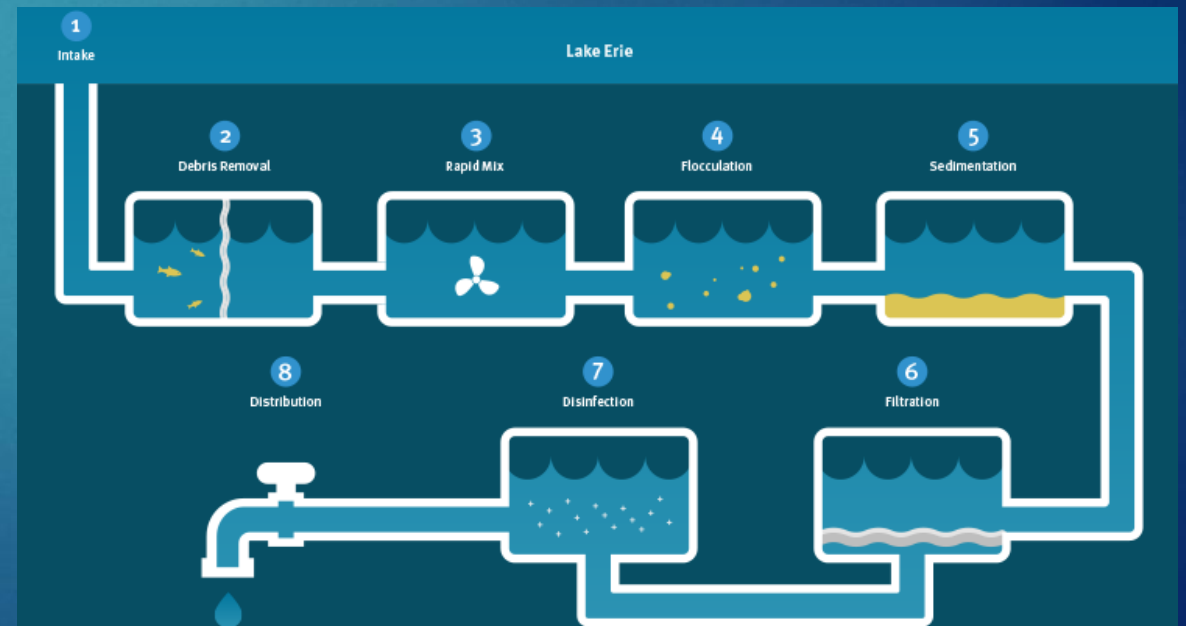


Water Treatment



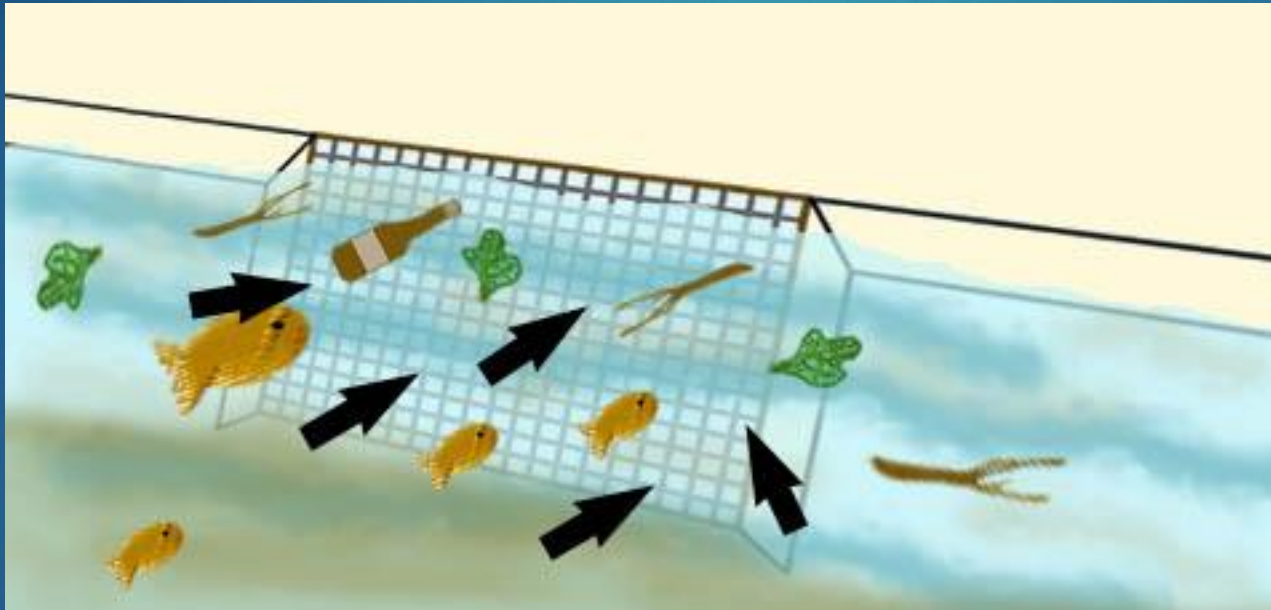
Stages of water treatment

- ▶ SAM (SCREENING)
- ▶ FEELS (FLOCCULATION)
- ▶ SILLY (SETTLEMENT)
- ▶ FOLLOWING (FILTRATION)
- ▶ CHELSEA (CHLORINATION)
- ▶ FOOTBALL (FLUORIDATION)
- ▶ PLAYERS (PH ADJUSTMENT)



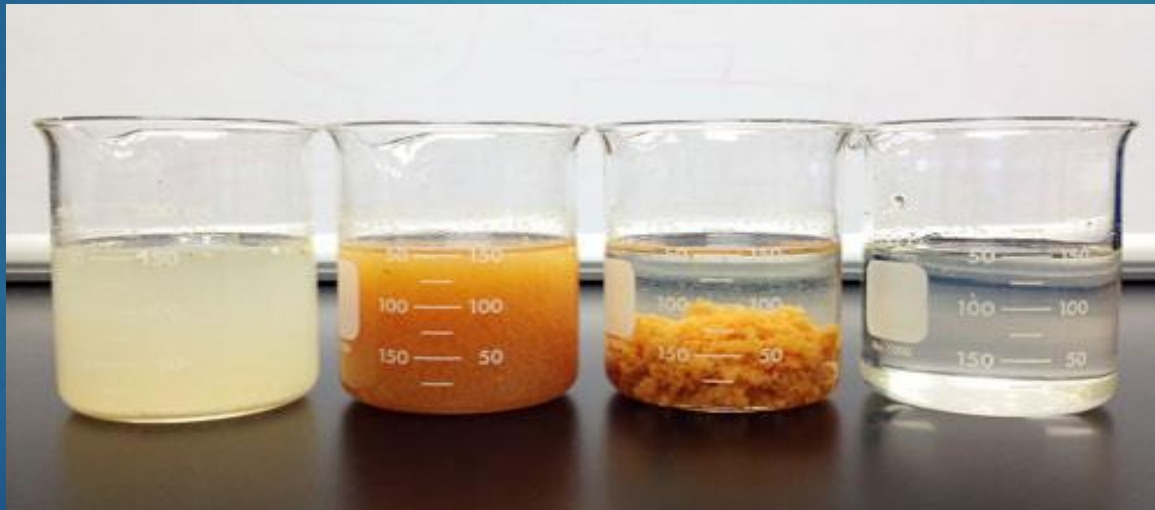
SCREENING

- ▶ SCREENING IS WHEN WATER IS PASSED THROUGH WIRE MESH TO REMOVE ANY FLOATING MATERIAL EG TWIGS , PLASTIC BAGS



FLOCCULATION

- ▶ FLOCCULATION AGENTS EG $\text{Al}_2(\text{SO}_4)_3$ ARE ADDED TO WATER TO COAGULATE SMALL SUSPENDED SOLIDS TOGETHER, THIS ALLOWS THE SOLIDS TO SINK TO THE BOTTOM AND BE SEPARATED FROM THE REST OF THE WATER.



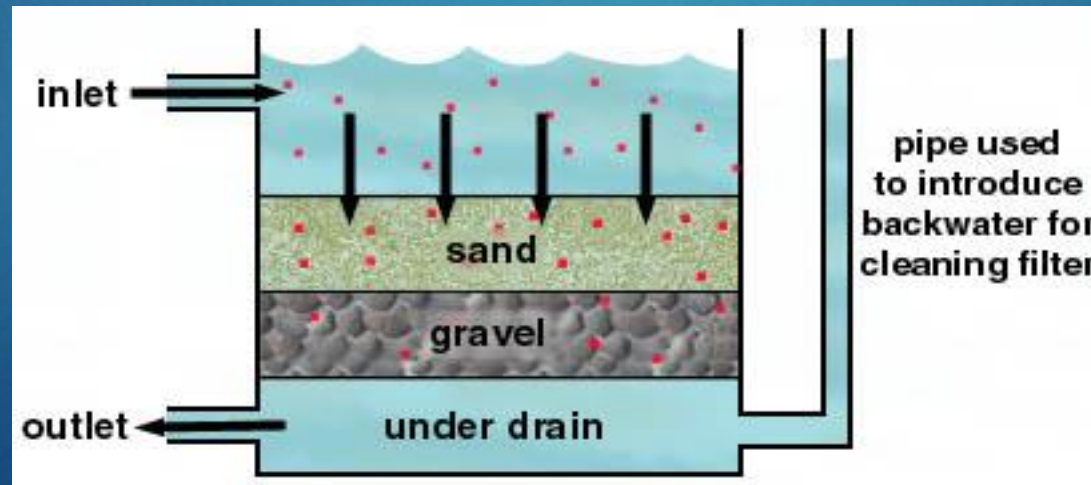
SETTLEMENT

- ▶ IN THIS STAGE WATER IS PASSED INTO SETTLEMENT TANKS . WATER FLOWS FROM THE BOTTOM OF THE TANKS TO THE TOP AT A VERY SLOW RATE (LESS THAN 2 METRES A HOUR) . CLEAN WATER FROM THE TOP IS COLLECTED THROUGH CHANNELS .



FILTRATION

- ▶ FILTRATION IS WHEN WATER FROM THE TOP OF THE SETTLEMENT TANKS IS PASSED THROUGH A BED OF SAND . FILTRATION REMOVES ANY REMAINING SUSPENDED SOLIDS , AFTER THE SAND BED THE WATER IS THEN PASSED THROUGH A BED OF GRAVEL , THE WATER IS NOW CLEAR BUT IS STILL FULL OF BACTERIA.



CHLORINATION

- ▶ CHLORINE IS ADDED TO THE NOW CLEAR WATER TO KILL ANY BACTERIA PRESENT. THE CHLORINE IS ADDED IN SMALL AMOUNTS AT REGUGLAR INTERVALS TO THE WATER (approx 0.2 – 0.5 ppm)



FLUORIDATION

- ▶ THIS INVOLVES SMALLS AMOUNTS OF FLUORINE (approx 1 ppm) BEING ADDED TO THE WATER TO HELP PREVENT TOOTH DECAY AND STRENGTHING EMAMEL.



PH ADJUSTMENT

- ▶ AT THE END OF THE WATER PROCESS CAN BE SLIGHTY ACIDIC OR LIGHTLY BASIC THEREFORE THE PH OF THE WATER HAS TO BE RAISED OR LOWERED ACCORDINGLY .



PRO AND CONS OF WATER TREATMENT.

PROCESS

- SCREENING
- FLOCCULATION
- SETTLEMENT
- FILTRATION
- CHLORINATION
- FLUORIDATION
- PH ADJUSTMENT

PRO

- GETS RID OF LARGE OBJECTS.
- SOLIDS SINK TO THE BOTTOM.
- CLEAR WATER IS REMOVED.
- REMAINING SOLIDS CAN BE SEPARATED.
- KILLS BACTERIA
- PREVENTS TOOTH DECAY
- ADJUST PH

CON

- UNPLEASANT TASTE AND SMELL
- UNPLEASANT TASTE AND SMELL
- TOO HIGH OR TOO LOW PH

THANK YOU FOR WATCHING

