

ONSITE installer™

PROMOTING WASTEWATER TREATMENT SAFETY AND PROFESSIONAL EXCELLENCE

www.onsite.com

SYSTEM PROFILE:
Church requires
timed dosing p. 22

**ONSITE
INSIGHTS:**
Vacation
rental abuse
p. 20

BOTH SIDES OF THE WATER EQUATION

RT Septic & Water Systems delivers wastewater and drinking water infrastructure for homeowners in Alberta, Canada p. 12

PRODUCT FOCUS

Alarms, Controls and Monitoring Systems p. 26

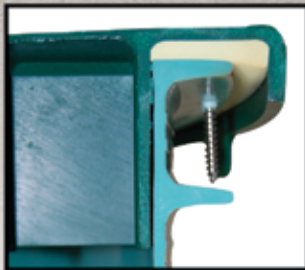
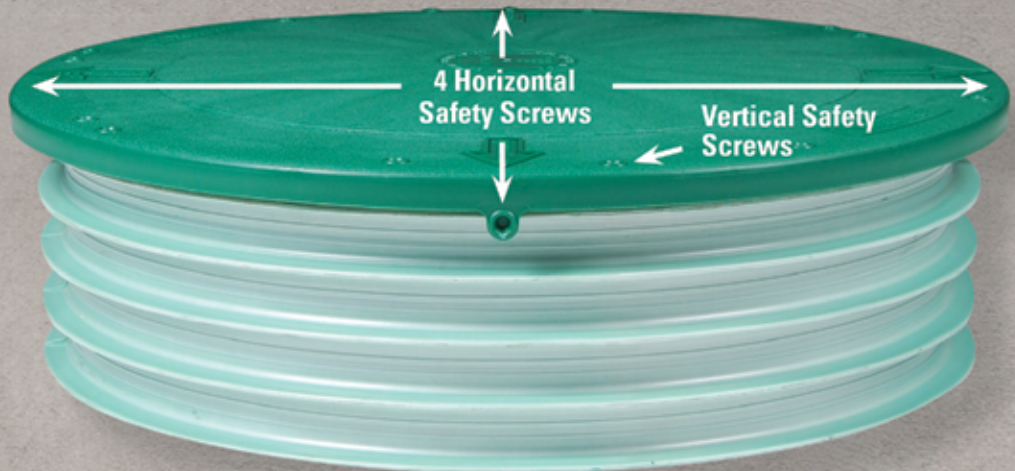


24" HEAVY DUTY MULTI-PURPOSE FLAT RISER LID

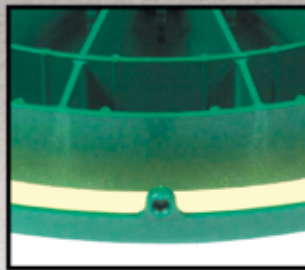
Fits most commercially available:

- Risers
- IPEX PVC Ribbed Pipe
- Corrugated Pipe

LID MAY BE USED WITH OR WITHOUT CONCRETE CENTER



Secured by 6 Vertical and 4 Horizontal Safety Screws. Screws Included.



Foamed-in Permanent Polyurethane Gasket.



Holds up to 70 lbs of Concrete for Added Safety.



Water-TITE™ Joint Vertical and Horizontal Safety Screws

4" Effluent Filter and 4" T-Baffle™

86 ft. of 1/16" filtration area.

Increases time between filter cleaning.



EF-4 Combo Includes Filter, Housing and

4" Sch. 40 & SDR-35

NSF
 800 GPD
 ANSISF
 Standard 46

NSF
 COMPONENT
 ANSISF
 Standard 46

EF-4 Combo 18

NSF
 COMPONENT
 ANSISF
 Standard 46

TB-4-18 Housing
 12/carton

SD-4
 Gas/Solids Deflector

4" Effluent Filter EF-4

One-piece effluent filter fits in 4" Sanitary Tee.

- Injection molded PolyPro
- Simple to install - Easy to clean

4" Sanitary Inlet/Outlet T-Baffle™

Injection molded T-Baffle™.

- Injection molded T-Baffle
- Fits 4" Sch. 40 and SDR-35 pipe
- Simple to install
- May also be used as Inlet & Outlet Tee

6" Effluent Filter and 6" T-Baffle™

244 ft. of 1/16" filtration area.

Increases time between filter cleaning.



EF-6 Combo Includes Filter, Housing and Bushing

4" Sch. 40 & SDR-35

NSF
 1500 GPD
 ANSISF
 Standard 46

NSF
 COMPONENT
 ANSISF
 Standard 46

TB-6 Housing

Gas/Solids Deflector

6" Effluent Filter EF-6

One-piece effluent filter fits in 6" T-Baffle™.

- Injection molded PolyPro
- Simple to install
- Easy to clean

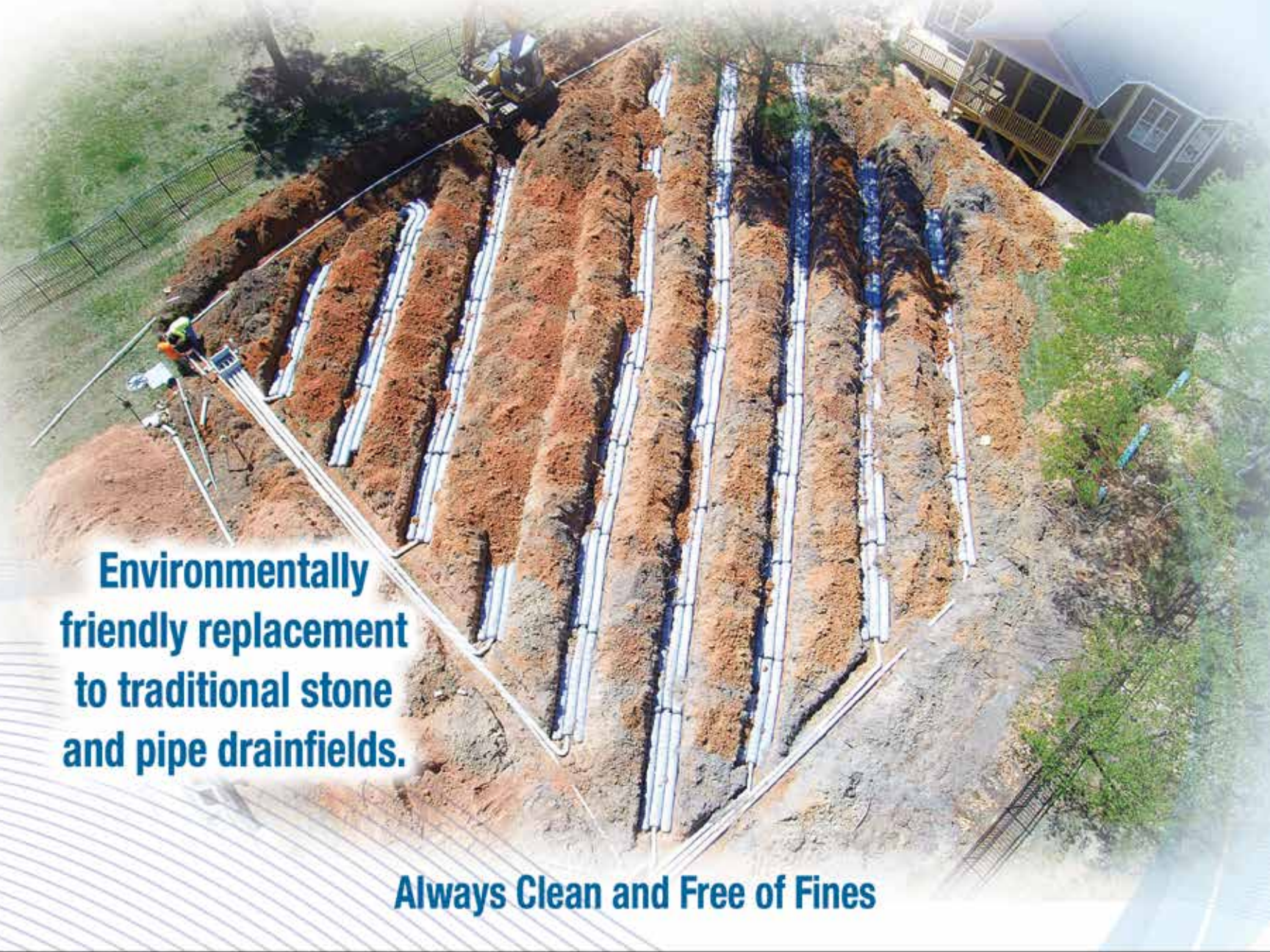
6" Sanitary T-Baffle™

Injection molded T-Baffle™.

- Injection molded
- Fits 4" Sch. 40 and SDR-35 pipe
- Simple to install
- May also be used as Outlet Tee with Solids Deflector



*We don't have to be made of stone to **ROCK!***



**Environmentally
friendly replacement
to traditional stone
and pipe drainfields.**

Always Clean and Free of Fines

Infiltrator Line of Products



800-221-4436 • www.infiltratorwater.com



INSTALLER PROFILE:
Both Sides of the Water Equation
 By Ted J. Rulseh

ON THE COVER:
 RT Septic & Water Systems installs 100 onsite systems annually in Alberta, Canada. Co-owner Rick Tipple is shown behind the controls of a Kubota KX080-4 excavator. (Photo by Stephen Defoe)

- 8 @onsiteinstaller.com**
 Be sure to check out our exclusive online content.
- 10 Editor's Notebook:**
It's Like Killing a Fly With a Sledgehammer
 A small Vermont town is studying whether it should build a wastewater treatment system for 45 users. Hopefully they consider an onsite solution.
 By Jim Kneiszel
- 20 Onsite Insights:**
Yikes! My Vacation Renters Are Abusing the Septic System
 Follow these consumer education and maintenance tips to prevent untimely and costly onsite system breakdowns at overused properties.
 By Sara Heger
- 22 System Profile:**
Timed Dosing Is Key to Treatment Efficiency for a Church System
 Spreading out the flow from two days of services allows downsizing the drainfield, saving this Arkansas congregation money.
 By Tim Dobbins
- 26 Product Focus/Case Study:**
Alarms, Controls and Monitor Systems
 By Craig Mandli
- 28 Snapshot:**
Massachusetts' New Onsite Regulations Will Push Improved Treatment
 Proposed nitrogen-removal requirements are controversial with homeowners, but will be positive in the long run.
- 32 Associations List**
- 34 Rules and Regs:**
Florida Plan Requiring Five-Year Septic Inspections Fails Again
 By David Steinkraus
- 37 Industry News**
- 38 Product Spotlight:**
Effluent pump line designed for durability
 By Tim Dobbins

Coming Next Month

ISSUE FOCUS: Advanced Treatment Units
 Contractor Profile: We're Indiana-bound
 Editor's Notebook: Support our troops. Hire a vet.

Published monthly by



P.O. Box 220,
 Three Lakes, WI 54562

Call toll free 800-257-7222;
 7:30 a.m.-5 p.m. Central time, Mon.-Fri.

Website: www.onsiteinstaller.com
 Email: info@onsiteinstaller.com • Fax: 715-350-8456

SUBSCRIPTIONS

A one-year (12 issue) subscription to *Onsite Installer™* in the United States, Canada or Mexico are free to qualified subscribers. A qualified subscriber is any individual or company in the United States, Canada or Mexico that partakes in the installation, design, maintenance, manufacture, treatment, consulting or sale of onsite wastewater treatment systems or supplies. Non-qualified subscriptions are available at a cost of \$60 per year in the United States and \$120 per year outside of the United States. To subscribe please visit onsiteinstaller.com or send company name, mailing address, phone number and check or money order (U.S. funds payable to COLE Publishing Inc.) to the address above. MasterCard, VISA, Discover and American Express are also accepted. Supply credit card information with your subscription order.

Our subscriber list is occasionally made available to carefully selected companies whose products or services may be of interest to you. Your privacy is important to us. If you prefer not to be a part of these lists, please contact Holly at holly.gensler@colepublishing.com.

CLASSIFIED ADVERTISING

Submit classified ads **ONLINE** at www.onsiteinstaller.com/classifieds/place_ad. Minimum rate of \$25 for 20 words; \$1 per each additional word. All classified advertising must be paid in advance. **DEADLINE:** Classified ads must be received by the first of the month for insertion in the next month's edition. **PHONE-IN ADS ARE NOT ACCEPTED.** **FAX** to 715-350-8456 only if charging to MasterCard, VISA, Discover or AmEx. Include all credit card information and your phone number (with area code). **MAIL** with check payable to COLE Publishing Inc. to the address above. **CLASSIFIED ADVERTISING APPEARS NATIONWIDE AND ON THE INTERNET.** Not responsible for errors beyond first insertion.

DISPLAY ADVERTISING

Contact Winnie May at 800-994-7990. Publisher reserves the right to reject advertising which in its opinion is misleading, unfair or incompatible with the character of the publication.



Winnie May

EDITORIAL CORRESPONDENCE

Send to Editor, *Onsite Installer*, P.O. Box 220, Three Lakes, WI 54562 or email editor@onsiteinstaller.com.

DIGITAL REPRINTS AND BACK ISSUES

Visit www.onsiteinstaller.com for digital reprint options and pricing. To order back issues, call Holly at 800-257-7222 or email holly.gensler@colepublishing.com.

CONTROLLED CIRCULATION: 18,500 per month

This figure includes both U.S. and International distribution.

© Copyright 2023 COLE Publishing Inc.
 No part may be reproduced without permission of the publisher.

- facebook.com/OnsiteInstaller
- twitter.com/OnsiteInstaller
- youtube.com/OnsiteInstaller
- linkedin.com/company/onsite-installer-magazine
- instagram.com/onsiteinstaller



JIT

MIND YOUR OWN BUSINESS

1-800-NORWECO

ENVIRO-AIRE

Extended Aeration process increases bacteria growth speeding up the treatment residential wastewater.

- Industry proven solution with NSF/ANSI 40 certification
- Flexible and easy installations in a single tank
- Easy to maintain – no mechanical parts
- Efficient design with minimal maintenance requirements resulting in low life cycle costs

ECOPOD-N



Innovative approach to onsite wastewater disposal where nitrogen reduction is required.

- Nitrogen reduction greater than 50%
- The fixed film process suitable for continuous or intermittent use
- Industry proven solution with both NSF/ANSI 40 and 245 certifications
- Easy to maintain – no mechanical parts

(800) 221-4436 • www.infiltratorwater.com • info@infiltratorwater.com

ADVERTISER INDEX

July 2023

Alberta Wilbert Sales Ltd.....	11
ALTA.....	36
Alita Industries, Inc.....	36
Ashland Pump.....	8
BioMicrobics, Inc.....	21
BIOROCK.....	9
BrenLin Company, Inc.....	33
Crest Precast, Inc.....	19
Delta Capital Group.....	17
Delta Treatment Systems, LLC.....	6
E-Z Treat Corp.....	30
Eljen Corporation.....	15

FujiClean USA.....	31
Infiltrator Water Technologies, LLC.....	3
Jet, Inc.....	29
Kistner Concrete Products, Inc.....	35
National Precast Concrete Association.....	7
Norweco, Inc.....	5
Polylok, Inc.....	40
Prinsco.....	39
Roth North America.....	37
Sim/Tech Filter Inc.....	38
Simple Solutions Distributing LLC.....	38
SJE Rhombus®.....	19

SPI, Inc.....	37
T&T Tools, Inc.....	33
The Shaddix Company, Inc.....	38
The Utility Expo.....	25
TUF-TITE, Inc.....	2
Wholesale Septic Supply.....	31
Wieser Concrete.....	30
Classifieds.....	36

Enjoy this issue!

Established in 2004, Onsite Installer™ fosters higher professionalism and profitability for those who design and install septic systems and other onsite wastewater treatment systems.



2023 SPECIFIER WEBINAR SERIES

With the industry's leading experts



JOIN US!

**Earn PDHs.
FREE to attend.**

Learn about the latest innovations in precast applications and technology from the industry's experts.

Get more information at precast.org/specifiers



4 FREE WEBINARS

JULY 20: Longer Lasting Concrete with Coating and Sealers
Presenter: Kayla Hanson, P.E., Concrete Sealants

AUG. 3: Detention Systems
Presenters: Kathryn Thomason, P.E., and Joseph Ackermann, P.E., Oldcastle Infrastructure

AUG. 31: Building Smarter with Climate-Resilient Infrastructure
Presenter: Claude Goguen, P.E., NPCA

NOV. 2: Getting the Most Out of Partnerships with Precast Concrete Suppliers
Presenter: Carson McCain, Kiewit Engineering Group Inc.



Effluent Pumps



GREY WATER SOLUTION

A PUMP FOR ALL YOUR GREY WATER NEEDS



P U M P

1899 COTTAGE ST. | ASHLAND, OH 44805
855 281-6830 | ASHLANDPUMP.COM

@onsiteinstaller.com

Visit the site daily for new, exclusive content. Read our blogs, find resources and get the most out of *Onsite Installer* magazine.

EDUCATION IS KEY

Help Customers Understand Their New System

When meeting with your customer to give them a walk-through of the system you just installed, it's important to educate them about how a septic system works in order to maximize their understanding and the longevity of their system. Not sure how to simplify things? Present them with the 'New Owner's Manual for Onsite Systems' as described in this online article by columnist Todd Stair. onsiteinstaller.com/featured



BOOST YOUR INTERNET PRESENCE

Reviews in Real Time

Online customer reviews are an essential part of any onsite service provider's marketing efforts. Which leaves only one question: How do contractors go about getting time-crunched customers to post reviews — and amassing the high volume of reviews required to move the meter in terms of online visibility in organic search rankings? Learn how in the exclusive online article. onsiteinstaller.com/featured



Overheard Online

"Don't ever assume just because a pump is already installed that it's the right pump for the system. I constantly find systems that have pumps with curves that do not meet the design of the system."

- *Septic Pump Replacement Do's and Don'ts*
onsiteinstaller.com/featured

FIRST IMPRESSIONS

4 Questions Your Website Has to Answer

There are a few pieces of basic, but vital, information that every onsite business needs to have prominently displayed on its website — before the customer even needs to scroll down the page. Your website's homepage will be a customer's first impression of your company. Check out this guide to make it a great one. onsiteinstaller.com/featured



EMAILS AND ALERTS Visit OnsiteInstaller.com and sign up for newsletters and alerts. You'll get exclusive content delivered right to your inbox, and you'll stay in the loop on topics important to you!

CONNECT WITH US

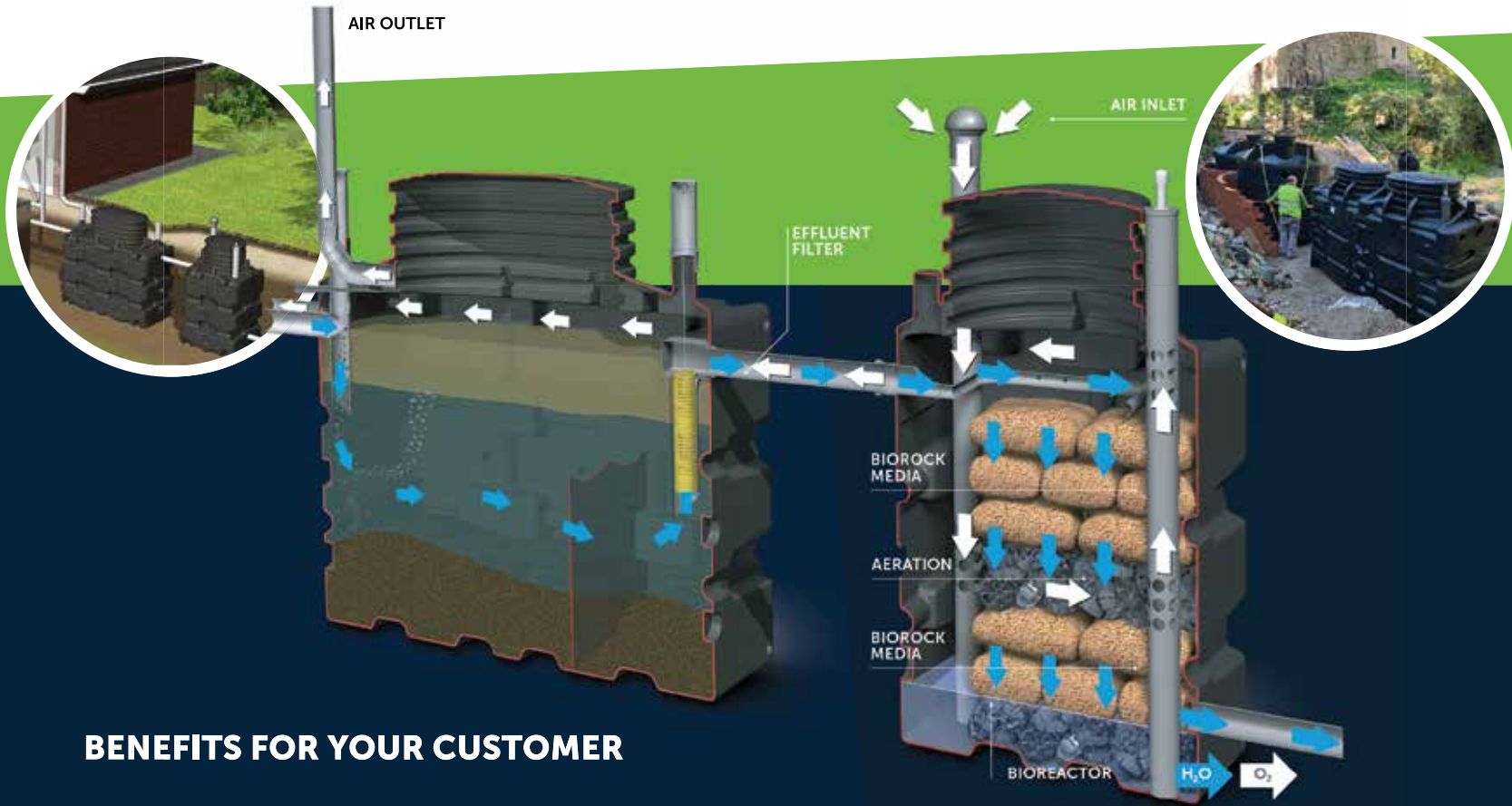
Find us on Facebook at facebook.com/OnsiteInstaller
 or Twitter at twitter.com/OnsiteInstaller

BIOROCK

engineered for tomorrow

Biorock is a direct solution for pros who seek **faster** and **easier installations** and maintenance, saving time and labor without sacrificing product or output quality.

 <p>NSF/ANSI 40-Class 1</p>	 <p>Direct replacement for repairs</p>	 <p>Below average product cost</p>
 <p>Less work for install</p>	 <p>Smaller drain field required</p>	 <p>4 to 15 person capacities</p>



BENEFITS FOR YOUR CUSTOMER

- | | |
|------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> ✓ Long Septic Tank Pump-Out Intervals | <ul style="list-style-type: none"> ✓ Low Operational Costs |
| <ul style="list-style-type: none"> ✓ Media Lifespan Is Up To 10 Years | <ul style="list-style-type: none"> ✓ Long Absence Periods |
| <ul style="list-style-type: none"> ✓ Minimal Annual Maintenance | <ul style="list-style-type: none"> ✓ Odorless |
| <ul style="list-style-type: none"> ✓ Ultra-Compact & Discreet | <ul style="list-style-type: none"> ✓ Non Electric |

Contact us today for more info!

Sven Fielder
Territory Sales Manager
 biorock@acuantia.com
 (817) 727-8227

Acuantia.

shop our brands **TANK DEPOT** 

Jim Kneiszel



Send your comments, questions or opinions to Jim Kneiszel at editor@onsiteinstaller.com

It's Like Killing a Fly With a Sledgehammer

A small Vermont town is studying whether it should build a wastewater treatment system for 45 users. Hopefully they consider an onsite solution

Sometimes it's easy to see when numbers don't add up. I examined city and county budgets for many years as a local elected official, and questionable spending tends to jump out at you from a seemingly endless list of line items. Such was the case recently when I read a local news story about a small town in Vermont and its current wastewater woes.

The Moretown Wastewater Committee in Moretown, Vermont (population about 1,600), has hired an engineering firm to help explore options to deal with its future wastewater treatment needs. According to a story in the *Valley Reporter* in nearby Waitsfield, the town has \$3.3 million in federal Inflation Reduction Act funds that could be used to build a wastewater treatment system for a small village area within the 40-square-mile township.

There is currently no centralized sewage system in Moretown, and this makes perfect sense given its light residential density and lack of commercial structures. According to Wikipedia, Moretown has one commercial building, a general store, which also serves as a meeting hall and community center of sorts. I can imagine these hardy New Englanders gathering at the general store every morning for a cup of coffee and a discussion about the changing weather. At any rate, most citizens likely conduct their daily business in Montpelier, 13 miles to the east, and Burlington, 39 miles to the west.

GREAT ONSITE SERVICE

Over its history, everyone in Moretown has been served by individual decentralized wastewater systems. The wastewater committee has some concerns about the septic systems serving 45 mostly residential users living in a small village district. For background, the story explained that single-family homes with four people produce 180 gallons of wastewater daily, 66,000 gallons per year, and up to twice that rate when usage spikes.

Wastewater committee member Jack Byrne explained:

Spending millions in taxpayer money to provide service for 45 homes — or a few more to account for some future development — is like swatting a fly with a sledgehammer.

“There have been 10 reported failures of onsite sewage systems in the village district between 1987 and 2022,” he said. “Failed systems sometimes have no good alternative locations for a new system and require a variance for a replacement that has a higher risk for another failure.”

Let's pause here for a moment. This is the first of a few numbers that require a deeper dive. There have been 10 reported system failures in 35 years? Given that many say the expected life span of a well-used onsite system is in the neighborhood of 20-40 years, it seems residents of Moretown have been receiving yeoman's service from their septic systems. And if you take into consideration that many rural homeowners tend to — putting it nicely — take a conservative approach to pumping and maintenance, these decentralized systems have been performing up to and beyond standard.

TAKING CARE OF BUSINESS

This is where we are reminded of the great value of septic service. The homeowner is responsible for the upkeep and treating the system with respect, for example avoiding overloading flow on laundry day and avoiding throwing so-called “flushable” wipes down the toilet and forgetting about it. In exchange for taking care of the systems, the homeowners avoid the high cost of hooking up to a municipal system and then paying frequently rising monthly service fees to maintain the public sewers.

Taking care of your own waste stream and keeping costs down; these are good, old-fashioned conservative New England values I would expect from the people of Moretown. But I digress. Let's look at some more numbers.

I think the old saying is *pennywise and pound foolish*. That's when you obsess about the cost of one thing without considering the bigger picture. The issue in Moretown is how to best provide wastewater services to a small group of users in what is considered the central “village” area. By the town's numbers, there are 45 septic systems, some of which may need to be repaired or replaced. The town also has a windfall of \$3.3 million courtesy of the Inflation Reduction Act.

Presumably the engineering firm will explore a wide range of solutions, from bringing lagging systems up to standard all the way to spending the entire amount on a state-of-the-art public sewer system. If the town wants to maintain its rural character, investing a significant sum on municipal sewers seems like overkill.

STICK WITH ONSITE

I would argue there are better decentralized options that could adequately cover all of the situations encountered: Cluster systems serving adjacent properties that don't have the room for a new tank and drainfield. Advanced treatment systems that can be placed in a smaller footprint. Traditional tank drainfield systems where sites and soils allow.

Using the numbers, one thing I can say is almost certain: Spending millions in taxpayer money to provide service for 45 homes — or a few more to account for some future development — is like swatting a fly with a sledgehammer. The upfront per-dwelling expenditure would be staggering, not to mention the ongoing maintenance costs for a sewer system. And since the system would only serve a small percentage of town residents, consider how everyone else would feel not getting any benefit from the federal funds.

Rather, let's look at a scenario where those residents can be served at a more reasonable cost, while at the same time ensuring their onsite systems function properly, don't pollute the environment, and homeowners maintain the responsibility for their own waste streams.

First, I would suggest the town start a mandatory onsite system inspection and maintenance program to identify and repair or replace any failing systems. Depending on the technology, the town would arrange to have each system checked at a recommended interval and keep a public file with the inspection reports. Take it one step further and organize pumpouts as recommended to ensure the longest useful life of the system. Monitoring and

pumping could be paid either by the town as a clean-water priority, or fall on the property owners as a user fee.

REPLACE AS NEEDED

As systems need replacing, some of the federal money could be directed toward loans or grants to cover a portion of the cost of the most appropriate system for 50 users. Let's say a conventional system is suitable for half of the properties at a cost of \$15,000 (\$375,000 total); and the other half of the lots call for advanced treatment with systems costing an average of \$35,000 (\$875,000 total). If the town covers half of the cost of the upgrades, which would be very generous, the outlay is only \$625,000 spread over many years.

Following this plan, the town achieves its environmental objectives, ensures quality, affordable wastewater service for its residents and maintains private ownership of treatment infrastructure as it has always been. And it saves a good portion of the federal relief dollars that can be put to use for other infrastructure needs, such as roads and bridges, public safety or other needed services.

If I could send Moretown officials a message as they embark on this important study of future wastewater service needs, it would be this: Don't discount the value of onsite technology or assume that a public system is the best or only suitable solution. Remember that about 25% of Americans utilize decentralized systems for their wastewater treatment, and there's a good chance this is the best answer for residents of this small town. □



Our People. Our Product. Our Service.
It's what sets us apart.

- Septic Tanks (up to 5m burial depth)
- Holding Tanks (up to 3m burial depth)
- Water Cisterns (up to 3m burial depth)
- Pumps, Pipe, Fittings
- Sumps
- Lift Stations
- Orenco® Systems Product Dealer
- Advanced Wastewater Treatment Systems
- Infiltrator® Field Systems
- AWS Riser Wrap® Pipe Insulation

North American Inquiries:
Toll Free: 1-800-232-7385
www.wilbert.ca



BOTH SIDES OF THE WATER EQUATION

RT Septic & Water Systems delivers wastewater and drinking water infrastructure for homeowners in Alberta, Canada

By Ted J. Rulseh



➤ RT Septic owners Rick Tipple and Tammy Bovay are shown with a Kubota SVL75-2 compact track loader and KX080-4 excavator. (Photo by Stephen Defoe)

For RT Septic & Water Systems there's more to serving homeowners than treating wastewater.

The company, founded in 2016, installs about 100 septic tanks and complete onsite treatment systems per year in Alberta's Sturgeon County, near Edmonton. Many jobs also include installing a cistern for drinking water, since the local groundwater is of poor quality.

"There's a lot of sodium in it, and it's very high in iron," says Rick Tipple, who owns RT Septic with his wife, Tammy Bovay. "A typical well around here has to be 300 to 400 feet deep. So people put in cisterns. When we install a septic tank for a new home build, usually we put in a cistern at the same time."

The business thrives despite abundant competition. In 2020, Tipple and Bovay added a vacuum truck and for septic tank pumping. Besides the owners, the company employs vacuum truck driver Darcy Breitreitz and summer workers Trevor Kowalski, Brian Crozier and Adam Gnauk.

GOOD NEIGHBOR

The couple entered the onsite business with substantial help from neighbor Mourie Hooper, who owned All Complete Excavation, a company that specialized in excavation for new homes and did some septic installations.

Tipple was working as a picker and heavy haul operator in the oil fields near Edmonton, while Bovay was a veterinary technician and later certified as an educational assistant. When they bought a house in 2013, they had to install a new mound system.

"Our neighbor, who we had never met before, was a certified installer," Tipple recalls. "I went over one day, knocked on his door and



RT Septic & Water Systems

Sturgeon County, Alberta

- Owners:** Rick Tipple and Tammy Bovay
- Founded:** 2016
- Employees:** 6
- Service area:** Five counties around Edmonton, Alberta
- Business volume:** 100 systems per year
- Specialties:** Septic system installation and pumping, cistern installation and water hauling
- Other services:** School buses
- Affiliations:** Alberta Onsite Wastewater Management Association
- Website:** www.rtsepticsys.ca



➤ RT Septic co-owner Rick Tipple starts to dig a new hole for a septic tank using a Kubota KX080-4 excavator (Photo courtesy of Kubota Canada Ltd.)



◀ RT Septic owner Rick Tipple and employee Trevor Walker work on installing AWS Riser Wrap Insulation around a green ultra-rib pipe. (Photo by Stephen Defoe)

said, 'I need to install a septic. I wonder if you could help me out.'

The two built the mound system together and in the process became friends. Hooper took note of Tipple's work ethic and suggested he give up the oil field work, which often kept him away from home, and install onsite systems for a living. Tipple began helping Hooper with jobs on his days off. Then in 2014 a slump hit the oil patch and Tipple took a big cut in salary.

"I said to Tammy, 'This is the best time. If we're going to do this, let's do it now.' Mourie offered to help us in any way he could." So Tipple took a certification course from the Alberta Onsite Wastewater Management Association and earned his installer certificate from the provincial Ministry of Municipal Affairs.

In the meantime Hooper, who preferred to focus on residential excavation, referred his onsite system leads to Tipple and allowed him to use his earth-moving equipment for the jobs. When Tipple received his certificate in June 2015, he gave his two weeks' notice to his oil field employer. RT Septic & Water System was incorporated the next year.

CHALLENGING SITES

In the company's service area in five counties around Edmonton, high water tables and clay soils are common. In many cases that calls for mound systems, or at-grade systems with advanced treatment. RT Septic installs several advanced treatment units per year and has settled on AdvanTex systems from Orenco.

They chose the AdvanTex units mainly for their low cost of operation — they have no power-consuming aerator pump — and for the effluent quality. "The cleaner the water that comes out the back of the tank, the longer your at-grade system is going to last," Tipple says.

continued >>

SCHOOL DAYS

A school bus business is not exactly a sideline for owners of an onsite installation business. Rick Tipple and Tammy Bovay of RT Septic & Water Systems hold a contract for bus service with Sturgeon Public School Division.

Taking on the business meant Tammy giving up her job as a veterinary technician. It was a question of economics and family commitment. "Rick was working in the oil field and I was working in a veterinary clinic," Tammy recalls.

"When we had two kids, we hired a nanny. It wasn't fair to the kids that someone else was raising them. I was commuting an hour each way, so I was gone at least 10 hours a day while our kids were small. In the large-animal clinic where I was working, if there were emergencies I might not get home until eight o'clock and wouldn't see our kids all day."

She loved her job and had held it since 1999. But when she and Rick did the math, they discovered that after travel expenses and paying the nanny, her net income was only about \$2.50 per hour. So, in 2012, Tammy gave her employer notice.

When a neighbor who owned a bus company learned that she was leaving her job, he asked her to consider driving a bus. Somewhat reluctantly, she did a ride-along with one of the drivers. She then took driver training, passed a test to earn her license, and took the summer off to spend time with family. In September 2013 she took on a school bus route and "absolutely loved it."

A year later the bus company owner gave up his contract with the Sturgeon Public Schools. Tammy applied for and was awarded the contract. She no longer drives except occasionally as a fill-in, but hires and supervises the drivers and works with school transportation officials on routing.

Rick also obtained his endorsement to drive a school bus and drives for charter trips or when regular drivers are unavailable. They own six school buses, five on regular routes and one kept as a spare. Tammy enjoys the work and especially the time she now gets to spend with daughters Brooklyn and Kendall.

Bus drivers Desiree Daub, Renee Patterson, Jim Beveridge, Cindy D'Aoust and Leanne Lemire have been on their routes since the contracts were awarded. Joy Sarazen joined their team as a spare driver.

From Factory to Ground... Low Environmental Impact!



Made from U.S.A.
Recycled Materials



No Replacement Parts
Or Media Needed



Less Hauled Materials



Treatment & Dispersal
In the Same Footprint



Reduced
Site Impact



Time-Proven for
Over 40 Years



Innovative Onsite Products and Solutions Since 1970

1-800-444-1359
eljen.com





◀ Tipple checks the depth of an excavation before getting back on the excavator to finish the job. (Photo courtesy of Kubota Canada Ltd.)

▼ RT Septic employee Trevor Walker carries tank riser material during an installation project. (Photo by Stephen Defoe)



“The cleaner the water that comes out the back of the tank, the longer your at-grade system is going to last.”

Rick Tipple

Many of the company’s projects are new septic tank installations and septic tank replacements. Homes within city boundaries often have septic tanks even though they are connected to municipal sewer systems. The tank effluent is sent into the sewers instead of to a drainfield. It’s a way for municipalities to minimize problems at treatment plants.

“The homeowners are responsible for what they put in the tank. If they have a regular city sewer system, many people dump female products, food, greases, oils and whatever,” Tipple says. “If they have a septic tank, they’re going to be more careful what they use in the house and what they dump into the tank. If they misuse it, sewage will back up into the house and wreck their septic system.”

DOING IT BETTER

When replacing septic tanks or installing new ones, RT Septic crews take special care. “We decommission the old tank and put in a new tank with a new pump, new plumbing inside, a pump basket and a new alarm,” says Tipple. “Typically we remove all the excess soil from the site. Then a month to a month and a half later, depending on the amount of settling, we come back with a load of topsoil and clean everything up.

“I make sure that every tank we install sits on 6 inches of three-quarter-inch washed rock. The tank is leveled, and it’s solid. You never have to worry about the tank lifting or shifting. You don’t have to worry about the inlet pipe moving or sagging.”

Many tank jobs are replacements within municipalities where the homes are 30 to 40 years old and the lots are small. “Often we need to get

neighbors’ consent to drive on or make a little bit of a mess on their property,” Tipple says. “Sometimes that works to our advantage because the neighbors’ tanks may also be getting close to time for replacement. All our equipment is there, and can do two, three or four houses right in a row.”

The go-to equipment includes a Kubota KX080 excavator, Kubota SVL75 skid-steer, a Freightliner FL60 dump truck, a Southland gooseneck 30-foot tandem tri-axle flat-deck trailer, a Double D 24-foot bumper-pull flat deck trailer, and a Featherlite 22-foot cargo trailer that hauls all materials to job sites and is set up like a miniature supply shop. Service vehicles are a 2022 Ford F-350 Lariat, a 2021 Dodge Bighorn, and a 2013 Dodge 3500 Longhorn.

When creating drainfields, the company chooses high-quality products. "A lot of companies use Series 75 pipe," Tipple says. "We use Series 200. For any fittings that are underground, we use brass." Tipple opts for pressure distribution, using Orenco or Little Giant pumps.

For drainfield media he chambers (Infiltrator Water Technologies) and covers them with geotextile cloth: "By code, we don't have to use the geotextile, but for the extra \$80 per system, it keeps the native material away from the chambers and adds to system longevity."

PROVIDING WATER

Cistern installations are a major component of the business: New home projects typically include both a septic system and a cistern. RT Septic installs 3,300-gallon precast concrete cisterns that are delivered in two pieces.

As with septic tanks, crews install cisterns on a bed of three-quarter-inch crushed rock. They also install plumbing to connect the cistern to the house and make sure the pump is easily accessible from the surface so that no one has to enter the tank for maintenance or repair.

Aqua Clean Cistern Cleaning pressure-washes and chlorinates the tank before Reed's Water Service comes to fill it with water.

"I just do what needs to be done. If it's only a simple float change or pump change, that's all I do. We spend a lot of time troubleshooting with people over the phone to try and save them money."

Rick Tipple

Meanwhile their septic tank pumping operation is doing well, servicing six to eight tanks per working day. The vacuum truck is a Kenworth T800 from SchellVac Equipment with a 3,300-gallon steel tank with a Fruitland 870 pump.

CLOSE COORDINATION

The RT Septic team functions efficiently. Bovay runs the office, booking appointments and scheduling all vacuum truck calls, site visits and system installations. Tipple quotes jobs, design systems, operates equipment, deals with homeowners, handles permit approval, lines up tank deliveries and purchases supplies for each project. Says Bovay, "He ensures that the tank and system installation are done to the 110% satisfaction of our customers."

"Trevor Kowalski has been our right-hand man for the past five years. Brian Crozier, my father, is our equipment mover and operator and all-

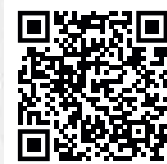


Up To **\$500,000** Same Day Funding

888-228-0707

EASY APPROVAL | FLEXIBLE TERMS

deltacapitalgroup.com/apply



➤ TT Septic employees Trevor Walker, left, and Brian Crozier cut a length of riser pipe at a job site. (Photo by Stephen Defoe)

around major helper, who comes from Ontario to work with us during our summer season. Adam Gnauk is our heavy-duty mechanic who keeps our equipment and trucks operational.”

The company is supported by Glen Armstrong of G & E Excavating, who helps during especially busy times and handles extremely deep excavations. Travis Loewen of Riteway Line Locating does the utility locates. Kory Read and Dave Dallaire of tank supplier Alberta Wilbert Sales help work go smoothly by handling tank and materials supply and delivery scheduling.

MAKING THE MARKET

RT Septic thrives on astute marketing and a straightforward approach to dealing with customers. Bovay, who had no previous marketing experience, set up an extensive social media program along with multiple sponsorships of community events. Tipple, meanwhile, is a member of the local Rotary Club and the Morinville and District Chamber of Commerce.

“Being part of the community is huge,” Bovay observes. “Even if it’s just sponsoring a kids’ hockey team, it connects us to the community. One winter Rick brought a skid-steer and plowed out a little hockey space for the kids on the soccer field at the school. Doing those simple community tasks goes a long way.”

So does attentive service. That means answering the phone when customers call, and if not immediately available, calling back promptly. “When you provide an essential service, you’ve got to be there for your customers.”

Tipple takes a direct approach when dealing with homeowners: “I tell people the way it is. I don’t sugarcoat anything. A of people like that. I just do what needs to be done. If it’s only a simple float change or pump change, that’s all I do. We spend a lot of time troubleshooting with people over the phone to try and save them money.”

Tipple is also active with industry affairs. Besides membership in the Alberta Onsite Wastewater Management Association, he served on a board with the Ministry of Municipal Affairs that rewrote the onsite system codes in 2021. “I learned so much about the industry by being on that board,” he observes.

RT Septic applies that and other experience with a no-nonsense, can-do attitude. “I’ve been told my whole life that trying is lying,” Tipple says. “You don’t try to do something. You either do it or you don’t do it.”



“Being part of the community is huge. One winter Rick brought a skid-steer and plowed out a little hockey space for the kids on the soccer field at the school. Doing those simple community tasks goes a long way.”

Tammy Bovay

featured products

Alberta Wilbert Sales Ltd.
780-447-2222
www.wilbert.ca
(See ad on page 11)

Fruitland Manufacturing
800-663-9003
www.fruitlandmanufacturing.com

Infiltrator Water Technologies, LLC
800-221-4436
www.infiltratorwater.com
(See ad on page 3)

Kubota Tractor Corporation
310-370-3370
www.kubotausa.com

Little Giant
800-701-7894
www.littlegiant.com

Orenco Systems, Inc.
800-348-9843
www.orenco.com

SchellVac Equipment Inc.
877-336-0081
www.schellvacequipment.com

Water Tight Structures

Septic Tanks - Sand Filters - Grease Interceptors
Bio-Fast Tanks - Nibbler Tanks



Shades of Sherwood Campground in Zumbota, MN

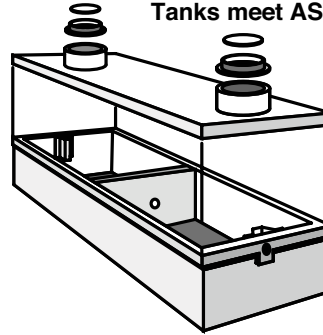
2- 38,000 gallon septic tanks, 20,000 gallon pump tank,
5 each 20,000 gallon recirculation tanks
and 3 each 7,700 gallon pump tanks were installed

2 Compartment

Commercial Sizes - Gallons

2,000 - 3,000 - 5,000 - 6,000 - 8,000
10,000 - 12,000 - 15,000 - 18,000
20,000 - 25,000 - 30,000 - 38,000 - 40,000

Water Tight Construction
Tanks meet ASTM C1227 and C913



Nationwide Service

CREST Precast, Inc.

PCI & NPCA Certified Plant

www.crestprecastconcrete.com

info@crestprecastconcrete.com

1-800-658-9045

OUR WIFI ALARM PROVIDES PEACE OF MIND!

The Xpert Alert® WiFi indoor alarm system helps protect your home 24/7 from potentially costly damage due to flooding, pump failure or freezing pipes. The system monitors and reports any residential alarm condition by notifying you locally (audible and visual alarms) and remotely via SMS text messages and/or emails over a WiFi or Ethernet network to your smartphone, tablet or computer. The sleek design of the enclosure, with its unique shape, smooth rounded edges, and large push button with LED light ring, makes this attractive alarm ideal for residential applications.

- Low temperature alert to help protect against freezing pipes
- Works with existing WiFi or ethernet network
- Notifies up to 4 contacts (2 email contacts and 2 text)
- 2 sensor inputs to monitor 2 separate alarm conditions
- No monthly fees/contracts or cellular connection needed
- Great for businesses, rental properties and seasonal homes



 **SJE RHOMBUS**®



U.S. Patent No.
D874,960

Learn more by watching our video at www.sjerrhombus.com



Yikes! My Vacation Renters Are Abusing the Septic System

Follow these consumer education and maintenance tips to prevent untimely and costly onsite system breakdowns at overused properties

By Sara Heger

According to the AirDNA website, the U.S. short-term rental supply hit record highs in 2022. That means more of your customers may be renting out their vacation homes either part time or full time. This can create numerous challenges for their property — including their septic system. Some of these challenges may require more frequent maintenance and management. Unaware property owners could irreparably damage their system if these issues are not addressed.

The first concern is an overall increased hydraulic loading. Typically, short-term rentals through AirBnB, VRBO, HomeAway and other listing services note a maximum number of people who can sleep in the home along with the number of bedrooms and bathrooms. There are often multiple mattresses in bedrooms and pull-out sofa beds to maximize the occupancy. As occupancy increases so does general wastewater usage from toilet flushing, bathing and laundry.

Owners should be encouraged to not exceed the typical assumption of maximum occupancy of two people per bedroom.

PREVENTIVE MEASURES

Owners of rental properties can upgrade fixtures to reduce overall water usage. Toilets are by far the main source of water use in the home, accounting for nearly 30% of an average home's indoor water consumption. Older, inefficient toilets use as much as 6 gpf. Replacing old with low flow or dual flush toilets can dramatically reduce water usage to 1.6 gpf or less. The WaterSense label is used on toilets that are independently certified to meet criteria for both performance and efficiency.

Household leaks can also add a lot of extra water, and toilets are often the culprit. When toilets have a leak, it is most often due to an old or worn-out toilet flapper (valve seal). Flappers are inexpensive rubber parts that can build up minerals or decay over time. Also in the bathroom, installing low-flow showerheads and faucets can reduce the hydraulic load. Shower heads with the WaterSense label ensure these products provide a satisfactory shower that is equal to or better than conventional showerheads on the market while using 2.0 gpm or less.

» Vacation rental companies often inflate the occupancy limits for cabins utilizing septic systems. Tell your customers who rent these properties to set limits to match the gpd rating of the system. (Photo courtesy of Sara Heger)

When lower-flow fixtures are installed, concentrations of contaminants will increase. When systems are sampled to determine concentrations, the overall mass loading should be considered, which takes into account both the volume and concentration of the loading. When less water is used there are also potential concerns with older building sewers and collection systems.

With less water there is greater opportunity for buildup with piping and increased likelihood of clogs. With systems that routinely plug it is best to “camera” the line to see the blockage or break to determine where it is located and determine if replacement is needed.

Second only to bathrooms, the second biggest residential use is laundry. Older washing machines can use 40 gallons per load, while new washing machines can use as little as 10-15 gallons per load. (Look for the Energy Star label). If they have high-efficiency clothes washers, provide detergents specifically formulated for these types of machines and only use the required amount to get clothing and bedding clean which is often less than recommended, particularly with soft water.



POST INSTRUCTIONS

The second concern is peak loading of water and cleaning products.

There are two common types of short-term rentals — ones that book weekly and others that will rent for as short as one night. In either case, when one rental party leaves the entire home is cleaned top to bottom and all the laundry is typically done in a short period of time. During the COVID-19 pandemic, many rental properties increased use of anti-bacterial and disinfecting products.

Owners should be encouraged to limit the use of sanitizing products. Particularly with larger homes and large parties, the bedding and towels should be swapped out with clean ones and the laundry done at an alternate location such as a laundromat. Days with large flows have the risk of causing turbulence in the septic tank, which can cause the sludge and scum to reach downstream components.

Grease, oils and fats may be dumped down the drain. **Owners of rental properties should not install garbage disposals, and educate renters on the proper way to discard excess food waste.**

During these high flow events the hydraulic retention time of advanced treatment systems will be reduced and soil treatment system can be overloaded. If a septic system is set up for time-dosing, alarms may go off alerting of high water levels, which renters typically ignore.

The third concern is having renters who do not understand how septic systems work and the limitations and rules around proper use. The largest challenge is often flushing of items that do not decompose, such as sanitizing wipes, dental floss, paper towels, cigarettes, feminine products, diapers, etc. Property owners should have signs posted informing renters of proper disposal of these items in the garbage.

Another issue is the amount of food waste discharged to the system. Often with groups, large meals are prepared, adding a lot of food waste during the cooking and cleanup. Grease, oils and fats may be dumped down the drain. Owners of rental properties should not install garbage disposals, and educate renters on the proper way to discard excess food waste.

The U.S. Environmental Protection Agency has developed outreach materials that can be used to help educate rental guests with tips on what to put (or not put) down the sink and/or drain. See www.epa.gov/septic/owners-rental-property-septic-systems/

FREQUENT INSPECTIONS

On the management and maintenance side of things, heavily used rental properties should have more frequent service visits. These visits can help alert owners of system abuse and needed maintenance before serious problems arise. On conventional systems, annual service visits are advised to measure the accumulation of sludge and scum, along with an evaluation of overall system performance. Advanced treatment systems may also need increased maintenance. □



BioBarrier®
MEMBRANE BIOREACTOR

It's *TIME*
for an upgrade!

BioBarrier® is a Membrane Bioreactor (MBR) designed to meet the most stringent wastewater treatment requirements for BOD, TSS, and TN. Depending on local regulations, the system may also reduce the size of the drain field.

BIO MICROBICS
BETTER WATER. BETTER WORLD.®

1-800-753-3287
www.biomicrobics.com
sales@biomicrobics.com

©2023 BioMicrobics Inc. All Rights Reserved.





Timed Dosing Is Key to Treatment Efficiency for a Church System

Spreading out the flow from two days of services allows downsizing the drainfield, saving this Arkansas congregation money

By Tim Dobbins

▲ Tanks and drainfield for the NewLife Christian Church in Gravette, Arkansas, were placed about 150 feet from the church building. From the church the site was naturally lower, so pipes automatically had a good pitch. (Photos courtesy BBB Septic and Portable Toilets)

When NewLife Christian Church built a second campus in Gravette, Arkansas, it needed a wastewater system to serve the congregation.

The church, its website explains, had reached a physical limit at its campus in Bella Vista, Arkansas. That building is in a suburban area, was already holding four weekly services, had an offsite parking lot and was using a shuttle bus to accommodate congregants. So church leaders bought 15 acres beside a bypass freeway in Gravette, about 7 miles west, and erected an 18,000-square-foot building.

Church services are primarily on Sundays and Wednesdays, and in line with regulations, designer and professional engineer Rick Hudson planned for a weekly discharge of 2,250 gallons, says Piper Satterfield, septic system design specialist at BBB Septic & Portable Toilets in Bentonville, Arkansas.



◀ Pipe for the NewLife church system ran about 150 feet from the building to the spot where the tanks and drainfield were placed. It was naturally lower so pipes automatically had good pitch.

▼ Brook Cannedy, senior installer for BBB Septic is at the controls of a Bobcat excavator backfilling at the treatment and dispersal site at NewLife Christian Church in Gravette, Arkansas.



Tanks in series

Wastewater leaves the building in a 4-inch schedule 40 PVC pipe that runs about 150 feet to a pair of 2,000-gallon tanks connected in series. The first tank is for trash and settling. On its outflow is a Zoeller WW4 effluent filter and an APak filter alarm. The second tank doses the drainfield.

Because the building is fully occupied only two days each week, the designer chose a large equalization volume and a smaller drainfield with a timed dosing system to disperse effluent over the course of a week, Satterfield says. A Clarus Simplex 10-0684 panel (Zoeller) runs the system, and a Zoeller 282 pump moves the wastewater from the dosing tank to the drainfield. Every eight hours, the pump delivers a 150-gallon dose, for a total daily volume of 450 gallons.

The drainfield was built using six, 100-foot-long trenches fitted with Infiltrator Quick4 equalizer 24 low profile chambers installed 10 feet on center. Use of a timed-dosing system significantly reduced the amount of space required to dispose of effluent, Satterfield says.

Under current regulations, an untimed system would have had to accommodate the maximum daily estimated water use of 1,500 gpd, which would have required a drainfield of 1,705 linear feet. The smaller

System Profile

Location:	Gravette, Arkansas
Facility served:	Church
Designer:	Rick Hudson, P.E., Centerton, Arkansas
Installer:	BBB Septic and Portable Toilets, Bentonville, Arkansas
Type of system:	Septic system with timed-dose drainfield
Site conditions:	Gravelly silt loam
Hydraulic capacity:	1,500 gpd

drainfield saved not only space but also money, Satterfield says. Church staff just have to remember to clean the effluent filter every six months, she adds.

SYSTEM PROFILE



◀ Townsend, left, and Hammond, right, connect tanks at the NewLife Christian Church project in Gravette, Arkansas.

▼ Hammond sets up controls for the NewLife Christian Church system. Water inside the riser came from heavy rains that flooded the tanks.



“The effects of the rain lasted for the entire install.”

Brook Cannedy

Because of the length of pipe run from the building to the tanks, two cleanouts were required. One is at the plumbing stub out, and the other is midway along the run.

The BBB crew did its work with Bobcat E42 and E50 mini-excavators. Tanks came from Gryner Tanks Inc. in Van Buren, Arkansas.

Rain, rain, rain

It was not a complicated job, but it was a big job, says Brook Cannedy, senior installer for BBB. Most installers like one- to two-day jobs, he says, but this one took about a week. It was also helped by the company's E50 mini-excavator. It's one of the larger mini-excavators, Cannedy says, and it allowed technicians to dig down 10 feet to set the 8-foot-tall, 2,000-gallon tanks used for this system.

The church parking had its gravel base in place and was a high spot, so it was a natural staging area, Cannedy says. Being high was an advantage when the rains came.

tions, about 4 inches of rain fell in five hours, Cannedy says. Also, there was what technicians came to call “the moat.” It was a stormwater drainage ditch about 30 feet wide and 5 feet deep, and it ran along the edge of the parking lot and wrapped around the building.

The line connecting the church building to the tanks crossed the moat, and when the rain came, water from the moat flooded the ditches where pipes were meant to go. So much rain came so quickly that water flowed through risers and into tanks, “which didn't cause a problem because we needed to fill those tanks with water anyway,” Cannedy says.

“The effects of the rain lasted for the entire install,” he says. After putting in all the components, the crew had to wait for 10 days until the soil was dry enough to install the drainfield. Technicians worked quickly to place the Infiltrator chambers before the next set of storms and flooding blew in the following day, Satterfield says. ◻

On one of the main work days, when technicians were laying pipe and making connections,

featured products

Bobcat Corporate
800-743-4340
www.bobcat.com

Infiltrator Water Technologies, LLC
800-221-4436
www.infiltratorwater.com
(See ad on page 3)

Zoeller Pump Company
502-778-2731
www.zoellerpumps.com

Register now at theutilityexpo.com
and save 20% with code **PARTNER20**



SEPTEMBER 26-28 | 2023 | LOUISVILLE, KY



Where the Utility Industry Goes to Grow

The largest and fastest growing trade show for the utility infrastructure and construction industry is back. Experience the latest technologies, innovations and trends through live talks and hands-on demos in our expansive layout.

1.4 MILLION

square feet
of exhibits

OVER 19,000

attendees

32 ACRES

of equipment
and services

Alarms, Controls and Monitoring Systems

By Craig Mandli

ALARM SYSTEMS/COMPONENTS



Anua i/o.site

The **i/o.site** system from **Anua** provides performance monitoring of electromechanical components while keeping everyone connected to information through a simple web interface. It can remotely monitor any blower, aerator, pump, float switch or motor. It tracks water use, catches motor issues before failure, uses any mobile device or computer and monitors any powered

onsite system. **336-547-9338; www.anuainternational.com**

Liberty Pumps NightEye

The **NightEye** app and cloud-based system from **Liberty Pumps** allows internet connection of a pump via the home's wireless router and provides alarm and other performance information to a mobile device. The system sends information via text, email and push notifications, to up to four different address/phone numbers. Connected products include the ALM-EYE series indoor pump alarm, 442 battery backup pump systems and the SumpJet water powered backup pump. The system is easy to use and set up through a portable device, according to the maker. Download the free app, register the device and connect to the equipment using BlinkUp technology. The app is compatible with iOS and Android devices. There are no subscription or service fees. **800-543-2550; www.libertypumps.com**



Polylok 3014AB filter alarm (Smart Alarm)

The **3014AB filter alarm (Smart Alarm)** from **Polylok** is a wired indoor/outdoor filter alarm providing audiovisual warning notifying operators that a tank filter needs cleaning. The Smart Alarm Switch activates when the filter cartridge is near capacity (approximately 90% full) with solids. The Smart Alarm Switch installed in the filter sends a signal to the panel. It offers a manual alarm test

switch and horn silence, an alarm horn rated to 82 dB at 10 feet, and 15 feet of cable, with longer lengths available. **877-959-7751; www.polylok.com**

SJE Rhombus Xpert Alert RF

The **Xpert Alert RF** system from **SJE Rhombus** uses LoRa radio technology to wirelessly connect the control panel to an indoor alarm system. With a range of up to 200 feet, it provides the convenience of indoor notification without having to tear up the yard to install wires. It may be used for lift pump chambers, holding tanks, sewage, agricultural and other water applications. This system uses the alarm, an RF transceiver module that attaches to the indoor alarm and an RF panel module installed in the outdoor panel. The RF transceiver and RF panel modules wirelessly connect the alarm to the control panel. It is also available with the Xpert Alert WiFi alarm, which provides 24/7 notification via text and/or email. The alarm is CSA certified, and the RF modules are UL/cUL listed. **888-342-5753; www.sjerrhombus.com**



ELECTRICAL PANEL

Franklin Electric Cerus X-Drive

Designed for variable torque applications up to 600 hp, the **Cerus X-Drive** is **Franklin Electric's** all-inclusive drive solution for a variety of markets. It is available as a standalone drive and in multiple enclosed configurations, the panels are designed to be durable, with every detail and component centered around the application's specific requirements. It can be paired with a choice of motors and pumps to maximize performance of the application. **866-271-2859; www.franklinengineered.com**



PUMP CONTROL PANELS

Alderon Industries FLEX

The **FLEX** control panel from **Alderon Industries** provides flexibility for onsite conditions, easily converting from timed to demand dosing with a push of a button. It can be operated using float switches or a 4-20 mA submersible pressure transducer. The 16x2 OLED menu system screen provides quick access to pump history, float status, alarm



events, system statistics and programmable settings. The following parameters are stored as both non-resettable and resettable (to zero): pump elapsed time, pump counts, high and low/off level counts, and normal/override counts. In timed dosing mode, settings are available in hours, minutes and seconds. It is available in single phase, 120/240VAC, 20 amps, simplex and duplex, with a Type 4X-rated enclosure for indoor and outdoor applications (three phase available). It can be customized with various component options, float switch configurations, and Alderon's cloud-based remote monitoring. **218-483-3034; www.alderonind.com**

Delta Treatment Systems Alarm and Control Panels

Delta Treatment Systems Alarm and Control Panels are designed for easy installation and operation and provide intelligent monitoring and alarm functions for residential and commercial wastewater treatment systems. Panels are available in several models engineered for use with Delta's advanced wastewater treatment systems and custom packaged plants. All panels can be supplied with UL and/or Canadian UL 508A listings upon request and customized control panels are available. The CP20/40/50 Series monitors air pumps and effluent pumps on the Whitewater treatment system. The Series CP22 panels monitor the air blower ECOPOD systems with options for controlling and monitoring UV lights for disinfection after treatment. Series CP23 alarm and control panels monitor the air blower on larger ENVIRO-AIRE systems. Series CP8000/9000 control the ECODRIP Engineered Disposal Systems' headworks filter system and effluent dosing pump using a PLC for time dosing drip disposal fields. **800-221-4436; www.infiltratorwater.com**



Orenco Systems 4-in-1 Controller

The **4-in-1 Controller** from **Orenco Systems** supports numerous electrical configurations and dosing schedules within a single panel. Both simplex and duplex models are available and can be configured in the field for timed or demand dosing. While the control circuit operates on 120-volt power, the pump circuit is dual-rated for 120- or 240-volt power, meaning installers and service providers can reduce their panel inventories for new installations and repairs. It includes a programmable logic unit with multiple timing intervals for changing flow conditions and has a built-in elapsed-time meter and counter. It also displays float position and has a float error indicator. Each panel includes a reference chart to assist with troubleshooting during installation and testing as well as wiring diagrams. It is completely touch-safe. **877-257-8712; www.orenco.com**



SPI 50B019-120-240 DD

The **50B019-120-240 DD** control panel from **SPI** is a duplex timed-dosing panel for residential or commercial applications. It can be used with 120- or 240-volt power, and accommodates two dosing pumps controlled by a repeat-cycle timer. It has a durable, weather-resistant, NEMA 4X polycarbonate enclosure with SST latches; large, easy-to-access terminal block; circuit breakers for the pumps and control circuits; a rugged, externally mounted, UV-resistant alarm light; audible alarm and run-mute-test switch with UV-resistant sealing boot; definite purpose motor contactors; alternating relay; and pump hand-off-auto switches. Compressor hookups are available. Wiring schematic and detailed connection diagrams are provided, as well as mounting feet for the enclosure. It is UL-listed. **419-282-5933; www.septicproducts.com** □

CASE STUDY



Problem: A logistics center in Southern California included occupancy and needed an operating lift station to move in residents. The city where the development was located determined the final controls for the project, which included a SCADA system integrated into the city's overall SCADA controls system. As this was a sophisticated control panel, with custom programming, the lead time for this control panel was longer than desired by the developer.

Solution: With the city's approval, Romtec Utilities offered a temporary control panel while waiting for the permanent panel with the standard controls that met the city's needs.

Result: This allowed the developer to move in tenants faster while simultaneously satisfying the owner of the pumping system and maintaining the project timeline. **541-496-3541; www.romtecutilities.com** □

Massachusetts' New Onsite Regulations Will Push Improved Treatment

Proposed nitrogen-removal requirements are controversial with homeowners, but will be positive in the long run

Compiled by Betty Dageforde

In Snapshot, we talk to a member of a state, provincial or national trade association in the decentralized wastewater industry. This time we visit a member of the Yankee Onsite Wastewater Association.

Stephen Nelson president

Business: Clearwater Recovery, Rockland, Massachusetts

Age: 73

Services we offer: We specialize in operations and maintenance service for alternative advanced treatment units. We're a distributor for Jet in Massachusetts but we service pretty much any of the aerobic systems.

Years in the industry: I've been doing this since I was about 12, working for my dad. He was a residential homebuilder and did a lot of septic installs. I did installations for probably 30 years. Occasionally we'd get into a recession, and when I turned 40 there was no work to be had. I went to work at a treatment plant and did that for eight years, which I really liked. Then in 1995 Massachusetts revised their septic code and started talking about the innovative systems. Timing-wise it was good for me because by then I had met a lot of the manufacturers. I told Jet I thought I could get their treatment system approved in Massachusetts. I spent the next two years sending the Massachusetts Department of Environmental Protection enough literature that they finally did approve them. I started Clearwater Recovery in 1997.

Association involvement:

I joined the Yankee Onsite Wastewater Association when they started in 2006. I haven't had time to be as active as I'd like but I am on the board of directors and have tried to recruit people. All my employees are members. I'm also getting more involved with the National Onsite Wastewater Recycling Association which I joined in 1998. And I spent 22 years on the local board of health, which was important because I'd go to seminars and network with health agents and board members.

Benefits of belonging to the association:

One of the biggest benefits is the courses we offer for continuing

education, which more and more towns are requiring. Massachusetts doesn't do a lot with counties like most states do. Each town has what they call home rule. We have 351 towns that can each add their own rules to the state regulations. We're trying to standardize that a little bit.

Biggest issue facing your association right now:

There's a labyrinth of rules and regulations at the state level. And now there's a new mandate coming down regarding nitrogen removal, causing a huge outcry from homeowners. That outcry also happened in 1995 when the code was revised — which I understand, but that revision opened up opportunities for people with the innovative/alternative systems. The best part of that is we can make permanent repairs to septic systems. Back in the day, I had places I'd go every three or four years and just add a new leach trench. It's not done that way anymore. So I think it's an improvement. I just think the state could be a little less heavy-handed with how they do things.

Our crew includes:

In the field are my son Ed Nelson, Zach Kalaijian and Dan Grant, all licensed operators. In the office we have our office manager Laura Robinson and administrative assistants Kellie Merry and Erin Ward. We also work with a number of independent operators, pump technicians and pumping companies.

Typical day on the job:

I do all the accounts payable. I work with Laura on scheduling and alarm responses. I make sales calls and do a little bit of consulting. We've been working with alternative systems for 26 years. We get calls from engineers and others asking, "What do you think of this idea?" and I'm always happy to meet with them. And I still like to get out and run the equipment when I can. I'd rather be outdoors than indoors.

The job I'll never forget:

We just finished a job at my brother's summer cottage. It's on a freshwater pond and has a 40% slope to the waterfront. We were about 25 feet from the water's edge and there were three private wells barely 50 feet from the proposed leachfield. We designed an alternative system to minimize the size of the leachfield and used a plastic Jet tank alternative with an Infiltrator leachfield.

» The Clearwater Recovery crew includes, from left, Laura Robinson, Dan Grant, Erin Ward, Stephen Nelson, Kellie Merry, Edward Nelson and Zach Kalajjian.



My favorite piece of equipment:

I bought a Kubota L47 backhoe six years ago to do soil evaluations. That’s the best backhoe I’ve ever operated. When I run it, I call it backhoe therapy.

Most challenging site I’ve worked on:

Some of the sites we run into in Plymouth, Massachusetts, are either all sand or you must excavate 30 feet of silt loam to get down to sand and then refill the site. We did a site that had 30 feet of clay. We did find sand but couldn’t excavate it because by the time we did that it probably would have taken the house into the hole. By then there were several systems that allowed you to use the B subsoil horizon. We worked with Anua and installed their peat filters on a sand bed on the subsoil. That system has been functional for more than 10 years.

Oops, I wish I could take this one back:

Some drip irrigation systems have proven to be problematic and not easily fixed. It’s a real challenge to correct the issues after everything’s been installed. I think drip irrigation has its place but it shouldn’t be placed everywhere.

The craziest question I’ve been asked by a customer:

I often get the question from people with systems past their prime and no longer functional — “Is there anything I can do?” The answer is, “Yes. You will probably need a new system.”

If I could change one industry regulation, it would be:

Massachusetts requires a comprehensive Title V inspection at the time of property transfer, which is very involved and expensive — \$500-plus. I would change that for advanced systems. We have clients who have kept to their service schedule where we go out twice a year and do almost a complete Title V inspection so I don’t think they should have to do that at time of transfer.

ILLUMI-JET UV DISINFECTION UNIT®

MODEL 952

- UL listed as a NEMA 6p enclosure (watertight submergence test)
- Install directly in ground or in pump tank on the effluent line
- Complete disinfection without the use of chemicals
- Hermetically sealed electrical components
- High capacity disinfection reservoir
- Kapton® seals improve serviceability
- Rated treatment of 10 gallons/min

Easy to service

Rugged construction

Dependable electrical design

Innovative disinfection design

**Replacement parts to fit most UV disinfection units*



www.jetincorp.com





OBX-Ocean Front
12 bedroom home 1680 GPD

Reliable - Simple Wastewater Treatment

NSF
Standard
245/350
Reuse

703-753-4770
www.eztreat.net

SNAPSHOT

Best piece of small business advice I've heard:

My dad always said, "Pay your bills right away, they don't get any smaller sitting on the desk."

If I wasn't working in the wastewater industry, I would:

I've worked in different aspects of this industry my whole life and I can't think of any place I'd rather be.

Crystal ball time - This is my outlook for the wastewater industry:

In our state, the outlook is good. Going to the next level of nutrient removal and treatment levels is a good thing. And once things calm down about these new regulations coming up, I think we're into a whole new phase and we'll see an improved outlook. We're also getting a better handle on keeping qualified people in the industry. Requiring continuing education is not a bad thing. It keeps it more professional. □

Would you like to see someone in your state or provincial wastewater trade association profiled in Snapshot?

Send your suggestions to Jim Kneiszel at editor@onsiteinstaller.com.

WIESER
CONCRETE

WIESERCONCRETE.COM
Family Owned Since 1965

NPCC
CERTIFIED PLANT

Contact Wieser

ONSITE
installer

It's your magazine.

TELL YOUR STORY.

At *Onsite Installer*, we're looking for installation companies with an interesting story to tell. If you'd like to share your story, send us a note at editor@onsiteinstaller.com.

Wholesale
SepticSupply

📞 **936-681-8198**

📧 info@wholesalesepticssupply.com

🌐 wholesalesepticssupply.com

Call for pricing!

Customer Focused, Product Driven!

FREE 

SHIPPING

Within the Contiguous
United States*

Bulk Prices Available!



5 YEAR WARRANTY
80R2 Model



Pk of 10 \$150.00



Smart & Reliable

Small footprint
Simple plug and play installation
#1 Nitrogen removal technology



Real life. Real treatment.

 **FujiClean USA™**

📞 | 207-406-2927

🌐 | fujicleanusa.com

✉ | info@fujicleanusa.com

Serving the Industry

Visit your state and provincial trade associations

ALABAMA

Alabama Onsite Wastewater Association;
www.aowainfo.org; 334-396-3434

ARIZONA

Arizona Onsite Wastewater Reclamation Association;
www.azowra.org; 928-443-0333

ARKANSAS

Arkansas Onsite Wastewater Association;
www.arkowa.com

CALIFORNIA

California Onsite Wastewater Association;
www.cowa.org; 530-513-6658

COLORADO

Colorado Professionals in Onsite Wastewater;
www.cpow.net; 720-626-8989

CONNECTICUT

Connecticut Onsite Wastewater Recycling Association;
www.cowra-online.org; 860-267-1057

DELAWARE

Delaware On-Site Wastewater Recycling Association;
www.dowra.org

FLORIDA

Florida Onsite Wastewater Association;
www.fowaonsite.com; 321-363-1590

GEORGIA

Georgia Onsite Wastewater Association;
www.georgiaonsitewastewater.com; 706-407-2552

GEORGIA

F.O.G. Alliance;
www.georgiafog.com

IDAHO

Onsite Wastewater Association of Idaho;
www.owaidaho.org; 208-664-2133

ILLINOIS

Onsite Wastewater Professionals of Illinois;
www.owpi.org

INDIANA

Indiana Onsite Waste Water Professionals Association;
www.iowpa.org; 317-965-1859

IOWA

Iowa Onsite Waste Water Association;
www.iowwa.com; 515-225-1051

KANSAS

Kansas Small Flows Association;
www.ksfa.org; 913-594-1472

KENTUCKY

Kentucky Onsite Wastewater Association;
www.kentuckyonsite.org; 855-818-5692

MAINE

Maine Association of Site Evaluators;
www.maine.com

Maine Association of Professional Soil Scientists;
www.mapss.org

MARYLAND

Maryland Onsite Wastewater Professionals Association;
www.mowpa.org; 443-570-2029

MICHIGAN

Michigan Onsite Wastewater Recycling Association;
www.mowra.org

Michigan Septic Tank Association;
www.msta.biz; 989-808-8648

MINNESOTA

Minnesota Onsite Wastewater Association;
www.mowra-mn.com; 888-810-4178

MISSISSIPPI

Mississippi Pumpers Association;
www.mspumpersassociation.com; 601-249-2066

MISSOURI

Missouri Smallflows Organization;
www.mosmallflows.org; 417-631-4027

NEBRASKA

Nebraska On-site Waste Water Association;
www.nowwa.org; 402-476-0162

NEW ENGLAND

Yankee Onsite Wastewater Association; (Massachusetts, Connecticut, Maine, New Hampshire, Rhode Island and Vermont)
www.yankeeonsite.org; 781-939-5710

NEW HAMPSHIRE

New Hampshire Association of Septage Haulers;
www.nhash.com; 603-831-8670

Granite State Onsite Wastewater Association;
www.gsdia.org; 603-228-1231

NEW MEXICO

Professional Onsite Wastewater Reuse Association of New Mexico;
www.powranm.org; 505-989-7676

NEW YORK

Long Island Liquid Waste Association, Inc.;
www.lilwa.org; 631-585-0448

NORTH CAROLINA

North Carolina Septic Tank Association;
www.ncsta.net; 336-416-3564

NORTH DAKOTA

North Dakota Onsite Wastewater Recycling Association
701-650-8792

OHIO

Ohio Onsite Wastewater Association;
www.ohioonsite.org; 740-828-3000

OKLAHOMA

Oklahoma Onsite Wastewater Association,
918-727-7113

OREGON

Oregon Onsite Wastewater Association;
www.o2wa.org; 541-389-6692

PENNSYLVANIA

Pennsylvania Association of Sewage Enforcement Officers;
www.pa-seo.org; 717-761-8648

Pennsylvania Land Improvement Contractors of America;
www.pennsylvanialica.com; 724-866-1082

Pennsylvania Onsite Wastewater Recycling Association;
www.powra.org

Pennsylvania Septage Management Association;
www.pasma.net; 717-763-7762

TENNESSEE

Tennessee Onsite Wastewater Association;
www.tnonsite.org

TEXAS

Texas On-Site Wastewater Association;
www.txowa.org; 409-718-0645

Education 4 Onsite Wastewater Management;
www.e4owm.com; 713-774-6694

UTAH

Utah Onsite Wastewater Association (UOWA);
www.utahonsite.org; 385-501-9580

VIRGINIA

Virginia Onsite Wastewater Recycling Association;
www.vowra.org; 540-377-9830

WASHINGTON

Washington On-Site Sewage Association;
www.wossa.org; 253-770-6594

WISCONSIN

Wisconsin Onsite Water Recycling Association;
www.wowra.com; 888-782-6815

Wisconsin Liquid Waste Carriers Association;
www.wlwca.com; 888-782-6815

NATIONAL

Water Environment Federation;
www.wef.org; 800-666-0206

National Onsite Wastewater Recycling Association;
www.nowra.org; 978-496-1800

National Association of Wastewater Technicians;
www.nawt.org; 800-236-6298

CANADA

ALBERTA

Alberta Onsite Wastewater Management Association;
www.aowma.com; 877-489-7471

BRITISH COLUMBIA

British Columbia Onsite Wastewater Association;
www.bcossa.org; 778-432-2120

Stock Up On Seal-R™ Lids, Safety Lids, Rings & Hinge Systems

(Hinges Available On 24"-42")



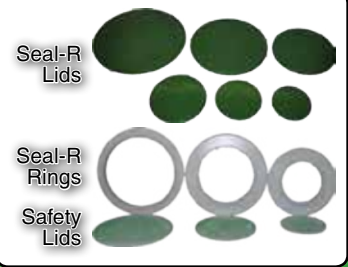
**Seal-R™
Sizes:**
12", 15", 18",
24", 30",
36", 42"

↑ RISER:
Corrugated
dual-wall
plastic pipe.
↑ Inner safety lid.

Get the Exact Size for Each Job!

Plastic riser pipe gives an exact height each time. Try our system and never have to carry concrete pipe and lids again. Save time by not having to assemble multiple sections.

- Easy 10 minute installation!
- Secure fit for all systems!
- Made & sold by septic installers!
- Prevent ground water infiltration and save money at the same time!



Customized Lids

Add Your Company Information



Est. 1998 • Manufacturers of Seal-R™ Products
888-606-1998 | www.seal-r.com
brenlin@frontiernet.net

Made in the USA

WCOWMA Onsite Wastewater Management of B.C.;
www.wcowma-bc.com; 877-489-7471

MANITOBA
Manitoba Onsite Wastewater Management Association;
www.mowma.org; 877-489-7471

Onsite Wastewater Systems Installers of Manitoba, Inc.;

NEW BRUNSWICK
New Brunswick Association of Onsite Wastewater Professionals;
www.nbaowp.ca; 506-455-5477

NOVA SCOTIA
Waste Water Nova Scotia;
www.wwns.ca; 902-246-2131

ONTARIO
Ontario Onsite Wastewater Association;
www.oowa.org; 855-905-6692

Ontario Association of Sewage Industry Services;
www.oasisontario.on.ca; 877-202-0082

SASKATCHEWAN
Saskatchewan Onsite Wastewater Management Association;
www.sowma.ca; 877-489-7471

CANADIAN REGIONAL
Western Canada Onsite Wastewater Management Association;
www.wcowma.com; 877-489-7471

If you would like your wastewater trade association added to this list, send contact information to editor@onsiteinstaller.com



T&T Tools, Inc.
800.521.6893

Probes ▼ Hooks

T&T Tools, Inc.

Probes ▼ Hooks



Hooks...

- Heat treated for long life
- Manhole Cover Hooks
- Septic Tank Lid Hooks
- Many styles available
- "T" handles for two hands or compact "D" handles

Probes...

- Insulated, Standard and Specialty
- Metal shafts: 3/8 round or hex
- Replaceable hardened tips
- Optional "slide" available to make your probe a mini-slide hammer

Call for a FREE Catalog

www.mightyprobe.com

Email: sales@mightyprobe.com

Fax: 800.521.3260

Florida Plan Requiring Five-Year Septic Inspections Fails Again

By David Steinkraus

When the Florida Blue-Green Algae Task Force finished its work a couple of years ago, it recommended septic tanks be regularly inspected. Now that recommendation has been tossed aside by a committee in the state legislature.

A bill to implement the task force recommendation, SB 1538, would have required owners of septic tanks to have inspections at least every five years, reported Florida Politics. In addition, the state Department of Environmental Protection would have phased in the inspection plan over 10 years.

An amendment passed by the Senate Committee on Environment and Natural Resources now limits inspections to large projects. DEP would have to monitor the effectiveness of projects costing more than \$1 million and intended to reduce nutrient pollution. That information would be included in the update for each basin management plan.

The amendment and bill passed the committee with no opposition or debate. The Senate Appropriations Committee on Agriculture, Environment and General Government receives the bill next.

Previous bills to require onsite system inspections died in committee in 2019.

Also under consideration in this legislative session is HB 1379, which focuses on septic tank pollution. For several years Florida residents have seen severe algae blooms that traced back in part to nutrients from septic tanks.

This bill would require nutrient-reducing onsite systems on lots of 1 acre or less if a municipal sewer system is unavailable. Advanced systems would have to reduce nutrient pollution by at least 50% compared to standard septic. New septic tanks would be prohibited within areas covered by a basin management action plan.

Florida Politics quoted Roxanne Groover, executive director of the Florida Onsite Wastewater Association, as saying, “Innovative technologies are enhanced nutrient-reduction systems that haven’t been able to be utilized fully, utilized and approved here in the state of Florida. By working with the department on this process, we’ll be able to expedite and move some of these new technologies into the state.”

Also in the House, HB 827 would expand eligibility for grants to improve wastewater quality. All water bodies in the state would be covered by grants for upgrading onsite systems to advanced nutrient reduction or for connection to a municipal sewer.

Indiana

A bill that would have expanded recognition of the Indiana Onsite Professional Wastewater Association was changed to remove licensing language, but there are limits on local health departments.

Originally the bill said any person licensed in at least one county and certified as an inspector or installer by IOWPA may provide onsite service in any county. That language was removed. Rep. Bob Morris, R-Fort Wayne, who wrote the bill, told the *Indiana Capital Chronicle* that the state will move toward a statewide licensing requirement for installers, but the House is not in agreement with that yet.

Other language in the original bill would require local health departments to issue an onsite permit if a professional soil scientist has said a site is suitable and if a designer, registered engineer, soil scientist or county-licensed inspector or installer has approved the design. A health department would have to withdraw an order to fix a failing system, or undertake a new investigation, if one of those licensed experts has found the system is not failing.

The Hoosier Environmental Council is concerned about the bill, reported the *Chronicle*. The council supported language that would have required an onsite inspection when a property is transferred and that would have created a licensing system for onsite installers. Indra Frank, the council’s director for environmental health and water policy, told a committee that the bill goes beyond allowing appeal of a government decision and puts paid consultants above local health departments.

The bill is HB 1647, and legislators are resolving differences between the Senate and Assembly versions of the bill.

Maryland

The system to permit wells and onsite systems is troubled, but state officials can’t see the extent of the problem because there is no centralized database, reported the *Bay Journal*.

Starting last fall, the Maryland Department of the Environment contracted with workers from Maryland Environmental Services, a separate agency, to help clear a backlog of 56 onsite permits and 94 land evaluations. The onsite backlog was cleared earlier this year.

A varied collection of groups, such as the Maryland Association of Counties, the Maryland Building Industry Association, and Clean Water Action have called on the state to fix a problem causing the delays. Local environmental health staffs have a 40% vacancy rate statewide, and starting pay of \$35,000 is about half the amount offered in private industry.

A bill in the state Senate, SB 830, proposed standardized permit forms, creation of an online system to track permits, and a student loan repayment program for environmental health specialists. When the bill reached the Senate floor earlier this year, what survived was language for a pair of studies: one on staffing needs and the other on shifting permit authority to the state health department.

Arizona

A bill backed by food giant Nestlé could create an entirely new class of water linked to onsite treatment.

The company wants to build a \$700 million plant in the Phoenix suburb of Glendale to make creamer, but the amount of water needed is too much for its supplier. Nestlé is backing SB 1660 that would allow companies to construct an onsite system and send treated water into underground storage, reported KPNX-12. Under current law, companies draw water from a licensed provider, either public or private. Recycled water must be sent back to the licensed provider.

Water experts and cities around Phoenix oppose the bill for two reasons:

First, they say the bill allows companies to acquire a water credit: one gallon of credit for each gallon of recycled water. By applying that credit, a company could draw more water than it is entitled to take. For example, an entitlement of 3,000 gallons could be expanded to 4,000 gallons if a company had a 1,000-gallon credit, and this would allow overuse of the aquifer, opponents say. Second, licensed providers are subject to water quality testing, but companies would not be, and their recycled water discharges could pollute groundwater.

Massachusetts

The Mashpee Health Department on Cape Cod adopted a rule requiring advanced onsite units within 300 feet of wetlands in some cases. Previous

law required advanced systems with UV disinfection with 75 feet of a wetland resource area, reported *The Enterprise* of Falmouth, Massachusetts. The new law requires advanced treatment within 300 feet of those areas for new construction, for any increase in wastewater flow, or an installation or upgrade of a system.

Any advanced unit installed must meet a nitrogen limit of 19 mg/L.

Colorado

La Plata County, in the southwestern corner of the state, is considering a regulation to allow reuse of laundry graywater for landscaping.

A draft regulation is under review by the county manager, and there are plans for a pilot demonstration program, reported *The Journal* of Cortez, Colorado. Graywater would be released into mulch basins.

The Southwest Basin Implementation Plan says the average person in the region uses 198 gallons of water per day. Statewide the average use is reportedly 164 gpd.

Illinois

When the Rutland Village Board rejected a \$5 million state grant to build a sewer system, locals cheered.

The community is completely served by septic tanks with effluent draining to field tiles or drainfields, reported *The Times* of Ottawa, Illinois. One of the trustees voting against the grant said she didn't understand how



Suck It Septic

Pump what you want.
Keep out what you don't.

waste debris filter
reduces persistent hose clogs
saves time on pumping and disposal
made of solid aluminum
fits snug into your standard 3-inch hose

[SUCKITSEPTIC.com](https://www.suckitseptic.com)



KISTNER CONCRETE PRODUCTS Inc.

Commercial / Custom Sizes
Water Tight Construction
10,000 - 26,000 Gallons +
Large scale connected series or parallel tank configurations for greater gallon requirements

Nationwide Service
Septic Tanks - Sand Filters - Grease Interceptors - Bio-Fast Tanks - Nibbler Tanks
Storm Water: Retention, Detention, Recharge and Storage

Call our engineering staff today to review your application!

Lockport, NY • Tel: (716) 508-5550 • www.Kistner.com

RULES AND REGS

the village would afford it.

To pay for the estimated \$5.65 million sewer project, the village of about 250 people would have had to borrow at least \$650,000, and it would have faced monthly maintenance fees of \$5,300. Illinois Environmental Protection Agency would not allow the village to use money for onsite system repairs or upgrades.

At a previous meeting, a specialist with the Illinois Rural Water Association said wastewater is discharging into a creek, and a lack of municipal sewer discourages new businesses and home construction.

California

Alameda County staff have been instructed to develop a plan to extend municipal sewer into the county's wine country, reported *The Independent* of Livermore, California.

The county covers the eastern shore of San Francisco Bay and a portion of the coastal hills that separate the bay area from the state's central valley. Wine growers are convinced that without a 5-mile sewer extension, their business will fade.

A grower said there are only 2,100 acres in fruit, down from a high of 4,000, yet still below the 5,000 acres projected by a development plan. A study from Tri-Valley Conservancy and University of California-Davis released in 2022 said the area needed infrastructure to attract mid-size vineyards, hotels and spas.

Cost estimates for the project are uncertain but may be \$18 million to \$20 million, to include replacing 110 failing onsite systems in Livermore to protect groundwater quality.

New Hampshire

The town of Fairlee adopted a rule to gain more control over installation of onsite systems. Members of the Selectboard say state regulations don't go far enough to protect water quality, reported the *Valley News* of West Lebanon, New Hampshire.

To be approved, any onsite system should be at least 150 feet from the main high watermark, and any previous system should be properly decommissioned, says the rule adopted by the board. The state doesn't require specific setbacks, said Peter Berger, a member of the Selectboard.

Part of the reason for this change, he said, is the lack of an inventory of onsite systems and the existence of nonconforming uses that predate state responsibility for onsite systems.

Last summer, Lake Morey had an algae bloom that town officials said was the worst in recent memory. □

"Rules and Regs" is a monthly feature in *Onsite Installer*™. We welcome information about state or local regulations of potential broad interest to onsite contractors. Send ideas to editor@onsiteinstaller.com.

ONSITE installer classifieds

Place your ad online at: www.onsiteinstaller.com

BUSINESSES

www.RooterMan.com. Franchises available with low flat fee. New concept. Visit web site or call **800-700-8062.** (PBM)

ROLL-OFF TRAILERS

2001 ESP Roll-off trailer: Two (2) container roll-off trailer good brakes, tires, frame. etc. KLM Companies **617-909-9044.** (PBM)

TOOLS

Crust Busters - Portable, lightweight machine guaranteed to mix up septic tanks and grease traps! Save time and money! **www.crustbusters.com,** 888-878-2296. (PBM)

ALITA® AIR PUMPS

- ◆ Durable, Efficient and Reliable
- ◆ Wide range of pump capacities
- ◆ Genuine uninflated specs
- ◆ Low maintenance
- ◆ UL certification, outdoor rating
- ◆ RoHS 2 & 3 compliant



ALITA INDUSTRIES INC.

626-962-2116 • info@alita.com • www.alita.com

HAVE SOMETHING TO SELL?

LIST IT IN THE PAGES OF **ONSITE INSTALLER** AND ONLINE!

onsiteinstaller.com/classifieds/place_ad



This is what it would look like if we printed **onsiteinstaller.com** thousands of stories, products and ideas

Get access to everything we can't fit in the magazine. Additional stories, videos, news briefs and other great information that lets you get the most out of *Onsite Installer*.

www.onsiteinstaller.com

INDUSTRY NEWS

Mike Flynn retires from Felling Trailers

Felling Trailers' northeastern regional sales manager, Mike Flynn, will retire after 22 years as a sales rep with Felling Trailers. In 2000, Flynn started covering Pennsylvania, New York, Vermont, New Hampshire, Maine, Massachusetts, Connecticut, Rhode Island, New Jersey, Maryland, Washington, D.C., and Delaware. He grew the company's dealer base and brand awareness, helping the company grow to 50 dealers in the northeast region.



Mike Flynn

Franklin Electric announces 2022 recipients for outstanding achievement

At its annual Commercial Summit, Franklin Electric announced the winners of the 2022 awards for outstanding performance, sales and customer support. Recognized were U.S./Canada Salesperson of the Year Aaron Jackson; U.S./Canada Field Service Engineer of the Year Walter Leake; U.S./Canada Team of the Year Fleet (part of the industrial and engineered systems business unit); Latin America Sales Leader of the Year Luis Caso; and Latin America Team of the Year Argentina.

Anua acquires Sim/Tech Filter

Anua International has acquired all Sim/Tech Filters' assets. Sim/Tech will continue to operate as usual in Boyne City, Michigan. Current staff are being retained, including Operations Manager Darrell Maves and Plant Manager Chris Jones. Sim/Tech Filter manufacturing will be under the direction of Chief Operating Officer Marcelo Cassani. □





JOIN

THE CONVERSATION.

THE CAMARADERIE.

THE COMMUNITY.

ONSITE
installer

-  facebook.com/OnsiteInstaller
-  twitter.com/OnsiteInstaller
-  youtube.com/OnsiteInstaller
-  linkedin.com/company/onsite-installer-magazine

SPI

THE MOST
COMPLETE
LINE OF

- SYSTEM ALARMS
- FLOAT SWITCHES
- ON-SITE ACCESSORIES
- CONTROL PANELS

CALL TODAY
419.282.5933
SEPTICPRODUCTS.COM
SALES@SEPTICPRODUCTS.COM

24 HOUR SHIPPING
ON ALL CATALOG ORDERS!

Roth
MULTITANK

Septic Tanks • Water Cisterns
Pump Tanks • Holding Tanks
Rain Water Harvesting

Multi Usage

Multi Layer

Multi Coverage

- Inner layer of FDA approved virgin HDPE, two inside layers of PE for improved stability, plus one outer layer of black and UV-stabilized PE
- Lifetime* corrosion protection and 5 years of labor insurance
- Strongest & heaviest poly tank on the market
- No water for backfilling required
- Low profile
- 100% watertight

Our multi-layered tank construction, consisting of virgin material surrounded by 3 layers of protection.



BEST TANK. BEST WARRANTY. BEST SYSTEM.

Roth Global Plastics

www.roth-america.com 866-943-7256

*see warranty for details

The Shaddix Company

Custom Made To Your Specs Truck Beds & Forms



1500 & 1000 Gal.
2 Compt. Septic Tank Forms



Septic Tank Delivery Beds

Call Dewayne for a quote!

256-737-0051
www.shaddix.us


SIM/TECH FILTER
Toll Free 888-999-3290

TruCore Sludge Sampler

Tired of taking multiple samples just to guess the sludge depth?
Try our TruCore!

- Quick & accurate sampling
- Works in thick sludge
- No mess release of sample
- Simple straight-thru design
- Clear tube is made of Polycarbonate
- Inside diameter of 1-3/8"
- Extendable

www.simtechfilter.com



Wolverine Filters, now with a built-in end-of-service-life indicator.

866-NO-STINK (866-667-8465)
Simple Solutions (866-667-8465)
DISTRIBUTING LLC 973-846-7817 in NJ
sales@industrialodorcontrol.com
IndustrialOdorControl.com

GET DIRECT EMAIL NOTICES



ONSITE installer
onsiteinstaller.com/alerts

EXPLORE OUR OTHER OPTIONS

Find us at:
OnsiteInstaller.com

- NEW EQUIPMENT
- ONSITE INSTALLER BUYER'S GUIDE
- ARTICLES Current and Past Issues, Online Editorial, Editor's Blog
- CLASSIFIEDS
- INTERACT E-Zines, E-Newsletters and Discussion Forums
- And more.



WANT MORE INSTALLER?
LIKE US FOLLOW US
YouTube VIEW US

ONSITE installer



www.facebook.com/OnsiteInstaller

PRODUCT NEWS

PRODUCT SPOTLIGHT

Effluent pump line designed for durability

By Tim Dobbins

Longevity is always the goal when choosing integral components for septic systems, and according to Goulds Water Technology, a Xylem brand, their customers report Blaster Filtered Effluent Pumps maintain performance over long periods of time.

The series is designed specifically for pumping filtered effluent from processed septic systems and also for spray irrigation, drip systems and mound systems. When engineering the pump to fit their standards of durability and performance, the company chose to manufacture the series from material they felt would stand the test of time.

The discharge head is engineered from a composite material that, according to Goulds, provides strength while remaining corrosion resistant, and each one has molded loops for safety lines. Blaster pumps also come standard with a composite motor adapter that ensures proper alignment of the liquid end to the motor.

The pumps were also designed for easy removal of the motor for maintenance by providing easy access to mounting nuts with an open-end wrench. "The built-in check valve screws into the discharge head from the top, which is easily removed for drain-back systems or replacement without disassembling the pump," says Joe Steinberg, assistant product line manager at Xylem.

Blaster impellers and diffusers are constructed of glass-filled polycarbonate or Noryl engineered composites and all metal components of the pump are stainless steel, AISI types 301 and 304. "The unique flat wear ring design on the bottom of the impellers allows for solids to pass through the pump, which helps to maintain pump performance and long life," Steinberg says.

The Effluent Blaster line is available in several sizes covering a range of 1.5 through 80 gpm at 7 psi through 175 psi. "The choice of pump is based on the gallons per minute and total dynamic head needed for the particular effluent or irrigation system," Steinberg says. "Our network of professional installers are well versed in sizing these systems and happy to help."

The Effluent Blasters are also manufactured with various stage offerings. "The stages in each size pump generate a certain amount of pressure and flow per stage," Steinberg says. "That gives it the strength to pump the desired amount of water at the desired pressure for the system." 866-325-4210; www.xylem.com



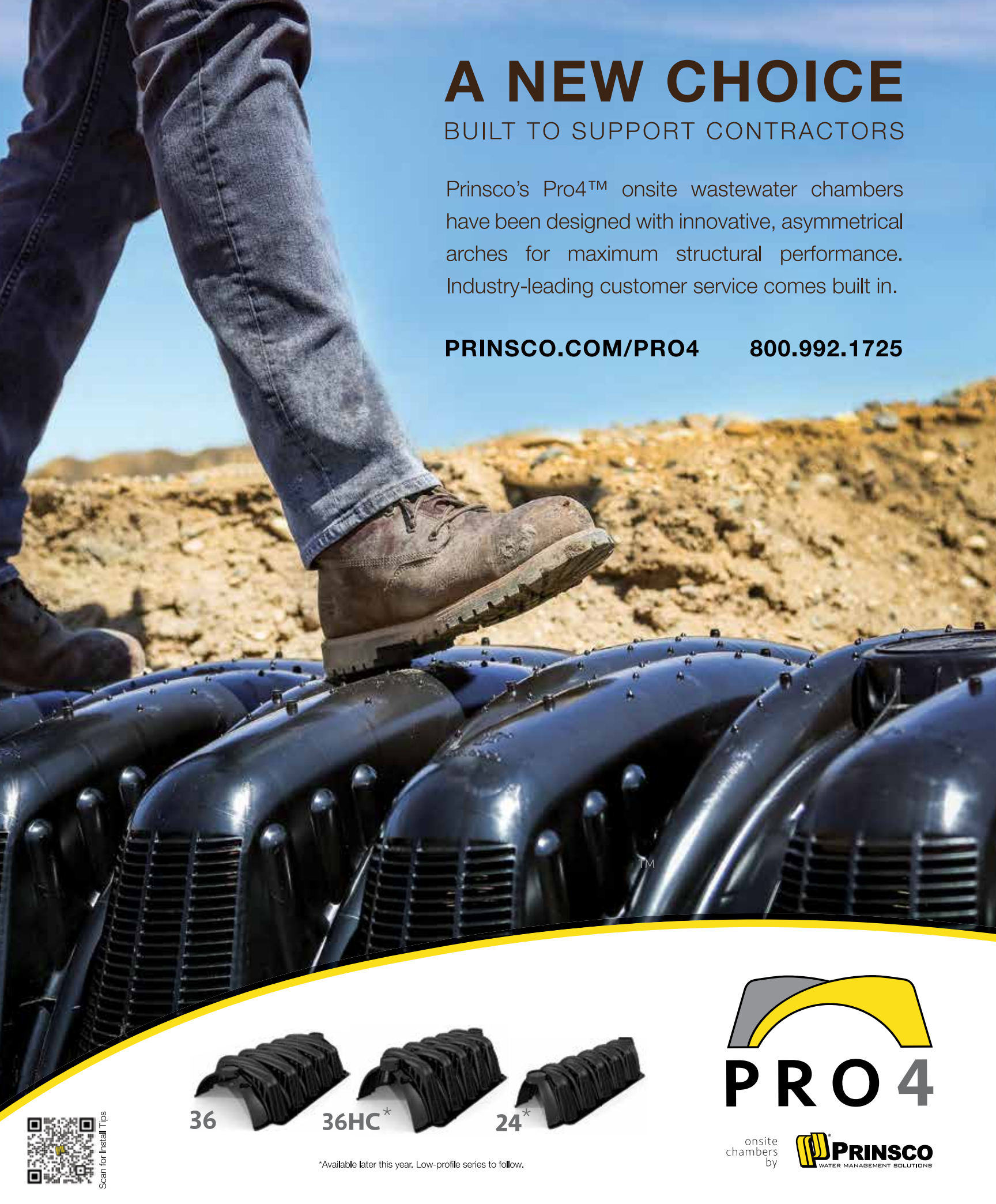
A NEW CHOICE

BUILT TO SUPPORT CONTRACTORS

Prinsco's Pro4™ onsite wastewater chambers have been designed with innovative, asymmetrical arches for maximum structural performance. Industry-leading customer service comes built in.

PRINSCO.COM/PRO4

800.992.1725



36

36HC*

24*



Scan for Install Tips

*Available later this year. Low-profile series to follow.

PRO4

onsite
chambers
by

 **PRINSCO**
WATER MANAGEMENT SOLUTIONS

ARE YOU FORGETTING SOMETHING?

We take precautions to protect ourselves and the ones we love in many aspects of life...



DON'T FORGET TO PROTECT YOUR BACKYARD!

Add a secondary layer of protection to your septic system to protect you and loved ones if your riser cover ever becomes unknowingly damaged, removed, or accidentally left unsecured.

- Safety Screens
- Dual Covers
- Riser Pans
- Lid-Loks



POLYLOK[™] INC.
Innovations in Precast, Drainage
& Wastewater Products



WWW.POLYLOK.COM

1-877-765-9565

sales@polylok.com



SCAN ME

Riser Safety
Screen Video