

Septage Treatment Plant Septic Services, Inc.

Dave Flagg

President/CEO – Septic Services, Inc.



INDUSTRY EXPERIENCE

- Founded Septic Services, Inc. in 1982 (Union, MO)
- Core local services:
 - Installation
 - Pumping
 - Service work
 - Aerator Sales & Services
 - Portable Toilet Rentals
 - Septage Treatment Facility
- Over 60,000 septic systems serviced (Commercial & Residential)
- Manufacturing of aerators with national & international sales for over 25 years

PRODUCT DEVELOPMENT

- Shaft-style aspirated design aerators
- Linear air pumps
- Regenerative blowers
- Submersible aerators
- Effluent pumps
- Timers, controls, alarms
- Absorption field restoration products

Septage Plant History

- We are in rural area southwest of St. Louis where it is not practical to haul to St. Louis receiving station, county was growing making it more difficult to land apply (NIMBY).
- Began engineering process, because no plant like it at the time we were required to do a pilot study for a year, 4 years later with many changes in design we began construction, completing in 1996.





Trials and Tribulation

- We originally had problems with the design, hired a process engineer to help reroute system flow, we were running 5 million gallons a year through plant, our discharge point is at a wet weather ditch.
- One of the testing criteria was ammonia nitrogen in our discharge, over the years the limits were continually reduced.
- We could meet the requirements in the warm seasons but not in the winter. We decided to change the discharge point to the river for dilution factor and higher ammonia discharge limits. We filed for a construction permit which required a stream study.
- It was discovered we had one of the largest healthy mussel beds known (2 universities came out to do a study) at our discharge point in the river. Mussels are an indicator of the health of the stream (they can not survive with high pollutants in the stream). According to MDNR a new law was to be enacted in a few years concerning mussels and distance from discharge and we would not be able to renew our permit after that time. So, we studied our options and decided on a 'no discharge' facility permit.





End Results

- Spent a lot of money upgrading but having a more modern, upgraded plant that is easier to operate
- Reduced our electric bill \$700 a month
- Less polymer usage by \$1000 a month
- Much dryer cake, less time hauling and land applying
- No more testing for discharge to river
- No more chlorine, dechlorinate
- Less costly lab bills
- Less costly permits
- Retained land application permit for biosoilds

Thank you for attending and have a great time at the show, these are some really great people at NAWT.