

CASE STUDY # 061

MUNICIPAL TREATMENT PLANT SOLVES FILAMENT PROBLEM

SUBJECT:

A municipal wastewater treatment plant eliminates a filament infestation caused by a toxic shock episode.

PRODUCT APPLIED: MICROCAT-XF, Microbial Filamentous Growth Inhibitor



TREATMENT SYSTEM:

Wastewater flow: 760 m³/day

The activated sludge treatment system consists of bar screens, primary clarifiers, two aeration tanks, two secondary clarifiers and chlorine contact tanks for effluent wastewater disinfection.

OBJECTIVE:

Due to a toxic shock and cold weather, filaments took over the treatment system and almost wiped out the typical biomass. Microscopic evaluation showed higher life forms were present. Treatment with chlorine to control the filaments would have done more damage to the plant. **MICROCAT-XF** was recommended to control filaments and improve biological growth.

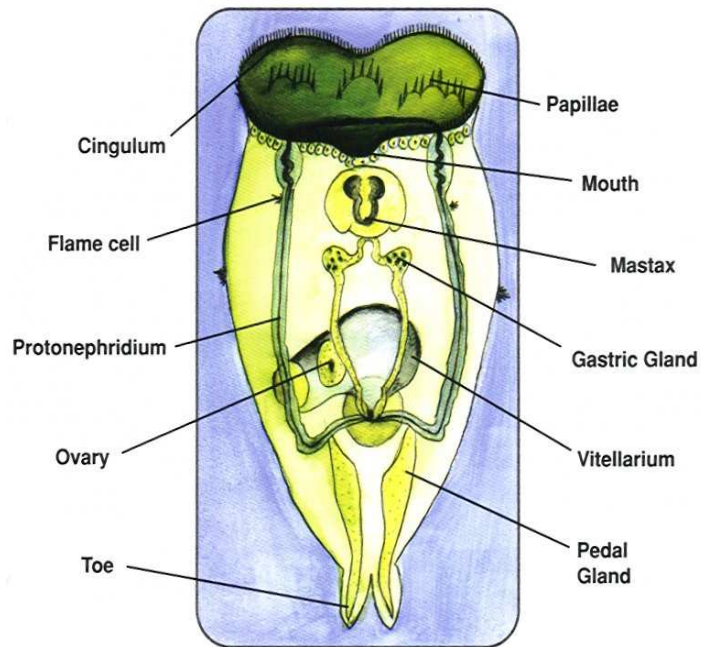
PROGRAM:

A one-month application program of **MICROCAT-XF** was instituted. Bioscience recommended a dosage of 4,5 kg for the first two days, followed by 2,25 kg on days 3 through 10, 1,35 kg on days 11 through 20 and 0,45 kg per day for the remainder of the program.



RESULTS:

Prior to the toxic event, SVI's were typically around 200, and microscopic examination showed good amounts of higher life forms, including rotifers. During the height of the filament infestation, SVI's rose to 950 and no higher life forms were present. During and since the **MICROCAT-XF** application program, SVI's are in the 140 – 150 range, higher life forms are back in greater numbers and quantities, and the filaments are no longer present.



CONCLUSIONS

MICROCAT -XF evidenced the ability to improve settling and quality of higher life forms, as well as reduce filaments following a toxic shock, even during adverse weather conditions.