



## WASTEWATER TREATMENT FACILITY 2023 Annual Report

**Plant Superintendent**  
**Arnold L. Greenleaf**

**Plant Operator**  
**Richard Boone**

**Established in 1971;**

The original plant was opened in late 1971, along with a large volume of new sewer lines throughout the Town. The intent was for improved river quality by connecting all of the lines that drained directly to the river together, thus sending all of the flows to a central location in Town for treatment. The plant has remained on the original site since its inception in 1968. The land was originally open pasture land owned by Arvo Wirkala, whose farm still sits on the hill overlooking the current iteration of the treatment system. The original plant from 1971 was a primary treatment system. In 1987 it was upgraded again to a secondary treatment process and finally in 2007 plans were put into motion to upgrade the plant again to tertiary treatment. Each progressive increase in level of treatment yielded greater levels of water quality for discharge to the river. The Sugar River which we discharge to is currently rated as a Class B-Fishable/Swimmable river.

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This is the second year in many years that we had no capital projects to undertake. We did not even have large projects of any nature that we were involved with for the plant. With the upgrade of the plant starting in early 2024 there is no longer a need for those things to happen. We will have a totally upgraded facility to take care of once it is finished.

We did have to replace the original variable frequency drive on our 50hp blower with a new one. This took some searching as the original one was discontinued. We had to replace the lab pH meter due to equipment malfunction. We also started cleaning up some of the material/equipment in the back yard that will be in the way of new construction. Some time was spent dealing with the engineers providing them data and testing for planning the new facility. Our biggest issue was constantly dealing with the high-water issues due to the non-ending rain, which drove our water levels in the plant ever higher by the day.

One area we have problems with paint adhering to the walls was cleaned to bare concrete and sealed. We used a product to resist the water and eliminated any coatings that could peel off the

concrete.

We are still participating in a voluntary testing program sponsored by the CDC that began over two years ago, their current contractor-Verily, is testing twice a week. The State of NH started their own covid testing program in mid-2022 run out of the State lab in Concord, and runs a once-a-week test. The testing is being done to determine the rates of Covid infection within the communities and counties throughout the State.

With Covid-19 issues behind us now our training options have opened up for us. Both operators attended classes at the Franklin Training Center for recertification credits. We had the opportunity to visit several plants this year to observe their treatment processes, to better understand what we will have once our future construction is completed.

We were also kept quite busy this year dealing with the large volume of septage that we received. We took in over 468,150 gallons during the course of the year. Once again, this year we broke the previous year's record for volumes and loads handled.

The Town is still overseeing the operation and maintenance of the Dorr Woolen lagoons, as the lagoons continue to handle storm water and runoff. This requires time from the operators in monitoring and maintaining the facility as a whole. Once again time was spent to do quarterly inspections, as well as mowing the site to keep trees and brush from encroaching on the lagoons. Work is ongoing to get the site closed out. Currently, an engineering company and the State are studying various plans to close out the lagoons and return the area back to nature.

The Industrial Pretreatment Program (IPP) program and Town Sewer Use Ordinance are in effect. So, I would ask everyone to be extra careful in what you dispose of to the sewerage system. We have to eliminate the disposal of any expired or unused medications, petroleum-based products (paints, motor oils, cleaning solvents) and any other hazardous or toxic compounds into the sewer system that could impact the collection and treatment systems. There is a tremendous amount of fats, oils and greases being discarded into the sewer system. Unfortunately, it is not breaking down and is ending up as large clumps in our wetwells or going through the plant and floating on the surface of the lagoons. This results in time and money being spent to pump it out of wetwells, skim it off the surface or chemically treat it before it becomes a treatment problem. There is literature available at the plant and Town Office that can provide information on how to properly dispose of fats, oils, greases, unused medications and hazardous waste rather than discarding it to the sewer system. It builds up enough that we have to use a septage hauler on a regular basis. His work consists of pumping out both of the influent wetwells of all grease and solids that are trapped in them at the time. This way we can minimize the amount of grease buildup that is occurring in them and mitigate the grease passing thru to the lagoons.

Another item of extreme concern is the increased use of the disposable cloth/paper towelettes. They originally came about as baby wipes and are now available for almost any type of cleaning need, from polishing furniture to cleaning vehicles. While they are disposable as municipal trash, they are not made to be disposed of down the sewer, no matter what the manufacturer's instructions might say. They are not even flushable! Even when we grind them up they will re-form into a rag rope and tie themselves around our screenings and pumping equipment, resulting in more wear and tear on the machinery. We have literature and additional information on how to handle and dispose of these products at the plant and Town Office for anyone who is interested. Please stop by or call us if you have any questions at all about the proper disposal of these items.

Sewer users should try to eliminate the amount of phosphorus-based cleaners and fertilizer products that they use and dispose of to the sewer and storm water drainage system. Should anyone need help or information in how to deal with the proper disposal of any of these types of products, please do not hesitate to call us at the treatment plant. We will provide you with whatever assistance you may need so that they are not improperly discarded into the sewers or storm drains.

We also would like to thank those residents who participated in the fall leaf pickup, especially those who used the paper bags. Thanks to the effort on everyone's part the plastic bags have disappeared from the compost pile! This makes the handling of the leaves so much cleaner and safer than it has ever been in the past. We appreciate your efforts to help us to eliminate the unnecessary waste plastic. Keep up the great job!

For those interested in weather data, our annual recorded precipitation here at the plant was 54.09". This makes it the third wettest year on record here. This amount is 12.68" more than our 52-year average of 41.41". 2023 was an above average year precipitation wise, records were broken for both June=10.76" and July=10.77" rainfall. Both months were at levels we had never experienced before.

For the 2022-2023 winter season we had 74.6" of snowfall at the plant. This snowfall level was 27.1" more than we had the previous year.

2023 precipitation levels were high throughout the year, we experienced several extreme storms that contributed heavy flows coming into the plant like we have not seen in years. The average daily flow into the plant was running 743,485 gallons per day (GPD) which gave us 217,550 GPD more this year than we saw in 2022. Normally the fluctuation in daily flow continues to show that as the rainfall varies up or down so do our flows accordingly, 2023 showed a change. Due to infiltration, the rainfall influences the volume of water going into the sewer lines when we are in a wet season. On that same concept when we have

dry weather those same broken pipes are now exfiltrating raw sewage back into the soil. In this situation not all of the sewage is able to reach the plant for full treatment. A tremendous amount of cleaning and repairs have been done to the sewer mains over the last 2 year, but the job is not completed. For 2023, we saw our usual trend continue. The more moisture we have, the higher our flows are. As we move forward we must continue that work to improve the integrity of the underground sewer lines so that they are not subject to the whims of the surface and ground water.

	<b>2023</b>	<b>2022</b>
<b>WASTEWATER</b>	271,372,000	191,966,000
<b>SEPTAGE</b>	468,150	453,250

I want to express my appreciation to the other Town departments and members of the community for their continued support and assistance.

**ARNOLD L. GREENLEAF\PLANT SUPERINTENDENT**  
**RICHARD BOONE\PLANT OPERATOR**

