyea a registered professional engineer with a wealth of experience to share with those new to the field. Much of John's experience was in the consulting field in upstate New York, however long family ties to Aroostook County bode well for a long tenure for John at NMCC.

Students opting to pursue a one year certificate program will be able choose either a drinking water certification or a wastewater certification. Course will include basic skills such as applied

mathematics and English Composition as well as laboratory procedures, blueprint reading instrumentation and controls, safety and treatment processes.

Alternatively NMCC will be offering a two year Associate's in Applied Science Program that will include elements of both drinking water and wastewater operations. With recent work by the community college system and the University of Maine system, those students looking to go on to a four year degree at one of the UMaine campuses should find most of their course work easily transferable.

The program is set up to be affordable as illustrated below:

Estimated Cost for One Year at NMCC

Tuition	
(\$94/credit hour, 30 hours assumed – per semester.....	\$2820
Fees .....	\$825
Books and Supplies.....	\$1500
Laptop Computer (required) .....	\$300-\$500
Housing on Campus	
(with 14 meal plan- optional 1 year shown).....	\$7000

All of these programs are being set up to be hands on learning that will translate into graduates that will make great new hires for our state's critical infrastructure systems. Mr. Belyea points out that the career opportunities don't stop at public systems. There are opportunities for technicians to work with commercial laboratories, in sales, chemical processing facilities and as field people in consulting firms.

The 2018-2019 curriculum, admission requirements, housing availability and many other questions can be found on the northern Maine community college web site, [nmcc.edu](http://nmcc.edu) or by contacting John Belyea at [njbelyea@nmcc.edu](mailto:njbelyea@nmcc.edu) or (207)768-2775.

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## Announcements cont'd

### Awards

At the April 13<sup>th</sup> MEWEA spring conference, the following people were recognized for their outstanding achievements in our industry.

MEWEA Past President Award – Matt Timberlake  
Lifetime Achievement Award – Thomas Todd (pictured below)

#### NEWEA awards

Stockholm Junior Water Prize – Mei, Bangor ME

NEWEA Operator Award – Annaleis Hafford, Winterport ME (pictured below)

Alfred E. Peloquin Award – Phyllis Arnold Rand, Augusta ME (pictured below)

James J. Courchaine Collections System Award – George Kathios, Kittery ME



Thomas



Annaleis



Phyllis

Young Professionals Award – Michael Guethle, Portland ME (pictured below)

Asset Management Award – City of Portland ME

#### WEF awards

Quarter Century Operator's Club: Timothy Levasseur, Waterville ME

#### Service Awards:

Daniel Bisson, North Yarmouth ME (pictured below) & George Vercelli, Gorham ME



Michael



Daniel



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# Water Week – 2018 DC Fly-In

By Stacey Thompson, City of Saco WRRD

The Annual DC Fly-in began bright and early at the Portland Jetport on April 17<sup>th</sup> and by the time we landed in DC, we were in the office of Sen. Collins within 45 minutes. We had a great talk with a representative of hers and Mac presented Sen. Collins with a book that students from Windham had put together. Our message was quite clear; funding for wastewater, drinking water and stormwater.

Next, we were off to the NEWEA Congressional meeting at the Capitol Visitor Center. The folks at NEWEA put together a great panel of speakers, including the two Senators from New Hampshire and a Representative from Massachusetts. It really drives home the message when our elected of-

ficials are on the same page when it comes to the concerns of the water community. The rest of the first day was spent with an assistant from Rep. Poliquin's office, finding and checking into our hotel and then capping it off with a networking event.

The following morning, we were back at it making our way over to Sen. King's constituent coffee time. Thankfully, there was a lot of coffee to stay caffeinated! Apparently, a fair number of parents bring their children to DC for school break. We met this young lady while we were waiting for Sen. King who has a future as a politician. The we were off to a water week briefing and then wrapped up the elected official meetings with an assistant from Rep. Pingree's office.

At the Congressional reception, we were all able to try recycled wastewater from California. Amazingly enough, it quenched my thirst and tasted just like water.

Thanks to my travel partners, Mary Barry and NEWEA, and to our elected officials for taking time to meet with us. It was truly an honor to represent MeWEA in DC and speak to our elected officials on the importance of funding for ALL water and infrastructure (wastewater, drinking water and stormwater). Minus some glitches I personally had going through security (I set off a fair amount of alarms), I look forward to representing this association next year at the DC Fly-in. 🌊



Stacy Thompson (VP MeWEA), Shiloh LaFreniere (Town Manager of Jay), Senator Collins, Allison Fisher (City of Portland), Paula Drouin (MeWEA President) and Mac Richardson (NEWEA State Director).



Stacy Thompson (VP MeWEA), Paula Drouin (MeWEA President), Senator King, Mac Richardson (NEWEA State Director), Allison Fisher (City of Portland) and Shiloh LaFreniere (Town Manager of Jay).



Ed McCormick (WEF past president), Senator Bernie Sanders, Paula Drouin (MeWEA President), Bob Fischer (NEWEA Government Affairs).



Allison Fischer (City of Portland), Stacy Thompson (MeWEA VP), Paula Drouin (MeWEA President), and Shiloh LaFreniere (Town Manager of Jay).

# Brunswick Sewer District's Wastewater Treatment Facility

By Bryanna Denis, Wright-Pierce

*Note to the reader: This article is the first in what will be a regular feature in the newsletter highlighting wastewater facilities and the dedicated people who maintain them throughout the State of Maine. The goal to start will be to highlight one facility in each of Maine's 16 counties. If you have suggestions, or would like your facility to be featured, please let us know.*

Despite living and working nearby for the last 7 years, I have not had the opportunity to visit the Brunswick WWTF until earlier this month, where I had the pleasure of touring the Brunswick Sewer District (BSD) treatment facility and interviewing the treatment plant crew. Jen, Tom, Dan, Jason, Matt and Rob collectively have more than 100 years' experience working for the BSD. Matt, Jason and Jen have over 20 years each at BSD. The long tenure of so many in this crew is a testament to the quality of the BSD organization as well as the Brunswick crew's passion for the wastewater industry.

During my visit, I was unfortunately not able to meet and interview the collection system crew, and so, in this article am focusing mainly on the treatment facility. I am told that the collection system crew has the same longevity, dedication, and passion that the treatment crew has.

The Brunswick Sewer District is a quasi-municipal organization that provides wastewater collection in the Town of Brunswick and wastewater treatment in both Brunswick and its cross-river neighbor, Topsham. The treatment plant also accepts and treats septage from surrounding areas.

The Brunswick plant was built in 1967 as a primary treatment plant with a capacity of 2.5 MGD. In 1985, the primary plant was expanded to increase capacity up to 3.85 MGD. Back then, primary sludge was air-dried on sludge drying beds and land applied. In 1991, the plant was upgraded to a secondary treatment plant maintaining the total plant capacity of 3.85 MGD. That upgrade included the addition of trickling filters, secondary clarifiers, and belt filter presses for sludge dewatering.

The most recent upgrade was finished up in February of 2018. It was a comprehensive upgrade including a complete overhaul of the existing plant. The list of upgraded items is long, so here are just a few of the main components of the upgrade:

- septage receiving station,
- influent climber-type screening and screening wash press,

- primary clarifier, secondary clarifier, and trickling filter drives,
- replacement of most pumps and pumping systems,
- chemical feed systems,
- sludge dewatering system including Fournier rotary presses and polymer systems,
- several new and rehabilitated/repurposed buildings,
- a new office and maintenance/storage facility for the collection and pumping division,
- SCADA control for the whole facility,
- electrical upgrade and new generator and fuel tanks for the whole facility, and
- rehabilitation of existing concrete tank structures.

During my visit, the Brunswick crew shared several stories, about how things were in the good ol' days, when they first started at the District - which in some cases was more than twenty years ago. Twenty years, is the amount of time we expect major wastewater equipment and systems to last before needing replacement. When many of the BSD crew like Matt, Jen and Jason started working for BSD, the 1991 upgraded systems and equipment were new. Now, almost 30-years later, those systems have been replaced and upgraded.

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During construction.



Aerial view of the Brunswick wastewater treatment facility.



Construction complete.

## Brunswick Sewer District's Wastewater Treatment Facility

cont'd

When we consider technology though, twenty years seems... forever. With technology changing and advancing at high-speed, it's amazing to look back and see how far we've come. Just think back to mobile communication: beepers were all the rage in the 90's, then cell phones became popular around 2000 (remember those flip phones?), then smart phones became popular ten years later. Now, some of us are pairing our phones with smart watches and glasses... It really makes you wonder what's next.

In that same vein, there have been a lot of technology upgrades and advances at the BSD facility which ease manual labor and data entry requirements. Based on the nostalgic stories I heard from the BSD crew, there are several tasks that will be sorely missed, such as:

- Circular chart recorders.
- Log Books and mountains of data recorded by hand.
- State reports in Lotus 123.
- Manually raking influent bar screens.
- Manually covering and uncovering sludge drying beds with tarps (I heard quite a bit about the acrobatics required to climb over and through the gelatinous piles of sludge).
- Babysitting the belt filter press during a run and what would happen if you forgot to turn down the speed as the feed thickens at low tank levels.
- Forgetting to turn off the lime feed to the presses after a run, with certain individuals (that, of course, no longer work for the District) trying to sneak away to avoid blame... but, mistakenly leaving distinctive footprints through the mess.

Now, chart recorders and paper logs have been replaced with historian software, where thousands of individual data points are collected and stored. State reports, and statistical analysis on those data points can be completed and saved in Excel and Water Information Management Solution (WIMS) data analytical software. Manual raking has been replaced with automatic screening, washing and compacting. Sludge dewatering has come a long way:

- from originally air-drying,
- to belt filter presses in the 90's,
- to now, with new enclosed, automatic rotary drum presses that are capable of producing cake with nearly twice the solids content.

With all these changes, some might wonder - Well, what the heck does the BSD staff do all day?!

Over the last several years, while manual labor has generally decreased - the BSD crew have become more and more specialized. With automated systems and SCADA control, more can be completed each day, but, maintaining automated systems requires constant learning and training. More complicated laboratory testing and process monitoring is required now compared with the past. Equipment still needs to be checked, serviced and maintained. Data is now analyzed to find areas where efficiencies can be improved. Meeting and exceeding effluent permit requirements, decreasing chemical use, and minimizing energy use are all things that are under constant scrutiny by the BSD team.

BSD has also increased their public outreach and education programs, including creating a really neat interactive kiosk that plays short informational videos about wastewater collection and treatment when scanned with a smart phone.

But, despite all these technological advances, occasionally the crew still prefers to remain old school.

At those times, "If it ain't broke, don't fix it" applies - and BSD continues to use a 51-year-old clamshell to remove grit. Because... who doesn't love the claw game? 🎮



Please Join the Brunswick Sewer District for an Open House

# BSD

June 14, 2018 at 2-5 p.m.  
10 Pine Tree Road  
Brunswick Maine

Check out our New Facilities.  
Tours, Light Snacks, Prizes, Giveaways  
and Tons of Fun!

# Young Professionals

The Young Professionals Committee teamed with the Collections Committee to attend the Urban Runoff, a 5k run and neighborhood engagement event organized by Cumberland County Soil and Water Conservation District. This event provides us with the opportunity to educate many of the attendants in our post-race booth, where we were able to talk to an audience of children and families about the importance of stormwater and sewer treatment. The booth included a felt/velcro posterboard for children to identify healthy characteristics of a stream, information about wipes, as well as a slide show of how collections systems work. MEWEA was awarded the Largest Non-Profit Team for the 5<sup>th</sup> year in a row, thanks to the MEWEA members from many committees and communities across the state.

Over the next few months, our attention turns towards planning our fall events and appropriately recognizing those Young Professionals excelling within the industry, with the following awards process, all available through our committee page:

<https://www.mewea.org/young-professionals-committee/>



## Young Professionals Award

- Do you have a younger staff member, a coworker new to the industry, or a friend dedicated to the clean water environment that you would like to recognize for their efforts? Please find the link at our website and nominate them for the Young Professional Award today!

## Young Professional Higher Education Award

- Each year since 2015 we have been awarding a \$1000 academic achievement award to an intern that is excelling within the clean water industry. If you have an intern that is committed to outstanding work, please nominate them at the committee website.

## University Convention Attendant

- To boost our connections with universities, we're offering the chance for students to have the YP committee cover their registration. For more information, please visit our website at the above link

Please stay tuned for more information on our many exciting events for the end of summer and fall as those plans get finalized. Events include public information booths, a day of canoeing on the Androscoggin, attendance at the Fall Convention, and brewery and treatment plant tours.

If you would like to get involved or have any questions, please contact the Mike Guethle, YP Committee Chair, at [michael.guethle@wright-pierce.com](mailto:michael.guethle@wright-pierce.com)

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## Bath Wastewater Treatment Facility Starting on Upgrade

The City of Bath recently received a \$2.3 million grant from the USDA rural development agency to help fund \$8.8 million in needed upgrades and replacements to the treatment plant and collection system, the remainder of the project is expected to be financed through the Maine Municipal Bond Bank via the State Revolving Loan Fund. According to Superintendent Bryan Levitt, the City will be doing extensive work to improve the collection system in addition to two recent upgrades of major pump stations. At the plant itself, two new Ishigaki screw presses will be installed for dewatering, all of the aeration basin diffusers will be replaced and new Sodium Hypochlorite and Sodium Bisulfite tanks are to be installed along with needed upgrades to the effluent disinfection and de-chlorination system. The City is working with Wright-Pierce on the upgrades. For more information on the work, contact Bryan Levitt at 443-8348. 



# SPRING/SUMMER 2018 SCHEDULE OF EVENTS

May 31, 2018 - JETCC Planning Meeting, Maine DOT Training Center, Fairfield ME.

June 1, 2018 – Pretreatment Committee Meeting, Contact Dan Welch  
[[Dan.Welch@gd-ots.com](mailto:Dan.Welch@gd-ots.com)]

June 4-6, 2019 – NEWEA Spring Meeting, Goat Island, Newport RI  
<https://www.newea.org/event/2018-spring-meeting/>

June 15, 2018 – Executive Committee Meeting

August 2, 2018 – Paddle After Hours, Festival Plaza, 112 Main St. Auburn ME  
<https://androscogginlandtrust.org/event/paddle-hours-lewistonauburn/>

August 17, 2018 – Executive Committee Meeting, Sunday River Resort, Newry ME

September 7, 2018 – Pretreatment Committee Meeting

September 19, 2018 – MEWEA Golf Tournament, Sunday River Resort, Newry ME

September 20-21, 2018 – MEWEA Fall Convention, Sunday River Resort, Newry ME

September 29-October 3, 2018 – WEFTEC New Orleans, LA <http://weftec-2018.org/>

October 9, 2018 – Northern Maine Children’s Water Festival, University of Maine, Orono ME  
<https://umaine.edu/mitchellcenter/childrens-water-festival/>

October 18, 2018 – Technology and Innovation Summit, Augusta ME

# ON MY SOAPBOX:

## Communication is the Problem to be Answered

By Mac Richardson, LAWPCA

**Note: The opinions, positions, and views expressed in any “On My Soapbox” feature are those of the author(s) and do not necessarily reflect the opinions, positions or views of the Maine Water Environment Association.**

In these “internet days” of Facebook, Twitter, LinkedIn and I don’t even have a clue about who knows what else, it is all the more important that we pay attention to communication and how we do it! Communication takes many forms, but regardless of what form communication takes, a few basic guidelines may be helpful.

First and most fundamental, it is well to remember that communication is always a two way street. That is, there is a role and even a responsibility for the receiver as well as the sender. Therefore, before you put a pen to paper, type on your keyboard, or even open your mouth, it is a good idea to think a little about the person or persons you are addressing. How will this communication help them? What has the time preceding your message been like for that person? Will your message be well received, or would it be better to wait or possibly even refrain from writing/speaking (before you think it, I recognize a little restraint could often be exercised by yours truly!). Try to keep from assuming things about the person or persons you are attempting to speak to. For example, do not ascribe motives to the actions of others. You can certainly state what another person has done, but if you tell that person “you did that to piss me off!”, you are making assumptions that you cannot back up and can cause the core message to be ignored. Simply put, you do not know why another person

took any specific action, sometimes the other person wasn’t even thinking when they did whatever it was they did (that may have made you upset).

Consider that communicating effectively is one of the most powerful things you can do. This is true whether you are a high powered researcher (think Stephen Hawking) a powerful office holder (President Regan) a supervisor, operator, consultant, salesperson, or whatever. Without effective communication you have only yourself to accomplish things, if you truly wish to be successful, you need the help of other people – a team working well together can always accomplish more than an individual (even when the individual is a genius!).

The use of profanity is almost never a good idea. If used as name calling, it tends to escalate a conflict, which is rarely what helps in the long run. If used as an adjective, it shows a lack of vocabulary. If used in anger, it demonstrates a lack of self-control. If used in a joke, it shows poor taste. I do suppose it is excusable in certain rare circumstances, such as immediately after you whack your thumb with a hammer, but leave to those rare instances!

Especially when writing, but it holds true generally, do not use big or important sounding words when a simpler one will do. Looking like a pompous horse’s hind quarters is rarely a good thing! Again, communication is about delivering a set of thoughts from one person to another, why would you want to make that delivery harder to receive. That said, if a specific word carries nuances of meaning that are important to the message, then its use is justified. Maybe the following example will illustrate the point and be fun at the same time. Which message would you rather receive? “Strive to articulate efficient pathways through enhanced evaluation of managerial inclinations of verbal communication.” Or, “Try to think about how you talk to your staff.”

It is nearly always a good idea to find a compliment to give to another person, as long as the sentiment is genuine. Recognizing the good in other people is generally a good way to build relationships and to foster cooperation. Be careful not to pander, offering up unfelt praise. Similarly, refrain from finding fault, unless your intention is to improve future situations. Belittling is a sure fire way to inhibit future cooperation. Cutting other people down generally results in lowering your own stature! Pointing out the best in people generally results in a stronger person who is more valuable to you (whether as a friend, coworker, boss, etc.).

In the end, good communication is largely about respect. That is, respect the person or people you are trying to communicate with. Do not try to impress people with big words, and do not talk down to people. Allow time for dialog – recognize the two way street. Allow time for a back and forth discussion. This is especially important when you are trying to get others to help you get things done. I think most of us want to be the best we can be, and doing a good job at communicating – especially being aware of the other person and where they are coming from – is one of the most important ways we can be our best. 



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# Maine Water Environment **NEWS**

**May 2018 ISSUE**

*please circulate and share with your colleagues*



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