



**CONNECTICUT ONSITE WASTEWATER RECYCLING ASSOCIATION INC.
SUPPORTING CONNECTICUT AND OUR ENVIRONMENT**

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Summer 2020

Letter from the President



COWRA 2020 Subsurface Installer Course

Dear COWRA Members,

I hope all of you have been well during the threat of the Covid-19 virus, these have been very challenging times for all of us.

As you all know we had to cancel our Annual Meeting due to the Covid Closure of the State. At this time it is still up in the air as to when, or if, it will be safe to reschedule our meeting.

I have spoken to other septic companies and have found that most said that business has been good throughout Connecticut during the closure. Perhaps the fact that so many families are home made it a good time for them to catch up on household maintenance projects.

From what I hear we have a long way to go before the Covid-19 virus is through with us. I want to wish all of our members, health, safety, and prosperity over the coming months.

Sincerely,
Frank Talarico

NEW MEMBER PROFILES COWRA WELCOMES

Zachary Faiella RS MSH joined us in January, 2020. Zach is a registered Sanitarian and holds an MPH. Zach was hired by the Town of Westbrook as the Director of Public Health in 2019 to replace Sonia Marino, who took a position in Stanford, CT. Prior to Zach's hiring in Westbrook, he had been working full-time as the sanitarian for the CT. River Area Health District, and part-time as a sanitarian for the Essex Health Department.

Zach received his Bachelors of Science in Public Health from Southern Connecticut State University, before he went on for a Master of Science in Public Health and Environmental Sciences from the University of Massachusetts Amherst.

Zach is a Registered Sanitarian (RS) with the State of Connecticut and a Registered Environmental Health Specialist (REHS). Zach works with the Westbrook Water and Pollution Control Commission focusing on ongoing wastewater issues. For more information about Zach and the services he provides through the Westbrook Health Department, please refer to him online at <https://westbrookct.us/152/Public-Health-Department>

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Circular Letter #2020-16

Circular Letter #2020-55

**COWRA Brochures are
available to our
Members at \$ 50.00 per
100, including shipping.**

NEW MEMBER PROFILES CONTINUED...

DRAINWORKS
PLUMBING & SEPTIC
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Buying a home???
\$199 Special
FOR SEPTIC OR SEWER
INSPECTION!
ENDING MARCH 31, 2020

MAKING SURE
YOUR WORKS!

We are a Full Service Septic
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**\$25 Off
Any
Service**
excluding
inspections
Ends March 31, 2020

Justin Breault has re-joined us with his new company, Drainworks Plumbing & Septic, LLC.

Justin is the owner of Drainworks, located in Andover, Connecticut. His services include: septic installations, cleaning and inspections. Justin also offers, water jet, cameras, drain cleaning and grease

trap cleaning. In addition, Justin has his license for sewer line installation and plumbing. For a complete list of Justin's services visit him online at www.calldrainworks.com.

Jesse Richard has joined us and is the owner of JCG Services, LLC which is located in Cheshire CT. Jesse is a licensed installer and this picture is a drainage issue Jesse's company resolved for a local home owner. JCG services include: installation, landscaping, excavation, drainage, and construction to name a few. For a complete list of JCG Services you can contact Jesse at jcgservicesllc@outlook.com.



Connecticut and offers easy access for our students, and plenty of parking.



COWRA's 2020 school went very well and there were 58 students enrolled in the course. Our installer course was challenged by the retirement of Doug DiVesta, which caused a bit of a panic in our ranks. After 25 years of teaching the installer course, Doug took a much-deserved retirement. However, the installer course went very smoothly and we had a surprisingly easy transition. As an organization, COWRA is very fortunate to be surrounded by so



Jeff Polhemus R.S.

many professionals who want our courses to succeed. These professionals offer their time, expertise and knowledge each year to mentor our students and inspire them to achieve their best selves within our industry. Jeff Polhemus joined us this year, generously offering to assist teaching this year's 2020 Installer Course. Jeff is a registered Sanitarian and a licensed installer. Jeff is currently working at Skips Wastewater Services LLC, in Ellington, CT.

AMERICAN ROOTER
P.O. Box 260
Watertown, CT. 06795

Fax: 860-274-4788
Phone: 888-863-4638

Justin Bernardi and Michael D'Agostino Justin and Michael are joining Watertown Septic's owner, Steven Ouellette as COWRA members. Their company provides a host of septic services, including: Septic cleaning, water jet, cameras/ videos, grease traps, and drainage. For a complete list of Watertown Septic's services visit them online at: www.americanrooter.com.

COWRA's INSTALLER COURSE 2020

For the last several years we have held our installer course at the First Congregational Church of Cromwell. This venue has worked well for us as it is centrally located in



COWRA has been blessed with the addition of Jeff to our educational team. Bob Smith, who Doug brought to help teach the course after Briggs Geddis left us, blended perfectly with Jeff. Together they taught our 2020 Installer Course like a well-oiled machine. They seemed to complement each other throughout each of our seven classes they taught together.

Jeff Polhemus focused on the mathematical and

technical construction of a septic system. Jeff drew the different components needed to build each system. His discussion with students covered soil compositions, different soil layers, and an understanding of MLSS. Through several examples, Jeff taught students how to design a system using percolation rate, soil composition, flow factors, and hydraulic factors to achieve a viable septic design. In addition, students learned the different products that can be used to accomplish the same goal for their system designs. This is just a small sample of what Jeff taught to our students during the 2020 Installer Course.



Robert Smith R.S. Bob is a Registered Sanitarian with the Torrington Health Department and the Watertown Health District.

During the Installer Course, Bob focuses on technical standards in depth. He discusses the definitions within the Public Health Code, and the importance of following the code when it comes to what one can do and what

one must do when dealing with public health code. Bob drives home to each student the specific details that they must focus on in the standards. Bob teaches students to be familiar with the measurements that must be observed in each project, that they will be held accountable for when out in the field.

Bob covers the details in the standards for each portion the students will be using in the projects they will design. Bob reviews in depth the size of septic tanks, where each size is used, the distance that wells need to be from property lines, drainage, and leaching fields. For each student Bob outlines the technical standards so that there is no question what they will need to know for the exam.

In addition, Bob prepares homework assignments that help our students understand and find what they need to know in each portion of the Public Health Code.



Bob aka Cookie Monster

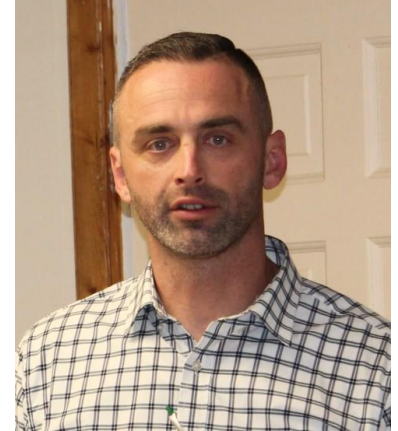
COWRA wants to again thank Robert Smith and Jeff Polhemus for the generous contribution of their time and expertise. Bob and Jeff's dedication and commitment to our organization helps ensure that a quality education will continue to be provided to all of our students.

COWRA'S 2020 PUMPER/CLEANER SCHOOL

COWRA's Cleaner Course was held on February 27, 2020. In addition to the installer students, we had 10 students that came only for the cleaner course. COWRA includes the cleaner course in the Installer curriculum as the cleaner course information is included on the installer exam.

Andrew Coleman owner of Skips Wastewater Services.

This year's cleaner course was taught by Andrew Coleman. Andrew is very generous with his time, and he has helped educate different communities around the State of Connecticut. Andrew has created educational presentations on Power Point, and volunteers his time in the community to inform local residents and help them understand the consequences of a failing septic system on their wells and environmental surroundings. We were thrilled when Andrew agreed to teach this year's cleaner course. Andrew prepared a wonderful program for our students. Andrew is very skilled in this area and he prepared a series of slides that delivered a concise curriculum that taught our students in the procedures of



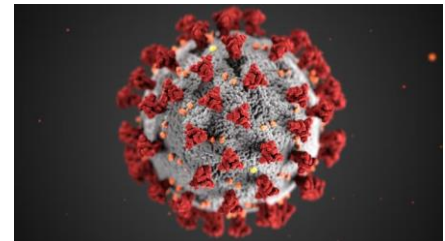
septic cleaning. Andrew helped students to understand the importance of safety and consumer awareness when on a customer's property. He reviewed with our students the Health Code provisions they would need to know to pass the upcoming exam and prepared students to supply the professional application of his teaching in their future careers. Andrew's program emphasized respect for the consumer's property and the importance of paying attention to even the smallest details of one's job. We are very thankful for Andrew's generous contribution to our organization and the students taking the course.



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SEWAGE POSES POTENTIAL COVID-19 RISK

Published in Science Daily, May 6, 2020



Environmental biologists at the University of Stirling in the Central Belt of Scotland have warned that the potential spread of COVID-19 via sewage, must not be neglected in the battle to protect human health. The response to the global pandemic has focused upon preventing person-to-person transmission; however, experts now believe the virus could also be spread in wastewater.

In early May it emerged that analysis of sewage in the UK could provide important data on the spread of COVID-19. However, Professor Richard Quilliam's new paper published May 6, now warns that the sewerage system itself could pose a transmission risk. Writing in the journal *Environment International*, Professor Quilliam and colleagues from Stirling's Faculty of Natural Sciences are calling for "an investment of resources" to investigate their concerns.

Professor Quilliam, who is currently leading a £1.85 million study into the transport of bacteria and viruses in marine environments said: "We know that COVID-19 is spread through droplets from coughs and sneezes, or via objects or materials that carry infection. However, it has recently been confirmed that the virus can also be found in human feces, up to 33 days after the patient has tested negative for the respiratory symptoms of COVID-19. "It is not yet known whether the virus can be transmitted via the fecal-oral route, however, we know that viral shedding from the digestive system can last longer than shedding from the respiratory tract. Therefore, this could be an important, but as yet unquantified pathway for increased exposure."

The authors of the peer-reviewed paper presented the example of the severe acute respiratory syndrome (SARS) outbreak in 2002-2003, when SARS-CoV-1, closely linked to the COVID-19 virus strain (SARS-CoV-2), was detected in sewage discharged by two hospitals in China.

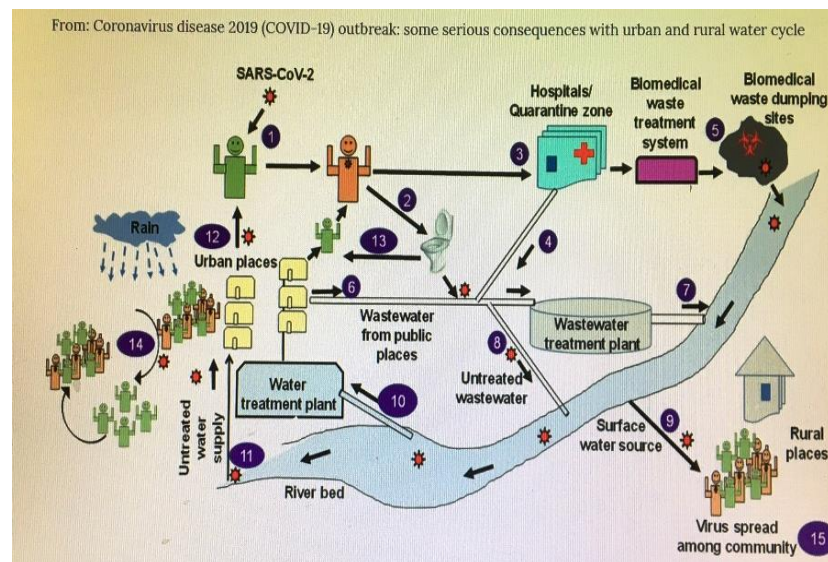
Professor Quilliam highlights that, as most COVID-19 patients are asymptomatic or experience just mild symptoms and remain at home, not in hospitals, there is a significant risk of "widespread" distribution through sewers.

The biologists said a lack of testing "makes it difficult" to predict the scale of the potential spread and the public health implications of the virus arriving at wastewater treatment works, whilst the implications of consequent discharge into the wider environment are only just beginning to be investigated. They added that the structural makeup of COVID-19, specifically its lipid envelope covering, suggests that it will behave differently in aqueous environments, compared to other viruses typically found in the intestine. There is currently limited information on the environmental persistence of COVID-19, but other coronaviruses can remain viable in sewage for up to 14 days, depending on the environmental conditions.

On the risk of human exposure, the authors said: "The transport of coronaviruses in water could increase the potential for the virus to become aerosolized, particularly during the pumping of wastewater through sewerage systems, at the wastewater treatment works, and during its discharge and the subsequent transport through the catchment drainage network. "Atmospheric loading of coronaviruses in water droplets from wastewater is poorly understood but could provide a more direct respiratory route for human exposure, particularly at sewage pumping stations, wastewater treatment works and near waterways that are receiving wastewater."

Risk could be further increased in parts of the world with high levels of open defecation, or where safely managed sanitation systems are limited and waterways are used as both open sewers and sources of water for domestic purposes. "Such settings are commonly accompanied by poorly resourced and fragile healthcare systems, thus amplifying both exposure risk and potential mortality," the authors said. "Understanding the risk of spread via the fecal-oral route, while still at a fairly early stage of the pandemic, will allow more evidence-based information about viral transmission to be shared with the public. Furthermore, the risks associated with sewage loading during the remainder of the COVID-19 outbreak need to be rapidly quantified to allow wastewater managers to act quickly and put in place control measures to decrease human exposure to this potentially infectious material."

Potential Consequences from COVID-19 on urban and rural water cycles





HOW SEWAGE COULD REVEAL TRUE SCALE OF CORONAVIRUS OUTBREAK

Published in *Nature Research Journal*, April 20, 2020

More than a dozen research groups worldwide have started analyzing wastewater for the new coronavirus as a way to estimate the total number of infections in a community, given that most people will not be tested. The method could also be used to detect the coronavirus if it returns to communities, say scientists. So far, researchers have found traces of the virus in the Netherlands, the United States and Sweden.

Analyzing wastewater — used water that goes through the drainage system to a treatment facility — is one way that researchers can track infectious diseases that are excreted in urine or feces, such as SARS-CoV-2.

One treatment plant can capture wastewater from more than one million people, says Gertjan Medema, a microbiologist at KWR Water Research Institute in Nieuwegein, the Netherlands. Monitoring influent at this scale could provide better estimates for how widespread the coronavirus is than testing, because wastewater surveillance can account for those who have not been tested and have only mild or no symptoms, says Medema, who has detected SARS-CoV-2 genetic material — viral RNA — in several treatment plants in the Netherlands. “Health authorities are only seeing the tip of the iceberg.” But to quantify the scale of infection in a population from wastewater samples, researchers say the groups will need to find out how much viral RNA is excreted in feces, and extrapolate the number of infected people in a population from concentrations of viral RNA in wastewater samples.

Researchers will also need to ensure that they are looking at a representative sample of what is being excreted by the population and not just one snapshot in time, and that their tests can detect the virus at low levels, say scientists representing the Queensland Alliance for Environmental Health Sciences in Australia, a research center that advises

the state government on environmental-health risks. And it's important that wastewater surveillance, should it be feasible, does not take away resources from the testing of individuals, the group says.

Some efforts to monitor the virus have been stalled by university and laboratory shut-downs and the limited availability of reagents to conduct tests — the same ones used in clinics, which are already in short supply, says Kyle Bibby, an environmental engineer at the University of Notre Dame in Indiana. “We don't want to contribute to the global shortage,” he says.

COWRA 2020 ANNUAL MEETING

COWRA's Annual Meeting was originally planned for April 4, 2020 at Baci Grill in Cromwell. However, due to the Covid Closure the meeting was cancelled.

At this time we are still up in the air as to when we will have this year's annual meeting. It is possible that we will have a virtual meeting if things do not settle down. COWRA's Board of Directors at the request of our president Frank Talarico, has voted to re-elect the current slate of board members who were set to expire this year.

Connecticut's Department of Public Health

DPH will be releasing proposed changes to the 2021 Technical Standards in the next few weeks. The proposed changes will be presented to the code advisory committee for review. COWRA will email the proposed changes to all members who have provided us with an email address. Unfortunately, these proposed changes will not be available by the release of this newsletter.

The Subsurface Sewage Installer and Cleaner exams have been postponed until further notice. The department is working on remote exam procedures and will notify all parties when the examinations resume.

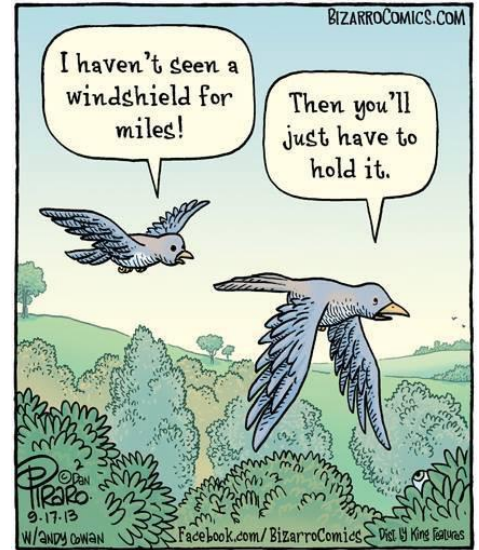
DATES TO REMEMBER

September 15, 2020 COWRA will begin accepting applications for the 2020 Septic Installer and Cleaning Courses.

STATE CODE ADVISORY

The last Code Advisory Committee met on July 11, 2019, at the Portland Library, due to Covid-19 there has not been regular scheduled CAC meetings. However, there will be a virtual CAC meeting on August 27, 2020; those of you attending will be emailed information about this meeting.

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FORWARDING SERVICE REQUESTED

UPDATES!! Registration Information for the 2020 State Installers & Cleaners-Exams:
You **MUST** contact the Department of Public Health to register for the Installers & Cleaners Exams.
Please Note: attendance at the COWRA Installer School **DOES NOT** register you for the State exam.
Please contact D.P.H. at 860-509-7296 for any information pertaining to your results and license.
You may also contact them by going to www.dph.state.ct.us/licensure/apps/subsew.pdf

2020 Examination Schedule Subsurface Sewage Installer/Cleaner

**Please Note: at this time all scheduled exams are cancelled due to CORVID 19
DPH is working on a remote exam options.**

Exam Dates

September 11, 2020
December 4, 2020

Application Deadlines

August 26, 2020
November 18, 2020

Connecticut Onsite Wastewater Recycling Association
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