

Top Ten Problems Encountered 2020 by Charles Buckley, Wastewater Tech

1. **Roots in the collection system.** My biggest call this year was problem areas in sewer mains. I have been called out to run our camera down the mains usually to find roots infiltrating into the main at joints and service connections. This can be remedied by lining the pipes, use of a foaming root inhibitor or cutting the roots with a cutter or by high pressure water root cutter.
2. **Infiltration.** Go for a ride on a heavy rain event and look to see what manholes have run off flowing over and around them. This can be eased by the use of manhole pans. Pop some manhole lids after a heavy rain and see if water is leeching in the walls of the manhole. If you find this to be happening look into rehabbing the walls of the manhole. This can pay for itself in less than a year. We have also had luck with smoking sewer mains. We have found many problem areas throughout the state with this method. We have found missing or broken cleanout caps, voids under streets that collect rain water, homes and businesses with gutters connected to collection systems and storm sewers connected to sewer mains. Lining sewer mains in problem areas is expensive but sometimes the best fix.
3. **New operators.** We would be happy to walk through the public works with the operator. We can assist with operations, record keeping, safety, regulations, maintenance, planning and problems.
4. **Training.** We no longer offer classes on wastewater certification training. Contact The DEE office to find out about wastewater certification and testing. We do still offer classes for continuing education hours.
5. **Sampling.** We will assist operators with sampling. We have several composite samplers that we would be happy to set up. We will assist in the collecting of samples, PH, temperature and proper techniques.
6. **Locating resources.** We get call requests to help find contractors for bids on projects. We are always happy to help operators and board members to find the right contractor for the right price. We understand that most projects need to put up for bid. We have a list in our membership directory and on our website. We also have multiple vendors at our yearly conferences. This gives operators a chance to speak with businesses that may be of assistance to projects, parts, maintenance, repairs and other resources.
7. **Trouble shooting.** Probably one of our favorites. There is nothing more fulfilling for us then to show up and assist in getting to the bottom of a problem. We have a great pool of experienced operators at Nebraska Rural Water.
8. **Lagoon measuring.** We will come out and assist with lagoon measuring. We can grid or spot measure your lagoons for sludge depth and lagoon depth. All we ask is you provide a safe boat, life jackets, anchor and a source of mobility. We also require the assistance of the operator.

9. **Flow monitoring.** We have a portable flow monitoring unit that we can set up to measure flows. We can set up to monitor flows daily, weekly or the entire month. The flow meter can run on battery or electricity. We only ask that you have access to the manhole and pipe dimension. This will require daily changing of the battery and cleaning.
10. **General assistance.** We have assisted in locating lines, valves, paper work, DMR's, lab testing, equipment replacement, locating parts, algae control, red worm control, treatment plant operations, lagoon problems, board member assistance, sustainability management and other assistance.