

Share Your Thoughts

A letter from the NHWPCA President

I would like to thank the association for honoring me with the chance to serve as President. I would also like to thank Ken, who has shepherded us through the past year and transitioned us to professional management. I am looking forward to working more closely with Dee, Mike Dennehy, our newest Board member, Peter Conroy, committee members, and the entire Board to coordinate efforts to achieve our goals and fulfill our mission.

Before joining the Board, I had always considered myself to be an operator first and foremost; gradually taking on the roles of educator and leader as I took on more responsibilities. Somewhere way down that list of ways to describe what I do for living, you would find public speaker and writer; yet here I am. One month into the new year, this position has afforded me the opportunity to add 2 more: politician and law maker.

As of right now there are still quite a few question marks on the calendar, especially when it comes to getting together in-person events. The good news is that with the vaccine there is a light at the end of this tunnel. We are working to move water and wastewater workers up in the queue by having us identified as front-line workers- emphasizing the importance of the job we do in protecting the environment.

Since gatherings are off the agenda for at least the first part of the year, the Association is looking at other ways to bring value to our membership in 2021. Our work this year will include:

- PFAS: ground water limits impact on solids handling & the future of surface water limit
- Implications of the Great Bay General permit
- Reinstating the municipal exemption for shoreland permitting
- Clarifying the use of 40 CFR 36 approved methods for NPDES testing of wastewater effluent
- Working with other water associations to improve the shortage of workers, training, and other legislation at the state and national level
- Group membership rates
- Keeping wipes out of our pipes: state and national legislation to label non-flushables
- The review of draft permits
- Training in the age of COVID
- How, when and where to conduct the meeting and trade fair in 2021
- Potential name change to remove "Pollution" in order to satisfy the insurance company
- TBA: As last year proved, there is always something that we never expected waiting to surprise us!

Finally, I would like to give a shout out to our committees and the work they are doing behind the scenes to make these things happen. This year, with the added convenience of remote meeting, is the perfect time to join a committee! When I remember back to how I first got involved in 2003 at the winter meeting (cue the flashback)... Sean Greig taps me on the shoulder and says, "I think you would be a great addition to the Op's Challenge team!" This was the moment for me that transformed wastewater from a job to a profession. If you are in a position of leadership, I am asking you to tap someone else on the shoulder and open the door for them to get involved. Thanks to all of our volunteers for their continued support and know how much I am looking forward to a productive year.



*Mike Carle, NHWPCA
2021 President*

NHWPCA Board

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In This Issue

Blurbs, Blurbs & More
Blurbs

Congratulations to
NEWEA/WEF Award
Recipients!

A Selection of COVID
Protocols

EPA Recognizes New
Hampshire Wastewater
Treatment Entities
for Excellence

Committee Spotlight

Being a Sales Guy
During the Pandemic

Workforce Develop-
ment

The Past, Present and
Future of

Residuals Report

Safety Corner

Thoughts from the
Bench

Retiree Raves

PreTreatment Tales

Editor's Words



Stephanie
Somersworth WWTF

In my last editor's words, I promised a story about a trip to South Carolina, but I am NOT writing these words from South Carolina. I'm also NOT writing these words after returning from South Carolina. Going to South Carolina in the middle of a global pandemic was obviously NOT a good idea. I was pretty darn sure that my daughter would eventually realize this and reschedule her wedding AGAIN. But I continued to make plans, because that's what we do for our children, and when she asked me what I thought she should do I said "don't worry about the money in making your decision" even though I was past the deadline for a refund on my rental home. My daughter has been engaged since Christmas Day of 2018. I bought my mother-of-the-bride dress in January of 2019 while I was in Boston for the NEWEA conference. The rest of the timeline of shopping and planning and rescheduling all just muddles together in my mind. But with COVID19 vaccinations ramping up, it looks like I can plan to really travel to South Carolina. She has a college graduation scheduled for December 9th of this year and a wedding three days later on the 12th. My dress will be hanging in my closet for another year...sigh.

I multi-tasked my way around this year's virtual NEWEA conference – I watched sessions during coffee breaks and lunch and while setting up BODs. I even managed to win a Dunkin Donuts gift card from the scavenger hunt! Obviously, it was all a poor substitute for being in-person in Boston and I felt a little sad about that at the end of each day but overall, I was appreciative of all the hard work that went into the conference and I enjoyed myself.

I recently found not a "bright-side" to the pandemic, but a teeny-tiny "bright-sliver." We all have experienced the lack of understanding and respect for what we do. After reading articles about COVID in wastewater and listening to webinars about COVID in wastewater, I've been thrilled to find that there's been stories in local NH newspapers about COVID in wastewater. I even had a friend take a photo of The Concord Monitor and send it to me – she told me that it actually sparked a conversation about wastewater treatment at her workplace!



Upcoming Events

Go to www.nhwpc.org for
live links to online registration

Check NHWPCA.org for details — Spring Training Classes

April 9, 2021 — NHWPCA Virtual Directors Meeting

NEWSLETTER COMMITTEE

Stephanie Rochefort, Mary Jane Meier, Steve Clifton, Rick Nash, Ryan Peebles, **YOUR NAME HERE.**
We welcome additional members.

We are looking for meaningful articles for the Wastewater Operator in a timely fashion.
Send submission articles for *THE COLLECTOR* to: Stephanie Rochefort via email at srochefort@somersworth.com.

Editor: Stephanie Rochefort

THE COLLECTOR is the Official Newsletter of the NHWPCA

For more information about the NHWPCA visit our website at www.nhwpc.org



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Blurbs, Blurbs, & More Blurbs

New Hampshire's Newest Certified WW Operators

Congratulations to the following NH Wastewater operators for passing the December 2020 exams!

Grade 1 Grade 1-OIT:

Aaron Bickford – 1-oit
 Alexander Mellen – 1-oit
 Ryan Monahan – 1-oit
 Zackary Andersen – 1
 Derek Connell – 1
 Devin Greenhalgh – 1
 Scott Richardson – 1
 Justin Ruskowski – 1

Grade 2 Grade 2-OIT:

James Casey – 2-oit
 Robert Doswell – 2-oit

To All Our Readers

Over the course of the past year, to say we have faced challenging times is an understatement. Our hearts go out to all our members and their families who are suffering and adjusting to the loss of loved ones, coworkers and neighbors. Our community of wastewater professionals always pulls together as we support each other with strength and compassion. As spring approaches, we look forward to renewal and put faith in the advancing efforts to make vaccines available. Stay in touch with us as we turn the page on this chapter.

Sincerely, Stephanie, Steve, MJ, Rick and Ryan

Welcome, Mark Kondelis!

NHDES is happy to announce that Mark A. Kondelis Sr. has joined the Wastewater Engineering Bureau's Operations team as the new Wastewater Operator Certification and Training Manager. Mark will also serve on the NHDES Wastewater Operator Certification Committee. Mark is coming to the State of NH with 34 years' experience in the Wastewater/Water industry. Mark has worked with both municipal and industrial wastewater applications including design, construction and operations. He found a passion for teaching and encouraging growth in the wastewater field as an Adjunct Professor at Delaware Technical Community College in the Environmental Training Center. While there he wrote and developed the Delaware Level 4 Wastewater Training and state test as well as co-wrote level 1 through 3. In addition, Mark developed training

courses for DCWASSA, District of Columbia Wastewater. He served in multiple positions with the Wastewater/Water Operator Association of Maryland, Delaware and the District of Columbia including President Elect. He is the Small System Representative on Delaware's Board of Certification of Wastewater Operators and Treatment Facilities. Mark majored in Environmental Science with minors in Biology, Chemistry and Environmental Law. Mark's personal interests include auto repair and restoration, Bee Keeper, and spending time with his first grandchild Avery. Welcome Mark!

Contact Information: Mark A. Kondelis Sr.
 Mark.A.Kondelis@des.nh.gov | (603) 271-5553

Congratulations to NEWEA/WEF Award Recipients!

NEWEA is pleased to announce the 2020-21 NEWEA/WEF Award Recipients. Congratulations to all!

Typically, award recipients would be honored at the Awards Ceremony & Luncheon, which takes place during the last day of the Annual Conference & Exhibit, but the 2021 Annual Conference was held entirely virtually.

In lieu of a virtual awards ceremony, NEWEA will be sharing a several months-long digital promotional campaign. Each of the award recipients listed below will be highlighted on NEWEA's social channels and website.

If you'd like to support your colleagues, check out our awards promotional plan to download templates and content that can be customized and shared in support of awardees:

<http://www.newea.org/wp-content/uploads/2021/02/2021-Awards-Promotional-Packet-Compressed.pdf>

Congratulations again to our slate of 2020-21 awardees!

NEWEA Recognitions

Stockholm Junior Water Prize
 Colin Speaker, Greenwich, CT
 Amara Ifeji, Bangor, ME
[Shreya Nagri, Nashua, NH](#)

Scholarship Recipients

Kennedy Brown, Undergraduate Student
 Cassidy Yates, Graduate Student
 Anna LeClair, Undergraduate Student

NEWEA Awards

Alfred E. Peloquin Award
 Gary Zrelak, Greater New Haven, CT
 Mac Richarson, Lewiston, ME
 Keith Bourassa, Pittsfield, MA
[Ray Gordon, Concord, NH](#)
 Stephen Buckley, Warwick, RI
 Margaret Dwyer, Stratton, VT

Asset Management Award

John Vogl, Salem, NH

Biosolids Management Award

Hawk Ridge Compost, Hermon, ME

Clair N. Sawyer Award

Nora Lough, Providence, RI

Committee Service Award

Kate Biedron, Manchester, NH

E. Sherman Chase Award

John Esler, Enfield, NH

Elizabeth A. Cutone Executive Leadership Award

John Sullivan, Roxbury, MA

Energy Management Achievement Award

Greater Lawrence Sanitation District, North Andover, MA

Founders Award

Jeanette Brown, Darien, CT

James J. Courchaine Collection Systems Award

Don Kennedy, Lowell, MA

Operator Award

Mark Bukowski, Windsor Locks, CT

Scott Lausier, Sanford, ME

Carl Thurston, Chicopee, MA

Ray McNeil, Rollinsford, NH

Jose Da Silva, Bristol, RI

Marty Frizzell, Brighton, VT

Operator Safety Award

Shannon Eyler, Portland, ME

Past President's Plaque and Pin

Ray Vermette, Dover, NH

Paul Keough Award

Bonnie Combs, Whitinsville, MA

Wastewater Utility Award

Montville WPCA, Uncasville, CT

Young Professional Award

Kate Roosa, Boston, MA

Youth Educator Award

Kerry Reed, Framingham, MA

NEWEA Committee Awards*Crystal Crucible*

Walter Palm, Providence, RI

Golden Manhole

Tom Loto, Amston, CT

Golden Raindrop

Amy Schofield, Roxbury, MA

Green Steps

RMI

WEF-MA Awards*Arthur Sidney Bedell Award*

Dennis Palumbo, Stamford, CT

Laboratory Analyst Excellence Award

Andy Wendell, Newport, ME

Operations Challenge Competition – Div II, 3rd Place Overall

Force Maine

William D. Hatfield Award

Jeff Gamelli, Westfield, MA

*WEF Student Design Competition**

Samantha Kinnaly, Kate Engler, Annie Lamonte, Emma Totsubo, Northeastern University

Ian Kosnik, Jake Senecal, Olivia Nachbauer, Sam Mikell, University of Vermont

WEF Fellow

Charles Tyler, Sherborn, MA

*Presented as part of WEFTEC

A Selection of COVID Protocols*By Newsletter Committee Members*

At the beginning of most meetings, the question is asked – “how are you?” and during these pandemic-times that is a **serious** question. Newsletter committee members reached out to several facilities to ask how they are handling COVID protocols. Since we’re all sailing in different boats during this storm, it feels good to compare notes. Here’s a smattering of replies. Please reach out to any newsletter committee member to answer the question of how your facility is doing with COVID protocols for inclusion in a future edition.

The City of Dover WWTF has stayed closed to the public for the most part since March. This includes...

1. Half the front gate is closed with a closed notification on the gate.
2. The facility doors are locked.
3. We are having Septage Haulers leave disposal slips in a box outside instead of entering the facility.
4. We stagger breaks, lunches and locker room times to minimize contact.
5. Temps are taken before each work day.
6. Masks are used when moving throughout the buildings as well as social distancing.
7. We stagger shifts- 5-1, 6-2 and 7-3 to minimize time together.

A cost we have incurred here at the Berlin Pollution Control Facility is an increase in some overtime to complete the work outstanding caused by employees quarantining.

Here is what we have done in Peterborough

- lock the building down to employees and scheduled repairs from contractors.
- Anyone other than an employee fills out a "COVID" questionnaire which includes contact info
- Masks need to be worn all day
- One person per vehicle-most of the time
- Break room has been closed
- Schedule (7AM-3PM) has stayed the same and we have not staggered shifts
- We already clean and disinfect on a regular basis but it gets done if there is someone out on COVID leave

RMI has been VERY FORTUNATE in that we have not had to close the office during this time. We have maintained 100% service to all of the generators we recycle for throughout the northeast, including WWTFs, biomass plants, paper mills, and others. We have had a healthy crew and we appreciate all of the cautions everyone is taking to allow us to keep on rolling our trucks and making sure we can put all that organic waste to work!

Here are a few things that come to mind:

1. Masks when visiting customers and generators
2. Limited amount of attendees at facility tours
3. Virtual conferences and tradeshow
4. Virtual internal staff meetings
5. Truck stops were closed, less overnights for our truck drivers, less access to public restrooms
6. 6' apart in office and masks during meetings
7. Shincci Tours – limited participants, restricting access to drying room only, requiring masks;
8. Essential worker letters to cross state borders; required documentation for stays in hotels
9. Lagoon closure delay due to lost revenue of not opening summer 2020;
10. Sending/receiving mail has been a big one: difficulty getting land owner signatures returned for out of state owners, lost checks, lab sample transit delays resulting in temperature exceedances;
11. NHDES was not able to sample out of state SQC holders this year;
12. NH Sludge Hauler permitting delayed;
13. Notice from OMRI that application turn around times have increased due to remote working.
14. On-boarding new drivers – training challenges for not sharing cab space
15. Shared loader - cleaning between operators
16. Delays for new equipment and repair parts; some equipment unable to get timely back in service

17. Sales:
 - Fewer in-person sales calls; more reliance on emails and texting
 - Slow regulatory responses, including lost checks
18. Admin
 - Push toward paperless for invoices and billing
 - No in-person staff meetings – no fun food to share!!
 - Zoom meetings with babies and pets involved in the background
 - Hiring process with masks and muffled conversation

EPA Recognizes New Hampshire Wastewater Treatment Entities for Excellence

BOSTON – The U.S. Environmental Protection Agency's (EPA) New England Office recently awarded four 2020 Regional Wastewater Treatment Awards to New Hampshire wastewater facilities and individuals to recognize them for their commitment to improving water quality.

The EPA Regional Wastewater Awards Program recognizes personnel in the wastewater field who have provided invaluable public service managing and operating wastewater treatment facilities throughout New England.

"Across New England, the professionals operating wastewater treatment plants, and the municipalities and state environmental agencies that support them, are essential to keeping our environment healthy by protecting water quality," said EPA New England Acting Regional Administrator Deborah Szaro. "I am proud to acknowledge these entities and individuals for their outstanding contributions to help protect public health and water quality for so many years and give them the credit they deserve."

2020 Regional Wastewater Treatment Plant Excellence Award

Woodstock Wastewater Treatment Facility

The Woodstock Wastewater Treatment Facility, led by Chief Operator Kathy Welch, was recognized for exceptional work in maintaining and operating the wastewater treatment plant during the past year. The facility was one of only three facilities across New England to receive this award. The New Hampshire Department of Environmental Services (NHDES) was instrumental in the facility's nomination.

The EPA Regional Wastewater Treatment Plant Excellence Award was established to recognize and

honor the employees of publicly owned wastewater treatment plants for their commitment to improving water quality with outstanding plant operations and maintenance. Especially with the smaller facilities, conscientious operators and staff continue to perform exceptionally with limited resources.

2020 Regional Industrial Pretreatment Program Excellence Award

City of Somersworth's Industrial Pretreatment Program

The City of Somersworth's Pretreatment Program staff, led by Stephanie Rochefort, were recognized for exceptional work inspecting, permitting, and sampling industrial users that discharge industrial waste into the collection system.

The EPA Regional Industrial Pretreatment Program Excellence Award was established to recognize and honor employees of publicly owned wastewater treatment plants for their commitment to improving water quality through outstanding oversight of its industrial users discharging to the municipal sewer system.

2020 Regional Wastewater Trainer of the Year Award

Mike Caso of Nashua

Mr. Caso, a volunteer at the New Hampshire Water Pollution Control Association (NHWPCA), which is a volunteer-based wastewater industry trade group, was recognized for developing and delivering wastewater operator training programs all over New Hampshire on a variety of industry-specific topics, such as ultraviolet disinfection. Mr. Caso is the sole recipient of this award across New England. NHDES was instrumental in Caso's nomination.

2020 Regional Wastewater Treatment Plant Operator of the Year Award

Jim Pouliot of Epping

Mr. Pouliot, who is the Chief Operator of the Epping Wastewater Treatment Facility, was recognized for his outstanding work bringing the facility back into compliance following a 2016 administrative order. Mr. Pouliot was one of only three individuals across New England to receive this award. NHDES was instrumental in Pouliot's nomination.

The EPA Regional Wastewater Treatment Plant Operator of the Year Award was established to recognize and honor the employees of publicly owned wastewater treatment plants for their commitment to improving water quality with outstanding plant operations and maintenance. Wastewater operators and staff work diligently to protect public health and the environment, often with limited resources.



Committee SPOTLIGHT

In this edition of The Collector, we're spotlighting the Legislative Committee.

This active committee, with the help of Association office staff, monitors the progress of legislation that would be of importance to the Association, keeps the Board informed, and develops letters of support for or against bills for signature by the Association's President. If you are interested in joining this active committee, please let Rob Robinson know. You can email him at rrobinson@manchesternh.gov.

The following letters are recent examples of legislative committee work:

NEW HAMPSHIRE WATER POLLUTION CONTROL ASSOCIATION

February 9, 2021

Members of the Finance Committee
House of Representatives
Statehouse
Concord, NH 03301

Delivered by email

Re: HB 398 – Funding for Eligible Wastewater Projects – Please Support

Honorable Committee Members:

I am writing on behalf of the NH Water Pollution Control Association (NHWPCA) and our 300+ members who represent all of the 73 publicly-owned wastewater treatment plants (WWTP) throughout the State.

Based on our reading and understanding of this bill, we are in support of HB 398. The bill will make good on the State's statutory obligation (RSA 486-A) to provide a portion of the funding needed for wastewater infrastructure improvements through the State Aid Grant (SAG) program.

Investing in wastewater infrastructure is essential if we are to maintain our ability to treat and clean up water. Many of our WWTPs are over 40 years old and local municipalities rely on the partnership with the State to ensure that upgrades and repairs can be completed to treat our wastewater to the high standards that we all rely upon for water discharged from these WWTPs.

The funding included in this bill covers FY 22/23 and includes assisting communities from all parts of NH, stretching from Nashua to Berlin, from Keene to Concord, Hampton to Lebanon, and Conway to Manchester, to name a few.

The NHWPCA and its members are committed stewards of the environment. Thank you for considering these comments and for helping us meet our mission of protecting public health through safely managing wastewater, while maintaining rate and taxpayer affordability.

Respectfully submitted,

Mike Carle
President, NHWPCA

NEW HAMPSHIRE WATER POLLUTION CONTROL ASSOCIATION

February 5, 2021

Members of the Resources, Recreation and Development Committee
House of Representatives
Statehouse
Concord, NH 03301

Delivered by email

**Re: HB 397 – Shoreland Protection Act Permitting Fees
Ought to Pass**

Honorable Committee Members:

I am writing on behalf of the NH Water Pollution Control Association (NHWPCA) and our 300+ members who represent all of the wastewater treatment plants throughout the State.

Based on our careful reading of this bill, we are in support of HB 397. The bill will reinstate the exemption in permitting fees associated with the Shoreland Protection Act for municipal, county, state, federal or nonprofit organizations that was not renewed in the previous session. New Hampshire municipalities, public water and wastewater utilities and ratepayers, and ultimately all tax payers will benefit from this bill.

The Wastewater Treatment Plants, the Water Treatment Plants, and portions of their collection and distribution systems are located within the protection zone that is regulated under the Shoreland Protection Act. The government entities must comply with and obtain a permit under the Shoreland Protection Act when they try to make improvements. This bill does not ease any permit requirements, it just makes the entities exempt from the permitting fees.

The NHWPCA and its members are committed stewards of the environment. We will continue to comply with the permit requirements as outlined in the permit. We respectfully request that this bill be passed to ease the financial burden that the permit fees can impose on these governmental entities.

Respectfully submitted,



Mike Carle
President, NHWPCA

NEW HAMPSHIRE WATER POLLUTION CONTROL ASSOCIATION

February 9, 2021

Members of the Finance Committee
NH Senate
Statehouse
Concord, NH 03301

Delivered by email

**Re: SB 127-Section VIII – Funding for Eligible Wastewater Projects
Please Support**

Honorable Committee Members:

I am writing on behalf of the NH Water Pollution Control Association (NHWPCA) and our 300+ members who represent all of the 73 publicly-owned wastewater treatment plants (WWTP) throughout the State.

Based on our reading and understanding of this bill, we are in support of SB 127-Section VIII. The bill will make good on the State's statutory obligation (RSA 486-A) to provide a portion of the funding needed for wastewater infrastructure improvements through the State Aid Grant (SAG) program.

Investing in wastewater infrastructure is essential if we are to maintain our ability to treat and clean up water. Many of our WWTPs are over 40 years old and local municipalities rely on the partnership with the State to ensure that upgrades and repairs can be completed to treat our wastewater to the high standards that we all rely upon for water discharged from these WWTPs.

The funding included in this bill covers FY 22/23 and includes assisting communities from all parts of NH, stretching from Nashua to Berlin, from Keene to Allentown, Hampton to Merrimack and Lebanon, and Wolfeboro to Manchester, to name a few.

The NHWPCA and its members are committed stewards of the environment. Thank you for considering these comments and for helping us meet our mission of protecting public health through safely managing wastewater, while maintaining rate and taxpayer affordability.

Respectfully submitted,

Mike Carle
President, NHWPCA

Being a Sales Guy During the Pandemic

By Gene Week, BAU/Hopkins

It has been a challenge for sure. I have worked from home for many years. However, in the past that has usually meant four days on the road and one day at home per week. Now it usually means five days at home. I welcome every opportunity to do a startup or anything to get out of the house, but there have been very few opportunities.

So, what have I done? I have gotten our company set up with Constant Contact, and I have composed and sent several Constant Contact e-mails. If you get a Constant Contact e-mail from BAU/Hopkins, do me a favor and open it. If you have not seen a Constant Contact e-mail from BAU/Hopkins, send your e-mail address to gweeks@bauhopkins.com and I will put you on the list. Speaking of the list, this is the most time consuming part of the Constant Contact project: making up lists of e-mails. We serve the six New England States. I have lists of Engineers by state; water operators by state; and wastewater operators by state. These lists are not complete, but I continue to work on them.

We as a company have been active in the virtual trade show market. We have had virtual displays at all our usual trade shows including NHWPCA, NEWEA, and MWUA. Setup is much easier than at an in person show. We just follow the procedures outlined by the virtual trade show vendor. Contacts with virtual attendees are sparse at some shows. The questions we have are: how many people looked at our information and who are they? The recent Maine Water Utilities Trade Show allowed us to have a raffle and to get a list of people who register for the raffle. We got over 100 contacts from the raffle, well worth it. One of our principals also put on two information sessions with around 50 attendees at each. That was great.

My job for most of my life has been to get "in front" of customers or potential customers and talk to them. I can't wait for the time when I can spend my days doing this again. Change to more virtual work is coming, accelerated by the Pandemic. For myself, I will continue to be a "face to face" guy as long as I can.

Workforce Development

By Judy Bruenjes, MEDEP (with NH edits by Stephanie Rochefort)

Passage of the Clean Water Act in 1972 triggered a push to set up infrastructure of modern water and wastewater treatment plants immediately. The profession saw a huge influx of technicians, mechanics, and engineers in the following years. Now, after decades in the business, many are retiring. In fact, nearly two thirds of Water/

Wastewater Operators in the U.S. are approaching retirement age.

One of the biggest challenges faced by employers looking to hire new staff is getting the word out. Many people are not aware of the career opportunities in the Water/Wastewater field, including good pay & benefits, job security, and working with advanced technologies.

Here are several avenues to let potential candidates hear about career opportunities in the “water” sector:

Job Boards – For both employees looking for jobs and employers posting positions:

- New England Water Environment Association: www.newea.org/careers/jobs/
- Maine Water Environment Association: www.mewea.org/about-maine-water-env-association-2/employment-opportunities/
- New Hampshire Water Pollution Control Association: <https://www.nhwpc.org/employment/>
- Maine Rural Water Association: www.mainerwa.org/networking/
- Maine Dept. of Labor JobLink Career Center: www.joblink.maine.gov/ada/r/

Association Outreach & Career Websites:

- Work for Water: www.workforwater.org/careers-in-water/
- New England Water Environment Association Professional Development page: www.newea.org/careers/professional-development/

Water Warriors Jobs Initiatives:

If you are a veteran or know a veteran looking for employment, the Water Warriors Jobs Initiatives can help connect returning and retiring U.S Armed Forces veterans with opportunities in the drinking water and clean water infrastructure fields.

Many skills learned in the Armed Forces translate well into a successful career protecting the one thing no one in our country can live without, clean water. While many of our most qualified water/ wastewater operators are retiring and leaving the industry with a labor shortage, not to mention the imminent loss of decades of institutional knowledge, the Water Warrior Jobs Initiative seeks to tackle these problems by promoting the water/ wastewater field as a desirable career options for returning veterans. The group’s objectives include:

- Providing education and training opportunities,
- Streamlining the certification process for our veterans, and
- Providing placement assistance and apprenticeships.

This initiative requires the coordinated efforts of industry leaders, veterans’ organizations, and government agencies, but the end result, getting veterans into good paying jobs while serving their communities, is worth it. In addition, transitioning veterans may be eligible for a GI Bill stipend of up to \$2,000/month for participation in an approved two-year apprenticeship program.

Happening right now is the Maine Hire-A-Vet Campaign. This is an annual event to hire 100 veterans in 100 days. To learn more about the Maine Hire-A-Vet Campaign please visit <http://www.mainecareercenter.com/mhav/>.

The timing has never been more opportune to provide those who served our country with a career that will provide for their future, while still allowing them to serve their local communities. If you are interested in getting involved in this exciting effort or want to learn more about providing an apprenticeship at your facility for a returning veteran, the contact is Peter Goodwin, pgoodwin@tataandhoward.com.

The Past, Present and Future of Asset Management and NH’s Water Infrastructure

By Sharon L. Nall, P.E., NHDES WWEB

NHDES Water Division Asset Management Funding Programs

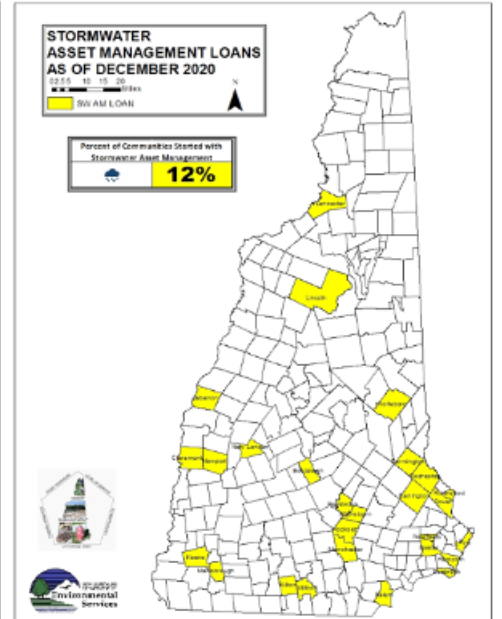
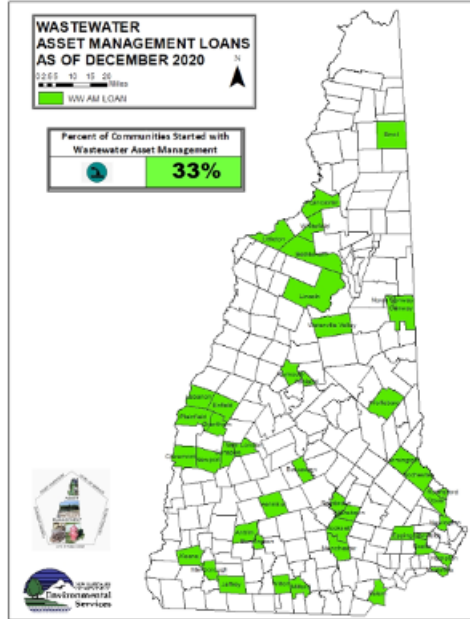
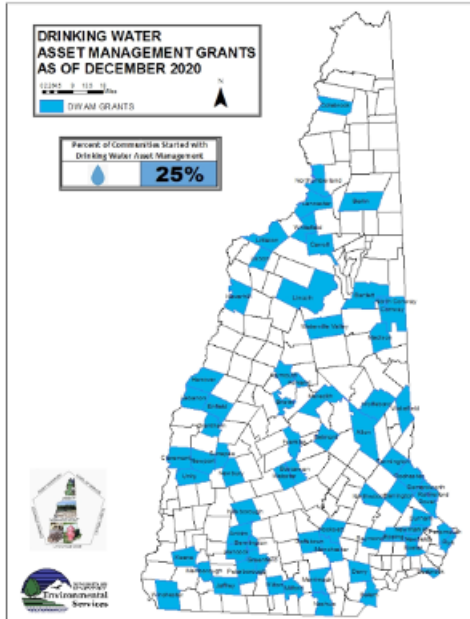
The NHDES Water Division has been promoting asset management since 2012! We started with drinking water, then wastewater joined the fun the following year, followed a few years later by stormwater. We have your water infrastructure covered. The table and maps below show the total eligible utilities and how many utilities/communities have initiated asset management program development so far.

Moving from the Past and Into the Future

I don’t need to tell you that our water infrastructure is aging and in need of upgrades and replacements. Our water infrastructure work force is aging as well! It’s only due to the dedication and resourcefulness of our operators that our water infrastructure continues to operate as well as it does. NHDES recognizes the need and benefit of providing assistance to communities for the development and implementation of Asset Management Programs (AMPs). The primary goal of this assistance is to improve the long-term sustainability of water, wastewater and stormwater systems throughout the State.

While helping communities with asset management, we are also taking advantage of the opportunities to change the long standing culture in the water industry. We all know that the old school thinking is “stay out

Current Status of Asset Management Program Development for Eligible Communities in New Hampshire		
Drinking Water	Wastewater	Stormwater
280 Eligible Systems	135 Eligible Systems	234 Eligible Communities
70 AMPs to date	44 AMPs to date	28 AMPs to date

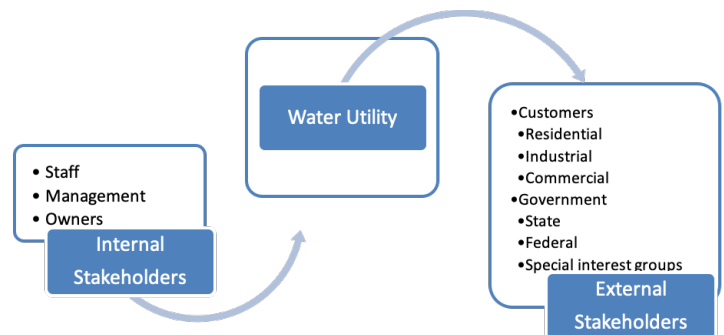


of the limelight, keep your head down and don't get noticed – that means everything is good"! We want to change that attitude! A new school of thought is here and we want everyone who works in the water industry to be proud of the work they do and to be recognized for that good work. We want to see media reports of the good work NH's water industry operators do every day to deliver clean drinking water; take away and treat wastewater, and manage stormwater.

Asset management is a tool to help us get there. However, before you can actively manage your assets, you need to know:

- what assets your community or system owns,
- where those assets are,
- what condition those assets are in,
- what the maintenance/repair/replacement history, and
- what your stakeholders want and need from you and your assets!

By communicating with all of your stakeholders, which may include any, all or more of the following:



you can build a culture of trust and transparency that will garner support for upgrades and replacements as they are needed going forward.

Our Future

Another sometimes overlooked but extremely important benefit of asset management is the idea of looking ahead to the next generation of operators. To make sure that all of our hard work is continued as we turn the reins over to the younger operators, we need to be able to pass on all that system knowledge we have in our heads...in an orderly and usable manner! You may be able to find that manhole or shut off that is buried under a huge snowbank...but will your replacement be able to find it? You may know that when a specific cranky pump starts making a certain noise, a minor adjustment is all

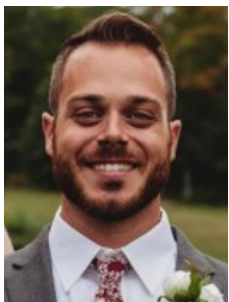
that is needed...but will your replacement know that? If we work together now to make the next generation of operators more successful and empowered with data, they will be able to tackle the crises that are coming their way due to events like increasingly intense storms, droughts, and ever aging infrastructure.

Asset management is the tool that can help you pass on all your hard-earned knowledge with the peace of mind that your replacement will benefit from everything you have learned and can help take your system to another level of sustainability. Asset management also presents an opportunity to increase the level of technology used in the job and this can be a draw for attracting young talent to the water industry. Today's young talent are so accustomed to using smart phones and tablets, they expect to be able to use that technology in their work as well, so let's help make that happen!

The Limelight! 2020 NHDES Asset Management Award Winners

As I mentioned above, we need more operators in the limelight for the good work they are doing. None of the work we do in the water industry would happen without these "people" assets so you could say they are the most important asset of all and should be prioritized. This is why we started a NHDES Asset Management Award program – to help recognize the great work of the people. Because we received two stand out nominations, NHDES decided to recognize two winners for the Asset Management Award this year, an Individual Award and a Municipal Award. You may have seen the separate press release, but in case you missed it, read on.

Individual Award



Tony Cavaliere

NHDES recognizes Tony Cavaliere as the winner of the individual award for his work associated with developing and/or administering AMPs in two communities - Marlborough and Jaffrey. He really was and is the mover and shaker that brought light and attention to the value of developing an AMP for community water assets. Tony has said "Nobody ever expects that their

community needs to spend millions and millions of dollars over the next 10-20 years until it is all laid out on paper staring you in the face. That is when the real work begins... I think most people get sticker shock when they see the replacement costs of a stretch of water main. However, once you realize how much time, money, and effort is spent every time an old water main breaks you begin to understand how it can actually be cheaper to replace an old asset before failure than after. This becomes more apparent if large industrial users, and

high risk users, are relying on an outdated asset." Tony has embraced the concepts of asset management, sees the value, effectively communicates the purpose and need, and is a true believer in the benefits of asset management. He is an Asset Management Champion and should be recognized for his exemplary work and commitment to the mission. For these reasons and many more, Tony Cavaliere has won the 2020 NHDES Asset Management Individual Award.

Municipal Award

NHDES recognizes the Town of Salem for this award in acknowledgement of the work they have done in developing Salem's AMP and communicating the value of that AMP to the public. Salem has developed and continues to use and grow their AMP. The Town of Salem has embraced the idea and the concepts of turning data into dollars by using their resources and most importantly, their AMP. They confirm any capital investment has to improve or add Level of Service to the Town or show that the capital investment is extending the life of an asset beyond its normal life span. Life Cycle Cost Analysis information is collected everyday through work orders linked to the assets. This information, plus the cost of the asset, allows for financial information to be collected. The data allows the staff to see where their time and expenses are going. This information also shows what the failure mode will likely be and predicts when to replace the asset. For these reasons, and many more, the Town of Salem has won the 2020 NHDES Asset Management Municipal Award.

As NHDES continues with the journey of promoting asset management throughout the State of New Hampshire,

Town of Salem Asset Management Team



Roy E. Sorenson, Director of Municipal Services



Dave Wholley, Deputy Director, Public Works



Fred Wallace, Deputy Director, Utilities

Town of Salem Asset Management Team (cont.)



Lyndsay Butler,
Project Engineer



John Vogl, GIS
Manager

exemplary work like the Asset Management Team for Town of Salem and Tony Cavaliere have shown will propel NHDES' vision into reality. NHDES urges communities throughout New Hampshire to continue the asset management work you have started or contact us to find out how you can get started. Perhaps you or your community will be presented with the NHDES Asset Management Award next.

What's Coming Up for Asset Management?

Coming up next, we are accepting pre-applications again for more asset management program development! Our new stream-lined pre-application process for asset management projects is very exciting. The pre-application deadline is June 1, 2021.

We are also excited to announce that will be holding our regular in-person all-day workshop on November 9, 2021, assuming COVID-19 restrictions have been lifted by then! We received lots of great feedback on the post-webinar survey and we are going to do our best to hit as many of the requests as possible! In addition to the fall workshop that will expand on using technology to collect and use data to make monetary decisions, we hope to develop more webinars to address questions about funding as well as some of the more basic questions about what asset management is and how to get started. We hope, in this way, to engage our communities at a variety of knowledge levels, from beginner to advanced. Stay tuned for more information and opportunities to get involved!

For more information about Asset Management and funding opportunities please visit <https://www.des.nh.gov/business-and-community/asset-management> or email Luis.adorno@des.nh.gov for drinking water, Sharon.Nall@des.nh.gov for wastewater, or Deborah.Loiselle@des.nh.gov or Kathrine.Zink@des.nh.gov for stormwater.



Residuals Report

Spring Quarter 2021

By Wade Pelham, Sludge and Septage Coordinator NHDES RMS

The candidates have been selected for the 2021 Water & Wastewater Manager's School, sponsored by the New Hampshire Department of Environmental Services, NH Water Pollution Control Association and NH Water Works Association. The program is a renowned and long-standing training opportunity for New Hampshire's future water and wastewater utility leaders. This year's candidate class of eighteen talented individuals comes from communities throughout the state, with candidates from Colebrook in the north to Hampstead in the south, and west to east from Jaffrey to Star Island. Participating utilities range from those serving New Hampshire's cities, to small towns and organizations. Those organizations should be proud of their support for and commitment to a robust current and future water utility work force.

Instructors are comprised of NHDES staff, professional trainers, industry experts and current water and water utility professionals, including some who are former graduates of the Water & Wastewater Manager School. The success experienced by past Manager's School graduates provides a valuable opportunity to return to the classroom, this time as a teacher, to share their experiences and their knowledge gained. Topics covered include capital and operational budgeting, asset management, personnel management, public speaking and presenting concepts, cybersecurity, local government and legal processes and regulatory aspects. The first several classes will be held virtually due to COVID-19.

The NH Water Pollution Control Association sponsored a competitive scholarship for the 2021 Water & Wastewater Manager's School, with Kristen Simard, environmental services manager for the Star Island Corp, being selected from a field of strong candidates. The NH Water Works Association sponsored 2 scholarships, with Anthony Cavaliere from the Town of Jaffrey and Ben Crawford from the City of Laconia selected as recipients. We hope you will join us in offering congratulations to the entire Water & Wastewater Manager's School candidate class of 2021:

- Andrew Carter, Star Island Corp
- Anthony Cavaliere, Town of Jaffrey
- Derek Connell, Town of Merrimack Wastewater
- Benjamin Crawford, Laconia Water Dept

- Stephen Fournier, Hampstead Area Water Co
- Jarrod Gonyea, City of Manchester EPD
- Jeffrey Guilherme, City of Concord WWTF
- Keith Kazanowski, Manchester WW
- Albert Landry III, Town of Raymond
- Gregory Marchand, Town of Colebrook
- Brian McCall, Laconia Water Dept
- Russell McMahan, Allenstown WWTF
- Timothy Pelletier, NHDES WRBP
- Philip Sausville, Meredith Water & Sewer Dept
- Kristen Simard, Star Island Corp
- Ernest Smalley, Town of Peterborough
- John St Pierre, Manchester WW
- Richard Talbot, City of Manchester



Safety Corner

Three Fatalities in 2021 Already!

By Patty Chesebrough, NHWPCA Safety Committee

In February 2021, two men were killed after it is believed they were struck by a dump truck and fell some 20 feet into trench at a construction site in Boston. Both men, trapped in the trench, were pronounced dead at the scene. According to news reports, the men were working on an emergency repair for Boston Water & Sewer. This tragic accident is currently still under investigation, so the exact cause has not been determined. Jordan Romero was just 28 years old and a father of two. Carlos Gutierrez was just 32 years old.

Construction sites are hazardous places! A few tips for construction site safety:

- **Do a Job Site Hazard Analysis at Every Site.** Every site is different, so make sure to do a hazard analysis and share the findings of this analysis with everyone who will be working there. Address hazards where possible and protect against those not able to be removed.
- **Choose the Proper Equipment for Every Job.** Don't use a backhoe as a shovel and vice versa. This may seem obvious, but many injuries on construction sites are related to improper use of equipment and tools. Sometimes it may take more time to use the correct tool, but working safely is worth that extra time.
- **Ensure All Equipment is Positioned Safely.** Whether an excavator or a shovel, equipment and tools put in the wrong place can be hazardous.

Positioning a machine too close to a trench or where the rotation could strike something or someone can be fatal. Leaving a shovel on the ground where someone can trip and fall into a hole or tank can also be fatal. Be sure to be mindful of where every piece of equipment is placed, regardless of size.

- **Wear the Correct Personal Protective Equipment.** A lot of minor injuries at construction can be prevented by simply wearing the correct PPE for the job. Be sure that hard hats, work gloves, safety glasses are appropriate for the job at hand, and worn at all times. Although often a silent (no pun intended) and progressive injury, damage to hearing due to inadequate or no hearing protection is also common at construction sites.
- **Be Alert at All Times.** Construction sites have a lot of moving parts. Pay attention to what's going on around you. Watch for moving equipment and anticipate activities. Repeat site hazard analyses as often as needed to address changing conditions should weather or other factors alter the site.

Also in February 2021, the Chief Operator was found dead at a wastewater treatment facility in Marion, IL. The man had been reported missing three hours prior and, after a search of the facility, emergency crews retrieved his body from a clarifier. The investigation into his death continues.

Falls are a leading cause of injury at wastewater treatment facilities. Should that fall be into one of the treatment trains, it could also be fatal. A few tips related to fall and drowning prevention:

- ✓ Keep all work areas and walkways clear of clutter (e.g., equipment, tools, hoses, electrical cords, etc.).
- ✓ Clean up spills and repair leaks promptly to avoid slippery surfaces.
- ✓ Install and maintain proper railings and toe-kicks on elevated walkways and gangplanks.
- ✓ Mount life rings, rescue hooks, and other retrieval equipment in multiple accessible locations.
- ✓ Evaluate tanks and ponds for possible self-rescue equipment.
- ✓ Whenever possible, never work alone.

This article is brought to you by the NHWPCA Safety Committee. We are still seeking Near Miss ideas. If you or someone you has had a Near Miss, please let us by sending the incident to Patty Chesebrough at pchesebrough@neiwppc.org. All submissions are confidential. We just want to keep a Near Miss from becoming an accident. Thank you in advance for your submissions.



Thoughts from the Bench

By Stephanie Rochefort, Somersworth WWTF

My dad's initials are GAG and his sister's initials are FAG so I knew that I had to check initials when deciding on names for my twins. My son's initials are JLR, that seemed okay. My daughter's initials are DMR. Yeah, as in Discharge Monitoring Report. The report that we stress about completing by the 15th of each month. How did I not notice that? I've been working on filling out the DMR for so long that I sort of named my daughter after it... Since I'm writing these thoughts when I'm putting one month's worth of lab data to bed, it feels appropriate to write about exactly how that's done.

The first step is to make sure that you've double-checked the math and QA/QC on all the data you've generated. Then you need to spend some quality-time sitting at your computer and entering all the data for the past month into your Monthly Operating Report (MOR) spreadsheet. It's easy enough to create an appropriate MOR with EXCEL or a similar spreadsheet program. It's even easier if you do a little R & D (rob and duplicate).

As you're inputting data for each day, you may question what day to place your results from composite samples. If you send these samples out to an accredited laboratory instead of doing them in-house, you may notice that the lab report lists the "date sampled" as the end-date of your composite. That's because the end-time of your composite is when the clock starts for the holding time. If you've filled out your chain-of-custody correctly, you've listed a beginning date and time and an ending date and time. Thinking about this logically, you probably started your composite sampler close to 0700. That means that the sample you collected includes 17 hours of the first day and only 7 hours of the second day. Similarly, you probably record your facility's daily flow on this same schedule. After you're done thinking about this logically, you don't need to question this anymore, you simply record your composite sample results on the day that you began to collect the sample.

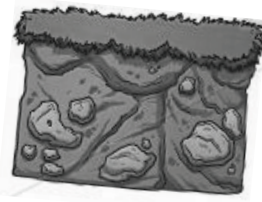
You may have some results that are expressed this way: BDL, <RL, <PQL or ND. I have to assume that you're using sufficiently sensitive test methods. That means that if your TSS limit is 10 mg/l, you don't want a detection limit of 20 mg/l. As long as you're using sufficiently sensitive test methods, you report any of these alphabet-soup results as ZERO. That's the rules for how to complete your DMR.

Yeah, I sometimes report an effluent TSS result of ZERO because my real result is <2 mg/l. I know that there must be a little bit of TSS in my effluent sample, but I don't stress about it. If I was using my data for another purpose, like local limits development, I would probably treat the results differently. People have strong ideas about using the detection limit or half the detection limit instead of zero, but for the DMR, use ZERO because that's the rule.

A constant source of confusion when completing the DMR is the nonsense of weekly average. We're used to referring to the "week of..." or the "week ending..." In the case of the DMR, a week is seven days ending on a Saturday. The easiest way to wrap your head around this is to print out your MOR and look at a calendar. If there's a partial week at the end of the month that doesn't go all the way to Saturday, take a pencil and lightly cross off that part of your MOR. If there's a

Solutions in a flash


Dd



DIRT

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Cc



CEMENT

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Pp



PIPES

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Ee



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partial week at the beginning of the month, you'll need to grab your MOR from the previous month. Using the example of TSS, your next step is to calculate a weekly average for each week and write that result on your MOR. You won't calculate for that last partial week that you crossed off. You will calculate for that partial week from the previous month. Now you're ready to grab the correct numbers for daily max, weekly max and monthly average. The daily max is the highest result from any one sample, even if it's during that last partial week that you crossed off. The monthly average uses all the results from the month, including that last partial week. The weekly average is the highest weekly average that you've calculated. Yup, you can theoretically report a weekly average that is higher than your daily max. That's why I referred to it as the "nonsense" of weekly average!

The final step in completing your DMR is to stop, save (because the year is 2021 and we're all using netDMR) and walk away. Then have another person double-check all your numbers. Here in Somersworth, I'm Person A, who fills out the DMR up to this step. Person B is our official signer and he does the double-checking. This two-person method cuts down on annoying phone calls and the need to submit an amended DMR to fix an

error. Yes, we're all human and make mistakes, but far fewer mistakes get past two people!



Retiree Rave

Over the last few years, many of our members and co-workers have retired. We are sharing a bit of information about wastewater and drinking water operators and administrators who are now enjoying retirement. Our Newsletter committee would appreciate hearing from our readers to expand this list so we can recognize our loyal, hardworking associates and friends. Perhaps we could develop Association activities based on the retiree interests, too. Let's stay in touch! Please email your ideas and information to info.nhwpc@gmail.com and use these words in the Subject line 'Retiree Rave Information'.

Fred Blodgett, Jr. retired in July 2018 with 21 years of service in the Laboratory at Manchester WWTF and 33 years as a NH certified WW operator.

Brian Cate retired in February 2017 with 39 years of

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DEADLINE: Rolling deadlines for 2021 are 2/1, 5/1, 8/1 and 11/1.

Please direct all advertising copy and graphics, as well as payment questions to:

Dee Rainville at: 603.228.1231 or info.nhwpc@gmail.com

Please mail payment to: NHWPCA, 17 Depot St. Suite 3, Concord, NH 03301

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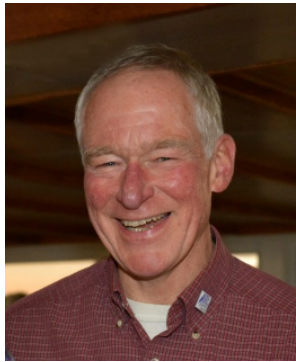
service at the City of Concord Hall Street WWTF. He held his NH WW operator certification for 39 years.

Mitch Dumont retired in December 2019 with over 8 years of service at the Berlin Water Pollution Control Facility and 10 years as a NH certified WW operator.

Donna Hanscom retired in January 2019 with 35 years of service with the City of Keene. She is the fifth women to earn her grade 4 WW certification in NH. She held her NH WW operator certification for 34 years.

Mike Hanscom retired in January 2017 with 34 years of service at the City of Concord Hall Street WWTF. He held his NH WW operator certification for 34 years.

Dave Hussey retired in September 2018 with 36 years of service at the City of Concord Hall Street WWTF.



Ken Kessler

Ken Kessler retired from the New Hampshire Department of Environmental Services Wastewater Engineering Bureau on January 1, 2021. He has had an impact on many in the New Hampshire wastewater community.

Ken earned his Civil Engineering degree in 1971 from the University of Detroit, that began a career of nearly 50 years. The

water quality profession became an interest early with a 2 1/2 year assignment in the Peace Corps in Kenya, East Africa. Potable water treatment and distribution to rural villages was the focus of this work. He returned to the United States in 1974 after a prolonged travel home eastward from Africa.

Work in the United States consisted of a rather unorthodox mixture of choices that ultimately lead him back to the NHDES Operations Section for the conclusion of his working career. The work focused primarily on wastewater treatment because of timing coincident with initiation of the Clean Water Act. However, there were periods that seemed to lead him astray. Nearly a year was taken to complete the Appalachian Trail and another year was devoted to a cooking and restaurant management apprenticeship. This helped make life a bit more interesting.

Initially, there were several work assignments with consulting engineering companies doing wastewater infrastructure evaluations and facility design. This work stimulated an interest in the daily operation of wastewater treatment facilities to better understand the impact of designs on plant operation.

Work as a wastewater operator began in the city of Buffalo, NY but lead to the state of New Hampshire Winnepesaukee River Basin plant because of a Peace Corps connection. Subsequent positions for the Water

Supply and Pollution Commission which then became the Department of Environmental Services involved wastewater Design Review and the technical assistance and education aspects of the wastewater Operations Section. He earned his Masters Degree in Environmental Engineering from Northeastern University in 1988 while working for the state of New Hampshire.

The lure of hands-on facility operation enticed Ken to leave state employment for a period to work at an industrial pretreatment plant for the Coca-Cola company.

Ken has held his Grade IV New Hampshire wastewater operator certification for over 35 years. Some achievements in the wastewater industry were constructing an anoxic selector for an activated sludge process using materials that were scheduled to be scrapped, the construction of a new baffle design for a secondary clarifier and writing a chapter in a University of California Sacramento manual on Anaerobic Treatment.

Ken has been an active member of the New Hampshire Water Pollution Association for about the same 35 year period. His contribution as president of the Association was the development of a manual for the Board of Directors outlining the steps to be taken for each Association meeting and committee.

The Operations Challenge event was Ken's fondest Association memory. He was a member of a team for four years that represented the NH Water Pollution Control Association at the New England and National Operations Challenge competitions.

Ultimately, the string of work experiences lead Ken back to the Operations Section at NHDES for the last 12 years. Here he has helped with two significant issues facing the wastewater treatment industry: 1) addressing the need for new operators that will be required to assume the functions of a retiring operator population, and 2) the demands of operators to meet stricter effluent limits




 We Will Never Forget
MEMORIAL DAY


at treatment plants that have reached or are nearing design life and are in need of upgrades.

We have enjoyed working with Ken and wish to thank him for his friendship and commitment to the wastewater community. We wish him a long and active retirement.

Bruce Kudrick retired in May 2020 with 47 years of service at the Hooksett WWTF. He has held his NH WW operator certification for 47 years.

Cliff Lavigne retired in 2020 from Hampton with 14 years of service as their sludge truck driver. He held his NH WW operator certification for 6 years.

Phil Maltais began his career as Lab Director at Manchester DEP. In 1995 he moved on to Seabrook when construction of their new facility began and retired in December 2019 with 24 years of service. He held his NH WW operator certification for 44 years.

Mike Martel in 2019 from Keene WWTF. He held his NH WW operator certification for 33 years.



Tom Moran

Tom Moran started his career with the City of Keene in 1989 in the Maintenance Division, over the next 31 years Tom worked his way up through the ranks to become the Utilities Maintenance Manager. His duties included overseeing the maintenance of both the Drinking Water Treatment Facility and the Wastewater Treatment Plant along with the 27 outstations that include the pump stations, well facilities and

water storage tanks.

Most recently, Tom has served as the Assistant Director of Public Works overseeing all things water and wastewater for the City of Keene.

Tom is a 25+ year NHPWA member and an active member of the Education committee. He is a past recipient of the Alfred E. Peloquin award and the NEWEA Operator of the year awards. Anyone who knows Tom knows him as a hardworking, dedicated employee, but he is probably even better known for his jolly demeanor and his passion for ice cold beverages. Congratulations and thank you for your life long contributions to the water/wastewater field.

Tom Neforas retired in December 2019 with 14 years of service at the City of Concord Hall Street WWTF. He held his NH WW operator certification for 36 years.

Henry Noel retired March 2018 with 16 years of service at the Berlin Water Pollution Control Facility. He held his NH WW operator certification for 22 years.

Kirk Ray retired in September 2018 with 23 years of service at the Manchester DEP. He held his NH WW

operator certification for 27 years.

Paul Remillard retired in July 2019 with over 17 years of service at the Berlin Water Pollution Control Facility. He held his NH WW operator certification for 18 years.

Bert Richards retired in May 2017 with 32 years of service at the City of Concord Hall Street WWTF.

Craig Shippee retired in April 2020 with 20 years of service at the WRBP Laconia Maintenance Group.

Robert Sleis retired in July 2019 with 15 years of service at the City of Concord Hall Street WWTF. He held his NH WW operator certification for 12 years.

Richard Tibbetts retired in October 2017 with 32 years of service at the City of Concord Hall Street WWTF.

Roy Tobbin retired in January 2016 with 31 years of service at the City of Concord Hall Street WWTF.

Lee Vogel retired in December 2019 with 34 years of service to the Merrimack WWTF. He served as Maintenance Manager for their crew of maintenance professionals. Together they could tackle any project and gained the knowledge and expertise along the way. As a team they designed and rebuilt several of the plant's mechanical systems themselves. When replacement parts were no longer available, they machined their own replacements. Lee held his NH WW operator certification for 10 years.

Honoring the Merrimack WWTF Retirees:

From 2017: Richard Blanchard 30 years of service; Roger Descoteaux with 30+ years; Don Doucette with 24 years; Don Lavoie with 30 years; Gary McGrath with 24 years; Robert McGrath with 27 years; Cecil Peters with 34 years; and Jim Taylor with 41 years.

Rachel Rainey, wife of Mike Rainey retired January 1, 2021 from the Public Health Laboratories, Division of Public Health Services at NH Dept of Health and Human Services

Message from Rachel: *Well, the time has finally come, I am retiring after 36+ years of State service, effective 1-1-21. It has been my pleasure to work with all of you, my DES friends and colleagues. When I started in 1984, the Water Lab was part of the Water Supply and Pollution Control Commission. Many things have changed since then, but not the dedication and professionalism I have observed in your efforts to carry out the agency's mission. I am proud to have played a role in that. I am looking forward to having time to try new things, travel when we can, and do even more bike riding.*

Paula Anania retired in 2019 from the City of Portsmouth. Her message:

I spent 25 years in the Wastewater Field, the last 20 with the City of Portsmouth. I retired at the end of June 2019 with 23 years as a certified WW operator. Barb and I had purchased a 24 FT Winnebago RV the year before knowing

we wanted to travel. So, in July we started our travels by heading to Cape Breton, Nova Scotia and Acadia National Park. We took full advantage of the safety and freedom to travel the country in our RV. We spent the winter exploring Florida, early spring traveling from NH to OR and summer & fall in New England. Having the RV allowed us to visit while social distancing.

With the recent increase in cases of COVID, we postponed our travel plans until sometime in 2021. We stay busy with house projects, hiking, outside visits with friends and family and playing card games online.

I am so happy I retired and highly recommend it!!



Paula says: This was in FL. We parked the camper & biked every place we stayed. The cart is for Chamois as she always goes with us!

Sarah Pillsbury, NH DES Drinking Water & Groundwater Bureau Administrator

Sarah retired after 35 years with the NH Department of Environmental Services, and has demonstrated a steadfast commitment to environmental and public health protection leading to measurable, lasting and sustained results. She began her career reviewing septic system designs and subdivision plans and soon became a manager of the Groundwater Protection Bureau and the Drinking Water Source Protection Section. In 2004, Pillsbury became administrator of the Drinking Water and Groundwater Bureau, where she managed the largest bureau at DES. Pillsbury empowered her staff to develop initiatives, improve programs, and strive to emulate her management style. She helped create strong programs for small systems operation and management, source water protection, land protection, water conservation, management of large groundwater withdrawals, emerging contaminants, and private wells.

During her career at DES, Pillsbury built and managed a drinking water program that serves as a model to other states, as reflected in her leadership roles in the Association of State Drinking Water Administrators, the Ground Water Protection Council, and the National Drinking Water Advisory Council. Throughout her career, Pillsbury showed a commitment to environmental and public health protection.

Tim Sweatt retired on January 1, 2021 with nearly 28

years of service to the NH DES. He's been a NH Certified WW operator for 30 years. Tim has served our WW operators and septage haulers well on all issues related to regulating the removal, transportation and disposal of residuals. Most recently, his role included the development and refinement of the Septage and Sludge Management Rules. These Rules outline the procedures and permitting program for the safe handling and hauling of sludge and septage that protects our WWTFs, our haulers, and safeguards our highways. He managed the permit issuance and renewal process for the NH haulers and Tim proved a valuable resource on all issues related to sludge and septage. Tim became very highly skilled at navigating the regulatory system to equally provide assistance to all. Many thanks to Tim for his active participation in the NHWPCA Trade Fair events, the Operator Certification Committee, and assistance with the WW operator education and Manager School programs. He was always willing to lend a hand.

Now sharing Tim's message to all: I started at the WRBP Franklin WWTF, before moving to the Subsurface Systems Bureau, and then on to the WW Engineering Bureau Residuals Management Section in 2002. It does not seem like it, but it has been 18 years that I've been in the WWEB- Residuals Management (formerly known as the Sludge & Septage Section). Then I realize that only Stergios Spanos, Sharon Nall, Stephanie Larson and Melanie Wheelock have been in the Bureau longer than me. I had four supervisors, Dick Flanders, Pat Hannon, Mike Rainey, Ray Gordon, and now Anthony Drouin (#5). We have had three WWEB Administrators (John Bush, Paul Hertzler & Tracy Wood), four Division Directors (Ed Schmidt, Harry Stewart, Gene Forbes & Tom O'Donovan), and Commissioners Bob Varney, Mike Nolin, Tom Burack, Bob Scott and various interim appointees. It Must Be Time To Retire!!

In the short term, I do intend to keep my WW operator certification valid and remain a member of the NHWPCA (or whatever name it becomes). I spoke with Mike Carle, and he hopes that we may be able to arrange some sort of Summer meeting/outing this year, if the vaccines prove effective and Covid-19 cooperates.

Don Kennedy retired on January 15, 2021 with 21 years of service to the New England Interstate Water Pollution Control Commission (NEIWPCC). Don has served as a trainer for NEIWPCC most recently. His years of teaching in the Collection System field received commendation this year. Don earned The James J. Courchaine Collection Systems Award. The award honors NEWEA member James J. Courchaine for his many contributions to the Collection Systems field. The award is given to Don as a NEWEA member to recognize his outstanding education and training efforts in the operation, maintenance, management or design of a wastewater collections system. The award recipient

exemplifies the dedication essential to continuously improve a wastewater collection systems' capability to adequately, cost-effectively, and safely service its community's ongoing needs. Congratulations Don!

David Brennan retired in May 2020 with 35 years of service in the water and wastewater treatment field. Dave holds the record for the most variety in work history. He began the first 5 years of his wastewater career at the WRBP Franklin plant. He earned his water certification which qualified him to seek positions as both the water and wastewater superintendent. He has held the dual role at Hillsborough, Ashland, Sunapee and Keene. Then he moved on to the City of Concord as Water Superintendent. At this point he made the decision to try "free lancing" and continued to serve communities across NH. He focused on communities having difficulty finding qualified operators to fill vacant positions. The writer hesitates to call Dave a 'floater', as the term holds alternate meaning to our readers. Dave held positions at Warner, Somersworth, and Newport. Lastly, he joined Utility Partners and served at Greenville as the water and sewer contract operations project manager.

Dave suffered a fall and serious injuries in 2019. He's has a long road to recovery and now looks forward to enjoying his retirement. So far, the most liberating part is to finally be free of the on-call duty he served 24/7 for 35 years. He says it's a giant weight off his shoulders, but he still sleeps with the phone at his bedside! He keeps himself fit by managing his wood lot to keep the home fires burning. He also helps out at his family- owned and operated American Fitness Center in Nashua. Dave and Jean are celebrating 43 years of marriage this year. When travel restrictions lift, they plan to crisscross the USA in their new Ford Mustang convertible and just let those ponies run. Special thanks to Dave for his years of dedicated service and providing hands-on training and support for many operators he worked with throughout the years!

Pretreatment Tales

Sample Food Service Establishments? What?

By Mark Roper, Town of Hanover, Industrial Pretreatment Coordinator

I have been sampling and requiring monitoring of Food Service Establishments (FSE) for a while now....13 years to be exact. You might be asking yourself: "Why would anyone want to sample an FSE?" Well, there are many reasons, but for me one of the biggest reasons was to

justify requiring them to make a change (like install a grease interceptor) that could potentially be in excess of several thousand dollars. Because, if you inspect FSEs regularly one of the first things you will learn from the owner or manager is "we don't discharge grease" therefore, we don't need a grease interceptor. There have been some circumstances where I have had to build up more of a case to convince them one was justified, and sampling has helped.

A picture is worth a thousand words, so taking photos of the grease accumulation in the collection system serving the FSE might be all you need to do, but what about when there are several users all on the same line and they all are pointing a finger at one another. This is another time when maybe sampling can help you build



Which is causing the grease accumulation downstream? Sample them and find out!

your case or at least identify the culprit.

Before I go any further, here is a little background information. When I sample or require monitoring at an FSE it is for Biochemical Oxygen Demand (BOD), Total Suspended Solids (TSS), and Oil and Grease (O&G). All of these have a screening level of 250 mg/l in my Town. We have not developed local limits for these pollutants. These screening levels are not enforceable like local limits but instead are intended to trigger an investigation or response. If found excessive, the Town could consider developing technically based local

limits for these pollutants. Although our BOD and TSS screening level is based somewhat on the design loading of our WWTP, our O&G screening level of 250 mg/l was based on “assumptions” of typical untreated FSE wastewater and estimated removal efficiencies of free grease from grease removal devices. 100 mg/l and 250 mg/l are numbers that get thrown around a lot for O&G. They come from studies done long ago based on “assumptions.” Although they are not enforceable, they are numbers you can use to try to get your point across.

You will see that I have sampled BOD, TSS, and O&G at various discharge points. I have sampled directly downstream of grease removal devices, and I have sampled the combined wastewater of establishments. As far as I know there is no clear guidance or direction on where you would want to sample O&G other than at the “end of pipe” before discharging to municipal sewer. To me this means combined wastewater. I challenge anyone to dig into this further and discuss it in this column of a future Collector. I would love to see what people come up with.

The following are some examples of when I have used sampling to help justify requiring FSEs to upgrade or install new grease removal equipment. Here’s my Tale!

The very first place I sampled was a senior living community with a very large cafeteria. The cafeteria also had a pulper which is basically a large-scale grinder that removes some of the solids but turns everything else into a slurry. The slurry goes down the drain and the ground up pulp gets hauled to the landfill. I didn’t want this pulper in Hanover but at the time we didn’t really have a FOG program and I wasn’t in the position to tell them no. So, I told them that if they wanted to install it, they would be required to have an Industrial Discharge Permit and would be required to monitor discharges for BOD, TSS, O&G, and flow. None of this phased them and they moved forward with the pulper system.

Once they started discharge it was a disaster. The pulper, along with everything else in the kitchen was conveyed to an automatic grease removal device. The high TSS pulper wastewater was not compatible with it and ended up foaming out of the top onto the floor. It was a mess and looked and smelled like dog puke. We gave them temporary permission to disconnect it from the automatic grease removal device.

As expected, the results obtained directly from the pulper wastewater effluent were excessive.

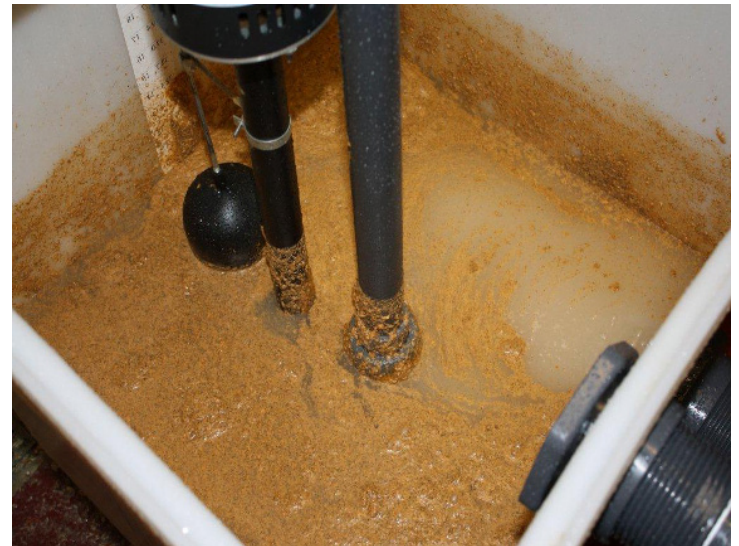
Assisted Living Facility Pulper Discharge with no Pretreatment. (mg/l)					
BOD	>1200	2700	> 1200	1100	1700
TSS	1100	1300	820	260	540
O&G		480	510	650	400

The Permit I issued also had them sample the pump

station which serves the entire assisted living community. Along with the kitchen and pulper discharge there is domestic wastewater from residents and staff. The results below from the PS are from the past 10 years.

Assisted Living Facility Combined Discharge at Pump Station (mg/l)										
BOD	410	620	520	240	470	320	2000	680	500	600
TSS	250	350	540	150	890	150	910	130	160	110
O&G	26	110	120	25	75	55	190	120	120	42

As you can see, BOD, TSS, and O&G levels are all elevated at the PS. Although the O&G levels are within the Town’s 250 mg/l screening level the buildup of grease in the wet well tells another story. The pulper remained disconnected from a grease removal device for several years. It’s a long story but eventually we were able to require this assisted living community to install a large external grease interceptor solely for the pulper wastewater. Although the monitoring results from the pump station have not changed much yet, we have definitely noticed a decrease in the grease shelf that accumulates in the wet well.



Pulper wastewater from a large college cafeteria. The idea is to turn your wastewater plant into a landfill and it’s a bad one.

Another place monitored is a large cafeteria at a local college in Hanover. They also went ahead and put a pulper in without our permission. It’s another long story! Although I tried to have them remove what probably cost half a million dollars to put in, I was overruled, so I issued them a Permit and required them to monitor the pulper effluent and the other sewer outfalls from the building.

The results of the monitoring below are from the pulper system at the college cafeteria and are an average from 2010 to 2012. The results were more justification that they would have to install an external grease interceptor.

College Cafeteria Pulper Discharge with no Pretreatment. Average from 2010 to 2012. (mg/l)	
BOD	11120
TSS	9125
O&G	4332

The results below are from the pulper after it was tied into the grease interceptor. You can see that even though there was a significant reduction in BOD, TSS and O&G concentration it is still way over our allowable screening levels. My feeling is that the 2500-gallon grease interceptor was much too small but based on the makeup of pulper wastewater I doubt it would get much better than that. If you learn anything at all from this article it should be to not ever allow pulpers in your community.

College Cafeteria Pulper Discharge after External Grease Interceptor Install. Average from 2012 to 2020. (mg/l)	
BOD	5101
TSS	3814
O&G	655

Look at the monitoring results below from discharge points 001 and 002 from the same college cafeteria. These results represent several kitchens contained in the building as well as some domestic wastewater sources. For the most part all the grease generating discharges are conveyed through 5 different various sized automatic grease removal devices located throughout the establishment. So even though all grease generating fixtures discharge to a grease removal device, almost all the results over the four-year span monitored exceed our screening levels.

Large College Cafeteria Combined Wastewater Discharge (mg/l)				
BOD 002	1600	1700	2600	1000
BOD 001	1200	1600	800	3600
TSS 002	940	410	2200	290
TSS 001	700	730	340	2600
O&G 002	490	220	480	62
O&G 001	200	280	63	430

We have a large Inn in Hanover that also gets monitored for BOD, TSS, and O&G. Some of the results I have gotten over the years from the Inn have been interesting. The first time I sampled them was directly downstream of the Automatic Grease Removal Device that had been installed prior to my arrival in Hanover. They told me it worked great and never had to do anything to it.



Grease Interceptor installed for pulper wastewater.

Large Inn Automatic Grease Removal Device Effluent (mg/l)	
BOD	45
TSS	140
O&G	46

In looking at this data from the grease removal device you are probably really impressed with how well it is working. BOD, TSS, and O&G levels are all low. But when I inspected it, I found that the wiper blades were completely disintegrated and not even touching the disc. It was full of grease and solids and pretty much everything that went in flowed right out the to the sewer. It seemed hydraulically overloaded also. In other words, it was not working properly and not removing grease and hadn't for a long time. You would think in this case the results would be much higher, but when I looked at the grease removal device closer, I noticed that there was a lot of clean water flowing through it. When I inspected the kitchens, I found that just about everything went through the grease removal device. There were hand sinks, a large commercial dishwasher, large commercial continuous flow food warmers, and chillers. When I saw all the clean water being discharged it was clear that dilution played a major role in why BOD, TSS, and O&G results were so low. So, we required plumbing changes to get rid of the clean water discharges and to install a new functioning and properly sized grease removal device. With all of that complete with a new sampling location downstream of the grease interceptor we got the following results.

Large Inn Functioning Automatic Grease Removal Device with Plumbing Modifications (mg/l)				
BOD	710	1600	680	3200
TSS	850	1400	760	1700
O&G	710	1700	690	1900E

Per our requirements, the new automatic grease interceptor had a ball valve and barb fitting on the outlet pipe for sampling. You can open it and get a grab sample for the O&G, and you can hook your 24-hour composite sampler to it for the BOD and TSS. The above results are from a fully functioning and properly sized Automatic Grease Removal Device. You can see from the results that without dilution from the clean water sources the BOD, TSS, and O&G levels are pretty stout. I was immediately suspect of the sampling location but after reviewing it several times and resampling, the high strength wastewater is just the nature of the beast. It is what it is.

Even though it was our requirement in their Permit, I didn't like the idea of sampling directly from the grease trap. In many cases I feel you get more meaningful data when you sample the combined sewer outside of the facility at the "end of pipe." So, when their FSE Wastewater Discharge Permit expired in 2018, I had them change the sampling location to a manhole outside of the building. This manhole receives waste from the entire Inn.

Large Inn Combined Wastewater Discharge (mg/l)			
BOD	120	580	300
TSS	230	310	170
O&G	43	170	70

Obviously now with the dilution again the above concentrations are much lower. As I mentioned in the beginning though, screening levels like O&G, TSS, and BOD are generally applied where an IU connects to the POTW collection system and at a location with combined wastewater. In my opinion, there are too many variables to set standardized screening levels on a grease removal device. However, if you do, remember that screening levels are just that. They are meant to be applied at the end of pipe and not the process itself, and they are not enforceable local limits.

Although some of the results are elevated at the Inn, inspections have shown that all grease generating fixtures are connected to a properly functioning and sized grease removal equipment.

After a while as our FOG program got going and as I started getting out there and doing more inspections, I found that many FSEs had no grease interceptors at all. How could this be? We have a famous Diner in Hanover that did not have a grease interceptor and when I talked

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KATE BIEDRON MEMORIAL FUND



Established in May 2020 in partnership with CDM Smith, the Kate Biedron Memorial Fund honors the memory of Kate Biedron, an active NEWEA and industry leader, professional engineer, mentor and friend. This memorial fund will sustain initiatives that Kate supported and promoted throughout her career, including environmental education, academic mentorship and scholarships, and advocacy for diversity and inclusion in the water sector.

Kate was a dedicated water professional and longtime NEWEA member and leader. She graduated from UMASS Amherst, earned her Civil/Environmental master’s degree from UMASS Lowell, and spent her 15-year career with CDM Smith. Within NEWEA, Kate was an active member and sought-after leader on many committees, serving as the Chair of the Public Awareness and Registration Committees and as the Director of the Meeting Management Council.

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to the owner, he said he was told by our Town previously that he did not need to have one. I was sympathetic that he had probably gotten mixed information, but it was my job now to make sure FSEs were utilizing properly maintained and functioning grease removal equipment. I decided to sample the Diner to get an idea of what the BOD, TSS, and O&G levels were without grease removal.

Famous Diner in Hanover Combined Waste Discharge Before Grease Removal Equipment (mg/l)	
BOD	1083
TSS	314
O&G	7500

I was not too surprised to see that the concentrations were high. With the large amounts of bakery wastewater and all the flour that is used I expected the BOD and TSS to be elevated but I didn't expect the O&G levels to be so high on a combined waste stream. The results of the sampling only helped in building the case that the Diner had to install a grease removal device. So, without too much effort the owner agreed to install an automatic grease removal device.

Famous Diner in Hanover Combined Waste Discharge after Automatic Grease Removal Device was Installed. (mg/l)	
BOD	1410
TSS	370
O&G	340

After the automatic grease removal device was installed the BOD and TSS levels were still elevated but the O&G level was down significantly. Although the O&G level was a huge reduction, I thought the combined wastewater results should have been lower. When I did my next inspection, I found another grease generating fixture that should have been conveyed to the grease removal device. I had them tie this into the plumbing to the grease interceptor as well. I have not sampled them since then but have noticed less grease buildup downstream in the sewer.

I have learned through the years that the greatest tool for reducing O&G at FSEs is **You**. There is no substitute for getting out there, boots on the ground, inspecting FSEs and making sure grease removal equipment is working, and sized properly, and that all grease generating fixtures are conveyed to them.

Sampling, or requiring monitoring at FSEs is not for everyone, it's just another tool that we use as part of our FOG program. It's something that I learned a lot from, and it will shape the way our program is run in the future. Maybe it's something your FOG program could benefit from too.

So, try something different on the menu - try sampling

a restaurant!

If you have any questions regarding this topic feel free to e-mail me at mark.roper@hanovernh.org

Disclaimer: The above article is for informational purposes only. Feel free to use this information but please note that it may not be suited for republishing.





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