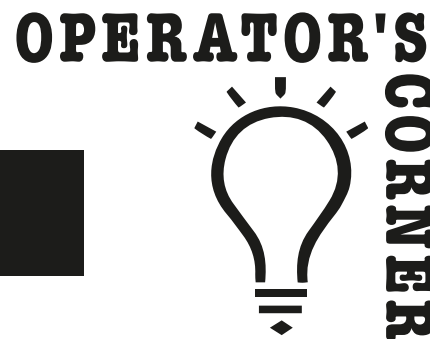


**OPERATORS:** This is your chance to share your experiences, new or unique inventions that have made your daily operation easier, technologies you've discovered, or general information with your fellow operators. We all know the value of networking.



## BEING A GOOD NEIGHBOR

Jay Gascon | Chief Operator, Town of Alexandria – Redwood WWTP

When a treatment plant is designed engineers look at every detail from location and layout, to building materials and appearance, but sometimes it's the things that can't be seen that are the most bothersome.

When the Redwood WWTP was built in 1992 it was designed as a 42,000 gpd septic tank and sand filter treatment plant with a low pressure forced main system. Each home and business was retrofitted with a grinder pump station provided by E-One. Having around 225 pumps pushing the flow uphill to the plant it tends to get somewhat septic by the time it gets to the plant. Upon reaching the plant the waste is first aerated in the equalization box by forced air from a three inch blower. This was an afterthought modification to accomplish sufficient mixing at a point of chemical addition for phosphorus removal, which the plant was not originally designed to treat for. Here is where the problem arises. During times of peak flow, early morning, and early evening, the odors that are released from the equalization box can be quite overwhelming, especially for the residents that wish to enjoy their outside yards with back patios and gas grills, gazebos and hot tubs. This terrible smell has been the source of many complaints from neighbors and passerby's of the plant. This has been ongoing since the plant was built in 1992 with no solution ever taking place.

The odor seemed mostly to be coming from the two manholes in the top of the equalization chamber. As a resident myself, I wanted to be a good neighbor and do something about this situation. After discussing the problem with Yvonne Tucker, Wastewater Trainer/Technician from NYRWA, she described what options are available for odor control. I asked her opinion of the hanging odor blocks that are sold by USABluebook. She described the use of a natural biofilter which could treat the odors using wood chips and charcoal. I asked her if cedar wood chips would work, and she couldn't think of a reason why not to use cedar wood chips. I thought the idea of cedar wood chips would act like an air freshener to try to lessen the odor. We kicked around a few ideas, even some type of chemical treatment which would be a last resort. We both agreed that chemicals are expensive, and there could be some type of effect on the effluent. This is where the idea of using charcoal and cedar wood chips was so attractive. Recently, the Town had done some clearing and cut up and chipped a bunch of cedar trees, so the wood chips were already available. An all-natural, chemical free, cost effective solution.



After some thought, I came up with the idea of using a 55 gallon plastic drum with the ends cut out. I filled it with charcoal and cedar chips in layers, set over the open manholes forcing the air from the chambers up through the media deodorizing it on the way out. I used natural lump charcoal from the local hardware store. I cut a sheet of plywood in half, cut a 24" hole in it, then I put a piece of hardware cloth between the barrel and plywood to keep the charcoal from falling through. The results were immediate! They removed almost all the odor coming from the chamber. I can stand right next to the barrel and the smell is barely noticeable. The cost, around \$200. They have been online since February and still working fine. I may have to change the charcoal in the future if the odors return. Time will tell. But for now a low cost solution to a big problem. 💧💧💧