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*THE FOLLOWING PRESENTATION COMPARES THE PRE-
CONSTRUCTION NORTH OLMSTEM WWTP*

TO THE CURRENT WASTEWATER TREATMENT FACILITIES.

**NOWWTP
A PLANT COMPARISON**



PREVIOUS INFLUENT BUILDING, showing dumpster storage exterior and the new enclosed facility



INFLUENT CONTROL VALVES, previously directing flow into an partially treated bypass channel, now vales direct flow into a stabilization storm mode.



OLD NORTH OLMSTED INFLUENT MANUAL SCREENING 1950s to 2012



NEW AUTOMATIC INFLUENT SCREENING



INFLUENT SCREENING, now sealed to help minimize odor



NORTH OLMSTED GRIT REMOVAL, 50'S VINTAGE



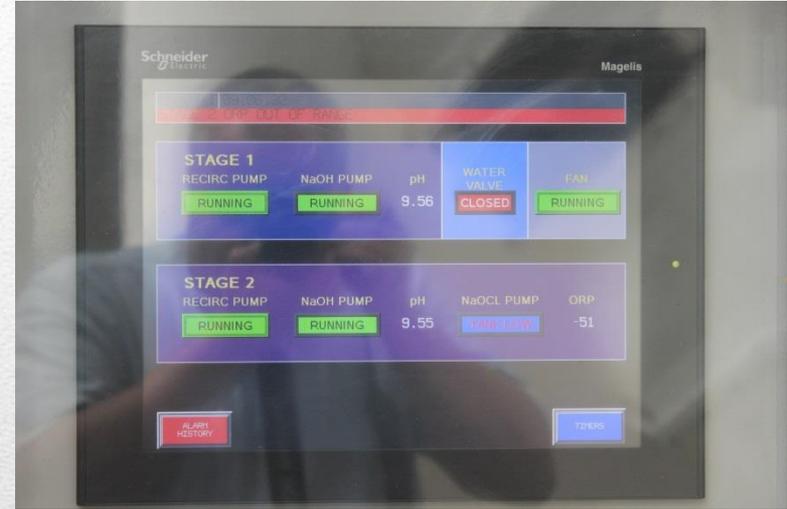
NEW GRIT REMOVAL, More robust, more efficient and few moving components



ODORS ARE COLLECTED AT THE INFLUENT BUILDING (PTF)



AND TAKEN TO AN ADJACENT BUILDING FOR TREATMENT



THE ODOR CONTROLS ARE FULLY AUTOMATED



PREVIOUSLY EFFORTS FOCUSED ON CONTAINING ODORS



IT WAS NOT VERY SUCESFUL

NORTH OLMSTED OLD AERATION SYSTEM AND SLUDGE STORAGE





**NORTH OLMSTED OLD AERATION CONTROL VALVES,
CORROSION PROBLEMS DUE TO WIDE USE OF ALUMINUM**



NEW SHORT TANK VERTICAL LOOP SYSTEM ALLOW FOR BIOLOGICAL REMOVAL OF NITROGEN AND PHOSPHORUS



NEW REACTOR & AERATION DISCS OFFER ENERGY SAVINGS VS. LARGE CENTRIFUGAL BLOWERS



**TANKS CAN BE FILLED OR LEFT OFF LINE TO ASSIST WITH
LARGE RAIN EVENTS**



**IF DESIRED SUPPLEMENTAL AIR CAN BE ADDED TO
IMPROVE THE TREATMENT QUALITY**



THE PROCESS IS MONITORED AND AUTOMATED



OLD CLARIFIERS WERE SMALL



AND SHALLOW



AND DID NOT OFFER A LOT OF TREATMENT



NORTH OLMSTED NEW FINAL CLARIFIER ARE WIDE AND DEEP



**NEW SLUDGE ARM ALLOW FOR BETTER PERFORMANCE
AND BETTER CLARIFICATION**



OLD PUMP ROOM, the heart of any treatment plant



NOWWTP NOW HAS A NEW HEART.



PUMPS AND VALVES,



AND MONITOR IT CONTINUEOUSLY.



**NORTH OLMSTED OLD TERTIARY TREATMENT
1970'S VINTAGE, roughly 12 MGD of treatment, with
marginal quality**



**MODERN COVERED EFFLUENT SCREENS, 21 MGD of
CAPACITY**



Excellent filtration capability down to 10um (pollen is 30 um)



PREVIOUSLY NORTH OLMSTED DISINFECTION WAS COMPLETED IN THREE STEPS

CHLORINATION

DETENTION TIME

DECHLORINATION



OLD NORTH OLMSTED SODIUM HYPOCHLORITE TANKS AND CHEMICAL FEED SYSTEM



OLD DETENTION TANK allowed extra time for chlorine to disinfect the effluent (treated water)



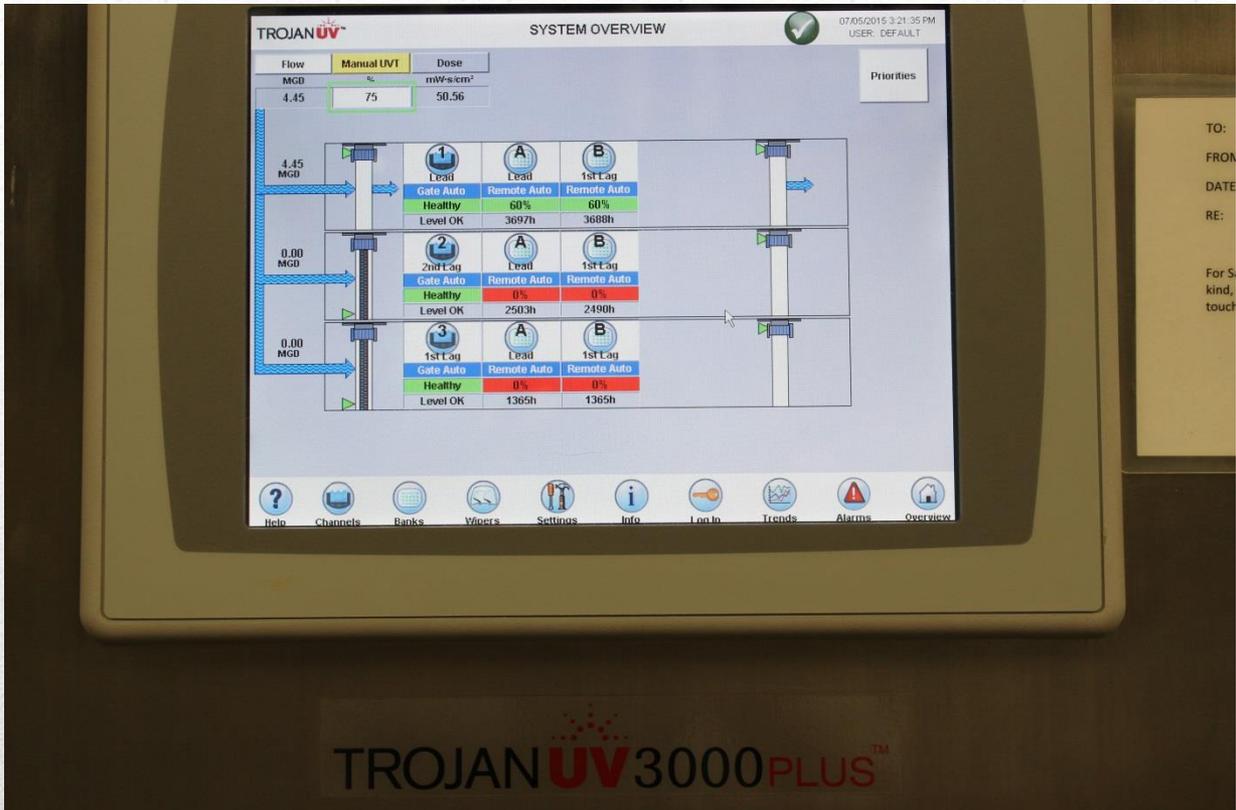
ONE TON SULFUR DIOXIDE CYLINDERS USED FOR DECHLORINATION (chlorine is bad for fish and the environment)



TEST KITS used to test for chlorine residual in the effluent stream



THE NEW MODERN UV DISINFECTION SYSTEM



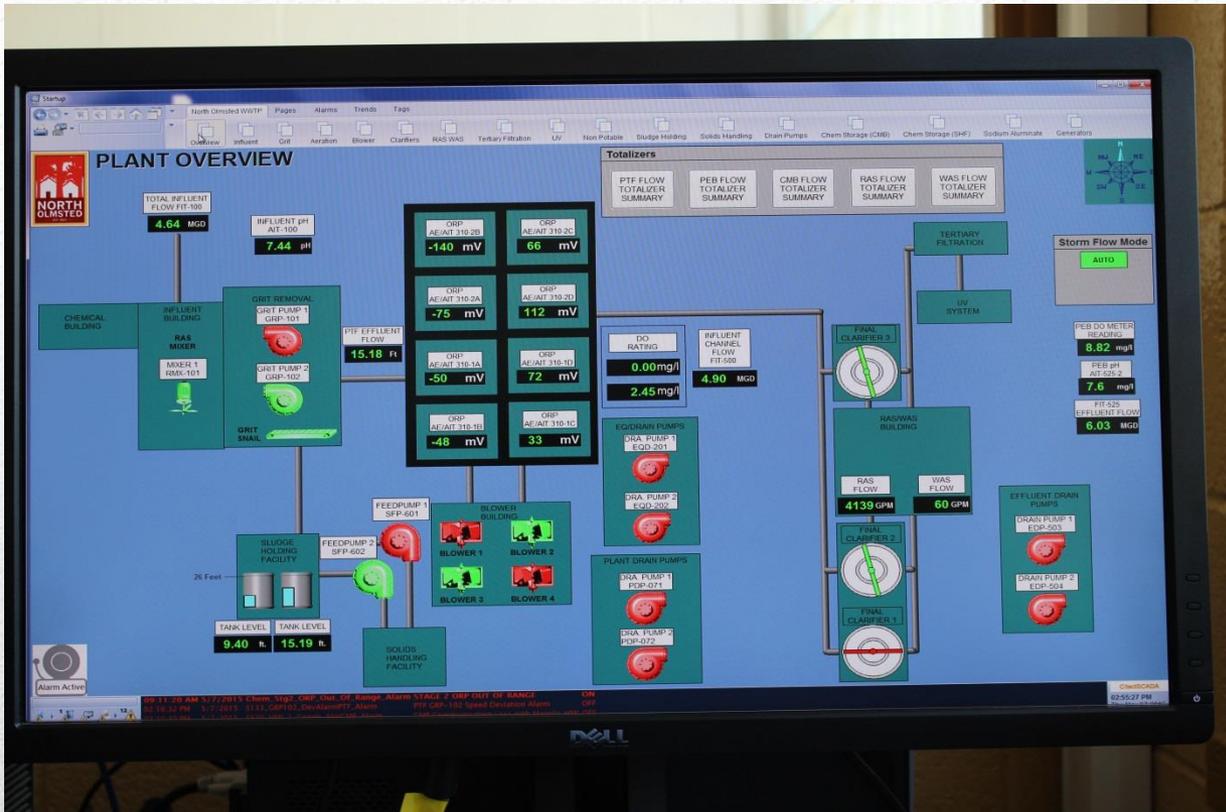
REPLACES THE OLD TWO CHEMICAL SYSTEM



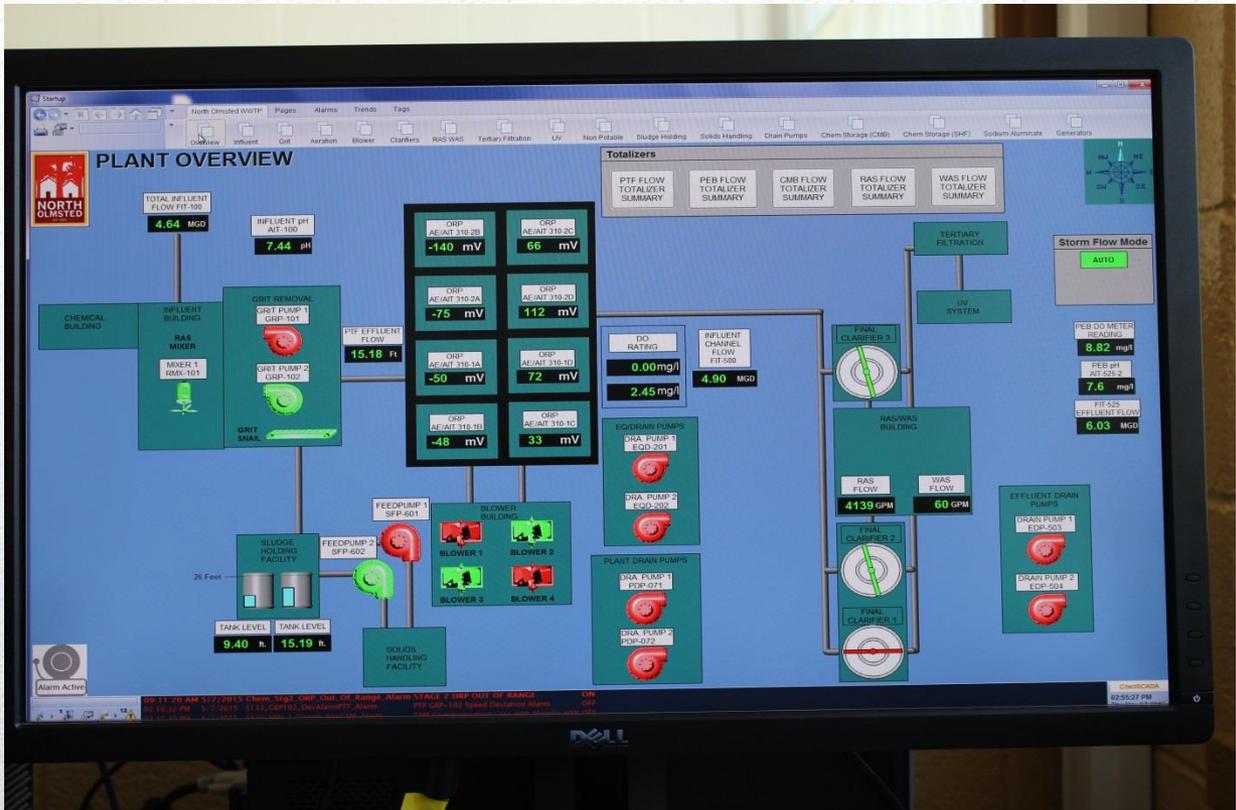
NEW AT THE NOWWTP IS A POST AERATION SYSTEM

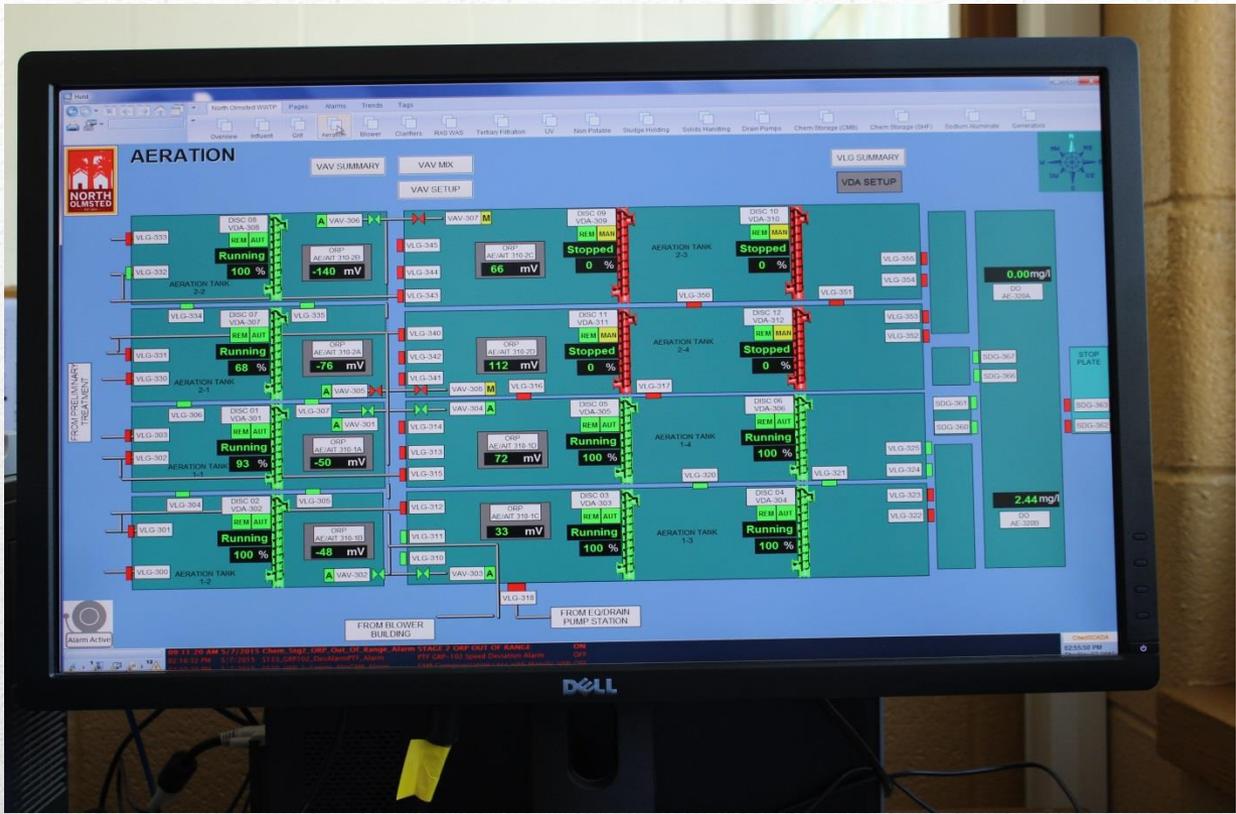


**ALONG WITH THE LAUNDERROOM PROVIDES TREATED
OZYGENATED WATER TO THE ENVIROMENT**



NOW THE PLANT IS FULLY INTERGATED AND AUTOMATED







For questions, comments, or to arrange a facility tour..



Call us at: 440-777-1881
