Abstract
In the United States and Canada more than 25 percent of the population is served by decentralized systems. That being said, individuals and communities have options when facing their wastewater challenges. Onsite wastewater treatment can offer significant advantages when compared to central sewage treatment but there are many myths surrounding system sizing, siting, operation, and maintenance. This paper will review some of the most common myths and provide useful information for installers in selecting the right system for a particular project and for guiding the system owner (often a homeowner) on how to care and maintain the installed system.

The paper will feature an overview of technology and system options for onsite wastewater treatment. Site selection including the importance of soils evaluation will be reviewed. Also covered will be scenarios in which the first reaction might be to replace a malfunctioning system, while a repair may be the more cost effective and efficient solution.

Finally, the paper will review the overall benefits of the onsite wastewater treatment approach including cost efficiency, aquifer recharge and explain how the installer can use these benefits to their business advantage.

Introduction
Every single organization on the planet and each of our careers always function on three levels: what we do; how we do it; and why we do it. When all of those pieces are aligned, we have a filter through which to make decisions and determine action steps. This provides a foundation for innovation. When all three pieces are in balance, others will say about you or your company, with absolute clarity and certainty, “We know who you are,” and “We know what you stand for.” Whether they realize it or not, all great and inspiring leaders and organizations think, act, and communicate just like each other . . . and that’s what separates them from everyone else. They understand the what, how, and why related to their actions and their customers do too.

By engineering a value proposition for your company, you focus on the what, how, and why related to your offering and your team and not on the price at which you offer your services. This provides customers and colleagues with a clear understanding of the reasons to work with you beyond price and offers a strong opportunity to create a lasting and loyal relationship with customers that will build your business and, as a result, your profits.
Fig. 1. Value is more powerful over the long term than price

The What, How, and Why Behind Innovation and Value versus Stagnation
We naturally communicate from the outside in, moving from the clearest thing to those less clear. We tell people what we do and we tell them how we’re different or special and then we expect a behavior like a purchase, a vote or support. The problem is that what and how do not inspire action. Facts and figures make rational sense, but we don’t make decisions purely based on facts and figures. Starting with what is what commodities do. According to Simon Sinek (2011) in his book, Start with Why, starting with why is what leaders do. Leaders inspire.

1 Tim Wood, District Manager, Infiltrator Water Technologies, 4 Business Park Road, PO Box 768, Old Saybrook, CT 06475. twood@infiltratorwater.com

What
Every person in a company or organization can probably explain what the company does. These are the products we sell or the services we provide. For you, it might be designing septic systems, installing septic systems, pumping tanks, writing regulations, inspecting systems, or even manufacturing septic products.

How
Some companies and organizations know how they do what they do. The “differentiating value proposition” or “proprietary process” or “USP” are the things that set us apart from our competition; the things we think make us special or different from everyone else. Maybe it’s how quickly you can get a system installed or the latest equipment that you use. It could be that your regulations are more stringent or forward thinking than your neighboring states or provinces. It could be that you’re known for the most thorough, detailed inspection reports. Whatever the how is in your value proposition it is pivotal to your business and your brand identity.

Why
This is where it gets difficult for most individuals and organizations. Very few organizations can clearly articulate why the company does what it does. Why is defined as a purpose, a cause, or a belief. It provides a clear answer to such questions as: Why do we get out of bed in the morning?
Why does our company even exist? Why that should matter to anyone else? Making money is not a Why. Revenues, profits, salaries, and other monetary measurements are simply results of what we do. The Why is what inspires us.

**Value Engineering**
The definition of value is the regard that something is held to deserve—the importance, worth, or usefulness of something.

![Definition of Value](image)

Fig. 2. The definition of value

Some customers like Chevy, some like Fords, and some don’t care. Some are concerned about the interior, some prefer a stronger engine or tow capacity, and others gravitate toward the vehicle that gets the best gas mileage. A good car salesman will ask you open ended questions about what you’re looking for in a truck to find out what you value. A bad car salesman might ask you what monthly budget or payment you have set for a new truck or how much are you willing to spend. But he will have missed the reason why you came in to his showroom in the first place.

Finding ways to sell value in price driven markets is a key to long-term business success. If your company identity exists only because you offer the lowest price, chances are your services will be under valued by your customers and those customers will jump ship the minute someone offers them a lower price. This is because they will not have connected with you on why you do what you do and what makes your company and service worth their loyalty.

The economy has been tough out there the last couple of years and I’ve heard a lot of installers saying it has been very difficult to make money due to the price cutting and to competitors who are willing to do jobs for little to nothing. Many of these low-price installers are probably using similar or even the same products as you. Is their approach good business or just short-term thinking? Wouldn’t it be great to win projects and cultivate lasting customer relationships without cutting price? This is Value Engineering.

We may ask what is “value” but the truth is that the only thing that matters is the customer’s perception of what is important or valuable. Understanding why the customer needs and wants
what you have to offer and how your business aligns with that customer’s needs is what creates value. We need to make what the customer values a higher importance in the selling process than price. Become a value builder not a price cutter.

**Five Basic Steps in Value Engineering**

1. **Ask Questions**
   First, we have to ask the customer open ended questions to determine what they value and to build strong relationships. Get to know them personally by asking about their home and what they love about living in the area. Find out how they spend their time and what they do for hobbies. All these things enable you to build a relationship based on knowledge and even common ground and not just a price-driven sale. This is a two-way street. You will need to participate and share in the conversation if you want to appear authentic. Be personal and offer the customer some insight into what is important to you by sharing why you are in the business and what that means to you.

   It’s interesting that according to Derek Johnson (2013) in a blog post on tatango.com/blog, text messages have a 99 percent overall open rate (versus a 33 percent email open rate) and 90 percent of them are opened and read within the first 3 minutes. A text message is perceived as personal and important.

2. **Be the Expert**
   The Internet provides consumers with powerful tools to research products and/or services. They may research on the Internet for an hour and think that they’re the experts. Always be respectful when a customer presents you with information and be prepared to establish that you are truly an expert in your field and can offer them additional information specific to their wants and needs—why they contacted you in the first place. Make it your mission to know more than your competitors and do your homework before you arrive at a potential customer meeting by making sure you know the regulations in their specific area, any environmental challenges that might be obvious and present, and what options might be available to them. Participate in continuing education opportunities to stay ahead of any new technology, applications, regulations, or challenges and promote those credentials on your website and in your marketing materials. If working with builders, know more about the possibilities for their site or development than they do and be prepared to offer them options if possible. Be the person your builder calls when he or she has questions.
3. Build Trust
Expertise and reputation are key factors in building trust but business operations are also critical. Do what you say you’re going to do when you say you’re going to do it and your customer will remember that. Always present any challenges or problems with the system, the site, the installation or other things that could affect the outcome of the project immediately and honestly, even if a mistake has been made. Take the heat if necessary but always take the upper road with customers to retain their trust.

4. Make a Lasting and Positive First and Last Impression
Looks and appearance do affect what people think of us. If we want to get paid like a professional you need to look and act like a professional. Simple things such as clean uniform outfits for your team, a firm handshake, presentable transportation, informative leave-behind information are just a few things we may take for granted but that customers notice immediately. Also remember that anyone can be the ultimate decision maker and assume that each person you meet in relation to a potential project will be the one who will write the check for the work.

The last impression you make on a potential customer can actually be even more memorable in the selling process. Be sure to ask them what additional information you can provide to them and leave them with a solid commitment to follow-up whether it is with an estimate, more information specific to their project, a scheduled date for the work to be performed or any other actionable items. And be sure you meet that date/commitment. After a job is complete, follow-up with a service phone call, text message, or email to ensure the project met the customer expectations and to see if any further O&M explanation is needed or if any questions remain. Always provide the customer with an easy way to interact with you moving forward and give them a reason to tell their friends about you.

5. Use Marketing Tools Wisely
Ever said the words, “I really need to update my website” or “I have a Facebook page but I haven’t posted anything in months?” Well, stop procrastinating because in today’s marketplace an outdated website or social media site that is inactive is the sign of a failing or at least
floundering company. This turnoff to business is easily and cost-efficiently remedied and can make all the difference in your image, lead generation, and perception as a valuable resource for homeowners and builders with wastewater needs and challenges.

Social media
On the builder side, LinkedIn is a site where you can connect to associations, companies, and individuals who may need your services. Facebook can also be a good vehicle targeted to existing and new customers to offer project photos and other info important to people who may want your services. There are others such as Instagram and Twitter. Ready to jump in? Remember one thing related to social media—If you aren’t going to keep it up to date then don’t start it.

![Social Media Icons](image)

Fig. 4. Social media

Websites
On websites it is critical that the site you design or have designed for you is mobile friendly. This is necessary to be searchable on Google and a must for smart phone users who do most of their online surfing on their phones. It’s also key to update your site with new information that is educational related to advances in technology, recently completed projects, regulations in your area, O&M info, etc. If you use WordPress to create the site it will be easy for you to manage or have someone help you manage at a reasonable price.

Brochures/Leave Behinds
Although less used in today’s marketplace, it can still be helpful to have a coordinated set of branded materials including letterhead, business cards, and a simple brochure that outlines your services. Referring people to your website is good practice but when on a location visit, it is more immediate to hand the potential customer something that doesn’t require them taking another step to get the information they need to follow up with you.

Community Involvement
Get involved in the community you are based in and those you serve if possible. Serve on local committees, sponsor a sports team, or provide help for a local school event or community festival. Join your local Home Builders Association or the local Chamber of Commerce and
offer to speak at the Rotary Club or Chamber of Commerce if the right opportunity exists. These activities are part of building a business and are memorable to potential customers.

**Conclusion**
Value, not price, is what creates lasting customer relationships. And, it may be a bit harder to communicate but it will be worth the effort. You know the saying that if you do the same thing over and over you will get the same result? Well this year, take the plunge and do something different. Use these Value Engineering Tools and gain customers for the long haul.

![Fig. 5. Value not price creates lasting customer relationships](image)

**References**