

## 2020 Onsite Wastewater Conference Onsite System Workshop

### 1. EQUAL DISTRIBUTION USING PUMPS

#### Purpose and Advantages of Equal Distribution

- Goals
- Tools
  - Stone & pipe
  - Manufactured distribution products
    - Stone Substitutes
    - Passive treatment products
- Pumps and Controls choices

#### Design of Equal Distribution Systems

- With and without design spreadsheet
- Use of up to 4 design problems – large and small

### 2. TRIAGE & TROUBLESHOOTING CONTROL PANEL PROBLEMS & ALARMS

#### The Alarm Call

- Asking the right questions
- Starting with the simple, progressing to the complex
- Common wrong assumptions

#### The Site Visit

- First steps – data and observations
- Understanding and knowing how the panel SHOULD function
- Testing steps – manipulation and observation
- Corrective actions – start with the simple, progress to the complex

#### Case Scenarios

- What should you ask?
- What do you think the problem could be?
- What do you know is likely not the problem?
- Where would you look first?
- How would you test and find out?
- If that's not it, what would you do next?

### **3. DESIGNING FOR NITROGEN REMOVAL**

#### **Nitrogen forms in the environment**

- **Forms of N and risks they represent**
- **Sources of N in the environment**
- **Creating the circumstances for N conversion**
- **Creating the environment for N removal in our onsite wastewater systems**

### **4. HIGH STRENGTH WASTEWATER AND HOW IT AFFECTS OUR ONSITE SYSTEMS**

- **Definition of HIGH STRENGTH Wastewater and its Impact on Onsite Systems**
- **Where is it found? Watch out for the pitfalls! Don't make assumptions!**
- **Treatment Systems designed for high strength wastes**
- **Drainfield sizing for high strength wastewater**
- **When should I get nervous?**

### **5. CASE STUDIES WHERE ADVANCED TREATMENT HELPED SOLVE PROBLEMS**