

## AERATION TANK

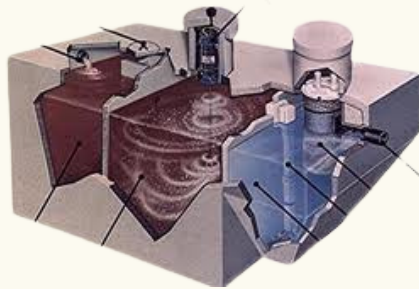
AN AERATION TANK IS A MAJOR COMPONENT OF A HSTS SYSTEM. UNLIKE A SEPTIC TANK, THE AERATION TANK DEPENDS ON AN ELECTRIC MOTOR. THE MAIN PRINCIPLE BEHIND THE OPERATION OF THIS TYPE OF TANK IS AIR INJECTED INTO THE SEWAGE; THE AIR IS UTILIZED BY AEROBIC BACTERIA. AEROBIC BACTERIA WORK TO BREAK DOWN THE WASTEWATER AND CONVERT IT TO ODORLESS LIQUIDS AND GASES. AEROBIC BACTERIA ARE MORE EFFICIENT IN BREAKING DOWN THE WASTEWATER THAN ANAEROBIC BACTERIA FOUND IN A SEPTIC TANK.

## COMMON TYPES OF AERATORS FOUND IN THE COUNTY

**JET**



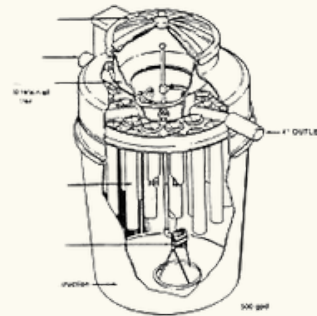
**NORWECO**



**NYADIC**



**MULTI-FLO**



## NPDES DISCHARGING SYSTEM WITH UV FILTER

NPDES STANDS FOR "NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEMS." THE WASTEWATER EXITS THE AERATION TANK AND ENTERS AN ULTRAVIOLET LIGHT BACTERIA FILTER WHERE IT IS DISINFECTED. THE WASTEWATER THEN FLOWS INTO A SAMPLING BOX WHERE SAMPLES CAN BE TAKEN YEARLY OF THE WASTEWATER TO ENSURE COMPLIANCE WITH STATE WATER QUALITY REQUIREMENTS IS MAINTAINED, AND TO VERIFY THE WASTEWATER IS BEING PROPERLY TREATED AND DISINFECTED BY THE AERATOR AND ULTRAVIOLET LIGHT FILTER, AND IS NOT OVERLY CONTAMINATED BEFORE IT THEN FLOWS INTO THE DISCHARGE PIPE HEADED FOR THE NEARBY DRAINAGE DITCH OR CREEK/STREAM. CONTINUOUS SERVICE CONTRACTS WITH A REGISTERED SERVICE PROVIDER ARE REQUIRED TO BE MAINTAINED FOR ALL NPDES SYSTEMS FOR THE ENTIRE LENGTH OF THE SYSTEM'S LIFE TO ENSURE IT REMAINS IN PROPER WORKING ORDER AT ALL TIMES.

**ULTRAVIOLET FILTER**



**SIDE VIEW DIAGRAM DISCHARGING SYSTEM**

